



Comune di TRAPANI

OGGETTO:

"EX MATTATOIO COMUNALE" DI TRAPANI CAMPUS del MEDITERRANEO

PROGETTO DI RECUPERO FUNZIONALE E RIUSO DI ALCUNI CAPANNONI DELL'EX MATTATOIO COMUNALE PER REALIZZARE LABORATORI ARTIGINALI E SPAZI FORMATIVI PER MIGRANTI REGOLARI - CUP: I98D20000050001

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TITOLO

TIPOLOGIA

ELABORATO

PROGETTAZIONE ESECUTIVA

STRUTTURE

STRALCIO 1

FASCICOLO DEI CALCOLI - EDIFICIO E

DISEGNO SCALA

-

TITOLO

TIPOLOGIA

ELABORATO

PE1**S03****004**

CODICE DI RIFERIMENTO

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15. VERIFICA A PRESSOFLESSIONE NEL PIANO (§7.8.2.2.1) [SLV] - C.Sic: 1.424 (Analisi Sismica Dinamica Modale)

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17. VERIFICA A TAGLIO PER SCORRIMENTO (§7.8.2.2.2) [SLV] - C.Sic: 1.579 (Analisi Sismica Dinamica Modale)

18. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.579 (Analisi Sismica Dinamica Modale)

19. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§C8.7.1.3.1) [SLV] - C.Sic: 1.227 (Analisi Sismica Dinamica Modale)

20. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§C8.7.1.3.1) [SLV] - C.Sic: 1.227 (Analisi Sismica Dinamica Modale)

21. VERIFICA A PRESSOFLESSIONE ORTOGONALE (§7.2.3, §7.8.1.5.2, §7.8.3.2.3) [SLV] - C.Sic: 1.983 (Analisi Sismica Dinamica Modale)

22. VERIFICHE PER STATO LIMITE ULTIMO DI TIPO GEOTECNICO (§6.4.2.1, §7.2.5) [SLV] - C.Sic: 1.046 (Analisi Sismica Dinamica Modale)

23. SPOSTAMENTI DI INTERPIANO [SLV]

24. CONTROLLO EFFETTI DEL SECONDO ORDINE [SLV] (§7.3.1, EC8-1: §4.4.2.2)

1. NORMATIVA DI RIFERIMENTO

D.M. 17.1.2018: "Aggiornamento delle "Norme tecniche per le costruzioni", Supplemento ordinario alla "Gazzetta Ufficiale", n.42 del 20 febbraio 2018.

Circolare 21.1.2019, n. 7 C.S.LL.PP.: Istruzioni per l'applicazione dell'«Aggiornamento delle "Norme tecniche per le costruzioni"» di cui al decreto ministeriale 17 gennaio 2018.

Edifici monumentali: Direttiva del Presidente del Consiglio dei Ministri del 9.2.2011: "Valutazione e riduzione del rischio sismico del patrimonio culturale con riferimento alle Norme tecniche per le costruzioni di cui al decreto del Ministero delle infrastrutture e dei trasporti del 14 gennaio 2008", di cui costituisce parte integrante la **Circ. 26 del 2.12.2010 del Ministero per i Beni e le Attività Culturali:** "Linee guida per la valutazione e riduzione del rischio sismico del patrimonio culturale".

FRP:

Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati, CNR-DT 200 R1/2012.

Linee guida per la Progettazione, l'Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP, documento approvato il 24 luglio 2009 dall'assemblea Generale del Consiglio Superiore dei Lavori Pubblici.

Indirizzi per l'esecuzione degli interventi di cui all'Ordinanza del Presidente del Consiglio dei Ministri n.3790 del 17.7.2009 (Riparazione con miglioramento sismico di edifici danneggiati), a cura della Presidenza del Consiglio dei Ministri, Dipartimento della Protezione Civile, Commissario Delegato (Eventi sismici provincia di L'Aquila, 6 aprile 2009).

Riferimenti tecnici: EuroCodici

Per quanto non diversamente specificato nel D.M.14.1.2008, si intendono coerenti con i principi alla base del Decreto le indicazioni riportate nei documenti di riferimento elencati in §12; fra questi: gli EuroCodici strutturali, così organizzati:

Criteri generali di progettazione strutturale

UNI EN 1990:2006

Eurocodice 1 – Azioni sulle strutture

UNI EN 1991-1-1:2004 Parte 1-1: Azioni in generale - Pesì per unità di volume, pesì propri e sovraccarichi per gli edifici

UNI EN 1991-1-2:2004 Parte 1-2: Azioni in generale - Azioni sulle strutture esposte al fuoco

UNI EN 1991-1-3:2004 Parte 1-3: Azioni in generale - Carichi da neve

UNI EN 1991-1-4:2005 Parte 1-4: Azioni in generale - Azioni del vento

UNI EN 1991-1-5:2004 Parte 1-5: Azioni in generale - Azioni termiche

UNI EN 1991-1-6:2005 Parte 1-6: Azioni in generale - Azioni durante la costruzione

UNI EN 1991-1-7:2006 Parte 1-7: Azioni in generale - Azioni eccezionali

UNI EN 1991-2:2005 Parte 2: Carichi da traffico sui ponti

UNI EN 1991-3:2006 Parte 3: Azioni indotte da gru e da macchinari

UNI EN 1991-4:2006 Parte 4: Azioni su silos e serbatoi

Eurocodice 2 – Progettazione delle strutture in calcestruzzo

UNI EN 1992-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1992-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1992-2:2006 Parte 2: Ponti di calcestruzzo - Progettazione e dettagli costruttivi

UNI EN 1992-3:2006 Parte 3: Strutture di contenimento liquidi

Eurocodice 3 – Progettazione delle strutture in acciaio

UNI EN 1993-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1993-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1993-1-3:2007 Parte 1-3: Regole generali - Regole supplementari per l'impiego dei profilati e delle lamiere sottili piegati a freddo

UNI EN 1993-1-4:2007 Parte 1-4: Regole generali - Regole supplementari per acciai inossidabili

UNI EN 1993-1-5:2007 Parte 1-5: Elementi strutturali a lastra

UNI EN 1993-1-6:2007 Parte 1-6: Resistenza e stabilità delle strutture a guscio

UNI EN 1993-1-7:2007 Parte 1-7: Strutture a lastra ortotropa caricate al di fuori del piano

UNI EN 1993-1-8:2005 Parte 1-8: Progettazione dei collegamenti

UNI EN 1993-1-9:2005 Parte 1-9: Fatica

UNI EN 1993-1-10:2005 Parte 1-10: Resilienza del materiale e proprietà attraverso lo spessore

UNI EN 1993-1-11:2007 Parte 1-11: Progettazione di strutture con elementi tesi

UNI EN 1993-1-12:2007 Parte 1-12: Regole aggiuntive per l'estensione della EN 1993 fino agli acciai di grado S 700

UNI EN 1993-2:2007 Parte 2: Ponti di acciaio

UNI EN 1993-3-1:2007 Parte 3-1: Torri, pali e ciminiera - Torri e pali

UNI EN 1993-3-2:2007 Parte 3-2: Torri, pali e ciminiera - Ciminiera

UNI EN 1993-4-1:2007 Parte 4-1: Silos

UNI EN 1993-4-2:2007 Parte 4-2: Serbatoi

UNI EN 1993-4-3:2007 Parte 4-3: Condotte

UNI EN 1993-5:2007 Parte 5: Pali e palancole

UNI EN 1993-6:2007 Parte 6: Strutture per apparecchi di sollevamento

Eurocodice 4 – Progettazione delle strutture composte acciaio-calcestruzzo

UNI EN 1994-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1994-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1994-2:2006 Parte 2: Regole generali e regole per i ponti

Eurocodice 5 – Progettazione delle strutture in legno

UNI EN 1995-1-1:2005 Parte 1-1: Regole generali - Regole comuni e regole per gli edifici

UNI EN 1995-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1995-2:2005 Parte 2: Ponti

Eurocodice 6 – Progettazione delle strutture in muratura

UNI EN 1996-1-1:2006 Parte 1-1: Regole generali per strutture di muratura armata e non armata

UNI EN 1996-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1996-2:2006 Parte 2: Considerazioni progettuali, selezione dei materiali ed esecuzione delle murature

UNI EN 1996-3:2006 Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata

Eurocodice 7 – Progettazione geotecnica

UNI EN 1997-1:2005 Parte 1: Regole generali

UNI EN 1997-2:2007 Parte 2: Indagini e prove nel sottosuolo

Eurocodice 8 – Progettazione delle strutture per la resistenza sismica

UNI EN 1998-1:2005 Parte 1: Regole generali, azioni sismiche e regole per gli edifici
UNI EN 1998-2:2006 Parte 2: Ponti
UNI EN 1998-3:2005 Parte 3: Valutazione e adeguamento degli edifici
UNI EN 1998-4:2006 Parte 4: Silos, serbatoi e condotte
UNI EN 1998-5:2005 Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici
UNI EN 1998-6:2005 Parte 6: Torri, pali e camini

Eurocodice 9 – Progettazione delle strutture in alluminio

UNI EN 1999-1-1:2007 Parte 1-1: Regole strutturali generali
UNI EN 1999-1-2:2007 Parte 1-2: Progettazione strutturale contro l'incendio
UNI EN 1999-1-3:2007 Parte 1-3: Strutture sottoposte a fatica
UNI EN 1999-1-4:2007 Parte 1-4: Lamiere sottili piegate a freddo
UNI EN 1999-1-5:2007 Parte 1-5: Strutture a guscio

Norme Italiane precedenti al D.M. 17.1.2018:

D.M. 14.1.2008: "Approvazione delle nuove norme tecniche per le costruzioni", Supplemento ordinario alla "Gazzetta Ufficiale", n.29 del 4 febbraio 2008.

Circolare 2.2.2009, n.617: "Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni" di cui al D.M. 14.1.2008.

Le norme elencate nel seguito sono in generale da considerarsi superate dal D.M.14.1.2008; esse possono costituire tuttavia utili fonti di riferimento per la comprensione dello sviluppo dei metodi di calcolo adottati dalle NTC.

D.M. 14.9.2005: "Norme Tecniche per le Costruzioni" (ex Testo Unico)

In campo antisismico, il D.M. 14.9.2005 definisce l'azione sismica [§3.2] e fissa i livelli di sicurezza. Nel rispetto di tali presupposti, il D.M.14.9.2005 può fare riferimento all'OPCM 3274 e s.m.i. [§5.7.1.1] per le indicazioni attuative sulle verifiche di sicurezza.

Sismica: Ordinanza P.C.M. n. 3274 del 20.3.2003: "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica", e successive modifiche e integrazioni:

Ordinanza P.C.M. n. 3316 del 2.10.2003 e Ordinanza P.C.M. n. 3431 del 3.5.2005

Sismica: D. P.C.M. del 21.10.2003: "Disposizioni attuative dell'art.2, commi 2, 3 e 4, dell'Ordinanza del Presidente del Consiglio dei Ministri n.3274 del 20 marzo 2003".

Norme strutturali precedenti all'OPCM 3274 (per la Sismica) e al D.M. 14.9.2005:

Legge n.64 del 2.2.1974: "Provvedimenti per le costruzioni, con particolari prescrizioni per le zone sismiche."

Regione Autonoma Friuli Venezia Giulia - Legge Regionale n. 30 del 20.6.1977: "Documentazione tecnica per la progettazione e direzione delle opere di riparazione degli edifici - Documento Tecnico n. 2 - Raccomandazioni per la riparazione strutturale degli edifici in muratura."

Regione Umbria, Art.38 L.R. 1.7.1981, n.34: "Direttive tecniche ed esemplificazioni delle metodologie di intervento per la riparazione ed il consolidamento degli edifici danneggiati da eventi sismici."

D.M. 2.7.1981: "Normativa per le riparazioni ed il rafforzamento degli edifici danneggiati dal sisma nelle regioni Basilicata, Campania e Puglia."

Circolare Min.LL.PP. n.21745 del 30.7.1981: "Istruzioni relative alla normativa tecnica per la riparazione ed il rafforzamento degli edifici in muratura danneggiati dal sisma."

D.M. 16.1.1996: "Norme tecniche per le costruzioni in zone sismiche."

Circolare Min.LL.PP. n.65 del 10.4.1997: "Istruzioni per l'applicazione delle "Norme Tecniche per le costruzioni in zone sismiche" di cui al D.M. 16.1.1996."

Servizio Sismico Nazionale (S.S.N.) - Associazione Nazionale Italiana di Ingegneria Sismica (A.N.I.D.I.S.): "Commentario al D.M. 16.1.1996 ed alla Circ. n.65 del 10.4.1997 del Ministero LL.PP.", coord. F.Braga, 1998

D.G.R. Umbria n.5180 del 14.9.1998 e D.G.R. Marche n.2153 del 14.9.1998 in attuazione Legge 61/98: "Eventi sismici del 12 maggio, 26 settembre 1997 e successivi - Modalità e procedure per la concessione dei contributi previsti dall'art.4 della Legge 61/98 - Allegato B".

Provincia di Perugia, Servizio Sismico Nazionale: "Terremoto in Umbria e Marche del 1997. Criteri di calcolo per la progettazione degli interventi. Verifiche sismiche ed esempi per l'applicazione delle Direttive Tecniche D.G.R. Umbria 5180/98 e D.G.R. Marche 2153/98 in attuazione L.61/98", coord. A.De Sortis, G.Di Pasquale, U.Nasini, 1998.

Murature: D.M. 20.11.1987: "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento."

Circolare Min.LL.PP. n.30787 del 4.1.1989: "Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento."

Carichi: D.M. 16.1.1996: "Norme tecniche relative ai criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi."

DATI

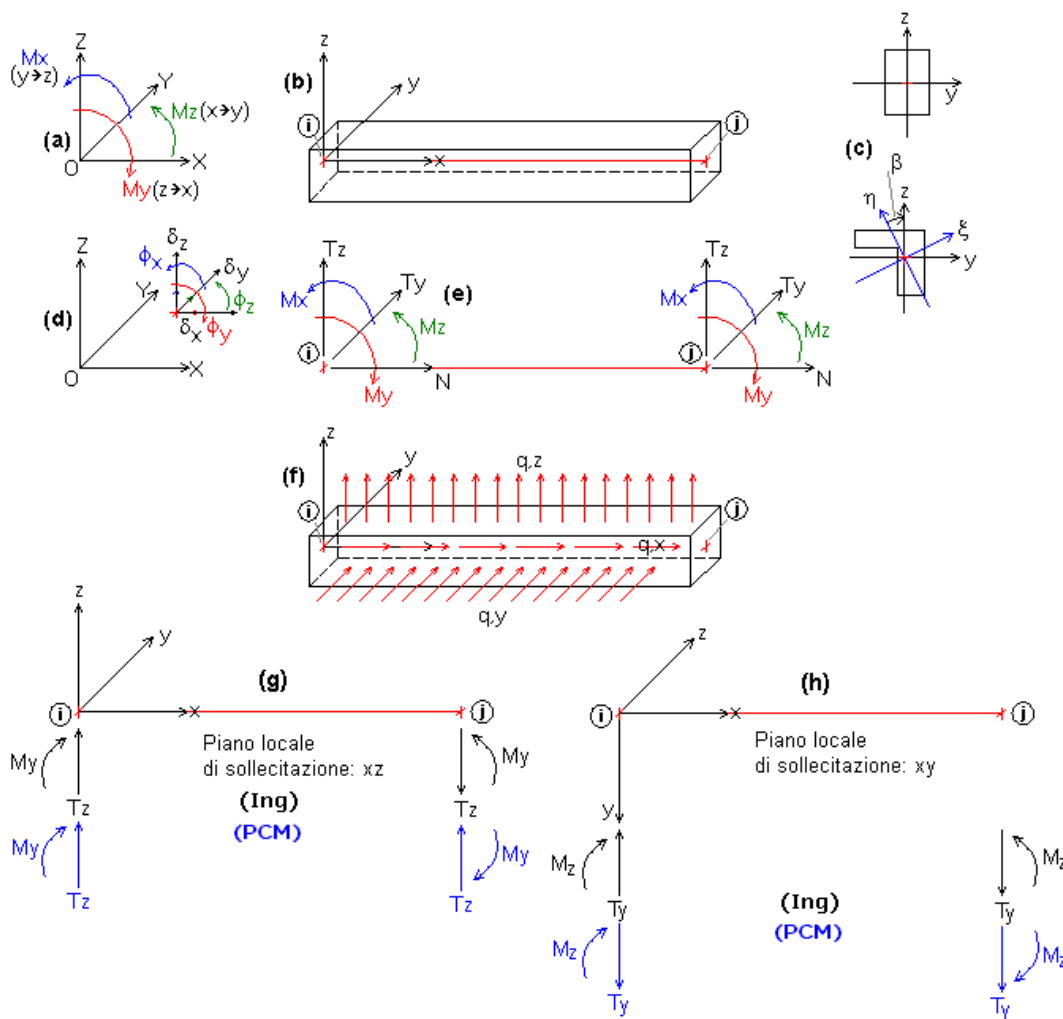
CARATTERISTICHE DEL SOFTWARE

Aedes.PCM, Progettazione di Costruzioni in Muratura © 1997-2020 AEDES Software

Risoluzione ad elementi finiti di strutture composte da aste rettilinee comunque vincolate, inclinate e caricate nello spazio (3D), applicata alle costruzioni in muratura attraverso la modellazione a "telaio equivalente", rappresentativo delle pareti murarie e degli elementi strutturali a loro collegati. Analisi: Modale, Statica lineare non sismica, Sismica: Statica, Dinamica modale, Statica non lineare (Pushover), in accordo con la Normativa vigente.

CONVENZIONI SUI SEGNI

Convenzioni su: Sistemi di riferimento, Carichi, Sollecitazioni (forze e momenti), Spostamenti (traslazioni e rotazioni), Pareti in Muratura.



1) Sistemi di riferimento utilizzati da PCM.

- **Sistema di riferimento globale X Y Z**, con origine in O (punto di coordinate nulle). E' una terna destrorsa, rappresentata in fig. (a). Il piano XY è orizzontale; i piani XZ e YZ sono verticali.

- **Sistema di riferimento locale x y z** per le aste: è una terna cartesiana destrorsa così definita: - origine nel nodo iniziale *i* dell'asta; - asse x coincidente con l'asse dell'asta e con verso dal nodo iniziale *i* al nodo finale *j*. La terna locale xyz si può immaginare derivante dalla globale XYZ dopo una serie di trasformazioni:

- una rotazione intorno all'asse Z che porti l'asse X a coincidere con la proiezione dell'asta sul piano orizzontale;
- una traslazione lungo il nuovo asse X così definito in modo da portare l'origine a coincidere con la proiezione del nodo iniziale dell'asta sul piano orizzontale;
- una traslazione lungo l'asse Z che porti l'origine a coincidere con il nodo iniziale dell'asta;
- una rotazione intorno all'asse Y così definito che porti l'asse X a coincidere con l'asse dell'asta;
- una rotazione intorno all'asse X così definito pari all'Angolo di Rotazione dell'asta, definito nei Dati Aste.

In pratica, con riferimento alla tipologia degli edifici (elementi orizzontali = travi, elementi verticali = pilastri):

- le travi con Angolo di Rotazione nullo hanno sempre l'asse z rivolto verso l'alto e l'asse y nel piano del solaio (piano orizzontale);
- i pilastri con Angolo di Rotazione nullo hanno l'asse y parallelo all'asse Y globale e l'asse z parallelo ma controvverso all'asse X globale.

In fig. (b) è rappresentato il caso di una trave appartenente ad un telaio orientato secondo X (posto cioè nel piano XZ): l'asse x è l'asse baricentrico dell'asta, con verso congiungente il nodo iniziale *i* con il nodo finale *j*; l'asse z è verticale, e l'asse y è parallelo all'asse Y globale (per l'osservatore: entrante nel piano xz).

- **Sistema di riferimento locale principale x ξ η**, che a causa di alcune tipologie di sezione non simmetriche o di rotazioni delle aste (per esempio, per pilastri aventi sezione rettangolare ma obliqui in pianta), può non coincidere con x y z : fig. (c). In tal caso, l'angolo β rappresenta la rotazione degli assi principali per fare in modo che il riferimento locale principale x ξ η si sovrapponga al riferimento locale x y z (parallelo alla terna globale nel caso delle travi). L'angolo è positivo se orario, visto dall'asta (osservatore che da +x guarda il nodo iniziale *i*). Le caratteristiche di sollecitazione sono calcolate nel sistema di riferimento locale principale (in generale, quindi, il momento My è da intendersi come Mξ, mentre Mz come Mη). Gli assi principali vengono definiti in modo tale che siano sovrapponibili per rotazione agli assi yz.

In PCM, per semplicità, gli assi locali yz sono considerati coincidenti con gli assi principali ξ η. Definendo ad esempio un pilastro con sezione a L e angolo β nullo, in pianta la sua sezione risulterà 'ruotata' rispetto ad assi di riferimento globali XY paralleli all'anima e all'ala della sezione a L; per riportare la sezione in posizione parallela agli assi globali è sufficiente ruotare l'asta cui appartiene di un angolo β pari all'angolo principale (mostrato nei Dati Sezioni).

2) Forze e Spostamenti.

PCM adotta una convenzione univoca sia per le azioni esterne (carichi e cedimenti applicati ai nodi, carichi e sulle aste), sia per le azioni interne (caratteristiche di sollecitazione e di deformazione).

Forze e spostamenti sono positivi se equiversi agli assi; coppie e rotazioni sono positive se antiorarie (x->y, y->z, z->x).

Per le azioni interne sull'asta *i-j*, la convenzione è invariata sia al nodo *i* iniziale, sia al nodo *j* finale.

2.1) Carichi.

Nodi. Possono essere applicati i seguenti carichi:

- Carichi Concentrati: $P_X, P_Y, P_Z, M_X, M_Y, M_Z$ (forze e coppie)
- Cedimenti Vincolari: $d_X, d_Y, d_Z, d_{phiX}, d_{phiY}, d_{phiZ}$ (cedimenti traslazionali e rotazionali)
- Masse Concentrate: $m_X, m_Y, m_Z, I_X, I_Y, I_Z$ (masse traslazionali e inerzie rotazionali)

Le forze concentrate ed i cedimenti vincolari traslazionali sono **positivi se equiversi agli assi globali X, Y, Z** ; le coppie concentrate ed i cedimenti vincolari rotazionali sono **positivi se antiorari** (si tratta delle medesime convenzioni adottate in ogni parte di PCM, per esempio anche per gli spostamenti incogniti e per le reazioni vincolari).

Aste. Le tipologie di carico consentite sono le seguenti (fig. (f)):

- Carico Distribuito Uniforme: $Q_{duX}, Q_{duY}, Q_{duZ}$
- Carico Distribuito Lineare (max al vertice iniziale 'i'): $Q_{dlX}, Q_{dlY}, Q_{dlZ}$
- Carico Distribuito Lineare (max al vertice finale 'j'): $Q_{dljX}, Q_{dljY}, Q_{dljZ}$
- Carico Concentrato: $P_X, P_Y, P_Z, M_X, M_Y, M_Z, D_{Pi}$ [P, M = intensità delle componenti del carico concentrato: forze e coppie; D_{Pi} = distanza del carico concentrato dal vertice iniziale i]
- Carico Termico (nel piano locale xy): $\Delta T_{sup}, \Delta T_{inf}$.

I carichi agenti sulle aste (distribuiti e concentrati) sono forniti in coordinate **globali** (le componenti X, Y, Z sono parallele alle corrispondenti direzioni globali). Nel sistema di riferimento locale, le componenti di carico hanno il seguente significato: x : carico lungo l'asse dell'asta; y : carico ortogonale all'asta nel piano xy ; z : carico ortogonale all'asta nel piano xz .

I carichi (distribuiti e concentrati) sono positivi se equiversi agli assi globali o locali, a seconda del sistema di riferimento; le coppie sono positive se antiorarie.

Con questa convenzione, ad esempio per le travi di un impalcato, i carichi dovuti ai pesi sono di tipo Z , con segno negativo.

2.2) Caratteristiche di Sollecitazione.

In fig. (e) sono rappresentate le azioni interne.

Relazioni fra PCM e le consuete convenzioni ingegneristiche (Ing).

Le caratteristiche di sollecitazione (azioni interne derivanti dal calcolo) hanno segno concorde con gli assi locali, e la convenzione è invariata sia per il nodo iniziale i sia per il nodo finale j . Ciò può comportare alcune discordanze con i segni attribuiti dalla consueta convenzione ingegneristica.

Nel seguito, vengono specificate le convenzioni sulle singole caratteristiche di sollecitazione, indicando con (Ing) la convenzione ingegneristica (che in PCM determina il tracciamento dei diagrammi), e con (PCM) la convenzione adottata da PCM.

Momento Flettente M_y (piano locale di sollecitazione: xz):

(Ing) Il diagramma del Momento M_y viene rappresentato sempre dalla parte delle fibre tese. Si attribuisce segno + (fig. (g)) al Momento M_y rappresentato nel semipiano $z < 0$. Pertanto, $M_y +$ tende le fibre a $z < 0$.

(PCM) $M_y +$ se porta z su x . Pertanto: $M_y +$ al nodo i indica fibre tese per $z < 0$; $M_y +$ al nodo j indica fibre tese per $z > 0$.

Concordanza dei segni:

Nodo i (PCM) concorde con (Ing).

Nodo j (PCM) discorde con (Ing).

Taglio T_z (piano locale di sollecitazione: xz):

(Ing) Il Taglio $T_z +$ tende a far ruotare il concio elementare in senso orario. Il Taglio $T_z +$ è rappresentato nello stesso semipiano di $M_y +$, cioè nel semipiano $z < 0$.

(PCM) $T_z +$ se orientato lungo $+z$.

Concordanza dei segni:

Nodo i (PCM) concorde con (Ing).

Nodo j (PCM) discorde con (Ing).

Sforzo Normale N :

(Ing) Lo Sforzo Normale è + se genera trazione, - se compressione. In un'asta tesa, N è sempre +.

Il diagramma di N si rappresenta convenzionalmente nel piano di sollecitazione xz , con $N +$ posto nello stesso semipiano di $M_y +$, cioè nel semipiano $z < 0$.

(PCM) $N +$ se equiverso all'asse locale x . $N +$ al nodo i indica compressione; $N +$ al nodo j indica trazione. Pertanto, un'asta tesa ha $N -$ al nodo i e $N +$ al nodo j .

Concordanza dei segni:

Nodo i (PCM) discorde con (Ing).

Nodo j (PCM) concorde con (Ing).

Momento Flettente M_z (piano locale di sollecitazione: xy):

(Ing) Il diagramma del Momento M_z viene rappresentato sempre dalla parte delle fibre tese. Si attribuisce segno + (fig. (h)) al Momento M_z rappresentato nel semipiano $y > 0$. Pertanto, $M_z +$ tende le fibre a $y > 0$.

(PCM) $M_z +$ se porta x su y . Pertanto: $M_z +$ al nodo i indica fibre tese per $y > 0$; $M_z +$ al nodo j indica fibre tese per $y < 0$.

Concordanza dei segni:

Nodo i (PCM) concorde con (Ing).

Nodo j (PCM) discorde con (Ing).

Taglio T_y (piano locale di sollecitazione: xy):

(Ing) Il Taglio $T_y +$ tende a far ruotare il concio elementare in senso orario. Il Taglio $T_y +$ è rappresentato nello stesso semipiano di $M_z +$, cioè nel semipiano $y > 0$.

(PCM) $T_y +$ se orientato lungo $+y$.

Concordanza dei segni:

Nodo i (PCM) discorde con (Ing).

Nodo j (PCM) concorde con (Ing).

Momento Torcente M_x :

(Ing) + se genera rotazione torsionale positiva sulla faccia sinistra del concio elementare. In un'asta soggetta a coppia torcente positiva a sinistra e negativa a destra, M_x è sempre +.

Il diagramma di M_x si rappresenta convenzionalmente nel piano di sollecitazione xz , con $M_x +$ posto nello stesso semipiano di $M_y +$, cioè nel semipiano $z < 0$.

(PCM) + se porta y su z .

Concordanza dei segni:

Nodo i (PCM) concorde con (Ing).

Nodo j (PCM) discorde con (Ing).

2.3) Caratteristiche di Deformazione.

In fig. (d) sono rappresentate le 6 componenti di spostamento spaziale (traslazioni e rotazioni) di un nodo della struttura.

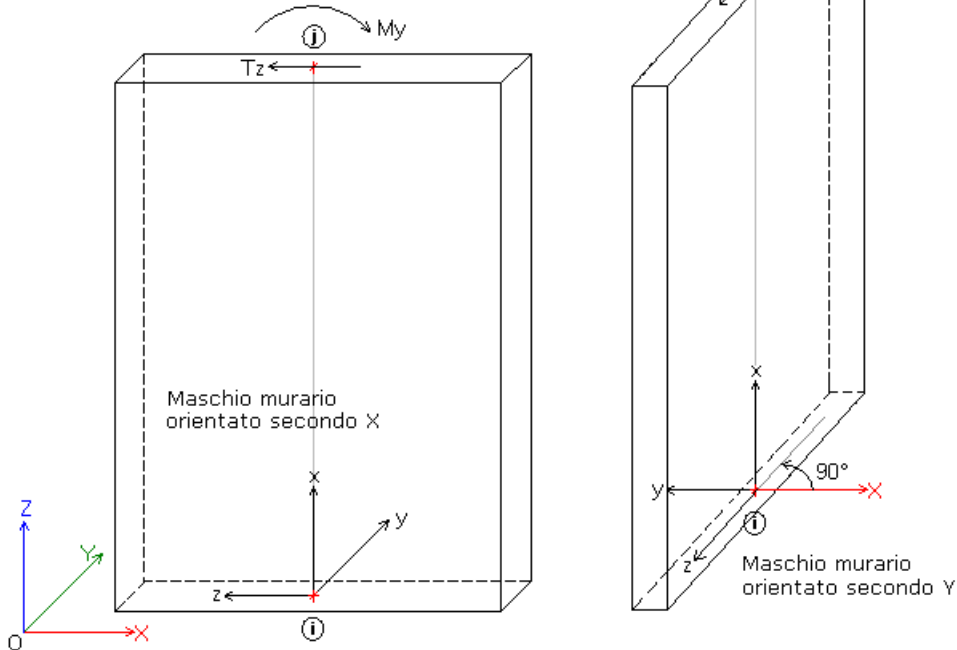
In PCM tutti gli spostamenti sono riferiti al sistema di assi globale, ed hanno segno positivo se equiversi agli assi; le rotazioni sono positive se antiorarie.

3) Pareti in Muratura.

In figura seguente sono rappresentati due maschi murari, uno orientato secondo X , l'altro secondo Y . L'orientamento viene definito dall'angolo in pianta, positivo se antiorario, misurato a partire dall'asse globale X . Il piano locale complanare è sempre il piano xz ; il piano locale ortogonale è sempre il piano xy .

Maschi murari: azioni complanari e azioni ortogonali

- piano locale complanare: xz - piano locale ortogonale: xy
- taglio complanare: T_z - taglio ortogonale: T_y
- momento complanare: M_y - momento ortogonale: M_z



Descrizione di AZIONE SISMICA e PARAMETRI DI CALCOLO

Il Sistema di Unità di Misura adottato è il Sistema Internazionale. In generale, le forze sono espresse in kN e le tensioni in N/mm^2 . In generale, i riferimenti normativi al D.M. 17.1.2018 (alias: NTC18) e alla Circ. 7 del 21.1.2019 sono evidenziati in colore blu indicando direttamente il paragrafo corrispondente; i riferimenti ad altre Normative sono preceduti dal titolo della Norma (EC = EuroCodici).

AZIONE SISMICA: Normativa Italiana: D.M. 17.1.2018

- Struttura

Vita Nominale (anni) (§2.4.1) Numero di anni nel quale la struttura, purché soggetta alla manutenzione ordinaria, deve poter essere usata per lo scopo al quale è destinata.

Classe d'uso §2.4.2 Utilizzando i valori della 'Vita Nominale' e del 'Coefficiente d'uso' corrispondente alla Classe d'uso, viene determinato il periodo di riferimento per l'azione sismica VR (§2.4.3).

- Pericolosità

Individuazione del sito: Longitudine e Latitudine ED50 (gradi sessadecimali)

Tipo di interpolazione

- media ponderata NTC08, §AII.A.[3]
- superficie rigata NTC08, §CA

Valori dei parametri ag (*g), F_0 , TC^* (sec) per i periodi di ritorno di riferimento:

NTC08, §AII.B: *Tabelle dei parametri che definiscono l'azione sismica*

Per il sito di ubicazione della struttura, vengono specificati i valori di ag , F_0 , TC^* per i periodi di riferimento: (30, 50, 72, 101, 140, 201, 475, 975, 2475 anni).

Per periodi di ritorno $TR < 30$ anni [cfr. DPC-Reluis, CNR-ITC]: $ag(TR) = K \cdot TR^{1/4}$

- Stati Limite

P, VR (%) Probabilità di superamento nel periodo di riferimento VR §3.2.1

Per ognuno dei 4 stati limite di riferimento (SLO, SLD, SLV, SLC) le azioni sismiche dipendono dalla corrispondente probabilità P di superamento nel periodo di riferimento VR

Valori dei parametri ag , F_0 , TC^* e altri parametri di spettro per i periodi di ritorno TR associati a ciascuno Stato Limite §3.2

Per ognuno dei 4 stati limite di riferimento (SLO, SLD, SLV, SLC) vengono definiti TR (anni), ag (*g), F_0 , TC^* e S, TB, TC, TD (periodi in sec.)

- Suolo

Categoria di sottosuolo §3.2.2

Categoria topografica §3.2.2

Rapporto quota sito / altezza rilievo topografico §3.2.2

Coefficiente di amplificazione topografica ST §3.2.3.2.1

- Componenti

Spettro di risposta: componente orizzontale:

Spettro elastico: Smorzamento viscoso ξ (%) §3.2.3.2.1

Spettro di progetto - SLD: Fattore di comportamento

Spettro di progetto - SLV/SLC: Fattore di comportamento

Spettro di risposta: componente verticale

Definizione di PGA: la PGA (accelerazione orizzontale di picco al suolo), finalizzata a definire l'accelerazione sismica sostenibile dalla costruzione, può essere riferita al suolo rigido (roccia) oppure tenere conto degli effetti locali del sito attraverso il fattore di suolo S :

- accelerazione su roccia (analoga ad a_g)

- accelerazione al suolo (analoga ad: $a_g \cdot S$, dove: $S = S_S \cdot S_T$)

PARAMETRI DI CALCOLO

- Generale

Tipi di analisi

Analisi Modale. Non viene condotta l'analisi sismica della struttura. L'analisi si limita alla determinazione delle caratteristiche dinamiche, ossia al calcolo dei modi di vibrare della struttura, senza condurre ulteriori analisi di sollecitazioni e deformazioni. E' nell'Analisi Sismica Dinamica Modale che i risultati dell'analisi modale sono utilizzati per la generazione delle forze spettrali equivalenti ai vari modi di vibrare; nell'Analisi Sismica Statica Lineare le forze spettrali sono invece direttamente generate da un'approssimazione del primo modo di vibrare (per tale motivo questa analisi sismica statica è definita anche si dinamica semplificata, e coincide concettualmente con la tradizionale analisi sismica condotta con carichi staticamente equivalenti calcolati senza necessità di valutazione dei modi di vibrare).

Le masse considerate in Analisi Modale corrispondono alle masse sismicamente attive, cioè associate ai carichi gravitazionali secondo la (3.2.17), §3.2.4:

$$G_{1,1} + G_{2,2} + \sum (\psi_{2,j} \cdot Q_{k,j})$$

Analisi Statica NON Sismica. Calcolo di sollecitazioni e spostamenti, in dipendenza da carichi generici, cedimenti anelastici e variazioni termiche. Sono processate le combinazioni delle condizioni di carico elementari (CCC), così come specificate nei dati.

Analisi Sismiche Lineari:

Analisi Sismica Statica Lineare (§7.3.3.2, §7.8.1.5.2) In EC8 è denominata: analisi sismica modale semplificata con spettro di risposta; essa infatti equivale ad una analisi sismica dinamica limitata al primo modo di vibrare.

Analisi Sismica Dinamica Modale (§7.3.3.1, §7.8.1.5.3) In EC8 è denominata: Analisi sismica multimodale con spettro di risposta.

Nelle analisi sismiche lineari, la struttura viene risolta staticamente sotto l'azione delle forze sismiche, per due direzioni: α e $\alpha+90$ [vedi Angolo di ingresso del sisma]. Alle sollecitazioni determinate per effetto sismico, si "sommiano" (in doppio segno, come sarà evidenziato nel seguito) le sollecitazioni corrispondenti alla somma delle condizioni di carico elementari sismicamente attive.

Analisi Sismica Statica NON Lineare Pushover (§7.8.1.5.4)

- Sismica

Direzione sismica e quote di riferimento

Angolo tra sistema di riferimento globale XY e direzioni sismiche X'Y'

Angolo (in gradi °) che la direzione sismica X' forma con l'asse X (+: corrisponde alla rotazione antioraria di X verso Y). Eseguita l'analisi modale, il calcolo dei coefficienti di partecipazione e quindi delle forze spettrali viene eseguito nella direzione specificata e nella direzione ortogonale (frequentemente: 0° e 90° , cioè lungo l'asse X e lungo l'asse Y del sistema di riferimento globale)

Altezza della costruzione a partire dal piano di fondazione H (m)

Quota di inizio degli effetti sismici H_s (m)

Quota di riferimento H_s per il calcolo delle forze sismiche (§7.3.3.2), rispetto alla coordinata $Z=0.000$ assunta nei Dati. Con $Q < 0$ si può tenere conto dell'altezza delle fondazioni; con $Q > 0$ si attribuisce alla corrispondente zona inferiore dell'edificio un moto rigido insieme al terreno (p.es. in caso di piani interrati o di scantinati in c.a. di edifici in muratura considerati come 'strutture di fondazione').

Le masse ubicate al di sotto della quota di inizio degli effetti sismici sono considerate inattive

In caso di sisma verticale considerare sempre il 100% degli effetti

Se il parametro non è selezionato, viene considerato il 30% (§7.3.5)

Analisi Sismiche Lineari

Direzioni di analisi: X, Y, Z

Le direzioni di analisi possono essere selezionate indipendentemente l'una dall'altra, al fine di eseguire analisi monodirezionali oppure in varia combinazione fra le tre direzioni di riferimento

Combinazione delle componenti

Con riferimento a §7.3.5, per un dato effetto (spostamento o sollecitazione) le componenti dell'azione sismica devono essere considerate simultaneamente. La combinazione delle componenti dell'azione sismica non viene eseguita in Analisi Sismica Statica Non Lineare (Pushover). In Analisi Sismica Lineare (Statica o Dinamica Modale), è possibile combinare gli effetti dell'analisi condotta in ciascuna delle due direzioni tra loro ortogonali di riferimento, secondo una delle seguenti modalità:

- Radice quadrata della somma dei quadrati: $E = \sqrt{E_{\alpha}^2 + E_{(\alpha+90)}^2}$

- Sommare ai massimi ottenuti per l'azione applicata in una direzione, il 30% dei massimi ottenuti per l'azione applicata nelle altre direzioni

Ignorare gli effetti dei momenti torcenti dovuti all'eccentricità accidentale

Con questo parametro è possibile ignorare gli effetti dei momenti torcenti aggiuntivi dovuti all'eccentricità accidentale (pari a $\pm 5\%$ della dimensione dell'edificio perpendicolare alla direzione sismica) (§7.2.6)

Ignorare l'amplificazione degli spostamenti con fattore μ nel calcolo delle tensioni sul terreno

Il fattore moltiplicativo sismico per gli spostamenti: μ_d (§7.3.3.3 per SLV) può essere considerato solo ai fini degli spostamenti della sovrastruttura e non dei nodi di fondazione. Lo spostamento dei nodi di fondazione determina la tensione sul terreno, attraverso il coefficiente di Winkler. Pertanto, senza l'amplificazione sismica allo spostamento verticale dei nodi di fondazione si evita una sovrastima delle tensioni sul terreno

Eseguire le verifiche di sicurezza anche per combinazioni (Nmin, T/Mmax), (Nmax, T/Mmin)

Analisi Sismica Statica Lineare

Periodo principale T1 (sec) in direzione X e in direzione Y

Calcolo di T1 con relazione $T1 = C1 \cdot H^{(3/4)}$ (§7.3.3.2)

- C1 per il calcolo di T1 = 0.05

$\lambda=1.00$ nella definizione delle forze sismiche (§7.3.3.2)

Secondo §7.8.1.5.2, l'Analisi Sismica Statica Lineare per edifici in muratura è applicabile anche nel caso di edifici irregolari in altezza, purché si ponga $\lambda=1.00$ (§7.3.3.2)

Progettazione semplificata per zone a bassa sismicità'

Sd(T1) (g) è il valore semplificato dello spettro di risposta

- Modale

L'Analisi Modale viene condotta con il metodo di Lanczos.

Numero di modi da calcolare

Numero di modi da considerare

Possibili opzioni:

- tutti i modi calcolati
- un numero di modi specificato in input, con limite superiore pari al numero NC di modi calcolati
- tutti i modi, fra quelli calcolati, con massa partecipante superiore al 5% (occorre aver calcolato tutti i modi)
- un numero di modi la cui massa partecipante totale sia superiore all'85%. Il numero di modi calcolati potrebbe non essere sufficiente a soddisfare questa condizione: in tal caso, i modi considerati saranno tutti gli NC calcolati, e nei risultati dell'analisi modale si potrà osservare che la massa partecipante non supera l'85%
- tutti i modi con massa partecipante superiore al 5% e comunque un numero di modi la cui massa partecipante totale sia superiore all'85% (§7.3.3.1)

Metodo di combinazione dei modi

La modalità di combinazione dei modi al fine di calcolare sollecitazioni e spostamenti complessivi, può essere una delle due seguenti:

- SRSS (square root of sum of squares, radice quadrata della somma dei quadrati). Questo metodo viene applicato solo se ciascun modo differisce di almeno il 10% da tutti gli altri, come indicato in OPCM 3274/2003. SRSS è previsto come metodo di controllo in §7.3.3.1
- CQC (complete quadratic combination, combinazione quadratica completa) (§7.3.3.1)

- Muratura

Tipo di edificio

Muratura: Ordinaria, Armata, Armata con Progettazione in Capacità (§7.8.1.7)

Edificio: Nuovo, Esistente, con verifica di Robustezza (§3.1.1)

In caso di verifica di robustezza, per l'analisi statica (non sismica) di un edificio nuovo vengono imposte azioni nominali convenzionali, in aggiunta alle altre azioni esplicite (non sismiche e da vento) da applicarsi secondo due direzioni ortogonali e consistenti in una frazione dei carichi pari all'1%. PCM traduce questa prescrizione nelle verifiche di resistenza incrementando direttamente momento flettente e taglio di una quota pari all'1% dello sforzo normale

Coefficienti parziali di sicurezza

- γ_M in Analisi Statica

Il valore di riferimento del coefficiente parziale di sicurezza dei materiali è definito in Tab. 4.5.II, §4.5.6.1

- γ_M in Analisi Sismica

Il valore di riferimento del coefficiente parziale di sicurezza dei materiali per azioni sismiche è definito in §7.8.1.1

Maschi murari

Contributo rigidezza trasversale

In caso non affermativo, viene trascurata la rigidezza trasversale di una parete attribuendo alla sua asta rappresentativa il vincolamento a biella in direzione ortogonale al piano della parete stessa.

Assemblaggio rigidezza flessionale (EJ) per elementi contigui

In caso affermativo, valuta per ogni asta l'eventuale incremento di rigidezza flessionale (EJ complanare) dovuto all'assemblaggio di pareti contigue. L'assemblaggio riguarda gli elementi che rispettano i seguenti requisiti: sono elementi murari verticali (maschi in muratura ordinaria o armata) con la medesima tipologia; appartengono allo stesso piano; hanno identica sigla alfanumerica identificativa del gruppo di assemblaggio; hanno identico Vincolo flessionale complanare (con la condizione aggiuntiva che non devono essere bielle: l'assemblaggio viene effettuato solo su elementi di controvento).

Link orizzontali rigidi anche fuori piano

Se il parametro non è selezionato, i link orizzontali si deformano fuori piano assumendo una sezione trasversale pari a metà altezza della parete interessata.

Comportamento muratura

Diagramma di calcolo tensione-deformazione (§4.1.2.1.2.1)

Definisce il diagramma di comportamento della muratura secondo una delle due seguenti modalità:

- Stress-block, con: $\mu = (1^2 \cdot t \cdot \sigma_0 / 2) [1 - (\sigma_0 / 0.85 f_d)]$ (§7.8.2.2.1), o equivalentemente: $M' = N' / 2 \cdot (1 - N')$, $M' = M / (N \cdot I)$, $N' = N / N_u$, dove: $N_u = 0.85 f_d I t$
- Parabola-rettangolo, con μ da domino di resistenza N-M. Questa opzione è automaticamente utilizzata per sezioni di muratura armata o consolidate con FRP / CAM / Reticolatus. Con questa opzione è possibile definire con esattezza la zona reagente, ai fini della verifica a Taglio per Scorrimento, assicurando coerenza fra Taglio e PressoFlessione (N, M e T agiscono contemporaneamente sulla sezione trasversale)

Muratura: $\epsilon m2$, ϵmu (per mille)

Per il modello parabolico-rettangolare, vengono specificate la deformazione di inizio tratto plastico ($\epsilon m2$) e la deformazione ultima (ϵmu)

- Valutazione

Stati limite

Stati limite da considerare: SLO, SLD, SLV

SLV è sempre considerato. E' possibile ignorare SLD e SLO se non richiesti dalla Normativa, secondo il prospetto [Tab.7.3.III in §7.3.6.](#) e secondo le indicazioni relative agli edifici esistenti (§8.3). Ad esempio, per un edificio esistente in classe d'uso II è obbligatorio solo SLV.

Valutazione della sicurezza per edifici esistenti

E' possibile identificare la struttura corrente in una delle due modalità seguenti:

- 1) Intervento di adeguamento (§8.4.3) o Stato attuale di un intervento di miglioramento (§8.4.2).

La verifica di sicurezza sismica richiede che l'indicatore di rischio ζ_E sia superiore ad una soglia richiesta (0.8 o 1.0 a seconda dei casi).

Per l'analisi cinematica e' possibile fare riferimento ad un altro modello di PCM.

- 2) Stato di progetto di un intervento di miglioramento (§8.4.2):

e' possibile scegliere il criterio di miglioramento:

- a) indicatore di rischio sismico ζ_E superiore ad una soglia richiesta (ad es. 0.6 per le costruzioni di classe III ad uso scolastico e di classe IV);
- b) incremento dell'indicatore di rischio $\Delta \zeta_E$, rispetto allo Stato attuale, superiore alla soglia richiesta (normalmente 0.1).

Viene specificato il file di riferimento per lo Stato Attuale e l'eventuale file distinto per l'analisi cinematica allo Stato di progetto.

ζ_E è l'indicatore di rischio sismico dato dal rapporto tra azione sismica massima sopportabile dalla struttura e l'azione sismica massima che si utilizzerebbe nel progetto di nuova costruzione sul medesimo suolo e con le medesime caratteristiche. L'azione sismica adottata come parametro di confronto per la definizione di ζ_E è l'accelerazione al suolo $PGA = ag S$.

- Verifiche

Per maschi murari

Verifica in sommità nelle Analisi Lineari

Le Verifiche vengono eseguite obbligatoriamente nelle sezioni di Base. Per quanto riguarda le sezioni di Sommità, le verifiche (in Analisi Statica e in Analisi Sismica lineare) possono essere eseguite secondo una delle tre seguenti modalità:

in nessun caso; a tutti i piani, tranne l'ultimo; in tutti i casi.

In analisi pushover le verifiche in sommità: per PressoFlessione vengono sempre eseguite; per il Taglio per scorrimento vengono sempre eseguite tranne che per l'ultimo piano (o per la sommità di pareti che non hanno continuità superiore).

PressoFlessione Complanare

Considerare la Flessione solo nei maschi snelli

è possibile limitare le verifiche a pressoflessione complanare ai soli maschi snelli. La snellezza della parete è definita dal rapporto (h/l) fra altezza e lunghezza di base della parete; l'altezza h è definita dalla luce deformabile (al netto quindi delle eventuali zone rigide di estremità)

- snellezza di riferimento

In caso di limitazione alle pareti snelle, è il valore di riferimento del rapporto (h/l): solo le pareti aventi snellezza superiore a tale valore vengono sottoposte a verifica a pressoflessione complanare

Taglio per Scorrimento

Modalità di calcolo della zona reagente

Possibili opzioni:

- la zona reagente viene determinata mediante una distribuzione triangolare delle tensioni [EC6, §4.5.3.(6)]
- la zona reagente a taglio coincide con la zona reagente a pressoflessione. Questa opzione è possibile nel caso in cui il diagramma di comportamento della muratura sia "parabola-rettangolo"

Maschi in muratura ordinaria: prescindere in ogni caso dalla parzializzazione

In caso affermativo, il taglio per scorrimento viene valutato sull'intera sezione, altrimenti solo sulla zona reagente

PressoFlessione Ortogonale

Analisi Statica (§4.5.6.2)

- Con azioni da modello di calcolo 3D

Verifiche di sicurezza per pressoflessione ortogonale con sollecitazioni derivanti dall'analisi spaziale del modello 3D dell'edificio.

Questa verifica richiede lo schema spaziale ed è influente per modellazioni piane. La verifica viene condotta con riferimento alla sezione più sfavorevole, considerando la parete soggetta ai momenti superiore e inferiore e, per pareti esposte al vento, l'effetto flessionale dovuto al carico orizzontale distribuito lungo l'altezza.

- Metodo semplificato (ipotesi di parete incernierata) (§4.5.5, §4.5.6.2)

Verifica a pressoflessione ortogonale condotta per ogni parete nelle sezioni di sommità, base e mezzeria, come da Normativa, con riferimento alla luce deformabile ortogonale: le cerniere si suppongono poste agli estremi della luce deformabile, coerentemente con la modellazione a telaio equivalente. Per la sommità si usano le azioni da calcolo derivanti dallo schema a telaio, depurate dagli effetti del vento; per la mezzeria, si considera il momento dovuto al vento (che produce l'eccentricità e_v) agente sullo schema di asta incernierata; per la base, non si considera il vento e il carico si suppone ricentrato (deve comunque essere considerata l'eccentricità accidentale).

- Eseguire le verifiche solo in mezzeria

E' possibile limitare le verifiche a pressoflessione ortogonale alle sole sezioni di mezzeria delle pareti

Analisi Sismiche lineari (§7.8.2.2.3)

- Con azioni da modello di calcolo 3D

Verifiche di sicurezza per pressoflessione ortogonale con sollecitazioni derivanti dall'analisi spaziale del modello 3D dell'edificio.

Questa verifica richiede lo schema spaziale ed è influente per modellazioni piane; se richiesta, viene eseguita in analisi lineare ed anche in analisi statica non lineare (se confermata nelle opzioni dell'analisi pushover). La verifica viene condotta nelle sezioni di base e di sommità, dove sono massimi gli effetti flessionali dovuti alla sollecitazione sismica (prodotta da masse concentrate poste agli estremi dell'asta).

- Con azioni convenzionali (forze equivalenti per elementi non strutturali)

Verifiche di sicurezza a pressoflessione ortogonale per azioni convenzionali, condotte secondo quanto prescritto da §7.2.3 (forze equivalenti, per elementi non strutturali; a tale punto riconduce §7.8.1.5.2). Queste verifiche possono essere eseguite sia per modelli spaziali che piani, ma limitatamente all'analisi lineare. In caso di analisi globale dell'edificio condotta con il metodo statico non lineare, eventuali richieste sulla capacità delle pareti per azioni ortogonali convenzionali richiedono necessariamente anche l'esecuzione dell'analisi lineare (il cui interesse sui risultati si focalizzerà ovviamente sulla sola pressoflessione ortogonale convenzionale). La verifica viene condotta con riferimento alla sezione di mezzeria, e per le sollecitazioni alle estremità (sforzo normale, momenti superiore e inferiore) viene considerato il solo valore statico, attribuendo gli effetti sismici solo al carico sismico orizzontale distribuito lungo l'altezza.

Analisi Pushover (§7.8.2.2.3)

- Con azioni da modello di calcolo 3D

Le verifiche di sicurezza per pressoflessione ortogonale vengono eseguite nel corso del procedimento incrementale, analogamente alle verifiche nel piano.

Per tutte le analisi:

- Riduzione della resistenza per gli effetti di instabilità

La verifica di stabilità è una verifica complessiva per l'asta, e viene svolta tenendo conto sia del carico assiale variabile (dovuto al peso proprio) sia delle azioni trasversali (vento, sisma).

- Considerare sempre eccentricità minima ($h/200$)

E' possibile considerare un'eccentricità minima ($h/200$) [(4.5.9) in §4.5.6.2] anche per verifiche con azioni da modello di calcolo (3D) e, in sismica, con azioni convenzionali

- Pushover (1)

Parametri caratteristici dell'Analisi Pushover per edifici in muratura (§7.3.4.1, §7.8.1.5.4)

Distribuzioni di forze

Le distribuzioni di forze sono suddivise nel modo seguente:

Gruppo 1: distribuzioni principali

Fisse (rapporti tra forze fissi nel corso del processo incrementale)

(A) **Lineare**: forze proporzionali a quelle da utilizzarsi per l'analisi statica lineare

(B) **Uni-modale**: forze modali, proporzionali al prodotto delle masse per la deformata corrispondente al primo modo di vibrazione

(C) **Dinamica**: forze corrispondenti alla distribuzione delle forze modali calcolate con analisi dinamica lineare, tenendo conto di tutti i modi considerati

Gruppo 2: distribuzioni secondarie

(D) **Multi-modale**: forze modali, proporzionali al prodotto delle masse per la deformata corrispondente ad una forma modale equivalente, tenendo conto di tutti i modi considerati

(E) **Uniforme**: forze proporzionali alle masse

Adattive (la distribuzione di forze viene aggiornata ad ogni evoluzione di rigidezza, previa riesecuzione dell'analisi modale):

(F) **Uni-modale**

(G) **Dinamica**

(H) **Multi-modale**

Per edifici in muratura nuovi, con impalcati rigidi, si considereranno almeno una distribuzione del Gruppo 1 e almeno una del Gruppo 2, con le limitazioni previste: (A) e (B) sono applicabili solo se il modo di vibrare fondamentale nella direzione considerata ha massa partecipante non inferiore al 60% (§7.8.1.5.4); in tutti i casi si può applicare la (C).

Per edifici in muratura esistenti, potranno essere utilizzate le distribuzioni (A)(E) indipendentemente dalla massa partecipante del primo modo (§8.7.1.3.1). Nelle distribuzioni Dinamiche (C, G) è possibile considerare le forze da spettro elastico o da spettro di progetto.

Fattore di partecipazione modale

Masse per fattore part.modale

Metodo di valutazione delle masse per il calcolo del Fattore di partecipazione modale, che consente la trasformazione da M-GDL a 1-GDL: sono possibili le due seguenti opzioni:

- matrice di massa del sistema reale (con masse traslazionali m_X m_Y e inerzie torsionali J_Z),

- solo masse traslazionali nella direzione di analisi (solo per analisi secondo X o Y: $\alpha=0^\circ$).

Fattore di partecipazione modale $\Gamma = 1.00$ in distribuz. uniforme (E)

Per la distribuzione uniforme (E) è possibile adottare il valore 1.000 per il fattore di partecipazione modale, il che equivale a considerare coincidenti i due

sistemi M-GDL e 1-GDL (un esempio di valore 1.000 per la distribuzione uniforme è riportato in: "The N2 method for simplified non-linear seismic analysis - overview and recent developments", P.Fajfar and M.Dolsek, in: L'Ingegneria Sismica in Italia, XI Convegno ANIDIS (Relazioni ad invito), 2004)

Incrementi di taglio. Direzione di analisi

Incremento di taglio alla base (kN)

Direzione e verso di analisi

+X' (+X per $\alpha=0^\circ$), +Y' (+Y per $\alpha=0^\circ$), -X' (-X per $\alpha=0^\circ$), -Y' (-Y per $\alpha=0^\circ$)

Eccentricità accidentale

Per analisi 3D è possibile considerare le azioni torcenti aggiuntive dovute all'eccentricità accidentale (§7.2.6)

Analisi bidirezionale

Secondo §7.3.5, la risposta alle diverse componenti dell'azione sismica si calcola unitariamente applicando la regola di combinazione [7.3.10].

Sisma verticale

E' possibile considerare l'effetto della componente sismica verticale

Punto di controllo

Il punto di controllo costituisce il punto di cui viene rilevato lo spostamento orizzontale nel corso dell'analisi pushover.

Sono possibili due opzioni:

- baricentro del piano indicato
- baricentro del piano con spostamento maggiore nel modo di vibrare principale nella direzione di analisi

All'opzione scelta possono aggiungersi altri nodi, in modo tale da rispettare quanto previsto in §7.3.4.2, dove si indicano ad esempio come punti di controllo alternativi le estremità della pianta dell'ultimo livello qualora sia significativo l'accoppiamento tra traslazioni e rotazioni

- Pushover (2)

Comportamento degli elementi strutturali

Verifiche di sicurezza in corso di analisi

Le opzioni indicate possono essere o meno selezionate.

Maschi murari

Il comportamento meccanico dei maschi è di tipo trilineare, con tratto elastico suddiviso in due parti: quella iniziale con rigidezza elastica, e il secondo con rigidezza fessurata. Se la rigidezza fessurata non è stata specificata, ed è quindi assunta pari alla rigidezza elastica, il comportamento è di tipo bilineare. Il terzo tratto, plastico, si attiva al raggiungimento del limite di resistenza, a pressoflessione o a taglio; in base al tipo di crisi resta definito lo spostamento ultimo della parete.

Opzioni disponibili:

- non eseguire verifiche a Sforzo Normale di Trazione
- ignorare la caduta di taglio per crisi a pressoflessione ortogonale

Facce di piano (Strisce, Sottofinestra)

- comportamento bilineare
- comportamento multilineare

Fondazioni

- ignorare aste su suolo elastico in Analisi Pushover

Modalità di calcolo

Spostamento ultimo a SLU (=SLC per NTC18)

Per la definizione del punto corrispondente allo stato limite di collasso SLC, si definisce lo spostamento corrispondente ad un taglio alla base residuo. Per la muratura, il valore previsto dalla Normativa è pari all'80% (muratura nuova: §C8.7.1.5.4, esistente: §C8.7.1.3.1) che viene calcolato rispetto ad uno dei seguenti valori di riferimento:

- prima riduzione rispetto ad un massimo relativo
- prima riduzione rispetto al massimo assoluto
- ultima configurazione equilibrata corrispondente alla riduzione rispetto al massimo assoluto

Sistema bilineare equivalente

Modalità di determinazione del sistema bi-lineare equivalente (basata sull'uguaglianza delle aree sottese dalla curva di capacità 1-GDL e dal diagramma bi-lineare equivalente)

tratto elastico passante per il punto con Taglio (κ Tmax), dove κ è definito in input:

definizione della rigidezza: il tratto elastico passa per il punto (κ Fbu) della curva di capacità del sistema equivalente (secondo Normativa: $\kappa=0.6$ in generale [§C7.3.4.2], 0.7 per la muratura [§7.8.1.6])

Tratto plastico della curva di capacità

Sono possibili le seguenti opzioni:

- calcolato analiticamente
- stimato sullo spostamento residuo di una parete
- stimato sullo spostamento residuo dei vari piani

Limitare la capacità di spostamento della struttura in funzione degli SL (stati limite) dei singoli elementi

In caso affermativo, la capacità di spostamento dell'edificio viene valutata considerando le possibili crisi locali. La curva viene elaborata sempre fino al raggiungimento dello stato limite ultimo, ma nel corso della sua costruzione vengono registrati i passi segnati da crisi locali per l'eventuale arretramento della capacità di spostamento. Una situazione tipica riguarda le verifiche di resistenza degli elementi in c.a.

- Muratura Armata

Acciaio

Acciaio: f_{yk} (N/mm²), ϵ_{ud} (per mille), E_s (N/mm²)

Parametri caratteristici dell'acciaio. Per l'acciaio si considera un diagramma di calcolo tensione-deformazione [§4.1.2.1.2.3] elastico-perfettamente plastico. Al tipo di acciaio scelto (ad es. B450C) [§11.3.2.1] corrispondono: f_{yk} (ad es. ≥ 450 N/mm²); la tensione di snervamento [§4.1.2.1.1.3]: $f_{yd} = f_{yk} / \gamma_s$ (ad es. $450 / 1.15 = 391$ N/mm²); ϵ_{ud} : limite in % per la deformazione ultima (ϵ_{ud}) (ad es. 10 per mille); E_s : modulo di elasticità; ϵ_{yd} : deformazione di snervamento (secondo §4.1.2.1.2.3: $\epsilon_{yd} = f_{yd} / E_s$)

Armatura:

verticale: Φ_{min} barre: 5 mm.;

orizzontale (nei giunti): **tipo di traliccio:**

Indica il tipo di traliccio utilizzato per il rinforzo dei giunti orizzontali con armatura:

- 2 ϕ 4 (filo rotondo per giunti di malta) (sezione: 25 mm²)

- 2 ϕ 5 (filo rotondo per giunti di malta) (sezione: 39 mm²)

- 8x1.5 (filo piatto per giunti incollati) (sezione: 24 mm²)

- generica (sezione specificata nei dati).

- **sezione totale del traliccio A_{sw}** (mm²)

Sezione dell'armatura orizzontale effettivamente utilizzata nel calcolo

- **distanza verticale tra i livelli di armatura** (mm)

- **f_{yk} per l'armatura orizzontale** (N/mm²): tensione di snervamento caratteristica dell'acciaio. La tensione di snervamento di progetto è data da $f_{yd} = f_{yk} / \gamma_s$.

Opzioni per Verifiche di resistenza

PressoFlessione: contributo dell'armatura compressa

Taglio: Sono possibili due opzioni per il contributo dell'armatura orizzontale alla resistenza a taglio:

- ignorare il contributo

- contributo secondo §7.8.3.2.2

- Calcestruzzo Armato

Acciaio

Acciaio: f_y (N/mm²), ϵ_{ud} (per mille), E_s (N/mm²)

Parametri caratteristici dell'acciaio. Per l'acciaio si considera un diagramma di calcolo tensione-deformazione [§4.1.2.1.2.3] elastico-perfettamente plastico.

Per gli edifici nuovi: $f_y = f_{yk}$. Al tipo di acciaio scelto (ad es. B450C) [§11.3.2.1] corrispondono: f_{yk} (ad es. ≥ 450 N/mm²); la tensione di snervamento [§4.1.2.1.1.3]: $f_{yd} = f_{yk} / \gamma_s$ (ad es. $450 / 1.15 = 391$ N/mm²); ϵ_{ud} : limite in % per la deformazione ultima (ϵ_{ud}) (ad es. 10 per mille); E_s : modulo di elasticità; ϵ_{yd} : deformazione di snervamento (secondo §4.1.2.1.2.3: $\epsilon_{yd} = f_{yd} / E_s$).

Per gli edifici esistenti: $f_y = f_{ym}$, tensione media di snervamento. Viene inoltre definito il fattore di confidenza FC (cfr. Tab.C8.5.IV) per l'acciaio (parametro influente per gli edifici nuovi).

Nelle strutture in c.a. si considera sempre il contributo dell'armatura compressa

Calcestruzzo

Per il calcestruzzo viene adottato il diagramma di calcolo tensione-deformazione parabolico-rettangolare [§4.1.2.1.2.2], definito dalla deformazione di inizio tratto plastico ϵ_{cu2} e dalla deformazione ultima ϵ_{cu} .

Si definiscono inoltre: il coefficiente parziale di sicurezza γ_c , e per gli edifici esistenti il fattore di confidenza FC (cfr. Tab.C8.5.IV) per il calcestruzzo (distinto rispetto all'acciaio; il parametro è influente per gli edifici nuovi).

La resistenza a compressione del calcestruzzo viene definita nei dati sui materiali.

- Interventi

Rinforzi a Taglio

Armatura orizzontale (nei giunti) (il passo è una proprietà delle singole aste):

Sezione totale delle barre A_{sw} (mm²), f_{yd} (N/mm²)

FRP

I parametri descrittivi del rinforzo con FRP sono illustrati nei documenti normativi specifici: in particolare:

CNR DT200 R1/2013: Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati;

Linee Guida per la Progettazione, l'Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP, documento approvato il 24 luglio 2009 dall'assemblea Generale Consiglio Superiore LL.PP.

Comportamento: per il composito FRP viene adottato il modello elastico-lineare fino a rottura.

Tipo di applicazione (LG 2009, §2.4.1): A o B

Coefficienti parziali (DT200, §3.4.1): SLU del materiale FRP: γ_f - distacco dal supporto: γ_{fd}

Modulo di elasticità normale nella direzione delle fibre E_f

Deformazione caratteristica a rottura per trazione ϵ_{fk}

Fattore conversione ambientale η_a (DT200, §3.5.1)

Deformazione di calcolo a rottura per trazione: ($\eta_a \epsilon_{fk} / \gamma_f$)

Sezione del singolo nastro (mm): spessore, larghezza

Angolo d'attrito dei corsi di malta ϕ (DT200, §5.4.1.2.2) (°)

CAM

I parametri descrittivi del sistema di rinforzo CAM sono illustrati nella documentazione originale (c) EdiCAM.

Acciaio: modello elastico-perfettamente plastico

Per i nastri, si considerano tre possibili **tipologie**:

- **standard**: unica tipologia di nastro sia orizzontale che verticale con possibilità di modulare in maniera diversificata il numero di nastri in sovrapposizione ed il passo della maglia tra nastri orizzontali e verticali
- **migliorato duttile**: per la sostituzione dei nastri orizzontali convenzionali con una tipologia a maggiori prestazioni (rinforzo a taglio)
- **ad alte prestazioni di resistenza elastico**: utilizzato come nastro verticale per il rafforzamento concentrato agli spigoli

Per ognuna delle tre tipologie sono forniti i seguenti parametri:

f_{yk} , f_{yd} , ϵ_{ud} , ϵ_{yd} , sezione singolo nastro (mm): spessore, larghezza, raggio curvatura spigoli

Per maschi murari rinforzati con sistema CAM:

è possibile considerare per effetto del confinamento l'incremento di deformazione ultima e/o l'incremento di resistenza ultima.

Reticolatus

Il sistema (c) Reticolatus prevede l'utilizzo di trefoli in acciaio ad alta resistenza. Il corrispondente modello è elastico-lineare fino a rottura. I parametri descrittivi del sistema sono i seguenti:

f_{yk} , E_s (modulo di elasticità), ϵ_{yd} , sezione del trefolo (mm^2).

Per poter considerare l'effetto del confinamento come incremento di deformazione ultima e/o di resistenza ultima, si definiscono inoltre la larghezza della fascia interessata e il raggio di curvatura.

Acciaio per rinforzo pilastri

Nel caso di pilastri murari, è possibile applicare rinforzi con acciaio strutturale consistenti in fasce (o calastrelli) per la cerchiatura con anelli orizzontali, e in rinforzi longitudinali con angolari agli spigoli.

Tensione di snervamento: caratteristica f_{yk}

Limite per la deformazione ultima ϵ_{ud}

Modulo di elasticità E_s

Deformazione di snervamento ϵ_{yd}

Per cerchiatura (fasce o calastrelli):

- Sezione della singola fascia: spessore, larghezza

- Eventuale raggio di curvatura degli spigoli [per angolari di lato l e spessore t : $\min(l, 5t)$]

Per rinforzo longitudinale (angolari agli spigoli):

- lunghezza dell'ala

- spessore

2. GENERALITA' - PARAMETRI DI CALCOLO - AZIONE SISMICA

Nome del file del Progetto : TP_E_Prog

Data e Ora di archiviazione: 26/04/2021 10:33:50

Dati PCM Versione 2020.3.2.0

Abilitazione USB: QSIKGSQ

AZIONE SISMICA

Struttura:

Vita Nominale V_N (anni) = 50

Classe d'uso: II

Coefficiente d'uso C_U = 1

Periodo di riferimento per l'azione sismica $V_R = V_N \cdot C_U$ (anni) = 50

Pericolosità:

Ubicazione del sito:

Longitudine ED50 (gradi sessadecimali) = 12.527298

Latitudine ED50 (gradi sessadecimali) = 38.026001

Tipo di interpolazione: media ponderata ([3] in All.a)

$a_g(g)$ F_o $T_c(sec)$ per i periodi di ritorno di riferimento

30	0.015	2.507	0.147
50	0.02	2.521	0.164
72	0.024	2.465	0.2
101	0.028	2.445	0.211
140	0.033	2.459	0.231
201	0.037	2.487	0.267
475	0.051	2.467	0.32
975	0.064	2.541	0.34
2475	0.082	2.644	0.379

Per periodi di ritorno $T_R < 30$ anni [cfr. DPC-Reluis, CNR-ITC]:

$a_g(T_R) = K \cdot T_R^{-\alpha}$, dove:

$K = 0.002270210$, $\alpha = 0.553690360$

Stati Limite:

PVR (%) Probabilità di superamento nel periodo di riferimento V_R (Tab.3.2.I)

SLE: SLO 81

SLE: SLD 63

SLU: SLV 10

SLU: SLC 5

$a_g(g)$ F_o $T_c(sec)$ e altri parametri di spettro per i periodi di ritorno T_R associati a ciascun Stato Limite secondo Normativa [§3.2.3]

Stato limite	T_R (anni)	a_g (*g)	F_o	T_c^* (sec)	S	T_B (sec)	T_C (sec)	T_D (sec)	F_v
SLO	30	0.015	2.507	0.147	1.500	0.097	0.291	1.660	0.415
SLD	50	0.020	2.521	0.164	1.500	0.104	0.313	1.680	0.481
SLV	475	0.051	2.467	0.320	1.500	0.163	0.489	1.804	0.752

| SLC | 975 | 0.064 | 2.541 | 0.340 | 1.500 | 0.170 | 0.510 | 1.856 | 0.868 |

(parametri di spettro conformi al reticolo sismico secondo D.M. 14.1.2008)

Suolo:

Categoria di sottosuolo e Condizioni topografiche:

Categoria di sottosuolo: C

Categoria topografica: T1

Rapporto quota sito / altezza rilievo topografico = 0

Coefficiente di amplificazione topografica ST = 1

Componenti:

Spettro di risposta: componente orizzontale:

Spettro elastico: Smorzamento viscoso (ξ) (%) = 5

$\eta = [10 / (5 + \xi)] = 1$

Spettro di progetto - SLD: Fattore di Comportamento = 1.5

Spettro di progetto - SLV/SLC: Fattore di Comportamento = 3 $\Rightarrow \eta = 1/q = 0.333$

Spettro di risposta: componente verticale:

SS=1.000, S=1.000, TB=0.050 sec, TC=0.150 sec, TD=1.000 sec, $\xi=5\%$ ($\eta=1.000$), $q=1.500$ ($\eta=1/q=0.667$)

PGA:

Definizione di PGA: Accelerazione al suolo (analogia ad: $ag \cdot S$, dove: $S=SS \cdot ST$)

PARAMETRI DI CALCOLO: Sismica

Direzioni di analisi e quote di riferimento:

Angolo tra sistema di riferimento globale XY e direzioni sismiche X'Y' (+ se antiorario) (α°) = 0

(analisi nelle direzioni X e Y)

Altezza della costruzione a partire dal piano di fondazione H (m) = 8.042

Quota di inizio degli effetti sismici H,S (m) = 0

In caso di sisma verticale considerare sempre il 100% degli effetti: no

Analisi Sismiche Lineari:

Direzioni di analisi: X Y

Criterio di combinazione delle componenti orizzontali:

Sommare ai massimi ottenuti per l'azione applicata in una direzione il 30% dei massimi ottenuti per l'azione applicata nelle altre direzioni [§7.3.5]

Ignorare gli effetti dei momenti torcenti dovuti alle eccentricità accidentali [§7.2.6]: no

Ignorare l'amplificazione degli spostamenti con fattore μ nel calcolo delle tensioni sul terreno [§7.3.3.3]: no

Eseguire le verifiche di sicurezza anche per le combinazioni (Nmin, T/Mmax), (Nmax, T/Mmin): no

Analisi Sismica Statica Lineare:

Periodo principale T1 (sec): $T1 = C1 \cdot H^{(3/4)}$, $C1=0.05$, $T1 = 0.239$

$\lambda=1.00$ nella definizione delle forze sismiche [§7.3.3.2]: no

Progettazione semplificata per zone a bassa sismicità [§7]: no

PARAMETRI DI CALCOLO: Analisi Modale

Metodo di calcolo per Analisi Modale: Lanczos

Numero modi da calcolare: 50

Numero di modi da considerare: tutti i modi con massa part.>5% e comunque tali che massa part.tot.>85% [§7.3.3.1]

Metodo di combinazione dei modi: CQC (combinazione quadratica completa) [§7.3.3.1]

PARAMETRI DI CALCOLO: Muratura

Tipo di edificio: Muratura Ordinaria

Edificio Esistente

Coefficienti parziali di sicurezza: Edificio Esistente

- γ_M in Statica [§4.5.6.1] = 3

- γ_M in Sismica [§7.8.1.1] = 2.4

Per maschi murari:

Contributo rigidità trasversale: si

Assemblaggio rigidità flessionale (EJ) per elementi contigui: no

Link orizzontali rigidi anche fuori piano: si

Comportamento muratura:

Diagramma di calcolo tensione-deformazione [§4.1.2.1.2.2]: Stress-block

PARAMETRI DI CALCOLO: Valutazione

Stati Limite da considerare: SLO SLV

Valutazione della sicurezza sismica per edifici esistenti:

Intervento di Adeguamento [§8.4.3] o Stato Attuale di un Intervento di Miglioramento:

indicatore di rischio sismico $\zeta_E \geq 0.800$

PARAMETRI DI CALCOLO: Verifiche

Per maschi murari:

Sezioni di verifica. Alla base, e in sommità in pushover: obbligatoria; in sommità in an.lineare: in nessun caso

PressoFlessione Complanare:

Considerare la Flessione solo nei maschi snelli: si

- snelli se (h/l) superiore a: 1

Taglio per Scorrimento:

Modalità di calcolo della zona reagente: distribuzione triangolare delle tensioni [EC6, §4.5.3(6)]

Maschi in muratura ordinaria: prescindere in ogni caso dalla parzializzazione: no

PressoFlessione Ortogonale:

Analisi Statica [§4.5.6.2]:

- con azioni da modello di calcolo 3D: si

- metodo semplificato (ipotesi di parete incernierata a livello dei piani) [§4.5.5, §4.5.6.2]: no

eseguire le verifiche solo in mezz'opera: si

Analisi Sismiche Lineari [§7.8.2.2.3]:

- con azioni da modello di calcolo 3D: no

- con azioni convenzionali (forze equivalenti per elementi non strutturali) [§7.2.3]: si

Analisi Pushover [§7.8.2.2.3]:

- con azioni da modello di calcolo 3D: si

Opzioni varie:

- riduzione della resistenza per gli effetti di instabilità: no
- considerare sempre eccentricita' minima (h/200): si

PARAMETRI DI CALCOLO: Pushover (1)

Distribuzioni di forze [cfr.§7.3.4.2]:

Gruppo 1: distribuzioni principali

(B) Uni-modale: forze corrispondenti al primo modo di vibrare

Gruppo 2: distribuzioni secondarie

(E) Uniforme: forze proporzionali alle masse

Fattore di partecipazione modale Γ [cfr.§C7.3.4.2]:

calcolato con le sole masse equiverse all'analisi

$\Gamma = 1.00$ nella distribuzione di forze Uniforme (E): si

Incremento di taglio (kN) = 50

Direzione e verso di analisi: +X'

Eccentricita' accidentale: curve senza momento torcente aggiuntivo

Analisi bidirezionale: curve senza combinazione direzionale

Sisma verticale: curve senza componente sismica verticale

Punto di controllo:

baricentro del piano 2

E' possibile che in input siano stati definiti nodi aggiuntivi

per l'elaborazione delle curve di capacita' [§7.3.4.2]:

in ogni caso, i risultati delle verifiche con confronto

tra capacita' e domanda per i vari stati limite si riferiscono

alle curve che producono i risultati a maggior favore di sicurezza.

PARAMETRI DI CALCOLO: Pushover (2)

Comportamento degli elementi strutturali:

Maschi murari:

Non eseguire verifiche a Sforzo Normale di Trazione: no

Ignorare caduta di taglio per crisi a pressoflessione ortogonale: si

Deformazione angolare limite: controllo drift ultimo

Fasce di piano (Strisce, Sottofinestra): comportamento bilineare

Fondazioni:

Ignorare aste su suolo elastico in Analisi Pushover: si

Modalità di calcolo:

Spostamento ultimo a SLU:

Spostamento corrispondente ad un taglio alla base residuo pari a 80% rispetto al massimo assoluto, considerando l'ultima configurazione equilibrata

Sistema bilineare equivalente:

Tratto elastico passante per il punto con Taglio pari a 0.70 T_{max}

Tratto plastico della curva di capacità: calcolato analiticamente

Limitare la capacità di spostamento in funzione degli SL dei singoli elementi: si

PARAMETRI DI CALCOLO: Muratura Armata

Acciaio:

Diagramma di calcolo tensione - deformazione [§4.1.2.1.2.3]:

Modello: elastico perfettamente plastico (tensioni in N/mm², deformazioni in per mille):

$f_{yk} = 450$ - a) in analisi lineare: $f_{yd} = f_{yk}/\gamma_s = 391.3$ b) in analisi non lineare: $f_{ym} = f_{yk}/0.93 = 483.9$

$\epsilon_{ud} = 10$ - $E_s = 210000$

ϵ_{yd} : a) in analisi lineare: $f_{yd}/E_s = 1.86$ b) in analisi non lineare: $f_{ym}/E_s = 2.3$

Armatura:

verticale: F_{min} barre: 5 mm.; orizzontale (nei giunti):

tipo di traliccio: 2

sezione totale del traliccio A_{sw} (mm²) = 39

distanza verticale tra i livelli di armatura (mm) = 500

f_{yk} per l'armatura orizzontale = 450

Coefficiente parziale di sicurezza $\gamma_s = 1.15$

Opzioni per Verifiche di resistenza:

Pressoflessione: contributo dell'armatura compressa no

Taglio: $V_t = V_{tM} + V_{tS} = (d \cdot t \cdot f_{vd}) + (0.6 \cdot d \cdot A_{sw} \cdot f_{yd})/s$, con: $V_t \leq 0.3 \cdot f_d \cdot t \cdot d$ [§7.8.3.2.2]

PARAMETRI DI CALCOLO: Calcestruzzo Armato

Acciaio:

Diagramma di calcolo tensione - deformazione [§4.1.2.1.2.3]:

Modello: elastico perfettamente plastico (tensioni in N/mm², deformazioni in per mille):

$f_{yk} = 450$

$\epsilon_{ud} = 10$ - $E_s = 210000$

Coefficiente parziale di sicurezza per acciaio $\gamma_s = 1.15$

Fattore di confidenza FC per acciaio in c.a. esistente [cfr. Tab.C8A.1.2] = 1.2

Calcestruzzo:

Diagramma di calcolo tensione - deformazione [§4.1.2.1.2.2]:

Modello: parabolico-rettangolare:

$\epsilon_{c2} = 2$ - $\epsilon_{cu} = 3.5$

Coefficiente parziale di sicurezza per calcestruzzo $\gamma_c = 1.5$

Varie:

Verifiche a Pressoflessione: si considera sempre il contributo dell'armatura compressa

Fattore di confidenza FC per strutture in c.a. [cfr. Tab.C8A.1.2] = 1.2

3. Dati PIANI

N°	Z:altezza da fondaz. (m)	Piano Rigido (master/slave)	Nodo master	>3D:Ecc.agg. dir. (a+90)° [Y] (m)	-ecc. agg. dir. (a)° [X] (m)	Piano di controllo in Pushover	Vento +X	Vento +Y	Vento -X	Vento -Y	Press.X (kN/m ²)
----	-----------------------------	--------------------------------	----------------	--------------------------------------	---------------------------------	-----------------------------------	-------------	-------------	-------------	-------------	---------------------------------

1	4.800	X	348	0.416	2.011		X	X	X	X	0.50
2	5.250	X	349	0.416	2.045	X	X	X	X	X	0.50

N°	Depress. X	Press. Y	Depress. Y
1	0.50	0.50	0.50
2	0.50	0.50	0.50

Descrizione dei DATI MATERIALI

Tipologia materiale: sono previsti i seguenti tipi:
1) Conglomerato Cementizio Armato, 2) Acciaio, 3) Muratura, 4) Legno, 5) Materiale generico
Descrizione: denominazione del materiale. Nei dati seguenti, i parametri meccanici (moduli di elasticità e resistenze) sono espressi in N/mm^2 (Sistema Internazionale).
Parametri specifici per muratura:
Mur. nuova: Materiale murario di nuova realizzazione, o muratura esistente
Tipologia muratura:
Per muratura nuova: Pietra Non Squadrata, Listata, Pietra Squadrata, Laterizio Pieni, Laterizio Semipieni, Calcestruzzo Pieni, Calcestruzzo Semipieni.
Per muratura esistente (§C8.5.I): Pietrame disordinata, Conci sbozzati, Pietre a spacco, buona tessitura, Irregolare di pietra tenera, Conci regolari di pietra tenera, Blocchi lapidei squadrate, Mattoni pieni e malta di calce, Mattoni semipieni con malta cementizia.
FC: fattore di confidenza, corrispondente al livello di conoscenza per materiale murario esistente
Parametri validi per qualsiasi materiale:
Modulo di elasticità longitudinale (**E**) e tangenziale (**G**)
Parametri specifici per calcestruzzo:
resistenze:
fc (nella colonna **fk**): per edifici esistenti: resistenza media a compressione; per edifici nuovi: resistenza caratteristica a compressione.
Altri parametri specifici per muratura:
resistenze:
fm, fk (media e caratteristica, a compressione);
ftm (media a trazione);
fhm, fhk (media e caratteristica, a compressione in direzione orizzontale nel piano del muro);
tauo (media a taglio in assenza di carichi verticali, per muratura a tessitura irregolare);
fvko/fvmo (media e caratteristica, a taglio in assenza di carichi verticali, per muratura a tessitura regolare);
fb (a compressione normalizzata del blocco - muratura regolare)
μ (coefficiente di attrito locale del giunto - muratura regolare)
φ (coefficiente di ingranamento murario - muratura regolare)
fbk (a compressione dell'elemento), **f'bk** (dell'elemento in direzione orizzontale e nel piano del muro)
Malta: fm,m: resistenza a compressione della malta (§11.10.2.1). Sono previsti i seguenti valori (N/mm²): 2.5 (corrisponde a M4 del D.M.20.11.1987), 5 (M3), 10 (M2), 15 (M1)
Coefficienti correttivi: relativi alle proprietà meccaniche dei materiali (Tab. §C8.5.II)

4. Dati MATERIALI

N°	Descrizione	Tipo di	Tipologia	Muratura	FC	E	G	fk	fm	ftm
	[param.mecc. in N/mm^2]	materiale	muratura	nuova						

1	C28/35	1) Conglomerato Cementizio Armato				31000	13000	28.000	28.000	
2	Acciaio S275	2) Acciaio				210000	80769	275.000	0.000	
3	Pietra Calcareo esistente	3) Muratura	2) Conci sbozzati		1.200	4000	1600	1.750		
2.500	0.250									
4	Muratura nuova	3) Muratura	4) Laterizio Pieni	X		5300	2120	5.300		
7.571	0.757									
5	Legno	5) Materiale generico				10000	3500	0.000	0.000	

N°	fhk	fhm	tauo	fvko	fvm0	w (p.sp.) (kN/m^3)	Coeff.dilataz. termica (°^-1)	fb	coeff. attr.mi	coeff. ingr.phi	fbk	f'bk	Malta: fm,m	Coeff.corr.: Malta scadente	Malta buona
1						25.00	0.000010								
2						78.50	0.000012								
3	0.875	1.250	0.043	0.000	0.000	22.00	0.000010	0.000	0.000	0.000	0.00	0.00	0.0	0.70	1.40
4	2.650	3.786	0.000	0.300	0.429	18.00	0.000010	10.000	0.577	1.000	10.00	2.00	10.0	1.00	1.00
5						6.00	0.000004								

N°	Giunti sottili	Ricorsi o listature	Connessione trasversale	Nucleo scadente	Iniezioni di malta	Intonaco armato	Ristilatura armata	Max.coeff. compless.
1								
2								
3	1.00	1.20	1.50	0.80	1.70	2.00	1.50	3.00
4	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
5								

Descrizione dei DATI NODI

(Nella tabella Dati Nodi, alcuni dati che per il Progetto corrente non risultano significativi possono essere omissi)

N°: numero progressivo del nodo

Nome: stringa descrittiva del nodo

X,Y,Z: coordinate del nodo

Piano: piano (o impalcato) a cui il nodo appartiene. Nodi appartenenti all'impalcato 0 sono i nodi di fondazione.

Vinc. est. (1=lib., 0=blocc.): vincolamento esterno del nodo. Si devono tenere presenti le seguenti specifiche:

0 = indica movimento bloccato (=grado di libertà inattivo o nullo)

1 = indica movimento libero (=grado di libertà attivo)

(convenzione contraria rispetto a quella utilizzata nel codice SAP).

La sequenza dei 6 valori è: u - v - w - phi,X - phi,Y - phi,Z, con riferimento al sistema di assi globale X Y Z:

u = spostamento lungo X, **v** = spostamento lungo Y, **w** = spostamento lungo Z

phi,X = rotazione intorno all'asse X, **phi,Y** = rotazione intorno all'asse Y, **phi,Z** = rotazione intorno all'asse Z

Alcuni tipi di vincoli esterni notevoli sono i seguenti:

Incastro: 000000

Per **telai 3D:**

Nodo libero: 111111 (tali sono i nodi interni della struttura, non esternamente vincolati)

Cerniera sferica: 000111 (libere le tre rotazioni, ma non gli spostamenti)

Nodo slave nell'impalcato orizzontale: 001110

Nodo master nell'impalcato orizzontale: 110001

Per **telai 2D,** posti nel piano XZ:

Nodo libero: 101010 (liberi: u, w, phi,y) (tali sono i nodi interni della struttura, non esternamente vincolati)

Cerniera: 000010 (unico movimento libero: rotazione phi,y)

Carrello lungo X: 100010 (movimenti liberi: u, phi,y)

Carrello lungo Z: 001010 (liberi: w, phi,y)

Incastro scorrevole lungo X: 100000 (libero solo u)

Incastro scorrevole lungo Z: 001000 (libero solo w)

Nodo master: se il nodo *i* è riferito al nodo Master *j*, lo spostamento di *i* è rigidamente collegato allo spostamento di *j*; in altri termini, *i* è un nodo dipendente (slave). Le componenti di spostamento rigidamente dipendenti dal nodo master sono quelle che nel nodo *i* risultano bloccate (0) e corrispondentemente nel nodo *j* risultano libere (1).

La relazione master-slave viene utilizzata nel caso di analisi 3D con impalcati rigidi nel proprio piano sotto l'azione di forze orizzontali e momenti torcenti agenti a livello degli impalcati stessi (tali sono le analisi sismiche). Il nodo master, specificato nei Dati Piani, coincide con il baricentro di piano; la sua posizione è determinata dal baricentro delle masse che insistono nei nodi ad esso riferiti: è infatti possibile che in un dato piano alcuni nodi siano sede di massa indipendente e quindi non siano riferiti al nodo master.

Per un telaio spaziale con impalcati orizzontali infinitamente rigidi, i nodi slave sono nodi con bloccati i movimenti u (spostamento lungo X), v (spostamento lungo Y) e phi,z (rotazione attorno a Z):

001110

mentre i nodi master (uno per impalcato, generalmente baricentrico) sono del tipo:

110001

I nodi slave conservano gradi di libertà per movimenti verticali (lungo Z) e per le rotazioni phi,X e phi,Y.

Per nodi non riferiti a nodi master, la specifica di 'Nodo master' è 0, e così pure per i nodi master stessi.

Vinc.elast. Ku, Kv, Kw, KphiX, KphiY, KphiZ: vincoli elastici. Essi devono corrispondere a componenti di spostamento libere, altrimenti vengono ignorati. I vincoli elastici sono rappresentati dalle rigidezze delle 'molle': spostamenti lineari (traslazioni) in kN/m, e rotazioni (molle di torsione) in kN m/mrad

5. Dati NODI

Nome	X (m)	Y (m)	Z (m)	Piano	Vinc.est. (1=lib.,0=blocc.)	u (sX)	v (sX)	w (sX)	phiX	phiY	phiZ	Nodo master
1.	0.000	6.809	0.000	0	001110			X	X	X		0
2.	0.000	6.809	4.800	1	001110			X	X	X		348
3.	0.000	8.322	4.800	1	001110			X	X	X		348
4.	0.000	5.295	4.800	1	001110			X	X	X		348
5.	0.000	1.517	0.000	0	001110			X	X	X		0
6.	0.000	1.517	4.800	1	001110			X	X	X		348
7.	0.000	3.030	4.800	1	001110			X	X	X		348
8.	0.000	0.004	4.800	1	001110			X	X	X		348
9.	0.794	0.004	0.000	0	001110			X	X	X		0
10.	0.794	0.004	4.800	1	001110			X	X	X		348
11.	1.588	0.004	0.000	0	001110			X	X	X		0
12.	1.588	0.004	4.800	1	001110			X	X	X		348

13.	4.811	0.004	0.000	0	001110				X	X	X		0
14.	4.811	0.004	4.800	1	001110				X	X	X		348
15.	3.853	0.004	0.000	0	001110				X	X	X		0
16.	3.853	0.004	4.800	1	001110				X	X	X		348
17.	5.770	0.004	4.800	1	001110				X	X	X		348
18.	6.729	0.004	0.000	0	001110				X	X	X		0
19.	6.729	0.004	4.800	1	001110				X	X	X		348
20.	7.688	0.004	4.800	1	001110				X	X	X		348
21.	11.586	0.004	0.000	0	001110				X	X	X		0
22.	11.586	0.004	4.800	1	001110				X	X	X		348
23.	9.953	0.004	4.800	1	001110				X	X	X		348
24.	13.220	0.004	4.800	1	001110				X	X	X		348
25.	13.504	0.004	0.000	0	001110				X	X	X		0
26.	13.504	0.004	4.800	1	001110				X	X	X		348
27.	13.788	0.004	4.800	1	001110				X	X	X		348
28.	16.311	0.004	0.000	0	001110				X	X	X		0
29.	16.311	0.004	4.800	1	001110				X	X	X		348
30.	16.053	0.004	4.800	1	001110				X	X	X		348
31.	16.570	0.004	4.800	1	001110				X	X	X		348
32.	18.029	0.004	0.000	0	001110				X	X	X		0
33.	18.029	0.004	4.800	1	001110				X	X	X		348
34.	19.488	0.004	0.000	0	001110				X	X	X		0
35.	19.488	0.004	4.800	1	001110				X	X	X		348
36.	24.836	0.004	0.000	0	001110				X	X	X		0
37.	24.836	0.004	4.800	1	001110				X	X	X		348
38.	21.753	0.004	0.000	0	001110				X	X	X		0
39.	21.753	0.004	4.800	1	001110				X	X	X		348
40.	27.920	0.004	4.800	1	001110				X	X	X		348
41.	28.204	0.004	0.000	0	001110				X	X	X		0
42.	28.204	0.004	4.800	1	001110				X	X	X		348
43.	28.488	0.004	4.800	1	001110				X	X	X		348
44.	32.389	0.004	0.000	0	001110				X	X	X		0
45.	32.389	0.004	4.800	1	001110				X	X	X		348
46.	30.753	0.004	4.800	1	001110				X	X	X		348
47.	34.025	0.004	4.800	1	001110				X	X	X		348
48.	35.662	0.004	0.000	0	001110				X	X	X		0
49.	35.662	0.004	4.800	1	001110				X	X	X		348
50.	37.298	0.004	0.000	0	001110				X	X	X		0
51.	37.298	0.004	4.800	1	001110				X	X	X		348
52.	40.236	0.004	0.000	0	001110				X	X	X		0
53.	40.236	0.004	4.800	1	001110				X	X	X		348
54.	39.563	0.004	0.000	0	001110				X	X	X		0
55.	39.563	0.004	4.800	1	001110				X	X	X		348
56.	40.245	8.328	0.000	0	001110				X	X	X		0
57.	40.245	8.328	4.800	1	001110				X	X	X		348
58.	39.580	8.326	4.800	1	001110				X	X	X		348
59.	38.148	8.323	0.000	0	001110				X	X	X		0
60.	38.148	8.323	4.800	1	001110				X	X	X		348
61.	38.580	8.324	4.800	1	001110				X	X	X		348
62.	37.716	8.322	4.800	1	001110				X	X	X		348
63.	37.285	8.322	0.000	0	001110				X	X	X		0
64.	37.285	8.322	4.800	1	001110				X	X	X		348
65.	36.853	8.322	0.000	0	001110				X	X	X		0
66.	36.853	8.322	4.800	1	001110				X	X	X		348
67.	33.629	8.322	0.000	0	001110				X	X	X		0
68.	33.629	8.322	4.800	1	001110				X	X	X		348
69.	34.588	8.322	0.000	0	001110				X	X	X		0
70.	34.588	8.322	4.800	1	001110				X	X	X		348
71.	32.670	8.322	4.800	1	001110				X	X	X		348
72.	31.711	8.322	0.000	0	001110				X	X	X		0
73.	31.711	8.322	4.800	1	001110				X	X	X		348
74.	30.753	8.322	4.800	1	001110				X	X	X		348
75.	28.204	8.322	0.000	0	001110				X	X	X		0
76.	28.204	8.322	4.800	1	001110				X	X	X		348
77.	28.488	8.322	4.800	1	001110				X	X	X		348
78.	27.920	8.322	4.800	1	001110				X	X	X		348
79.	24.836	8.322	0.000	0	001110				X	X	X		0
80.	24.836	8.322	4.800	1	001110				X	X	X		348
81.	21.753	8.322	0.000	0	001110				X	X	X		0
82.	21.753	8.322	4.800	1	001110				X	X	X		348
83.	18.029	8.322	0.000	0	001110				X	X	X		0
84.	18.029	8.322	4.800	1	001110				X	X	X		348
85.	19.488	8.322	0.000	0	001110				X	X	X		0
86.	19.488	8.322	4.800	1	001110				X	X	X		348
87.	16.570	8.322	4.800	1	001110				X	X	X		348
88.	16.311	8.322	0.000	0	001110				X	X	X		0
89.	16.311	8.322	4.800	1	001110				X	X	X		348
90.	16.053	8.322	4.800	1	001110				X	X	X		348
91.	13.504	8.322	0.000	0	001110				X	X	X		0
92.	13.504	8.322	4.800	1	001110				X	X	X		348
93.	13.788	8.322	4.800	1	001110				X	X	X		348
94.	13.220	8.322	4.800	1	001110				X	X	X		348
95.	11.586	8.322	0.000	0	001110				X	X	X		0
96.	11.586	8.322	4.800	1	001110				X	X	X		348
97.	9.953	8.322	4.800	1	001110				X	X	X		348
98.	6.729	8.322	0.000	0	001110				X	X	X		0

99.	6.729	8.322	4.800	1	001110				X	X	X		348
100.	7.688	8.322	4.800	1	001110				X	X	X		348
101.	5.770	8.322	4.800	1	001110				X	X	X		348
102.	4.811	8.322	0.000	0	001110				X	X	X		0
103.	4.811	8.322	4.800	1	001110				X	X	X		348
104.	3.853	8.322	4.800	1	001110				X	X	X		348
105.	0.794	8.322	0.000	0	001110				X	X	X		0
106.	0.794	8.322	4.800	1	001110				X	X	X		348
107.	1.588	8.322	4.800	1	001110				X	X	X		348
108.	40.910	2.085	0.000	0	001110				X	X	X		0
109.	40.910	2.085	6.082	2	001110				X	X	X		349
110.	40.910	0.004	5.250	2	001110				X	X	X		349
111.	40.910	4.167	6.914	2	001110				X	X	X		349
112.	13.220	6.792	0.000	0	001110				X	X	X		0
113.	13.220	6.792	4.200	1	001110				X	X	X		348
114.	13.220	8.322	4.200	1	001110				X	X	X		348
115.	13.220	5.263	4.200	1	001110				X	X	X		348
116.	13.220	1.633	0.000	0	001110				X	X	X		0
117.	13.220	1.633	4.200	1	001110				X	X	X		348
118.	13.220	3.263	4.200	1	001110				X	X	X		348
119.	13.220	0.004	4.200	1	001110				X	X	X		348
120.	27.920	6.792	0.000	0	001110				X	X	X		0
121.	27.920	6.792	4.200	1	001110				X	X	X		348
122.	27.920	8.322	4.200	1	001110				X	X	X		348
123.	27.920	5.263	4.200	1	001110				X	X	X		348
124.	27.920	1.633	0.000	0	001110				X	X	X		0
125.	27.920	1.633	4.200	1	001110				X	X	X		348
126.	27.920	3.263	4.200	1	001110				X	X	X		348
127.	27.920	0.004	4.200	1	001110				X	X	X		348
128.	11.586	8.322	5.250	2	001110				X	X	X		349
129.	13.220	8.322	5.250	2	001110				X	X	X		349
130.	9.953	8.322	5.250	2	001110				X	X	X		349
131.	14.895	8.322	4.800	1	001110				X	X	X		348
132.	14.895	8.322	5.250	2	001110				X	X	X		349
133.	16.570	8.322	5.250	2	001110				X	X	X		349
134.	24.836	8.322	5.250	2	001110				X	X	X		349
135.	27.920	8.322	5.250	2	001110				X	X	X		349
136.	21.753	8.322	5.250	2	001110				X	X	X		349
137.	6.729	0.004	5.250	2	001110				X	X	X		349
138.	5.770	0.004	5.250	2	001110				X	X	X		349
139.	7.688	0.004	5.250	2	001110				X	X	X		349
140.	14.895	0.004	4.800	1	001110				X	X	X		348
141.	14.895	0.004	5.250	2	001110				X	X	X		349
142.	13.220	0.004	5.250	2	001110				X	X	X		349
143.	16.570	0.004	5.250	2	001110				X	X	X		349
144.	18.029	0.004	5.250	2	001110				X	X	X		349
145.	19.488	0.004	5.250	2	001110				X	X	X		349
146.	29.336	0.004	4.800	1	001110				X	X	X		348
147.	29.336	0.004	5.250	2	001110				X	X	X		349
148.	27.920	0.004	5.250	2	001110				X	X	X		349
149.	30.753	0.004	5.250	2	001110				X	X	X		349
150.	30.295	8.322	4.800	1	001110				X	X	X		348
151.	30.295	8.322	5.250	2	001110				X	X	X		349
152.	32.670	8.322	5.250	2	001110				X	X	X		349
153.	36.160	8.322	4.800	1	001110				X	X	X		348
154.	36.160	8.322	5.250	2	001110				X	X	X		349
155.	37.716	8.322	5.250	2	001110				X	X	X		349
156.	34.604	8.322	5.250	2	001110				X	X	X		349
157.	39.313	8.326	4.800	1	001110				X	X	X		348
158.	39.313	8.326	5.250	2	001110				X	X	X		349
159.	40.910	8.330	5.250	2	001110				X	X	X		349
160.	35.682	0.004	4.800	1	001110				X	X	X		348
161.	35.682	0.004	5.250	2	001110				X	X	X		349
162.	34.025	0.004	5.250	2	001110				X	X	X		349
163.	37.338	0.004	5.250	2	001110				X	X	X		349
164.	4.809	8.322	4.800	1	001110				X	X	X		348
165.	4.809	8.322	5.250	2	001110				X	X	X		349
166.	5.770	8.322	5.250	2	001110				X	X	X		349
167.	3.847	8.322	5.250	2	001110				X	X	X		349
168.	2.720	8.322	4.800	1	001110				X	X	X		348
169.	2.720	8.322	5.250	2	001110				X	X	X		349
170.	1.593	8.322	5.250	2	001110				X	X	X		349
171.	0.797	8.322	4.800	1	001110				X	X	X		348
172.	0.797	8.322	5.250	2	001110				X	X	X		349
173.	0.000	8.322	5.250	2	001110				X	X	X		349
174.	4.809	0.004	4.800	1	001110				X	X	X		348
175.	4.809	0.004	5.250	2	001110				X	X	X		349
176.	3.847	0.004	5.250	2	001110				X	X	X		349
177.	2.720	0.004	4.800	1	001110				X	X	X		348
178.	2.720	0.004	5.250	2	001110				X	X	X		349
179.	1.593	0.004	5.250	2	001110				X	X	X		349
180.	0.797	0.004	4.800	1	001110				X	X	X		348
181.	0.797	0.004	5.250	2	001110				X	X	X		349
182.	0.000	0.004	5.250	2	001110				X	X	X		349
183.	0.000	6.809	5.856	2	001110				X	X	X		349
184.	0.000	5.295	6.461	2	001110				X	X	X		349

185.	0.000	4.163	6.914	2	001110				X	X	X		349
186.	0.000	3.030	6.461	2	001110				X	X	X		349
187.	0.000	1.517	5.856	2	001110				X	X	X		349
188.	20.620	8.322	4.800	1	001110				X	X	X		348
189.	20.620	8.322	5.250	2	001110				X	X	X		349
190.	19.488	8.322	5.250	2	001110				X	X	X		349
191.	18.029	8.322	5.250	2	001110				X	X	X		349
192.	33.637	8.322	4.800	1	001110				X	X	X		348
193.	33.637	8.322	5.250	2	001110				X	X	X		349
194.	8.820	8.322	4.800	1	001110				X	X	X		348
195.	8.820	8.322	5.250	2	001110				X	X	X		349
196.	7.688	8.322	5.250	2	001110				X	X	X		349
197.	6.729	8.322	5.250	2	001110				X	X	X		349
198.	24.836	0.004	5.250	2	001110				X	X	X		349
199.	21.753	0.004	5.250	2	001110				X	X	X		349
200.	20.620	0.004	4.800	1	001110				X	X	X		348
201.	20.620	0.004	5.250	2	001110				X	X	X		349
202.	11.586	0.004	5.250	2	001110				X	X	X		349
203.	9.953	0.004	5.250	2	001110				X	X	X		349
204.	8.820	0.004	4.800	1	001110				X	X	X		348
205.	8.820	0.004	5.250	2	001110				X	X	X		349
206.	32.389	0.004	5.250	2	001110				X	X	X		349
207.	38.451	0.004	4.800	1	001110				X	X	X		348
208.	38.451	0.004	5.250	2	001110				X	X	X		349
209.	39.563	0.004	5.250	2	001110				X	X	X		349
210.	40.236	0.004	5.250	2	001110				X	X	X		349
211.	40.910	6.248	0.000	0	001110				X	X	X		0
212.	40.910	6.248	6.082	2	001110				X	X	X		349
213.	0.000	8.322	0.000	0	001110				X	X	X		0
214.	0.000	5.295	0.000	0	001110				X	X	X		0
215.	0.000	3.030	0.000	0	001110				X	X	X		0
216.	0.000	0.004	0.000	0	001110				X	X	X		0
217.	5.770	0.004	0.000	0	001110				X	X	X		0
218.	13.220	0.004	0.000	0	001110				X	X	X		0
219.	16.570	0.004	0.000	0	001110				X	X	X		0
220.	27.920	0.004	0.000	0	001110				X	X	X		0
221.	34.025	0.004	0.000	0	001110				X	X	X		0
222.	40.910	0.004	0.000	0	001110				X	X	X		0
223.	40.910	8.330	0.000	0	001110				X	X	X		0
224.	37.716	8.322	0.000	0	001110				X	X	X		0
225.	32.670	8.322	0.000	0	001110				X	X	X		0
226.	27.920	8.322	0.000	0	001110				X	X	X		0
227.	16.570	8.322	0.000	0	001110				X	X	X		0
228.	13.220	8.322	0.000	0	001110				X	X	X		0
229.	5.770	8.322	0.000	0	001110				X	X	X		0
230.	40.910	4.167	0.000	0	001110				X	X	X		0
231.	3.847	4.163	6.914	2	001110				X	X	X		349
232.	16.570	6.672	2.400	1	001110				X	X	X		348
233.	16.570	8.322	2.400	1	001110				X	X	X		348
234.	16.570	5.352	2.400	1	001110				X	X	X		348
235.	16.570	3.174	2.400	1	001110				X	X	X		348
236.	16.570	1.854	2.400	1	001110				X	X	X		348
237.	16.570	0.004	2.400	1	001110				X	X	X		348
238.	31.270	8.322	0.000	0	001110				X	X	X		0
239.	31.270	0.004	0.000	0	001110				X	X	X		0
240.	6.750	8.322	5.250	2	001110				X	X	X		349
241.	6.750	4.163	6.914	2	001110				X	X	X		349
242.	6.750	0.004	5.250	2	001110				X	X	X		349
243.	10.000	8.322	5.250	2	001110				X	X	X		349
244.	10.000	4.163	6.914	2	001110				X	X	X		349
245.	10.000	0.004	5.250	2	001110				X	X	X		349
246.	13.250	8.322	5.250	2	001110				X	X	X		349
247.	13.250	4.163	6.914	2	001110				X	X	X		349
248.	13.250	0.004	5.250	2	001110				X	X	X		349
249.	31.270	3.174	2.400	1	001110				X	X	X		348
250.	31.270	1.854	2.400	1	001110				X	X	X		348
251.	31.270	5.352	2.400	1	001110				X	X	X		348
252.	31.270	6.672	2.400	1	001110				X	X	X		348
253.	31.270	0.004	2.400	1	001110				X	X	X		348
254.	31.270	8.322	2.400	1	001110				X	X	X		348
255.	19.445	8.322	5.250	2	001110				X	X	X		349
256.	19.445	4.163	6.914	2	001110				X	X	X		349
257.	19.445	0.004	5.250	2	001110				X	X	X		349
258.	22.320	8.322	5.250	2	001110				X	X	X		349
259.	22.320	4.163	6.914	2	001110				X	X	X		349
260.	22.320	0.004	5.250	2	001110				X	X	X		349
261.	25.195	8.322	5.250	2	001110				X	X	X		349
262.	25.195	4.163	6.914	2	001110				X	X	X		349
263.	25.195	0.004	5.250	2	001110				X	X	X		349
264.	28.070	8.322	5.250	2	001110				X	X	X		349
265.	28.070	4.163	6.914	2	001110				X	X	X		349
266.	28.070	0.004	5.250	2	001110				X	X	X		349
267.	34.320	0.004	5.250	2	001110				X	X	X		349
268.	34.320	4.163	6.914	2	001110				X	X	X		349
269.	34.320	8.322	5.250	2	001110				X	X	X		349
270.	37.370	0.004	5.250	2	001110				X	X	X		349

271.	37.370	4.163	6.914	2	001110				X	X	X		349
272.	37.370	8.322	5.250	2	001110				X	X	X		349
273.	16.570	4.163	6.914	2	001110				X	X	X		349
274.	31.270	4.163	6.914	2	001110				X	X	X		349
275.	40.910	4.163	6.914	2	001110				X	X	X		349
276.	0.000	8.326	5.250	2	001110				X	X	X		349
277.	0.000	0.000	5.250	2	001110				X	X	X		349
278.	16.570	1.854	5.990	2	001110				X	X	X		349
279.	16.570	3.174	6.518	2	001110				X	X	X		349
280.	16.569	8.325	5.250	2	001110				X	X	X		349
281.	16.570	6.475	5.990	2	001110				X	X	X		349
282.	16.570	5.155	6.518	2	001110				X	X	X		349
283.	16.570	4.166	6.914	2	001110				X	X	X		349
284.	31.270	0.004	5.250	2	001110				X	X	X		349
285.	31.270	1.854	5.990	2	001110				X	X	X		349
286.	31.270	3.174	6.518	2	001110				X	X	X		349
287.	31.270	5.155	6.518	2	001110				X	X	X		349
288.	31.270	4.166	6.914	2	001110				X	X	X		349
289.	31.270	6.475	5.990	2	001110				X	X	X		349
290.	31.269	8.325	5.250	2	001110				X	X	X		349
291.	16.570	6.672	0.000	0	001110				X	X	X		0
292.	16.570	6.672	6.000	1	001110				X	X	X		348
293.	16.570	5.352	0.000	0	001110				X	X	X		0
294.	16.570	5.352	6.500	1	001110				X	X	X		348
295.	16.570	3.174	0.000	0	001110				X	X	X		0
296.	16.570	3.174	6.500	1	001110				X	X	X		348
297.	16.570	1.854	0.000	0	001110				X	X	X		0
298.	16.570	1.854	6.000	1	001110				X	X	X		348
299.	31.270	1.854	0.000	0	001110				X	X	X		0
300.	31.270	1.854	6.000	1	001110				X	X	X		348
301.	31.270	3.174	0.000	0	001110				X	X	X		0
302.	31.270	3.174	6.500	1	001110				X	X	X		348
303.	31.270	5.352	0.000	0	001110				X	X	X		0
304.	31.270	5.352	6.500	1	001110				X	X	X		348
305.	31.270	6.672	0.000	0	001110				X	X	X		0
306.	31.270	6.672	6.000	1	001110				X	X	X		348
307.	0.000	5.295	2.850	1	111111	X	X		X	X	X	X	0
308.	0.000	3.030	2.850	1	111111	X	X	X	X	X	X	X	0
309.	27.920	5.263	2.500	1	111111	X	X	X	X	X	X	X	0
310.	27.920	3.263	2.500	1	111111	X	X	X	X	X	X	X	0
311.	3.847	4.163	5.250	2	001110				X	X	X		349
312.	6.750	4.163	5.250	2	001110				X	X	X		349
313.	10.000	4.163	5.250	2	001110				X	X	X		349
314.	19.445	4.163	5.250	2	001110				X	X	X		349
315.	22.320	4.163	5.250	2	001110				X	X	X		349
316.	34.320	4.163	5.250	2	001110				X	X	X		349
317.	37.370	4.163	5.250	2	001110				X	X	X		349
318.	25.195	4.163	5.250	2	001110				X	X	X		349
319.	16.569	8.322	5.251	2	001110				X	X	X		349
320.	7.688	0.004	0.000	0	001110				X	X	X		0
321.	9.952	0.004	0.000	0	001110				X	X	X		0
322.	13.787	0.004	0.000	0	001110				X	X	X		0
323.	16.052	0.004	0.000	0	001110				X	X	X		0
324.	28.488	0.004	0.000	0	001110				X	X	X		0
325.	30.753	0.004	0.000	0	001110				X	X	X		0
326.	39.580	8.326	0.000	0	001110				X	X	X		0
327.	38.580	8.324	0.000	0	001110				X	X	X		0
328.	30.752	8.322	0.000	0	001110				X	X	X		0
329.	28.488	8.322	0.000	0	001110				X	X	X		0
330.	16.052	8.322	0.000	0	001110				X	X	X		0
331.	13.787	8.322	0.000	0	001110				X	X	X		0
332.	9.952	8.322	0.000	0	001110				X	X	X		0
333.	7.688	8.322	0.000	0	001110				X	X	X		0
334.	3.852	8.322	0.000	0	001110				X	X	X		0
335.	1.588	8.322	0.000	0	001110				X	X	X		0
336.	13.220	5.263	0.000	0	001110				X	X	X		0
337.	13.220	3.263	0.000	0	001110				X	X	X		0
338.	27.920	5.263	0.000	0	001110				X	X	X		0
339.	27.920	3.263	0.000	0	001110				X	X	X		0
340.	31.270	0.004	4.800	1	001110				X	X	X		348
341.	31.270	8.322	4.800	1	001110				X	X	X		348
342.	40.910	4.163	6.912	2	001110				X	X	X		349
343.	16.569	8.322	5.250	2	001110				X	X	X		349
344.	31.269	8.322	5.251	2	001110				X	X	X		349
345.	31.269	8.322	5.250	2	001110				X	X	X		349
346.	0.000	8.322	5.252	2	001110				X	X	X		349
347.	0.000	0.004	5.252	2	001110				X	X	X		349
G.1.	18.646	4.199	4.800	1	110001	X	X					X	0
G.2.	24.384	4.128	5.250	2	110001	X	X					X	0

Descrizione dei DATI SEZIONI

(Nella tabella Dati Sezioni, alcuni dati che per il Progetto corrente non risultano significativi possono essere omissi)

Descrizione: denominazione della sezione

Tipologia: la sezione viene definita anzitutto dalla propria tipologia, e poi dai parametri geometrici, espressi nel sistema di riferimento locale xyz. L'asse x è l'asse baricentrico dell'asta, con verso congiungente il nodo iniziale con il nodo finale; l'asse z è verticale e l'asse y è entrante nel piano xz. La terna xyz è destrorsa. Forze e spostamenti sono positivi se equiversi agli assi; coppie e rotazioni sono positive se antiorarie (phi,z: x->y; phi,y: z->x; phi,x: y->z). La convenzione è invariata sia al nodo *i* iniziale, sia al nodo *j* finale.

Per tipologie notevoli, PCM calcola automaticamente i parametri statici e richiede, anziché tutti i parametri, solo i dati geometrici strettamente indispensabili.

Elenco dei possibili valori della Tipologia con i corrispondenti parametri:

0 = Qualsiasi. Vengono forniti tutti i parametri statici: *H sez.(cm)*, *A (cm²)*, *Jx,Jy,Jz (cm⁴)*, *Aty,Atz (cm²)*, *Alfa (°)*

H sez. è l'altezza della sezione ai fini del carico termico nel piano locale xz; *A* = area; *Jy,Jz* = momenti d'inerzia principali intorno agli assi locali principali *csi* e *eta*; *Jx* = momento d'inerzia torsionale (intorno a *x*); *Aty, Atz* = aree a taglio in direzione *y* e *z* locali; *Alfa* = angolo fra gli assi locali *csi* e *y* (*csi* ed *eta* coincidono con gli assi *y* e *z* quando *Alfa*=0°).

1 = Rettangolare (include la **Quadrata**). Parametri in input: *B,H (cm)*

B è la base della sezione, lato parallelo a *y*; *H* è l'altezza, lato parallelo a *z*.

2 = Rettangolare cava. Parametri in input: *B,H,Bi,Hi (cm)*

B,H = lati esterni, rispettivamente paralleli a *y* e a *z*; *b,h* = corrispondenti lati interni (=dimensioni della cavità).

3 = Circolare. Parametri in input: *R (cm)*

R è il raggio della sezione.

4 = Circolare cava. Parametri in input: *R,r (cm)*

R, r sono rispettivamente il raggio esterno ed il raggio interno della sezione.

5 = T rovescia (trave di fondazione). Parametri in input: *B,H,b,h (cm)*

B = base superiore (spessore anima); *b* = base inferiore (larghezza suola) (*B < b*);

H = altezza superiore (altezza anima); *h* = altezza inferiore (spessore suola).

6 = T. Parametri in input: *B,H,b,h (cm)*

B = base superiore (larghezza ala); *b* = base inferiore (spessore anima) (*B > b*);

H = altezza superiore (spessore ala); *h* = altezza inferiore (spessore anima).

7 = L, ala sup., anima dx.

8 = L, ala sup., anima sx.

9 = L, ala inf., anima dx.

10 = L, ala inf., anima sx. Parametri in input: *B,H,b,h (cm)*

B = base superiore; *b* = base inferiore; *H* = altezza superiore; *h* = altezza inferiore.

11 = I (doppio T). Parametri in input: *B,H,b,h (cm)*

B = base ala; *b* = spessore anima; *H* = altezza ala; *h* = altezza anima.

12 = Acciaio: profilato IPE, HEA, HEB, HEM, L, UPN. Parametri predeterminati. L'elenco delle sezioni disponibili è fornito nel file di testo *Acciaio.dat* installato in \Pcm\Files. Sezioni di altri profilati potranno essere aggiunte come sezioni qualsiasi, specificandone i parametri statici.

13 = Acciaio: sezione composta generata dall'accoppiamento della sezione di un profilato secondo gli assi locali *y* e/o *z*.

6. Dati SEZIONI

N°	Tipologia	Descrizione	B / R	H / r	b / s	h / t	H sez.	Area	Jx	Jy	Jz	Aty	Atz
			(m)	(m)	(m)	(m)	(m)	(m ²)	(m ⁴)	(m ⁴)	(m ⁴)	(m ²)	(m ²)
1	0) Qualunque	Rigid	0.000	0.000	0.000	0.000	1.000	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00
2	1) Rettangolare	600x800	0.600	0.800	0.000	0.000	0.800	4.80E-01	3.05E-02	2.56E-02	1.44E-02	4.00E-01	4.00E-01
3	1) Rettangolare	600x1200	0.600	1.200	0.000	0.000	1.200	7.20E-01	5.83E-02	8.64E-02	2.16E-02	6.00E-01	6.00E-01
4	3) Circolare	d300	0.150	0.000	0.000	0.000	0.150	7.07E-02	7.95E-04	3.98E-04	3.98E-04	6.36E-02	6.36E-02
5	12) Profilato in Acciaio	HEA 100	0.100	0.096	0.005	0.008	0.096	2.12E-03	1.05E-07	3.49E-06	1.34E-06	7.52E-04	1.84E-03
6	13) Sez.composta in Acciaio	IPE 140 2y	0.073	0.140	0.005	0.007	0.140	3.28E-03	4.00E-08	1.08E-05	5.27E-06	2.23E-03	1.52E-03
7	1) Rettangolare	160x240	0.160	0.240	0.000	0.000	0.240	3.84E-02	1.88E-04	1.84E-04	8.19E-05	3.20E-02	3.20E-02
8	1) Rettangolare	160x200	0.160	0.200	0.000	0.000	0.200	3.20E-02	1.38E-04	1.07E-04	6.83E-05	2.67E-02	2.67E-02
9	1) Rettangolare	600x350	0.600	0.350	0.000	0.000	0.350	2.10E-01	5.33E-03	2.14E-03	6.30E-03	1.75E-01	1.75E-01
10	1) Rettangolare	A 600x3026	0.600	3.026	0.000	0.000	3.026	1.82E+00	1.94E-01	1.39E+00	5.45E-02	1.51E+00	1.51E+00
11	1) Rettangolare	A 600x1950	0.600	1.950	0.000	0.000	1.950	1.17E+00	1.14E-01	3.71E-01	3.51E-02	9.75E-01	9.75E-01
12	1) Rettangolare	A 600x1588	0.600	1.588	0.000	0.000	1.588	9.53E-01	8.68E-02	2.00E-01	2.86E-02	7.94E-01	7.94E-01
13	1) Rettangolare	A 600x1918	0.600	1.918	0.000	0.000	1.918	1.15E+00	1.11E-01	3.53E-01	3.45E-02	9.59E-01	9.59E-01
14	1) Rettangolare	A 600x3200	0.600	3.200	0.000	0.000	3.200	1.92E+00	2.07E-01	1.64E+00	5.76E-02	1.60E+00	1.60E+00
15	1) Rettangolare	A 600x840	0.600	0.840	0.000	0.000	0.840	5.04E-01	3.31E-02	2.96E-02	1.51E-02	4.20E-01	4.20E-01
16	1) Rettangolare	A 600x3268	0.600	3.268	0.000	0.000	3.268	1.96E+00	2.12E-01	1.75E+00	5.88E-02	1.63E+00	1.63E+00
17	1) Rettangolare	A 600x1740	0.600	1.740	0.000	0.000	1.740	1.04E+00	9.81E-02	2.63E-01	3.13E-02	8.70E-01	8.70E-01
18	1) Rettangolare	A 600x567	0.600	0.567	0.000	0.000	0.567	3.40E-01	1.62E-02	9.11E-03	1.02E-02	2.84E-01	2.84E-01
19	1) Rettangolare	A 600x518	0.600	0.518	0.000	0.000	0.518	3.11E-01	1.33E-02	6.95E-03	9.32E-03	2.59E-01	2.59E-01
20	1) Rettangolare	A 600x2917	0.600	2.917	0.000	0.000	2.917	1.75E+00	1.86E-01	1.24E+00	5.25E-02	1.46E+00	1.46E+00
21	1) Rettangolare	A 600x6168	0.600	6.168	0.000	0.000	6.168	3.70E+00	4.26E-01	1.17E+01	1.11E-01	3.08E+00	3.08E+00
22	1) Rettangolare	A 600x568	0.600	0.568	0.000	0.000	0.568	3.41E-01	1.62E-02	9.16E-03	1.02E-02	2.84E-01	2.84E-01
23	1) Rettangolare	A 600x3273	0.600	3.273	0.000	0.000	3.273	1.96E+00	2.13E-01	1.75E+00	5.89E-02	1.64E+00	1.64E+00
24	1) Rettangolare	A 600x1346	0.600	1.346	0.000	0.000	1.346	8.08E-01	6.89E-02	1.22E-01	2.42E-02	6.73E-01	6.73E-01
25	1) Rettangolare	A 600x1329	0.600	1.329	0.000	0.000	1.329	7.97E-01	6.76E-02	1.17E-01	2.39E-02	6.65E-01	6.65E-01
26	1) Rettangolare	A 600x864	0.600	0.864	0.000	0.000	0.864	5.18E-01	3.47E-02	3.22E-02	1.56E-02	4.32E-01	4.32E-01
27	1) Rettangolare	A 600x2600	0.600	2.600	0.000	0.000	2.600	1.56E+00	1.63E-01	8.79E-01	4.68E-02	1.30E+00	1.30E+00
28	1) Rettangolare	A 600x4163	0.600	4.163	0.000	0.000	4.163	2.50E+00	2.79E-01	3.61E+00	7.49E-02	2.08E+00	2.08E+00
29	1) Rettangolare	A 380x3059	0.380	3.059	0.000	0.000	3.059	1.16E+00	5.28E-02	9.06E-01	1.40E-02	9.69E-01	9.69E-01
30	1) Rettangolare	A 380x3259	0.380	3.259	0.000	0.000	3.259	1.24E+00	5.65E-02	1.10E+00	1.49E-02	1.03E+00	1.03E+00
31	1) Rettangolare	A 380x1700	0.380	1.700	0.000	0.000	1.700	6.46E-01	2.72E-02	1.56E-01	7.77E-03	5.38E-01	5.38E-01
32	1) Rettangolare	A 600x3350	0.600	3.350	0.000	0.000	3.350	2.01E+00	2.19E-01	1.88E+00	6.03E-02	1.68E+00	1.68E+00
33	1) Rettangolare	A 600x2832	0.600	2.832	0.000	0.000	2.832	1.70E+00	1.80E-01	1.14E+00	5.10E-02	1.42E+00	1.42E+00
34	1) Rettangolare	A 600x4750	0.600	4.750	0.000	0.000	4.750	2.85E+00	3.22E-01	5.36E+00	8.55E-02	2.38E+00	2.38E+00
35	1) Rettangolare	A 600x3113	0.600	3.113	0.000	0.000	3.113	1.87E+00	2.01E-01	1.51E+00	5.60E-02	1.56E+00	1.56E+00
36	1) Rettangolare	A 600x3193	0.600	3.193	0.000	0.000	3.193	1.92E+00	2.07E-01	1.63E+00	5.75E-02	1.60E+00	1.60E+00
37	1) Rettangolare	A 600x3313	0.600	3.313	0.000	0.000	3.313	1.99E+00	2.16E-01	1.82E+00	5.96E-02	1.66E+00	1.66E+00
38	1) Rettangolare	A 600x1923	0.600	1.923	0.000	0.000	1.923	1.15E+00	1.12E-01	3.56E-01	3.46E-02	9.62E-01	9.62E-01
39	1) Rettangolare	A 600x2253	0.600	2.253	0.000	0.000	2.253	1.35E+00	1.37E-01	5.72E-01	4.06E-02	1.13E+00	1.13E+00

40	1) Rettangolare	A 600x1593	0.600	1.593	0.000	0.000	1.593	9.56E-01	8.72E-02	2.02E-01	2.87E-02	7.97E-01	7.97E-01
41	1) Rettangolare	A 600x1752	0.600	1.752	0.000	0.000	1.752	1.05E+00	9.90E-02	2.69E-01	3.15E-02	8.76E-01	8.76E-01
42	1) Rettangolare	A 600x2265	0.600	2.265	0.000	0.000	2.265	1.36E+00	1.37E-01	5.81E-01	4.08E-02	1.13E+00	1.13E+00
43	1) Rettangolare	A 600x1934	0.600	1.934	0.000	0.000	1.934	1.16E+00	1.13E-01	3.62E-01	3.48E-02	9.67E-01	9.67E-01
44	1) Rettangolare	A 600x2225	0.600	2.225	0.000	0.000	2.225	1.34E+00	1.34E-01	5.51E-01	4.01E-02	1.11E+00	1.11E+00
45	0) Qualunque	Sez. Rigida	0.000	0.000	0.000	0.000	1.000	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00	1.00E+00

Descrizione dei DATI ASTE

(Nella tabella Dati Aste, alcuni dati che per il Progetto corrente non risultano significativi possono essere omessi)

N°: numero progressivo dell'asta

Tipologia: stringa descrittiva dell'asta. Nell'analisi di strutture in muratura, la stringa viene utilizzata per l'identificazione della tipologia dell'asta, adottando la seguente convenzione:

M = maschio murario (parete in muratura ordinaria): M.i.j indica il Maschio i del piano j

C = parete o pilastro in c.a.: C.i.j indica la parete i del piano j

T = trave. T.i.j indica la trave i del piano j

H = pilastro in acciaio

B = asta in acciaio

S = striscia muraria (fascia di piano superiore, cioè di soprafinestra). S.i.j indica la striscia i del piano j

A = parete in muratura armata; A.i.j: parete i del piano j

F = sottofinestra (fascia di piano inferiore). F.i.j indica il sottofinestra i del piano j

Z = elemento di fondazione

K = collegamenti rigidi

W = elementi di cerchiatura

X = bielle di controvento in acciaio

N, V = blocco (di arco)

J = giunto (di arco)

P = pilastro murario

Lungh.: lunghezza dell'asta (coincidente con la distanza fra i nodi i e j)

Lungh. def. xz: lunghezza di deformazione dell'asta nel piano locale xz, dipendente dalla lunghezza dell'asta e delle sue zone rigide

Rigidità i xz, j xz: lunghezza tratti estremi rigidi, iniziale (al nodo i) e finale (al nodo j) nel piano di flessione locale xz.

Lungh. def. xy: lunghezza di deformazione dell'asta nel piano locale xy, dipendente dalla lunghezza dell'asta e delle sue zone rigide

Rigidità i xy, j xy: lunghezza tratti estremi rigidi, iniziale (al nodo i) e finale (al nodo j) nel piano di flessione locale xy.

I tratti rigidi possono essere diversi nei due piani di flessione xy e xz. Questa distinzione è particolarmente utile nel calcolo di edifici in muratura, dove le zone rigide per flessione complanare sono generalmente diverse da quelle per flessione ortogonale al piano della parete

Inf.rig.: X indica che l'asta è considerata infinitamente rigida

N° Sez.: numero identificativo della sezione dell'asta, le cui caratteristiche sono descritte nei Dati Sezioni (le dimensioni B e H per la tipologia di sezione rettangolare, quadrata, circolare o circolare cava possono essere indicate nella tabella dati Aste a lato di N° Sez)

Ang. rot.: angolo in gradi che rappresenta la rotazione degli assi principali per fare in modo che il riferimento locale principale si sovrapponga al riferimento locale (parallelo alla terna globale nel caso delle travi). L'angolo è positivo se orario, visto dall'asta (osservatore che da +x guarda il nodo iniziale i). Per maggiori dettagli, consultare le figure allegate nella descrizione delle Convenzioni sui sistemi di riferimento

N° Mat.: numero identificativo del materiale dell'asta, le cui caratteristiche sono descritte nei Dati Materiali

Mur. nuova: X indica che l'asta è costituita da materiale murario nuovo

E, G, fm, fvm0, fhm: parametri meccanici e resistenze dell'asta. Coincidono con i corrispondenti parametri del materiale costituente l'asta, tranne i casi in cui siano applicati coefficienti correttivi o l'Utente abbia specificato direttamente i valori dei parametri meccanici corrispondenti ad un determinato intervento (p.es. reti in GFRP)

% K elast. (rig.fess.): percentuale di rigidezza elastica da utilizzare nel calcolo della struttura. Frequentemente questo valore è pari al 100%, ma in alcuni casi può essere richiesto un valore inferiore. Ad esempio, nell'analisi sismica di edifici in muratura può essere necessario fare riferimento a rigidezze fessurate (§7.8.1.5.2), spesso assunte pari alla metà di quelle elastiche (e quindi: %K elast = 50%). Ad eventuali elementi in altra tecnologia (c.a.) presenti nell'edificio murario (struttura mista) che siano considerati collaboranti ma sempre in regime elastico (rispetto alla muratura che invece determina il raggiungimento degli stati limite), può essere attribuita la rigidezza fessurata anche in analisi non lineare

Paramento: indica il paramento murario cui l'asta appartiene

Assemblaggio: stringa alfanumerica utilizzata per l'eventuale assemblaggio della rigidezza flessionale EJ per maschi contigui

Malta scadente, Malta buona, Giunti sottili, Ricorsi, Connessione (trasversale), **Nucleo scadente:** caratteristiche di materiale murario esistente che determinano fattori correttivi per i parametri meccanici e di resistenza (§C8.5.3.1, Tab.C8.5.II)

K Wink.: coefficiente di sottofondo di Winkler per il calcolo della trave su suolo elastico. Il valore 0 indica travi libere (non su suolo elastico)

App. su terr.: interfaccia struttura / terreno, ossia suola o larghezza di appoggio. Può essere direttamente la base della trave di fondazione, ma anche la larghezza del magrone. Questo parametro acquista significato solo in caso di trave su suolo elastico

q,lim: capacità limite del terreno in corrispondenza della trave di fondazione. Questo parametro viene utilizzato per le verifiche di capacità portante del terreno (stato limite GEO), eseguite con Approccio 2 (§6.4.2.1), statiche e sismiche

Nodo i, j: numeri identificativi del nodo iniziale (i) e del nodo finale (j)

Vinc. i, j: vincolamento interno dell'asta, rispettivamente al nodo iniziale ed al nodo finale, con riferimento al sistema di assi locali xyz.

Il vincolamento interno 000000 è indicato anche con *incastra*. Alcuni casi notevoli sono i seguenti:

Asta con nodi di continuità (travi e pilastri di telai a nodi continui) [beam]: 000000, 000000

Un'asta il cui nodo iniziale corrisponde ad un vincolo esterno a cerniera può innestarsi in tale nodo con il vincolo continuo 000000, in quanto è la cerniera stessa esterna che determinerà in tale nodo il momento nullo.

Asta incernierata [truss] 2D nel piano XZ: 000010 - 000010

La sequenza dei 6 valori è: u - v - w - phi,x - phi,y - phi,z, con riferimento al sistema di assi locale x y z.

Il valore 1 indica che lo spostamento è libero (in questo caso, la rotazione agli estremi dell'elemento biella).

Asta incernierata [truss] 3D: 000111 - 000011

non si possono usare cerniere sferiche ad entrambi gli estremi dell'asta, perché la si rende labile rotazionalmente attorno all'asse x.

Asta incastra - cerniera (2D): 000000 - 000010

Asta cerniera - incastra (2D): 000010 - 000000

G. Inc. ixy, jxy, ixz, jxz: gradi di incastra: i',xy (phi,z in i') - j',xy (phi,z in j') - i',xz (phi,z in i') - j',xz (phi,z in j'): consentono la definizione di vincoli di semincastro interni agli estremi della luce deformabile dell'asta, fornendo un valore compreso fra 0 (componente rotazionale svincolata) e 1 (incastra interno). I gradi di incastra possono essere utilizzati nella risoluzione di schemi sottoposti ad analisi lineare; nell'ambito dell'analisi non lineare, essi consentono la rappresentazione della degradazione della rigidezza alla rotazione di aste che hanno raggiunto la plasticizzazione a pressoflessione ma

ancora reagenti (cioè non ancora collassate).

Inter.irrigid.: distanza fra muri trasversali per la specchiatura entro cui si trova confinata la parete. Questo parametro ha effetto nelle verifiche sismiche a pressoflessione ortogonale secondo le azioni convenzionali (§7.2.3) e nelle verifiche statiche con il metodo dell'articolazione (§4.5.6.2). In tali verifiche, la parete viene considerata appoggiata agli estremi della luce deformabile nel piano ortogonale. Se l'interasse di irrigidimento 'a' è >0, viene considerato un comportamento a piastra (parete ben ammassata nei muri trasversali). Se $a=B$, con B =base (dimensione complanare) della parete, ciò equivale a considerare che la parete sia vincolata esattamente ai suoi bordi laterali; se $a>B$, la parete appartiene ad una specchiatura più ampia definita dai muri trasversali. $a=0$ equivale a considerare un comportamento a trave, con parete libera quindi da vincoli laterali

Cordolo e architrave:

- **Resist. traz. (kN):** capacità dell'elemento resistente a trazione, specifico per fasce murarie

- **Res. traz. gammaM:** coefficiente parziale di sicurezza associato alla resistenza a trazione, specifico per fasce murarie

Drift PressoFI., Taglio: specifica il massimo drift di piano (= deformazione angolare = spostamento / altezza deformabile) a pressoflessione e a taglio complanari. I valori di riferimento proposti da NTC18 sono i seguenti: per muratura ordinaria: press. 1.0%H, taglio 0.5%H; per muratura armata: press. 1.6%H, taglio 0.8. Per H si intende l'altezza deformabile complanare alla parete, e gli spostamenti ultimi si valutano a meno di moti rigidi del pannello

Drift: Taglio limite: nel caso di fasce, il drift per Taglio è la prima deformazione angolare limite in caso di crisi per Taglio. Il Taglio limite è la seconda deformazione angolare limite in caso di crisi per Taglio

%taglio residuo: definisce la posizione del taglio residuo (secondo tratto plastico) come % della resistenza corrispondente alla fine del tratto elastico (resistenza del primo tratto plastico), per fasce

Duttilità PressoFI., Taglio: specifica il moltiplicatore dello spostamento al limite elastico (corrisponde allo spostamento di prima plasticizzazione) che segna il raggiungimento dello spostamento ultimo (opzione alternativa o integrativa rispetto a Drift, secondo Parametri di Calcolo)

Da considerare per α_1 : indica se il maschio viene considerato per l'individuazione del taglio di prima plasticizzazione in analisi pushover

Arm.: Asxy, cxy, Asxz, cxz: armatura per pareti o fasce dotati di barre in acciaio. Per elementi verticali (pareti e pilastri, in muratura e in c.a.) l'armatura Asxy si riferisce al piano di sollecitazione locale xy, e Asxz al piano locale xz; tali armature sono simmetriche. Per elementi orizzontali (fasce murarie), Asxy indica l'armatura in estradosso e Asxz l'armatura in intradosso: la verifica di resistenza viene infatti eseguita solo nel piano complanare locale xz, e prevede la possibilità di un'armatura non simmetrica. Queste armature riguardano solo elementi di muratura armata

Verif.: X indica che l'asta viene sottoposta a verifiche di resistenza

PressoFI. Compl., Taglio, Sf. Norm. Traz., PressoFI. Ortog.: X indica che l'elemento murario è sottoposto alla corrispondente verifica

Interventi

Iniezioni, Intonaco armato, Diatoni artificiali, Ristilatura armata: interventi che determinano fattori correttivi per i parametri meccanici e di resistenza (§C8.5.3.1, Tab.C8.5.II)

Altri interventi: Rinforzo a taglio, Precompressione, FRP, CAM, Reticolatus, Reti FRP e altro

Per i parametri generali descrittivi dei vari tipi di intervento, validi per tutte le aste: si consultino i Parametri di Calcolo.

I seguenti parametri caratterizzano la singola asta:

Rinforzo a taglio: passo (mm): passo delle barre

Precompressione: Prec.vert.,or.: tensione di precompressione orizzontale e verticale

FRP:

- **larghezza nastri**

PressoFI. disposiz.: indica il tipo di disposizione dei nastri FRP a pressoflessione, con la seguente convenzione:

1=solo ai bordi, 2=in base al passo, 3=a partire dai bordi

- **n° strati:** numero di strati sovrapposti che caratterizzano il singolo nastro

- **dist. bordo:** distanza dal bordo della parete. La distanza è netta, quindi l'asse del primo nastro dista dal bordo una lunghezza pari alla distanza dal bordo + metà larghezza del nastro

- **passo:** interasse dei nastri a pressoflessione (verticali per i maschi, orizzontali per le fasce)

- **epsd.in,fin.:** deformazione di distacco della sezione iniziale o finale. Se questo valore non è specificato, si ipotizza che la deformazione ultima dipenda dalla crisi per trazione (rottura dei nastri). Per una stessa parete è possibile differenziare la deformazione ultima fra le sezioni iniziale e finale, ad esempio nel caso di un maschio murario con nastro ancorato alla base e non ancorato in sommità

Taglio: disposiz.: indica il tipo di disposizione dei nastri FRP a pressoflessione, con la seguente convenzione:

1=solo ai bordi, 2=in base al passo, 3=a partire dai bordi, 4=diagonali

- **layout:** indica la zona della parete dove vengono disposti i nastri a taglio, con la seguente convenzione:

0=su tutta la parete, 1=su luce deformabile

- **n° strati:** numero di strati sovrapposti che caratterizzano il singolo nastro

- **dist. bordo:** distanza dal bordo della parete

- **passo:** interasse dei nastri a taglio (in caso di nastri non diagonali: nastri orizzontali per i maschi, verticali per le fasce)

- **epsd.:** deformazione di distacco per i nastri diagonali. Se questo valore non è specificato, si ipotizza che la deformazione ultima dipenda dalla crisi per trazione (rottura dei nastri). Per i nastri a taglio orizzontali o verticali, la deformazione ultima dipende dai nastri a pressoflessione

CAM:

Per nastri verticali e orizzontali:

- **passo:** interasse dei nastri. Per predefinizione, la distanza dal bordo dei nastri CAM è posta pari a 150 mm

- **avvolgimenti:** numero di nastri in acciaio sovrapposti che costituiscono la singola 'armatura'

- **prentensionamento:** tensione a cui vengono tesi in opera i nastri, in modo da precomprimere la muratura

Per nastri verticali: **spigoli ad alte prestazioni:** è possibile rinforzare gli spigoli utilizzando il tipo di acciaio specificato nei Parametri di Calcolo

Per nastri orizzontali: **tipo migliorato:** è possibile utilizzare il tipo di acciaio specificato nei Parametri di Calcolo

- **foratura a quince:** caratterizza una particolare tecnica di collegamento dei nastri in acciaio fra le due facce della parete, ed ha effetto sul confinamento della muratura

Reticolatus:

- **passo trefoli verticali, orizzontali:** passo delle armature

Reti FRP e altro:

Queste tipologie di intervento (fra cui rientrano i rinforzi con intonaco armato con GRFP) vengono descritte dai valori dei parametri meccanici e di resistenza corrispondenti ad una 'muratura equivalente'

7. Dati ASTE

Legenda Tipologie:

M = Maschio in mur.ordinaria

C = Parete in Cemento armato

T = Trave

S = Striscia

F = Sottofinestra

Z = Fondazione
K = Link rigido
= Asta generica

Ch. = cerchiatura: M=montante, A=architrave, T=traverso inferiore, Mr=mom.res.giunto: Mri=iniz.,Mrj=finale

N°	Tipologia	Lungh.	Lungh.def.	Rig.(m)	Rig.(m)	Lungh.def.	Rig.(m)	Rig.(m)	Inf.	N°	B	H	Ang.	N°	Mur.	E	G
		(m)	(m)	xz	i,xz	j,xz	(m)	xy	i,xy	j,xy	rig.	Sez.	(m)	(m)	rot.(°)	Mat.	nuova(N/mm^2)
1	M	4.800	4.015	0.000	0.785		4.800	0.000	0.000		10	0.600	3.026	90.00	3		4000
1600																	
2	K	1.513	1.513	0.000	0.000		1.513	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
3	K	1.514	1.514	0.000	0.000		1.514	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
4	M	4.800	4.015	0.000	0.785		4.800	0.000	0.000		10	0.600	3.026	90.00	3		4000
1600																	
5	K	1.513	1.513	0.000	0.000		1.513	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
6	K	1.513	1.513	0.000	0.000		1.513	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
7	S	2.265	2.265	0.000	0.000		2.265	0.000	0.000		11	0.600	1.950	0.00	3		4000
1600																	
8	M	4.800	2.674	1.916	0.210		4.800	0.000	0.000		12	0.600	1.588	0.00	3		4000
1600																	
9	K	0.794	0.794	0.000	0.000		0.794	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
10	K	0.794	0.794	0.000	0.000		0.794	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
11	M	4.800	2.870	1.734	0.196		4.800	0.000	0.000		13	0.600	1.918	0.00	3		4000
1600																	
12	K	0.958	0.958	0.000	0.000		0.958	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
13	K	0.959	0.959	0.000	0.000		0.959	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
14	F	2.265	2.265	0.000	0.000		2.265	0.000	0.000		14	0.600	3.200	0.00	3		4000
1600																	
15	S	2.265	2.265	0.000	0.000		2.265	0.000	0.000		15	0.600	0.840	0.00	3		4000
1600																	
16	M	4.800	4.011	0.000	0.789		4.800	0.000	0.000		13	0.600	1.918	0.00	3		4000
1600																	
17	K	0.959	0.959	0.000	0.000		0.959	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
18	K	0.959	0.959	0.000	0.000		0.959	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
19	M	4.800	4.252	0.000	0.548		4.800	0.000	0.000		16	0.600	3.268	0.00	3		4000
1600																	
20	K	1.633	1.633	0.000	0.000		1.633	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
21	K	1.634	1.634	0.000	0.000		1.634	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
22	S	2.265	2.265	0.000	0.000		2.265	0.000	0.000		17	0.600	1.740	0.00	3		4000
1600																	
23	M	4.800	3.537	0.000	1.263		4.800	0.000	0.000		18	0.600	0.567	0.00	3		4000
1600																	
24	K	0.284	0.284	0.000	0.000		0.284	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
25	K	0.284	0.284	0.000	0.000		0.284	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
26	M	4.800	3.517	0.000	1.283		4.800	0.000	0.000		19	0.600	0.518	0.00	3		4000
1600																	
27	K	0.258	0.258	0.000	0.000		0.258	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
28	K	0.259	0.259	0.000	0.000		0.259	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
29	S	2.265	2.265	0.000	0.000		2.265	0.000	0.000		17	0.600	1.740	0.00	3		4000
1600																	
30	M	4.800	3.349	1.288	0.163		4.800	0.000	0.000		20	0.600	2.917	0.00	3		4000
1600																	
31	K	1.459	1.459	0.000	0.000		1.459	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
32	K	1.459	1.459	0.000	0.000		1.459	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
33	K	1.459	1.459	0.000	0.000		1.459	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
34	M	4.800	4.227	0.483	0.090		4.800	0.000	0.000		21	0.600	6.168	0.00	3		4000
1600																	
35	K	3.083	3.083	0.000	0.000		3.083	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
36	K	3.083	3.083	0.000	0.000		3.083	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000																
37	K	3.084	3.084	0.000	0.000		3.084	0.000	0.000	X	45	0.000	0.000	0.00	1		

31000 13000	38	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		14 0.600 3.200	0.00	3		4000
1600	39	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		15 0.600 0.840	0.00	3		4000
1600	40	M	4.800	3.537	0.000	1.263	4.800	0.000	0.000		22 0.600 0.568	0.00	3		4000
1600	41	K	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	42	K	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	43	M	4.800	4.252	0.000	0.548	4.800	0.000	0.000		23 0.600 3.273	0.00	3		4000
1600	44	K	1.636	1.636	0.000	0.000	1.636	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	45	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		17 0.600 1.740	0.00	3		4000
1600	46	M	4.800	3.486	1.160	0.154	4.800	0.000	0.000		23 0.600 3.273	0.00	3		4000
1600	47	K	1.636	1.636	0.000	0.000	1.636	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	48	K	1.637	1.637	0.000	0.000	1.637	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	49	M	4.800	2.516	2.064	0.220	4.800	0.000	0.000		24 0.600 1.346	0.00	3		4000
1600	50	K	0.673	0.673	0.000	0.000	0.673	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	51	K	0.673	0.673	0.000	0.000	0.673	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	52	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		14 0.600 3.200	0.00	3		4000
1600	53	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		15 0.600 0.840	0.00	3		4000
1600	54	M	4.800	2.613	0.000	2.187	4.800	0.000	0.000		25 0.600 1.329	0.14	3		4000
1600	55	K	0.665	0.665	0.000	0.000	0.665	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	56	M	4.800	2.309	0.000	2.491	4.800	0.000	0.000		26 0.600 0.864	0.14	3		4000
1600	57	K	0.432	0.432	0.000	0.000	0.432	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	58	K	0.432	0.432	0.000	0.000	0.432	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	59	S	1.000	1.000	0.000	0.000	1.000	0.000	0.000		27 0.600 2.600	0.00	3		4000
1600	60	M	4.800	2.133	2.384	0.283	4.800	0.000	0.000		26 0.600 0.864	0.00	3		4000
1600	61	K	0.432	0.432	0.000	0.000	0.432	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	62	K	0.431	0.431	0.000	0.000	0.431	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	63	K	0.432	0.432	0.000	0.000	0.432	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	64	M	4.800	2.870	1.734	0.196	4.800	0.000	0.000		13 0.600 1.918	0.00	3		4000
1600	65	K	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	66	K	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	67	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		14 0.600 3.200	0.00	3		4000
1600	68	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		15 0.600 0.840	0.00	3		4000
1600	69	M	4.800	4.011	0.000	0.789	4.800	0.000	0.000		13 0.600 1.918	0.00	3		4000
1600	70	K	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	71	M	4.800	3.537	0.000	1.263	4.800	0.000	0.000		22 0.600 0.568	0.00	3		4000
1600	72	K	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	73	K	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	74	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		17 0.600 1.740	0.00	3		4000
1600	75	M	4.800	4.227	0.483	0.090	4.800	0.000	0.000		21 0.600 6.168	0.00	3		4000
1600	76	K	3.083	3.083	0.000	0.000	3.083	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	77	K	3.084	3.084	0.000	0.000	3.084	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	78	K	3.083	3.083	0.000	0.000	3.083	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	79	M	4.800	3.349	1.288	0.163	4.800	0.000	0.000		20 0.600 2.917	0.00	3		4000
1600	80	K	1.459	1.459	0.000	0.000	1.459	0.000	0.000	X	45 0.000 0.000	0.00	1		

31000 13000	81	K	1.459	1.459	0.000	0.000	1.459	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	82	K	1.459	1.459	0.000	0.000	1.459	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	83	F	2.265	2.265	0.000	0.000	2.265	0.000	0.000		14 0.600 3.200	0.00	3		4000
1600	84	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		15 0.600 0.840	0.00	3		4000
1600	85	M	4.800	3.517	0.000	1.283	4.800	0.000	0.000		19 0.600 0.518	0.00	3		4000
1600	86	K	0.259	0.259	0.000	0.000	0.259	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	87	K	0.258	0.258	0.000	0.000	0.258	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	88	M	4.800	3.537	0.000	1.263	4.800	0.000	0.000		18 0.600 0.567	0.00	3		4000
1600	89	K	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	90	K	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	91	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		17 0.600 1.740	0.00	3		4000
1600	92	M	4.800	4.252	0.000	0.548	4.800	0.000	0.000		16 0.600 3.268	0.00	3		4000
1600	93	K	1.634	1.634	0.000	0.000	1.634	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	94	K	1.633	1.633	0.000	0.000	1.633	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	95	M	4.800	4.011	0.000	0.789	4.800	0.000	0.000		13 0.600 1.918	0.00	3		4000
1600	96	K	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	97	K	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	98	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		17 0.600 1.740	0.00	3		4000
1600	99	M	4.800	4.011	0.000	0.789	4.800	0.000	0.000		13 0.600 1.918	0.00	3		4000
1600	100	K	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	101	M	4.800	3.905	0.000	0.895	4.800	0.000	0.000		12 0.600 1.588	0.00	3		4000
1600	102	K	0.794	0.794	0.000	0.000	0.794	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	103	S	2.265	2.265	0.000	0.000	2.265	0.000	0.000		17 0.600 1.740	0.00	3		4000
1600	104	M	6.082	6.082	0.000	0.000	6.082	0.000	0.000		28 0.600 4.163	90.00	3		4000
1600	105	K	2.241	2.241	0.000	0.000	2.241	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	106	M	4.200	3.609	0.000	0.591	4.200	0.000	0.000		29 0.380 3.059	90.00	4	X	5300
2120	107	K	1.530	1.530	0.000	0.000	1.530	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	108	K	1.529	1.529	0.000	0.000	1.529	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	109	M	4.200	3.626	0.000	0.574	4.200	0.000	0.000		30 0.380 3.259	90.00	4	X	5300
2120	110	K	1.630	1.630	0.000	0.000	1.630	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	111	K	1.629	1.629	0.000	0.000	1.629	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	112	S	2.000	2.000	0.000	0.000	2.000	0.000	0.000		31 0.380 1.700	0.00	4	X	5300
2120	113	M	4.200	3.609	0.000	0.591	4.200	0.000	0.000		29 0.380 3.059	90.00	4	X	5300
2120	114	K	1.530	1.530	0.000	0.000	1.530	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	115	K	1.529	1.529	0.000	0.000	1.529	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	116	M	4.200	3.626	0.000	0.574	4.200	0.000	0.000		30 0.380 3.259	90.00	4	X	5300
2120	117	K	1.630	1.630	0.000	0.000	1.630	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	118	K	1.629	1.629	0.000	0.000	1.629	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	119	S	2.000	2.000	0.000	0.000	2.000	0.000	0.000		31 0.380 1.700	0.00	4	X	5300
2120	120	C	0.450	0.450	0.000	0.000	0.450	0.000	0.000		16 0.600 3.268	0.00	1		
31000 13000	121	K	1.634	1.634	0.000	0.000	1.634	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000	122	M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		32 0.600 3.350	0.00	3		4000
1600	123	C	0.450	0.450	0.000	0.000	0.450	0.000	0.000		21 0.600 6.168	0.00	1		

31000 13000 124 C	0.450	0.450	0.000	0.000	0.450	0.000	0.000		13 0.600 1.918	0.00	1		
31000 13000 125 K	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 126 1600 M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		32 0.600 3.350	0.00	3		4000
31000 13000 127 K	1.675	1.675	0.000	0.000	1.675	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 128 C	0.450	0.450	0.000	0.000	0.450	0.000	0.000		20 0.600 2.917	0.00	1		
31000 13000 129 K	1.459	1.459	0.000	0.000	1.459	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 130 C	0.450	0.450	0.000	0.000	0.450	0.000	0.000		33 0.600 2.832	0.00	1		
31000 13000 131 K	1.417	1.417	0.000	0.000	1.417	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 132 1600 M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		34 0.600 4.750	0.00	3		4000
31000 13000 133 C	0.450	0.450	0.000	0.000	0.450	0.000	0.000		35 0.600 3.113	0.00	1		
31000 13000 134 K	1.556	1.556	0.000	0.000	1.556	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 135 1600 M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		36 0.600 3.193	0.14	3		4000
31000 13000 136 K	1.597	1.597	0.000	0.000	1.597	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 137 K	1.597	1.597	0.000	0.000	1.597	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 138 C	0.450	0.450	0.000	0.000	0.450	0.000	0.000		37 0.600 3.313	0.00	1		
31000 13000 139 K	1.656	1.656	0.000	0.000	1.656	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 140 1600 M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		38 0.600 1.923	0.00	3		4000
31000 13000 141 K	0.961	0.961	0.000	0.000	0.961	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 142 K	0.962	0.962	0.000	0.000	0.962	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 143 1600 M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		39 0.600 2.253	0.00	3		4000
31000 13000 144 K	1.127	1.127	0.000	0.000	1.127	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 145 K	1.127	1.127	0.000	0.000	1.127	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 146 1600 M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		40 0.600 1.593	0.00	3		4000
31000 13000 147 K	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 148 K	0.797	0.797	0.000	0.000	0.797	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 149 1600 M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		38 0.600 1.923	0.00	3		4000
31000 13000 150 K	0.961	0.961	0.000	0.000	0.961	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 151 K	0.962	0.962	0.000	0.000	0.962	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 152 1600 M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		39 0.600 2.253	0.00	3		4000
31000 13000 153 K	1.127	1.127	0.000	0.000	1.127	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 154 K	1.127	1.127	0.000	0.000	1.127	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 155 1600 M	0.450	0.450	0.000	0.000	0.450	0.000	0.000		40 0.600 1.593	0.00	3		4000
31000 13000 156 K	0.796	0.796	0.000	0.000	0.796	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 157 K	0.797	0.797	0.000	0.000	0.797	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 158 1600 M	1.056	1.056	0.000	0.000	1.056	0.000	0.000		10 0.600 3.026	90.00	3		4000
31000 13000 159 K	1.630	1.630	0.000	0.000	1.630	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 160 K	1.630	1.630	0.000	0.000	1.630	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 161 1600 S	1.219	1.219	0.000	0.000	1.219	0.000	0.000		41 0.600 1.752	0.00	3		4000
31000 13000 162 1600 S	1.220	1.220	0.000	0.000	1.220	0.000	0.000		41 0.600 1.752	0.00	3		4000
31000 13000 163 1600 M	1.056	1.056	0.000	0.000	1.056	0.000	0.000		10 0.600 3.026	90.00	3		4000
31000 13000 164 K	1.630	1.630	0.000	0.000	1.630	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 165 K	1.629	1.629	0.000	0.000	1.629	0.000	0.000	X	45 0.000 0.000	0.00	1		
31000 13000 166 C	0.450	0.450	0.000	0.000	0.450	0.000	0.000		42 0.600 2.265	0.00	1		

3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
210		3500	0.080	0.080	0.080	0.080	0.080	0.080		0.200	0.00	5		
3500	T	1.320	1.160	0.080	0.080	1.160	0.080	0.080	8	0.160	0.200	0.00	5	10000
211		3500	0.080	0.080	0.080	0.080	0.080	0.200		0.00	5			
3500	T	2.178	2.018	0.080	0.080	2.018	0.080	0.080	8	0.160	0.200	0.00	5	10000
212		3500	0.080	0.080	0.080	0.080	0.080	0.200		0.00	5			
3500	T	1.320	1.160	0.080	0.080	1.160	0.080	0.080	8	0.160	0.200	0.00	5	10000
213		3500	0.080	0.080	0.080	0.080	0.080	0.200		0.00	5			
3500	T	1.850	1.770	0.080	0.000	1.770	0.080	0.000	8	0.160	0.200	0.00	5	10000
214		3500	0.080	0.000	0.000	0.000	0.000	0.200		0.00	5			
3500	T	1.650	1.570	0.080	0.000	1.570	0.080	0.000	8	0.160	0.200	0.00	5	10000
215		3500	0.080	0.000	0.000	0.000	0.000	0.200		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
216		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
217		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
218		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
219		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
220		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
221		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
222		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
223		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
224		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
225		3500	0.000	0.000	0.000	0.000	0.000	0.240		0.00	5			
3500	T	4.480	4.480	0.000	0.000	4.480	0.000	0.000	7	0.160	0.240	0.00	5	10000
226		350												

3500		6.500	2.200	0.000	4.300	2.200	0.000	4.300		8 0.160 0.200	0.00	5		10000
253		6.500	2.200	0.000	4.300	2.200	0.000	4.300		8 0.160 0.200	180.00	5		10000
3500		6.000	2.200	0.000	3.800	2.200	0.000	3.800		8 0.160 0.200	180.00	5		10000
254		6.000	2.200	0.000	3.800	2.200	0.000	3.800		8 0.160 0.200	180.00	5		10000
3500		6.500	2.200	0.000	4.300	2.200	0.000	4.300		8 0.160 0.200	180.00	5		10000
255		6.500	2.200	0.000	4.300	2.200	0.000	4.300		8 0.160 0.200	0.00	5		10000
3500		6.000	2.200	0.000	3.800	2.200	0.000	3.800		8 0.160 0.200	0.00	5		10000
256		1.950	1.950	0.000	0.000	1.950	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		1.950	1.950	0.000	0.000	1.950	0.000	0.000	X	45 0.000 0.000	0.00	1		
257		2.265	2.265	0.000	0.000	2.265	0.000	0.000		6 0.073 0.140	0.00	2		
3500		1.700	1.700	0.000	0.000	1.700	0.000	0.000	X	45 0.000 0.000	0.00	1		
258		1.700	1.700	0.000	0.000	1.700	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		2.000	2.000	0.000	0.000	2.000	0.000	0.000		6 0.073 0.140	0.00	2		
259		0.030	0.030	0.000	0.000	0.030	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		0.047	0.047	0.000	0.000	0.047	0.000	0.000	X	45 0.000 0.000	0.00	1		
260		0.047	0.047	0.000	0.000	0.047	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		0.030	0.030	0.000	0.000	0.030	0.000	0.000	X	45 0.000 0.000	0.00	1		
261		0.043	0.043	0.000	0.000	0.043	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		0.043	0.043	0.000	0.000	0.043	0.000	0.000	X	45 0.000 0.000	0.00	1		
262		0.032	0.032	0.000	0.000	0.032	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		0.003	0.003	0.000	0.000	0.003	0.000	0.000	X	45 0.000 0.000	0.00	1		
263		0.003	0.003	0.000	0.000	0.003	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		0.004	0.004	0.000	0.000	0.004	0.000	0.000	X	45 0.000 0.000	0.00	1		
264		1.664	1.664	0.000	0.000	1.664	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		1.664	1.664	0.000	0.000	1.664	0.000	0.000	X	45 0.000 0.000	0.00	1		
265		1.664	1.664	0.000	0.000	1.664	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		1.664	1.664	0.000	0.000	1.664	0.000	0.000	X	45 0.000 0.000	0.00	1		
266		0.001	0.001	0.000	0.000	0.001	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		1.158	1.158	0.000	0.000	1.158	0.000	0.000	X	45 0.000 0.000	0.00	1		
267		1.107	1.107	0.000	0.000	1.107	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		1.107	1.107	0.000	0.000	1.107	0.000	0.000	X	45 0.000 0.000	0.00	1		
268		1.158	1.158	0.000	0.000	1.158	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		0.848	0.848	0.000	0.000	0.848	0.000	0.000	X	45 0.000 0.000	0.00	1		
269		1.417	1.417	0.000	0.000	1.417	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		0.458	0.458	0.000	0.000	0.458	0.000	0.000	X	45 0.000 0.000	0.00	1		
270		1.807	1.807	0.000	0.000	1.807	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		0.693	0.693	0.000	0.000	0.693	0.000	0.000	X	45 0.000 0.000	0.00	1		
271		1.572	1.572	0.000	0.000	1.572	0.000	0.000	X	45 0.000 0.000	0.00	1		
3500		0.267	0.267	0.000	0.000	0.267	0.000	0.000	X	45 0.000 0.000	0.00	1		

[illegible]

1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000			3 0.600 1.200	0.00	3		4000
1600	Z	0.259	0.259	0.000	0.000	0.259	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.259	0.259	0.000	0.000	0.259	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	1.459	1.459	0.000	0.000	1.459	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	1.459	1.459	0.000	0.000	1.459	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000			3 0.600 1.200	0.00	3		4000
1600	Z	3.083	3.083	0.000	0.000	3.083	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	3.084	3.084	0.000	0.000	3.084	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000			3 0.600 1.200	0.00	3		4000
1600	Z	1.636	1.636	0.000	0.000	1.636	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	1.637	1.637	0.000	0.000	1.637	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	1.636	1.636	0.000	0.000	1.636	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000			3 0.600 1.200	0.00	3		4000
1600	Z	0.673	0.673	0.000	0.000	0.673	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.674	0.674	0.000	0.000	0.674	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.665	0.665	0.000	0.000	0.665	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.665	0.665	0.000	0.000	0.665	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	1.000	1.000	0.000	0.000	1.000	0.000	0.000			3 0.600 1.200	0.00	3		4000
1600	Z	0.432	0.432	0.000	0.000	0.432	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.432	0.432	0.000	0.000	0.432	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.431	0.431	0.000	0.000	0.431	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.432	0.432	0.000	0.000	0.432	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000			3 0.600 1.200	0.00	3		4000
1600	Z	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	2.264	2.264	0.000	0.000	2.264	0.000	0.000			3 0.600 1.200	0.00	3		4000
1600	Z	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	3.084	3.084	0.000	0.000	3.084	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	3.083	3.083	0.000	0.000	3.083	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000			3 0.600 1.200	0.00	3		4000
1600	Z	1.459	1.459	0.000	0.000	1.459	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	1.459	1.459	0.000	0.000	1.459	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.259	0.259	0.000	0.000	0.259	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.259	0.259	0.000	0.000	0.259	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	2.265	2.265	0.000	0.000	2.265	0.000	0.000			3 0.600 1.200	0.00	3		4000
1600	Z	0.283	0.283	0.000	0.000	0.283	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	1.634	1.634	0.000	0.000	1.634	0.000	0.000	X		3 0.600 1.200	0.00	3		4000
1600	Z	1.634	1.634	0.000	0.000	1.634	0.000	0.000	X		3 0.600 1.200	0.00	3		4000

1600 382 1600	Z	2.264	2.264	0.000	0.000	2.264	0.000	0.000		3 0.600 1.200	0.00	3		4000
1600 383 1600	Z	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
1600 384 1600	Z	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
1600 385 1600	Z	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
1600 386 1600	Z	0.959	0.959	0.000	0.000	0.959	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
1600 387 1600	Z	2.264	2.264	0.000	0.000	2.264	0.000	0.000		3 0.600 1.200	0.00	3		4000
1600 388 1600	Z	0.794	0.794	0.000	0.000	0.794	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
1600 389 1600	Z	0.794	0.794	0.000	0.000	0.794	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
1600 390 1600	Z	2.081	2.081	0.000	0.000	2.081	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
1600 391 1600	Z	2.082	2.082	0.000	0.000	2.082	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
31000 392 31000 13000	Z	1.529	1.529	0.000	0.000	1.529	0.000	0.000	X	2 0.600 0.800	0.00	1		
31000 393 31000 13000	Z	1.530	1.530	0.000	0.000	1.530	0.000	0.000	X	2 0.600 0.800	0.00	1		
31000 394 31000 13000	Z	1.629	1.629	0.000	0.000	1.629	0.000	0.000	X	2 0.600 0.800	0.00	1		
31000 395 31000 13000	Z	2.000	2.000	0.000	0.000	2.000	0.000	0.000		2 0.600 0.800	0.00	1		
31000 396 31000 13000	Z	1.630	1.630	0.000	0.000	1.630	0.000	0.000	X	2 0.600 0.800	0.00	1		
31000 397 31000 13000	Z	1.530	1.530	0.000	0.000	1.530	0.000	0.000	X	2 0.600 0.800	0.00	1		
31000 398 31000 13000	Z	1.529	1.529	0.000	0.000	1.529	0.000	0.000	X	2 0.600 0.800	0.00	1		
31000 399 31000 13000	Z	2.000	2.000	0.000	0.000	2.000	0.000	0.000		2 0.600 0.800	0.00	1		
31000 400 31000 13000	Z	1.630	1.630	0.000	0.000	1.630	0.000	0.000	X	2 0.600 0.800	0.00	1		
31000 401 31000 13000	Z	1.629	1.629	0.000	0.000	1.629	0.000	0.000	X	2 0.600 0.800	0.00	1		
1600 402 1600	Z	2.081	2.081	0.000	0.000	2.081	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
1600 403 1600	Z	2.082	2.082	0.000	0.000	2.082	0.000	0.000	X	3 0.600 1.200	0.00	3		4000
31000 404 31000 13000	Z	1.650	1.650	0.000	0.000	1.650	0.000	0.000		2 0.600 0.800	0.00	1		
31000 405 31000 13000	Z	1.320	1.320	0.000	0.000	1.320	0.000	0.000		2 0.600 0.800	0.00	1		
31000 406 31000 13000	Z	2.178	2.178	0.000	0.000	2.178	0.000	0.000		2 0.600 0.800	0.00	1		
31000 407 31000 13000	Z	1.850	1.850	0.000	0.000	1.850	0.000	0.000		2 0.600 0.800	0.00	1		
31000 408 31000 13000	Z	1.320	1.320	0.000	0.000	1.320	0.000	0.000		2 0.600 0.800	0.00	1		
31000 409 31000 13000	Z	1.850	1.850	0.000										

3500																
425	K	0.001	0.001	0.000	0.000	0.001	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
426	T	0.003	0.003	0.000	0.000	0.003	0.000	0.000		7	0.160	0.240	0.00	5		10000
3500																
427	T	1.989	1.989	0.000	0.000	1.989	0.000	0.000		7	0.160	0.240	0.00	5		10000
3500																
428	K	0.001	0.001	0.000	0.000	0.001	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
429	T	0.004	0.004	0.000	0.000	0.004	0.000	0.000		9	0.600	0.350	0.00	1		
31000	13000															
430	T	4.479	4.479	0.000	0.000	4.479	0.000	0.000		9	0.600	0.350	0.00	1		
31000	13000															
431	K	0.002	0.002	0.000	0.000	0.002	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
432	T	0.004	0.004	0.000	0.000	0.004	0.000	0.000		9	0.600	0.350	0.00	1		
31000	13000															
433	T	4.479	4.479	0.000	0.000	4.479	0.000	0.000		9	0.600	0.350	0.00	1		
31000	13000															
434	K	0.002	0.002	0.000	0.000	0.002	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
435	K	0.938	0.938	0.000	0.000	0.938	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
436	K	0.021	0.021	0.000	0.000	0.021	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
437	K	0.021	0.021	0.000	0.000	0.021	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
438	K	0.938	0.938	0.000	0.000	0.938	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
439	K	1.586	1.586	0.000	0.000	1.586	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
440	K	0.047	0.047	0.000	0.000	0.047	0.000	0.000	X	45	0.000	0.000	0.00	1		
31000	13000															
441	K	0.047	0.047	0.000	0.000	0.047	0.000	0.000	X	45	0.000	0.000	0.00			

31000 13000	1468 K	1.362	1.362	0.000	0.000	1.362	0.000	0.000	X	45	0.000 0.000	0.00	1	
31000 13000	1469 K	0.284	0.284	0.000	0.000	0.284	0.000	0.000	X	45	0.000 0.000	0.00	1	
31000 13000	1470 K	0.683	0.683	0.000	0.000	0.683	0.000	0.000	X	45	0.000 0.000	0.00	1	
31000 13000	1471 K	0.032	0.032	0.000	0.000	0.032	0.000	0.000	X	45	0.000 0.000	0.00	1	
31000 13000	1472 K	1.081	1.081	0.000	0.000	1.081	0.000	0.000	X	45	0.000 0.000	0.00	1	
31000 13000	1473 K	0.346	0.346	0.000	0.000	0.346	0.000	0.000	X	45	0.000 0.000	0.00	1	
31000 13000	1474 K	1.210	1.210	0.000	0.000	1.210	0.000	0.000	X	45	0.000 0.000	0.00	1	
31000 13000	1475 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1476 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1477 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1478 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1479 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1480 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1481 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1482 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1483 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1484 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1485 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1486 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1487 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1488 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1489 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1490 T	4.159	4.159	0.000	0.000	4.159	0.000	0.000		7	0.160 0.240	0.00	5	10000
3500	1491 K	2.238	2.238	0.000	0.000	2.238	0.000	0.000	X	45	0.000 0.000	0.00	1	
31000 13000	1492 T	4.479	4.479	0.000	0.000	4.479	0.000	0.000		9	0.600 0.350	0.00	1	
31000 13000	1493 T	0.004	0.004											

31000|13000|
|511| K | 3.600| 3.600| 0.000| 0.000| 3.600| 0.000| 0.000| X | 45|0.000|0.000| 0.00| 1| |
31000|13000|

N°	f _m	tau0	f _{vm} 0	f _{hm}	%K elast. (rig.fess.)	K Wink. (N/mm^3)	App.su terr. (m)	q lim (N/mm^2)	Nodo i	j	Vinc. i	j	Resist. traz. (kN)	Res.traz.: gammaM	Drift(%) PressoFl.	Taglio
1	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	1	2	inc	000000	0.00	1.00	1.00	0.50
2	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	3	2	inc	000000	0.00	1.00	0.00	0.00
3	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	2	4	inc	000000	0.00	1.00	0.00	0.00
4	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	5	6	inc	000000	0.00	1.00	1.00	0.50
5	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	7	6	inc	000000	0.00	1.00	0.00	0.00
6	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	6	8	inc	000000	0.00	1.00	0.00	0.00
7	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	4	7	inc	000000	0.00	1.00	1.50	0.50
8	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	9	10	inc	000000	0.00	1.00	1.00	0.50
9	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	9	11	inc	000000	0.00	0.00	0.00	0.00
10	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	8	10	inc	000000	0.00	1.00	0.00	0.00
11	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	13	14	inc	000000	0.00	1.00	1.00	0.50
12	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	15	13	inc	000000	0.00	0.00	0.00	0.00
13	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	14	17	inc	000000	0.00	1.00	0.00	0.00
14	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	11	15	inc	000000	0.00	1.00	1.50	0.50
15	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	12	16	inc	000000	0.00	1.00	1.50	0.50
16	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	18	19	inc	000000	0.00	1.00	1.00	0.50
17	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	17	19	inc	000000	0.00	1.00	0.00	0.00
18	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	19	20	inc	000000	0.00	1.00	0.00	0.00
19	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	21	22	inc	000000	0.00	1.00	1.00	0.50
20	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	23	22	inc	000000	0.00	1.00	0.00	0.00
21	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	22	24	inc	000000	0.00	1.00	0.00	0.00
22	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	20	23	inc	000000	0.00	1.00	1.50	0.50
23	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	25	26	inc	000000	0.00	1.00	1.00	0.50
24	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	24	26	inc	000000	0.00	1.00	0.00	0.00
25	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	26	27	inc	000000	0.00	1.00	0.00	0.00
26	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	28	29	inc	000000	0.00	1.00	1.00	0.50
27	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	30	29	inc	000000	0.00	1.00	0.00	0.00
28	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	29	31	inc	000000	0.00	1.00	0.00	0.00
29	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	27	30	inc	000000	0.00	1.00	1.50	0.50
30	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	32	33	inc	000000	0.00	1.00	1.00	0.50
31	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	32	34	inc	000000	0.00	0.00	0.00	0.00
32	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	31	33	inc	000000	0.00	1.00	0.00	0.00
33	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	33	35	inc	000000	0.00	1.00	0.00	0.00
34	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	36	37	inc	000000	0.00	1.00	1.00	0.50
35	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	38	36	inc	000000	0.00	0.00	0.00	0.00
36	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	39	37	inc	000000	0.00	1.00	0.00	0.00
37	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	37	40	inc	000000	0.00	1.00	0.00	0.00
38	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	34	38	inc	000000	0.00	1.00	1.50	0.50
39	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	35	39	inc	000000	0.00	1.00	1.50	0.50
40	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	41	42	inc	000000	0.00	1.00	1.00	0.50
41	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	40	42	inc	000000	0.00	1.00	0.00	0.00
42	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	42	43	inc	000000	0.00	1.00	0.00	0.00
43	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	44	45	inc	000000	0.00	1.00	1.00	0.50
44	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	45	47	inc	000000	0.00	1.00	0.00	0.00
45	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	43	46	inc	000000	0.00	1.00	1.50	0.50
46	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	48	49	inc	000000	0.00	1.00	1.00	0.50
47	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	48	50	inc	000000	0.00	0.00	0.00	0.00
48	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	47	49	inc	000000	0.00	1.00	0.00	0.00
49	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	52	53	inc	000000	0.00	1.00	1.00	0.50
50	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	54	52	inc	000000	0.00	0.00	0.00	0.00
51	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	55	53	inc	000000	0.00	1.00	0.00	0.00
52	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	50	54	inc	000000	0.00	1.00	1.50	0.50
53	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	51	55	inc	000000	0.00	1.00	1.50	0.50
54	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	56	57	inc	000000	0.00	1.00	1.00	0.50
55	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	57	58	inc	000000	0.00	1.00	0.00	0.00
56	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	59	60	inc	000000	0.00	1.00	1.00	0.50
57	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	61	60	inc	000000	0.00	1.00	0.00	0.00
58	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	60	62	inc	000000	0.00	1.00	0.00	0.00
59	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	58	61	inc	000000	0.00	1.00	1.50	0.50
60	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	63	64	inc	000000	0.00	1.00	1.00	0.50
61	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	63	65	inc	000000	0.00	0.00	0.00	0.00
62	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	62	64	inc	000000	0.00	1.00	0.00	0.00
63	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	64	66	inc	000000	0.00	1.00	0.00	0.00
64	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	67	68	inc	000000	0.00	1.00	1.00	0.50
65	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	69	67	inc	000000	0.00	0.00	0.00	0.00
66	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	68	71	inc	000000	0.00	1.00	0.00	0.00
67	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	65	69	inc	000000	0.00	1.00	1.50	0.50
68	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	66	70	inc	000000	0.00	1.00	1.50	0.50
69	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	72	73	inc	000000	0.00	1.00	1.00	0.50
70	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	71	73	inc	000000	0.00	1.00	0.00	0.00
71	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	75	76	inc	000000	0.00	1.00	1.00	0.50
72	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	77	76	inc	000000	0.00	1.00	0.00	0.00
73	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	76	78	inc	000000	0.00	1.00	0.00	0.00
74	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	74	77	inc	000000	0.00	1.00	1.50	0.50
75	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	79	80	inc	000000	0.00	1.00	1.00	0.50
76	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	79	81	inc	000000	0.00	0.00	0.00	0.00

77	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	78	80	inc	000000	0.00	1.00	0.00	0.00
78	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	80	82	inc	000000	0.00	1.00	0.00	0.00
79	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	83	84	inc	000000	0.00	1.00	1.00	0.50
80	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	85	83	inc	000000	0.00	0.00	0.00	0.00
81	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	86	84	inc	000000	0.00	1.00	0.00	0.00
82	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	84	87	inc	000000	0.00	1.00	0.00	0.00
83	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	81	85	inc	000000	0.00	1.00	1.50	0.50
84	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	82	86	inc	000000	0.00	1.00	1.50	0.50
85	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	88	89	inc	000000	0.00	1.00	1.00	0.50
86	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	87	89	inc	000000	0.00	1.00	0.00	0.00
87	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	89	90	inc	000000	0.00	1.00	0.00	0.00
88	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	91	92	inc	000000	0.00	1.00	1.00	0.50
89	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	93	92	inc	000000	0.00	1.00	0.00	0.00
90	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	92	94	inc	000000	0.00	1.00	0.00	0.00
91	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	90	93	inc	000000	0.00	1.00	1.50	0.50
92	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	95	96	inc	000000	0.00	1.00	1.00	0.50
93	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	94	96	inc	000000	0.00	1.00	0.00	0.00
94	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	96	97	inc	000000	0.00	1.00	0.00	0.00
95	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	98	99	inc	000000	0.00	1.00	1.00	0.50
96	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	100	99	inc	000000	0.00	1.00	0.00	0.00
97	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	99	101	inc	000000	0.00	1.00	0.00	0.00
98	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	97	100	inc	000000	0.00	1.00	1.50	0.50
99	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	102	103	inc	000000	0.00	1.00	1.00	0.50
100	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	101	103	inc	000000	0.00	1.00	0.00	0.00
101	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	105	106	inc	000000	0.00	1.00	1.00	0.50
102	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	106	3	inc	000000	0.00	1.00	0.00	0.00
103	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	104	107	inc	000000	0.00	1.00	1.50	0.50
104	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	108	109	inc	000000	0.00	1.00	1.00	0.50
105	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	110	109	inc	000000	0.00	1.00	0.00	0.00
106	7.57	0.000	0.429	3.79	100	0.000	0.000	0.000	112	113	inc	000000	0.00	1.00	1.00	0.50
107	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	114	113	inc	000000	0.00	1.00	0.00	0.00
108	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	113	115	inc	000000	0.00	1.00	0.00	0.00
109	7.57	0.000	0.429	3.79	100	0.000	0.000	0.000	116	117	inc	000000	0.00	1.00	1.00	0.50
110	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	118	117	inc	000000	0.00	1.00	0.00	0.00
111	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	117	119	inc	000000	0.00	1.00	0.00	0.00
112	7.57	0.000	0.429	3.79	100	0.000	0.000	0.000	115	118	inc	000000	0.00	1.00	1.50	0.50
113	7.57	0.000	0.429	3.79	100	0.000	0.000	0.000	120	121	inc	000000	0.00	1.00	1.00	0.50
114	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	122	121	inc	000000	0.00	1.00	0.00	0.00
115	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	121	123	inc	000000	0.00	1.00	0.00	0.00
116	7.57	0.000	0.429	3.79	100	0.000	0.000	0.000	124	125	inc	000000	0.00	1.00	1.00	0.50
117	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	126	125	inc	000000	0.00	1.00	0.00	0.00
118	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	125	127	inc	000000	0.00	1.00	0.00	0.00
119	7.57	0.000	0.429	3.79	100	0.000	0.000	0.000	123	126	inc	000000	0.00	1.00	1.50	0.50
120	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	96	128	inc	000000	0.00	0.00	0.00	0.00
121	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	129	128	inc	000000	0.00	0.00	0.00	0.00
122	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	131	132	inc	000000	0.00	1.00	1.00	0.50
123	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	80	134	inc	000000	0.00	0.00	0.00	0.00
124	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	19	137	inc	000000	0.00	0.00	0.00	0.00
125	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	138	137	inc	000000	0.00	0.00	0.00	0.00
126	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	140	141	inc	000000	0.00	1.00	1.00	0.50
127	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	141	143	inc	000000	0.00	1.00	0.00	0.00
128	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	33	144	inc	000000	0.00	0.00	0.00	0.00
129	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	143	144	inc	000000	0.00	0.00	0.00	0.00
130	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	146	147	inc	000000	0.00	0.00	0.00	0.00
131	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	147	149	inc	000000	0.00	0.00	0.00	0.00
132	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	150	151	inc	000000	0.00	1.00	1.00	0.50
133	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	153	154	inc	000000	0.00	0.00	0.00	0.00
134	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	154	156	inc	000000	0.00	0.00	0.00	0.00
135	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	157	158	inc	000000	0.00	1.00	1.00	0.50
136	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	159	158	inc	000000	0.00	1.00	0.00	0.00
137	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	158	155	inc	000000	0.00	1.00	0.00	0.00
138	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	160	161	inc	000000	0.00	0.00	0.00	0.00
139	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	161	163	inc	000000	0.00	0.00	0.00	0.00
140	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	164	165	inc	000000	0.00	1.00	1.00	0.50
141	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	166	165	inc	000000	0.00	1.00	0.00	0.00
142	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	165	167	inc	000000	0.00	1.00	0.00	0.00
143	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	168	169	inc	000000	0.00	1.00	1.00	0.50
144	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	167	169	inc	000000	0.00	1.00	0.00	0.00
145	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	169	170	inc	000000	0.00	1.00	0.00	0.00
146	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	171	172	inc	000000	0.00	1.00	1.00	0.50
147	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	170	172	inc	000000	0.00	1.00	0.00	0.00
148	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	172	173	inc	000000	0.00	1.00	0.00	0.00
149	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	174	175	inc	000000	0.00	1.00	1.00	0.50
150	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	138	175	inc	000000	0.00	1.00	0.00	0.00
151	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	175	176	inc	000000	0.00	1.00	0.00	0.00
152	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	177	178	inc	000000	0.00	1.00	1.00	0.50
153	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	176	178	inc	000000	0.00	1.00	0.00	0.00
154	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	178	179	inc	000000	0.00	1.00	0.00	0.00
155	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	180	181	inc</					

163	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	6	187	inc	000000	0.00	1.00	1.00	0.50
164	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	182	187	inc	000000	0.00	1.00	0.00	0.00
165	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	187	186	inc	000000	0.00	1.00	0.00	0.00
166	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	188	189	inc	000000	0.00	0.00	0.00	0.00
167	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	136	189	inc	000000	0.00	0.00	0.00	0.00
168	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	189	190	inc	000000	0.00	0.00	0.00	0.00
169	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	84	191	inc	000000	0.00	0.00	0.00	0.00
170	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	191	133	inc	000000	0.00	0.00	0.00	0.00
171	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	192	193	inc	000000	0.00	0.00	0.00	0.00
172	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	193	152	inc	000000	0.00	0.00	0.00	0.00
173	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	194	195	inc	000000	0.00	0.00	0.00	0.00
174	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	130	195	inc	000000	0.00	0.00	0.00	0.00
175	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	195	196	inc	000000	0.00	0.00	0.00	0.00
176	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	99	197	inc	000000	0.00	0.00	0.00	0.00
177	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	197	166	inc	000000	0.00	0.00	0.00	0.00
178	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	37	198	inc	000000	0.00	0.00	0.00	0.00
179	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	200	201	inc	000000	0.00	0.00	0.00	0.00
180	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	145	201	inc	000000	0.00	0.00	0.00	0.00
181	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	201	199	inc	000000	0.00	0.00	0.00	0.00
182	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	22	202	inc	000000	0.00	0.00	0.00	0.00
183	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	202	142	inc	000000	0.00	0.00	0.00	0.00
184	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	204	205	inc	000000	0.00	0.00	0.00	0.00
185	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	139	205	inc	000000	0.00	0.00	0.00	0.00
186	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	205	203	inc	000000	0.00	0.00	0.00	0.00
187	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	45	206	inc	000000	0.00	0.00	0.00	0.00
188	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	206	162	inc	000000	0.00	0.00	0.00	0.00
189	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	207	208	inc	000000	0.00	0.00	0.00	0.00
190	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	208	209	inc	000000	0.00	0.00	0.00	0.00
191	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	53	210	inc	000000	0.00	0.00	0.00	0.00
192	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	209	210	inc	000000	0.00	0.00	0.00	0.00
193	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	210	110	inc	000000	0.00	0.00	0.00	0.00
194	2.50	0.043	0.000	1.25	100	0.000	0.000	0.000	211	212	inc	000000	0.00	1.00	1.00	0.50
195	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	159	212	inc	000000	0.00	1.00	0.00	0.00
196	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	212	111	inc	000000	0.00	1.00	0.00	0.00
197	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	214	215	inc	000000	0.00	1.00	0.00	0.00
198	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	176	231	inc	000000	0.00	0.00	0.00	0.00
199	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	232	233	inc	000000	0.00	0.00	0.00	0.00
200	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	232	234	inc	000000	0.00	0.00	0.00	0.00
201	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	234	235	inc	000000	0.00	0.00	0.00	0.00
202	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	235	236	inc	000000	0.00	0.00	0.00	0.00
203	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	236	237	inc	000000	0.00	0.00	0.00	0.00
204	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	167	231	inc	000000	0.00	0.00	0.00	0.00
205	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	240	241	inc	000000	0.00	0.00	0.00	0.00
206	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	242	241	inc	000000	0.00	0.00	0.00	0.00
207	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	243	244	inc	000000	0.00	0.00	0.00	0.00
208	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	245	244	inc	000000	0.00	0.00	0.00	0.00
209	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	246	247	inc	000000	0.00	0.00	0.00	0.00
210	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	248	247	inc	000000	0.00	0.00	0.00	0.00
211	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	249	250	inc	000000	0.00	0.00	0.00	0.00
212	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	251	249	inc	000000	0.00	0.00	0.00	0.00
213	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	252	251	inc	000000	0.00	0.00	0.00	0.00
214	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	250	253	inc	000000	0.00	0.00	0.00	0.00
215	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	252	254	inc	000000	0.00	0.00	0.00	0.00
216	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	255	256	inc	000000	0.00	0.00	0.00	0.00
217	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	257	256	inc	000000	0.00	0.00	0.00	0.00
218	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	258	259	inc	000000	0.00	0.00	0.00	0.00
219	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	260	259	inc	000000	0.00	0.00	0.00	0.00
220	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	261	262	inc	000000	0.00	0.00	0.00	0.00
221	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	263	262	inc	000000	0.00	0.00	0.00	0.00
222	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	264	265	inc	000000	0.00	0.00	0.00	0.00
223	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	266	265	inc	000000	0.00	0.00	0.00	0.00
224	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	267	268	inc	000000	0.00	0.00	0.00	0.00
225	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	269	268	inc	000000	0.00	0.00	0.00	0.00
226	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	270	271	inc	000000	0.00	0.00	0.00	0.00
227	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	272	271	inc	000000	0.00	0.00	0.00	0.00
228	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	185	231	inc	000000	0.00	0.00	0.00	0.00
229	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	231	241	inc	000000	0.00	0.00	0.00	0.00
230	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	241	244	inc	000000	0.00	0.00	0.00	0.00
231	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	244	247	inc	000000	0.00	0.00	0.00	0.00
232	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	247	273	inc	000000	0.00	0.00	0.00	0.00
233	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	273	256	inc	000000	0.00	0.00	0.00	0.00
234	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	256	259	inc	000000	0.00	0.00	0.00	0.00
235	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	259	262	inc	000000	0.00	0.00	0.00	0.00
236	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	262	265	inc	000000	0.00	0.00	0.00	0.00
237	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	265	274	inc	000000	0.00	0.00	0.00	0.00
238	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	274	268	inc	000000	0.00	0.00	0.00	0.00
239	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	268	271	inc	000000	0.00	0.00	0.00	0.00
240	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	271	275	inc	000000	0.00	0.00	0.00	0.00
241	28.00	0.000	0.000	14.00	100	0.000	0.000									

249	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	286	274	inc	000000	0.00	0.00	0.00	0.00
250	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	287	288	inc	000000	0.00	0.00	0.00	0.00
251	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	289	287	inc	000000	0.00	0.00	0.00	0.00
252	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	291	292	inc	000000	0.00	0.00	0.00	0.00
253	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	293	294	inc	000000	0.00	0.00	0.00	0.00
254	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	295	296	inc	000000	0.00	0.00	0.00	0.00
255	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	297	298	inc	000000	0.00	0.00	0.00	0.00
256	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	299	300	inc	000000	0.00	0.00	0.00	0.00
257	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	301	302	inc	000000	0.00	0.00	0.00	0.00
258	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	303	304	inc	000000	0.00	0.00	0.00	0.00
259	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	305	306	inc	000000	0.00	0.00	0.00	0.00
260	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	307	4	inc	000000	0.00	0.00	0.00	0.00
261	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	308	7	inc	000000	0.00	0.00	0.00	0.00
262	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	307	308	inc	000000	0.00	0.00	0.00	0.00
263	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	309	123	inc	000000	0.00	0.00	0.00	0.00
264	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	310	126	inc	000000	0.00	0.00	0.00	0.00
265	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	309	310	inc	000000	0.00	0.00	0.00	0.00
266	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	129	246	inc	000000	0.00	0.00	0.00	0.00
267	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	130	243	inc	000000	0.00	0.00	0.00	0.00
268	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	203	245	inc	000000	0.00	0.00	0.00	0.00
269	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	142	248	inc	000000	0.00	0.00	0.00	0.00
270	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	190	255	inc	000000	0.00	0.00	0.00	0.00
271	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	145	257	inc	000000	0.00	0.00	0.00	0.00
272	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	163	270	inc	000000	0.00	0.00	0.00	0.00
273	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	283	273	inc	000000	0.00	0.00	0.00	0.00
274	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	288	274	inc	000000	0.00	0.00	0.00	0.00
275	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	111	275	inc	000000	0.00	0.00	0.00	0.00
276	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	231	311	inc	000000	0.00	0.00	0.00	0.00
277	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	241	312	inc	000000	0.00	0.00	0.00	0.00
278	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	244	313	inc	000000	0.00	0.00	0.00	0.00
279	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	256	314	inc	000000	0.00	0.00	0.00	0.00
280	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	259	315	inc	000000	0.00	0.00	0.00	0.00
281	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	268	316	inc	000000	0.00	0.00	0.00	0.00
282	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	271	317	inc	000000	0.00	0.00	0.00	0.00
283	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	262	318	inc	000000	0.00	0.00	0.00	0.00
284	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	133	319	inc	000000	0.00	0.00	0.00	0.00
285	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	131	90	inc	000000	0.00	0.00	0.00	0.00
286	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	131	93	inc	000000	0.00	0.00	0.00	0.00
287	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	140	27	inc	000000	0.00	0.00	0.00	0.00
288	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	140	30	inc	000000	0.00	0.00	0.00	0.00
289	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	146	43	inc	000000	0.00	0.00	0.00	0.00
290	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	146	46	inc	000000	0.00	0.00	0.00	0.00
291	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	150	74	inc	000000	0.00	0.00	0.00	0.00
292	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	150	77	inc	000000	0.00	0.00	0.00	0.00
293	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	153	66	inc	000000	0.00	0.00	0.00	0.00
294	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	153	70	inc	000000	0.00	0.00	0.00	0.00
295	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	157	58	inc	000000	0.00	0.00	0.00	0.00
296	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	157	61	inc	000000	0.00	0.00	0.00	0.00
297	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	49	160	inc	000000	0.00	1.00	0.00	0.00
298	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	160	51	inc	000000	0.00	1.00	0.00	0.00
299	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	103	164	inc	000000	0.00	1.00	0.00	0.00
300	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	164	104	inc	000000	0.00	1.00	0.00	0.00
301	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	168	104	inc	000000	0.00	0.00	0.00	0.00
302	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	168	107	inc	000000	0.00	0.00	0.00	0.00
303	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	107	171	inc	000000	0.00	1.00	0.00	0.00
304	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	171	106	inc	000000	0.00	1.00	0.00	0.00
305	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	16	174	inc	000000	0.00	1.00	0.00	0.00
306	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	174	14	inc	000000	0.00	1.00	0.00	0.00
307	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	177	12	inc	000000	0.00	0.00	0.00	0.00
308	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	177	16	inc	000000	0.00	0.00	0.00	0.00
309	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	10	180	inc	000000	0.00	1.00	0.00	0.00
310	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	180	12	inc	000000	0.00	1.00	0.00	0.00
311	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	188	82	inc	000000	0.00	0.00	0.00	0.00
312	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	188	86	inc	000000	0.00	0.00	0.00	0.00
313	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	70	192	inc	000000	0.00	1.00	0.00	0.00
314	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	192	68	inc	000000	0.00	1.00	0.00	0.00
315	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	194	97	inc	000000	0.00	0.00	0.00	0.00
316	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	194	100	inc	000000	0.00	0.00	0.00	0.00
317	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	200	35	inc	000000	0.00	0.00	0.00	0.00
318	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	200	39	inc	000000	0.00	0.00	0.00	0.00
319	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	204	20	inc	000000	0.00	0.00	0.00	0.00
320	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	204	23	inc	000000	0.00	0.00	0.00	0.00
321	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	207	51	inc	000000	0.00	0.00	0.00	0.00
322	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	207	55	inc	000000	0.00	0.00	0.00	0.00
323	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	213	1	inc	000000	0.00	1.00	0.00	0.00
324	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	1	214	inc	000000	0.00	1.00	0.00	0.00
325	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	215	5	inc	000000	0.00	1.00	0.00	0.00
326	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	5	216	inc	000000	0.00	1.00	0.00	0.00
327	2.50	0.043	0.000	1.25	100											

335	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	321	21	inc	000000	0.00	1.00	0.00	0.00
336	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	21	218	inc	000000	0.00	1.00	0.00	0.00
337	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	218	25	inc	000000	0.00	1.00	0.00	0.00
338	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	25	322	inc	000000	0.00	1.00	0.00	0.00
339	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	322	323	inc	000000	0.00	1.00	0.00	0.00
340	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	323	28	inc	000000	0.00	1.00	0.00	0.00
341	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	28	219	inc	000000	0.00	1.00	0.00	0.00
342	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	219	32	inc	000000	0.00	1.00	0.00	0.00
343	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	32	34	inc	000000	0.00	1.00	0.00	0.00
344	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	34	38	inc	000000	0.00	1.00	0.00	0.00
345	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	38	36	inc	000000	0.00	1.00	0.00	0.00
346	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	36	220	inc	000000	0.00	1.00	0.00	0.00
347	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	220	41	inc	000000	0.00	1.00	0.00	0.00
348	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	41	324	inc	000000	0.00	1.00	0.00	0.00
349	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	324	325	inc	000000	0.00	1.00	0.00	0.00
350	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	44	221	inc	000000	0.00	1.00	0.00	0.00
351	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	221	48	inc	000000	0.00	1.00	0.00	0.00
352	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	48	50	inc	000000	0.00	1.00	0.00	0.00
353	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	50	54	inc	000000	0.00	1.00	0.00	0.00
354	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	54	52	inc	000000	0.00	1.00	0.00	0.00
355	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	52	222	inc	000000	0.00	1.00	0.00	0.00
356	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	223	56	inc	000000	0.00	1.00	0.00	0.00
357	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	56	326	inc	000000	0.00	1.00	0.00	0.00
358	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	326	327	inc	000000	0.00	1.00	0.00	0.00
359	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	327	59	inc	000000	0.00	1.00	0.00	0.00
360	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	59	224	inc	000000	0.00	1.00	0.00	0.00
361	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	224	63	inc	000000	0.00	1.00	0.00	0.00
362	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	63	65	inc	000000	0.00	1.00	0.00	0.00
363	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	65	69	inc	000000	0.00	1.00	0.00	0.00
364	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	69	67	inc	000000	0.00	1.00	0.00	0.00
365	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	67	225	inc	000000	0.00	1.00	0.00	0.00
366	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	225	72	inc	000000	0.00	1.00	0.00	0.00
367	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	328	329	inc	000000	0.00	1.00	0.00	0.00
368	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	329	75	inc	000000	0.00	1.00	0.00	0.00
369	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	75	226	inc	000000	0.00	1.00	0.00	0.00
370	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	226	79	inc	000000	0.00	1.00	0.00	0.00
371	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	79	81	inc	000000	0.00	1.00	0.00	0.00
372	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	81	85	inc	000000	0.00	1.00	0.00	0.00
373	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	85	83	inc	000000	0.00	1.00	0.00	0.00
374	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	83	227	inc	000000	0.00	1.00	0.00	0.00
375	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	227	88	inc	000000	0.00	1.00	0.00	0.00
376	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	88	330	inc	000000	0.00	1.00	0.00	0.00
377	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	330	331	inc	000000	0.00	1.00	0.00	0.00
378	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	331	91	inc	000000	0.00	1.00	0.00	0.00
379	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	91	228	inc	000000	0.00	1.00	0.00	0.00
380	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	228	95	inc	000000	0.00	1.00	0.00	0.00
381	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	95	332	inc	000000	0.00	1.00	0.00	0.00
382	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	332	333	inc	000000	0.00	1.00	0.00	0.00
383	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	333	98	inc	000000	0.00	1.00	0.00	0.00
384	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	98	229	inc	000000	0.00	1.00	0.00	0.00
385	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	229	102	inc	000000	0.00	1.00	0.00	0.00
386	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	102	334	inc	000000	0.00	1.00	0.00	0.00
387	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	334	335	inc	000000	0.00	1.00	0.00	0.00
388	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	335	105	inc	000000	0.00	1.00	0.00	0.00
389	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	105	213	inc	000000	0.00	1.00	0.00	0.00
390	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	222	108	inc	000000	0.00	1.00	0.00	0.00
391	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	108	230	inc	000000	0.00	1.00	0.00	0.00
392	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	336	112	inc	000000	0.00	0.00	0.00	0.00
393	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	112	228	inc	000000	0.00	0.00	0.00	0.00
394	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	218	116	inc	000000	0.00	0.00	0.00	0.00
395	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	337	336	inc	000000	0.00	0.00	0.00	0.00
396	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	116	337	inc	000000	0.00	0.00	0.00	0.00
397	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	226	120	inc	000000	0.00	0.00	0.00	0.00
398	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	120	338	inc	000000	0.00	0.00	0.00	0.00
399	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	338	339	inc	000000	0.00	0.00	0.00	0.00
400	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	339	124	inc	000000	0.00	0.00	0.00	0.00
401	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	124	220	inc	000000	0.00	0.00	0.00	0.00
402	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	230	211	inc	000000	0.00	1.00	0.00	0.00
403	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	211	223	inc	000000	0.00	1.00	0.00	0.00
404	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	291	227	inc	000000	0.00	0.00	0.00	0.00
405	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	293	291	inc	000000	0.00	0.00	0.00	0.00
406	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	295	293	inc	000000	0.00	0.00	0.00	0.00
407	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	219	297	inc	000000	0.00	0.00	0.00	0.00
408	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	297	295	inc	000000	0.00	0.00	0.00	0.00
409	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	299	239	inc	000000	0.00	0.00	0.00	0.00
410	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	301	299	inc	000000	0.00	0.00	0.00	0.00
411	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	303	301	inc	000000	0.00	0.00	0.00	0.00
412	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	238	305	inc	000000	0.00	0.00	0.00	0.00
413	28.00	0.000	0.000	14.00	100	0.016	0.600	0.520	305	303	inc	000000	0.00	0.00	0.00	0.00

421	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	94	114	inc	000000	0.00	0.00	0.00	0.00
422	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	342	275	inc	000000	0.00	0.00	0.00	0.00
423	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	280	319	inc	000000	0.00	0.00	0.00	0.00
424	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	319	281	inc	000000	0.00	0.00	0.00	0.00
425	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	343	319	inc	000000	0.00	0.00	0.00	0.00
426	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	290	344	inc	000000	0.00	0.00	0.00	0.00
427	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	344	289	inc	000000	0.00	0.00	0.00	0.00
428	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	345	344	inc	000000	0.00	0.00	0.00	0.00
429	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	276	346	inc	000000	0.00	0.00	0.00	0.00
430	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	346	185	inc	000000	0.00	0.00	0.00	0.00
431	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	173	346	inc	000000	0.00	0.00	0.00	0.00
432	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	277	347	inc	000000	0.00	0.00	0.00	0.00
433	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	347	185	inc	000000	0.00	0.00	0.00	0.00
434	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	182	347	inc	000000	0.00	0.00	0.00	0.00
435	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	196	240	inc	000000	0.00	0.00	0.00	0.00
436	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	240	197	inc	000000	0.00	0.00	0.00	0.00
437	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	137	242	inc	000000	0.00	0.00	0.00	0.00
438	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	242	139	inc	000000	0.00	0.00	0.00	0.00
439	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	128	243	inc	000000	0.00	0.00	0.00	0.00
440	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	243	130	inc	000000	0.00	0.00	0.00	0.00
441	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	203	245	inc	000000	0.00	0.00	0.00	0.00
442	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	245	202	inc	000000	0.00	0.00	0.00	0.00
443	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	132	246	inc	000000	0.00	1.00	0.00	0.00
444	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	246	129	inc	000000	0.00	1.00	0.00	0.00
445	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	142	248	inc	000000	0.00	1.00	0.00	0.00
446	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	248	141	inc	000000	0.00	1.00	0.00	0.00
447	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	46	340	inc	000000	0.00	1.00	0.00	0.00
448	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	340	45	inc	000000	0.00	1.00	0.00	0.00
449	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	73	341	inc	000000	0.00	1.00	0.00	0.00
450	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	341	74	inc	000000	0.00	1.00	0.00	0.00
451	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	190	255	inc	000000	0.00	0.00	0.00	0.00
452	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	255	191	inc	000000	0.00	0.00	0.00	0.00
453	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	144	257	inc	000000	0.00	0.00	0.00	0.00
454	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	257	145	inc	000000	0.00	0.00	0.00	0.00
455	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	134	258	inc	000000	0.00	0.00	0.00	0.00
456	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	258	136	inc	000000	0.00	0.00	0.00	0.00
457	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	199	260	inc	000000	0.00	0.00	0.00	0.00
458	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	260	198	inc	000000	0.00	0.00	0.00	0.00
459	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	135	261	inc	000000	0.00	1.00	0.00	0.00
460	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	261	134	inc	000000	0.00	0.00	0.00	0.00
461	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	198	263	inc	000000	0.00	0.00	0.00	0.00
462	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	263	148	inc	000000	0.00	1.00	0.00	0.00
463	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	151	264	inc	000000	0.00	1.00	0.00	0.00
464	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	264	135	inc	000000	0.00	1.00	0.00	0.00
465	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	148	266	inc	000000	0.00	1.00	0.00	0.00
466	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	266	147	inc	000000	0.00	0.00	0.00	0.00
467	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	162	267	inc	000000	0.00	1.00	0.00	0.00
468	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	267	161	inc	000000	0.00	0.00	0.00	0.00
469	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	156	269	inc	000000	0.00	0.00	0.00	0.00
470	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	269	193	inc	000000	0.00	0.00	0.00	0.00
471	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	163	270	inc	000000	0.00	0.00	0.00	0.00
472	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	270	208	inc	000000	0.00	0.00	0.00	0.00
473	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	155	272	inc	000000	0.00	1.00	0.00	0.00
474	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	272	154	inc	000000	0.00	0.00	0.00	0.00
475	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	176	311	inc	000000	0.00	0.00	0.00	0.00
476	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	311	167	inc	000000	0.00	0.00	0.00	0.00
477	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	242	312	inc	000000	0.00	0.00	0.00	0.00
478	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	312	240	inc	000000	0.00	0.00	0.00	0.00
479	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	245	313	inc	000000	0.00	0.00	0.00	0.00
480	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	313	243	inc	000000	0.00	0.00	0.00	0.00
481	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	257	314	inc	000000	0.00	0.00	0.00	0.00
482	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	314	255	inc	000000	0.00	0.00	0.00	0.00
483	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	260	315	inc	000000	0.00	0.00	0.00	0.00
484	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	315	258	inc	000000	0.00	0.00	0.00	0.00
485	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	263	318	inc	000000	0.00	0.00	0.00	0.00
486	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	318	261	inc	000000	0.00	0.00	0.00	0.00
487	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	267	316	inc	000000	0.00	0.00	0.00	0.00
488	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	316	269	inc	000000	0.00	0.00	0.00	0.00
489	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	270	317	inc	000000	0.00	0.00	0.00	0.00
490	0.00	0.000	0.000	0.00	100	0.000	0.000	0.000	317	272	inc	000000	0.00	0.00	0.00	0.00
491	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	109	342	inc	000000	0.00	1.00	0.00	0.00
492	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	110	342	inc	000000	0.00	0.00	0.00	0.00
493	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	342	111	inc	000000	0.00	0.00	0.00	0.00
494	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	149	284	inc	000000	0.00	0.00	0.00	0.00
495	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	284	206	inc	000000	0.00	0.00	0.00	0.00
496	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	325	239	inc	000000	0.00	1.00	0.00	0.00
497	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	239	44	inc	000000	0.00	1.00	0.00	0.00
498	2.50	0.043	0.000	1.25	100	0.016	0.600	0.511	72	238	inc	000000	0.00	1.00	0.00	0.00
499	2.50	0.043	0.													

507	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	298	236	inc	000000	0.00	0.00	0.00	0.00
508	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	300	250	inc	000000	0.00	0.00	0.00	0.00
509	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	302	249	inc	000000	0.00	0.00	0.00	0.00
510	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	304	251	inc	000000	0.00	0.00	0.00	0.00
511	28.00	0.000	0.000	14.00	100	0.000	0.000	0.000	306	252	inc	000000	0.00	0.00	0.00	0.00

N°	Tag.lim.	%taglio residuo	Dutt. press.	taglio	Per alfa,1	Verif.	PressoFl. Compl.	Taglio	Sf.Norm. Traz.	PressoFl. Ortog.
1	0.00	0	3.00	2.00	X	X	X	X	X	X
2	0.00	0	0.00	0.00	X					
3	0.00	0	0.00	0.00	X					
4	0.00	0	3.00	2.00	X	X	X	X	X	X
5	0.00	0	0.00	0.00	X					
6	0.00	0	0.00	0.00	X					
7	1.50	60	0.00	0.00	X					
8	0.00	0	3.00	2.00	X	X	X	X	X	X
9	0.00	0	0.00	0.00	X					
10	0.00	0	0.00	0.00	X					
11	0.00	0	3.00	2.00	X	X	X	X	X	X
12	0.00	0	0.00	0.00	X					
13	0.00	0	0.00	0.00	X					
14	1.50	60	0.00	0.00	X					
15	1.50	60	0.00	0.00	X					
16	0.00	0	3.00	2.00	X	X	X	X	X	X
17	0.00	0	0.00	0.00	X					
18	0.00	0	0.00	0.00	X					
19	0.00	0	3.00	2.00	X	X	X	X	X	X
20	0.00	0	0.00	0.00	X					
21	0.00	0	0.00	0.00	X					
22	1.50	60	0.00	0.00	X					
23	0.00	0	3.00	2.00	X	X	X	X	X	X
24	0.00	0	0.00	0.00	X					
25	0.00	0	0.00	0.00	X					
26	0.00	0	3.00	2.00	X	X	X	X	X	X
27	0.00	0	0.00	0.00	X					
28	0.00	0	0.00	0.00	X					
29	1.50	60	0.00	0.00	X					
30	0.00	0	3.00	2.00	X	X	X	X	X	X
31	0.00	0	0.00	0.00	X					
32	0.00	0	0.00	0.00	X					
33	0.00	0	0.00	0.00	X					
34	0.00	0	3.00	2.00	X	X	X	X	X	X
35	0.00	0	0.00	0.00	X					
36	0.00	0	0.00	0.00	X					
37	0.00	0	0.00	0.00	X					
38	1.50	60	0.00	0.00	X					
39	1.50	60	0.00	0.00	X					
40	0.00	0	3.00	2.00	X	X	X	X	X	X
41	0.00	0	0.00	0.00	X					
42	0.00	0	0.00	0.00	X					
43	0.00	0	3.00	2.00	X	X	X	X	X	X
44	0.00	0	0.00	0.00	X					
45	1.50	60	0.00	0.00	X					
46	0.00	0	3.00	2.00	X	X	X	X	X	X
47	0.00	0	0.00	0.00	X					
48	0.00	0	0.00	0.00	X					
49	0.00	0	3.00	2.00	X	X	X	X	X	X
50	0.00	0	0.00	0.00	X					
51	0.00	0	0.00	0.00	X					
52	1.50	60	0.00	0.00	X					
53	1.50	60	0.00	0.00	X					
54	0.00	0	3.00	2.00	X	X	X	X	X	X
55	0.00	0	0.00	0.00	X					
56	0.00	0	3.00	2.00	X	X	X	X	X	X
57	0.00	0	0.00	0.00	X					
58	0.00	0	0.00	0.00	X					
59	1.50	60	0.00	0.00	X					
60	0.00	0	3.00	2.00	X	X	X	X	X	X
61	0.00	0	0.00	0.00	X					
62	0.00	0	0.00	0.00	X					
63	0.00	0	0.00	0.00	X					
64	0.00	0	3.00	2.00	X	X	X	X	X	X
65	0.00	0	0.00	0.00	X					
66	0.00	0	0.00	0.00	X					
67	1.50	60	0.00	0.00	X					
68	1.50	60	0.00	0.00	X					
69	0.00	0	3.00	2.00	X	X	X	X	X	X
70	0.00	0	0.00	0.00	X					
71	0.00	0	3.00	2.00	X	X	X	X	X	X
72	0.00	0	0.00	0.00	X					
73	0.00	0	0.00	0.00	X					
74	1.50	60	0.00	0.00	X					
75	0.00	0	3.00	2.00	X	X	X	X	X	X

76	0.00	0	0.00	0.00	X						
77	0.00	0	0.00	0.00	X						
78	0.00	0	0.00	0.00	X						
79	0.00	0	3.00	2.00	X	X	X	X	X	X	
80	0.00	0	0.00	0.00	X						
81	0.00	0	0.00	0.00	X						
82	0.00	0	0.00	0.00	X						
83	1.50	60	0.00	0.00	X						
84	1.50	60	0.00	0.00	X						
85	0.00	0	3.00	2.00	X	X	X	X	X	X	
86	0.00	0	0.00	0.00	X						
87	0.00	0	0.00	0.00	X						
88	0.00	0	3.00	2.00	X	X	X	X	X	X	
89	0.00	0	0.00	0.00	X						
90	0.00	0	0.00	0.00	X						
91	1.50	60	0.00	0.00	X						
92	0.00	0	3.00	2.00	X	X	X	X	X	X	
93	0.00	0	0.00	0.00	X						
94	0.00	0	0.00	0.00	X						
95	0.00	0	3.00	2.00	X	X	X	X	X	X	
96	0.00	0	0.00	0.00	X						
97	0.00	0	0.00	0.00	X						
98	1.50	60	0.00	0.00	X						
99	0.00	0	3.00	2.00	X	X	X	X	X	X	
100	0.00	0	0.00	0.00	X						
101	0.00	0	3.00	2.00	X	X	X	X	X	X	
102	0.00	0	0.00	0.00	X						
103	1.50	60	0.00	0.00	X						
104	0.00	0	3.00	2.00	X	X	X	X	X	X	
105	0.00	0	0.00	0.00	X						
106	0.00	0	3.00	2.00	X	X	X	X	X	X	
107	0.00	0	0.00	0.00	X						
108	0.00	0	0.00	0.00	X						
109	0.00	0	3.00	2.00	X	X	X	X	X	X	
110	0.00	0	0.00	0.00	X						
111	0.00	0	0.00	0.00	X						
112	1.50	60	0.00	0.00	X						
113	0.00	0	3.00	2.00	X	X	X	X	X	X	
114	0.00	0	0.00	0.00	X						
115	0.00	0	0.00	0.00	X						
116	0.00	0	3.00	2.00	X	X	X	X	X	X	
117	0.00	0	0.00	0.00	X						
118	0.00	0	0.00	0.00	X						
119	1.50	60	0.00	0.00	X						
120	0.00	0	0.00	0.00	X	X	X	X	X	X	
121	0.00	0	0.00	0.00	X						
122	0.00	0	3.00	2.00	X	X	X	X	X	X	
123	0.00	0	0.00	0.00	X	X	X	X	X	X	
124	0.00	0	0.00	0.00	X	X	X	X	X	X	
125	0.00	0	0.00	0.00	X						
126	0.00	0	3.00	2.00	X	X	X	X	X	X	
127	0.00	0	0.00	0.00	X						
128	0.00	0	0.00	0.00	X	X	X	X	X	X	
129	0.00	0	0.00	0.00	X						
130	0.00	0	0.00	0.00	X	X	X	X	X	X	
131	0.00	0	0.00	0.00	X						
132	0.00	0	3.00	2.00	X	X	X	X	X	X	
133	0.00	0	0.00	0.00	X	X	X	X	X	X	
134	0.00	0	0.00	0.00	X						
135	0.00	0	3.00	2.00	X	X	X	X	X	X	
136	0.00	0	0.00	0.00	X						
137	0.00	0	0.00	0.00	X						
138	0.00	0	0.00	0.00	X	X	X	X	X	X	
139	0.00	0	0.00	0.00	X						
140	0.00	0	3.00	2.00	X	X	X	X	X	X	
141	0.00	0	0.00	0.00	X						
142	0.00	0	0.00	0.00	X						
143	0.00	0	3.00	2.00	X	X	X	X	X	X	
144	0.00	0	0.00	0.00	X						
145	0.00	0	0.00	0.00	X						
146	0.00	0	3.00	2.00	X	X	X	X	X	X	
147	0.00	0	0.00	0.00	X						
148	0.00	0	0.00	0.00	X						
149	0.00	0	3.00	2.00	X	X	X	X	X	X	
150	0.00	0	0.00	0.00	X						
151	0.00	0	0.00	0.00	X						
152	0.00	0	3.00	2.00	X	X	X	X	X	X	
153	0.00	0	0.00	0.00	X						
154	0.00	0	0.00	0.00	X						
155	0.00	0	3.00	2.00	X	X	X	X	X	X	
156	0.00	0	0.00	0.00	X						
157	0.00	0	0.00	0.00	X						
158	0.00	0	3.00	2.00	X	X	X	X	X	X	
159	0.00	0	0.00	0.00	X						
160	0.00	0	0.00	0.00	X						
161	1.50	60	0.00	0.00	X						

162	1.50	60	0.00	0.00	X						
163	0.00	0	3.00	2.00	X	X	X	X	X	X	
164	0.00	0	0.00	0.00	X						
165	0.00	0	0.00	0.00	X						
166	0.00	0	0.00	0.00	X	X	X	X	X	X	
167	0.00	0	0.00	0.00	X						
168	0.00	0	0.00	0.00	X						
169	0.00	0	0.00	0.00	X	X	X	X	X	X	
170	0.00	0	0.00	0.00	X						
171	0.00	0	0.00	0.00	X	X	X	X	X	X	
172	0.00	0	0.00	0.00	X						
173	0.00	0	0.00	0.00	X	X	X	X	X	X	
174	0.00	0	0.00	0.00	X						
175	0.00	0	0.00	0.00	X						
176	0.00	0	0.00	0.00	X	X	X	X	X	X	
177	0.00	0	0.00	0.00	X						
178	0.00	0	0.00	0.00	X	X	X	X	X	X	
179	0.00	0	0.00	0.00	X	X	X	X	X	X	
180	0.00	0	0.00	0.00	X						
181	0.00	0	0.00	0.00	X						
182	0.00	0	0.00	0.00	X	X	X	X	X	X	
183	0.00	0	0.00	0.00	X						
184	0.00	0	0.00	0.00	X	X	X	X	X	X	
185	0.00	0	0.00	0.00	X						
186	0.00	0	0.00	0.00	X						
187	0.00	0	0.00	0.00	X	X	X	X	X	X	
188	0.00	0	0.00	0.00	X						
189	0.00	0	0.00	0.00	X	X	X	X	X	X	
190	0.00	0	0.00	0.00	X						
191	0.00	0	0.00	0.00	X	X	X	X	X	X	
192	0.00	0	0.00	0.00	X						
193	0.00	0	0.00	0.00	X						
194	0.00	0	3.00	2.00	X	X	X	X	X	X	
195	0.00	0	0.00	0.00	X						
196	0.00	0	0.00	0.00	X						
197	0.00	0	0.00	0.00	X		X	X			
198	0.00	0	0.00	0.00	X						
199	0.00	0	0.00	0.00	X						
200	0.00	0	0.00	0.00	X						
201	0.00	0	0.00	0.00	X						
202	0.00	0	0.00	0.00	X						
203	0.00	0	0.00	0.00	X						
204	0.00	0	0.00	0.00	X						
205	0.00	0	0.00	0.00	X						
206	0.00	0	0.00	0.00	X						
207	0.00	0	0.00	0.00	X						
208	0.00	0	0.00	0.00	X						
209	0.00	0	0.00	0.00	X						
210	0.00	0	0.00	0.00	X						
211	0.00	0	0.00	0.00	X						
212	0.00	0	0.00	0.00	X						
213	0.00	0	0.00	0.00	X						
214	0.00	0	0.00	0.00	X						
215	0.00	0	0.00	0.00	X						
216	0.00	0	0.00	0.00	X						
217	0.00	0	0.00	0.00	X						
218	0.00	0	0.00	0.00	X						
219	0.00	0	0.00	0.00	X						
220	0.00	0	0.00	0.00	X						
221	0.00	0	0.00	0.00	X						
222	0.00	0	0.00	0.00	X						
223	0.00	0	0.00	0.00	X						
224	0.00	0	0.00	0.00	X						
225	0.00	0	0.00	0.00	X						
226	0.00	0	0.00	0.00	X						
227	0.00	0	0.00	0.00	X						
228	0.00	0	0.00	0.00	X						
229	0.00	0	0.00	0.00	X						
230	0.00	0	0.00	0.00	X						
231	0.00	0	0.00	0.00	X						
232	0.00	0	0.00	0.00	X						
233	0.00	0	0.00	0.00	X						
234	0.00	0	0.00	0.00	X						
235	0.00	0	0.00	0.00	X						
236	0.00	0	0.00	0.00	X						
237	0.00	0	0.00	0.00	X						
238	0.00	0	0.00	0.00	X						
239	0.00	0	0.00	0.00	X						
240	0.00	0	0.00	0.00	X						
241	0.00	0	0.00	0.00	X	X	X	X			
242	0.00	0	0.00	0.00	X						
243	0.00	0	0.00	0.00	X						
244	0.00	0	0.00	0.00	X						
245	0.00	0	0.00	0.00	X						
246	0.00	0	0.00	0.00	X						
247	0.00	0	0.00	0.00	X						

248	0.00	0	0.00	0.00	X						
249	0.00	0	0.00	0.00	X						
250	0.00	0	0.00	0.00	X						
251	0.00	0	0.00	0.00	X						
252	0.00	0	0.00	0.00	X						
253	0.00	0	0.00	0.00	X						
254	0.00	0	0.00	0.00	X						
255	0.00	0	0.00	0.00	X						
256	0.00	0	0.00	0.00	X						
257	0.00	0	0.00	0.00	X						
258	0.00	0	0.00	0.00	X						
259	0.00	0	0.00	0.00	X						
260	0.00	0	0.00	0.00	X						
261	0.00	0	0.00	0.00	X						
262	0.00	0	0.00	0.00	X	X		X			
263	0.00	0	0.00	0.00	X						
264	0.00	0	0.00	0.00	X						
265	0.00	0	0.00	0.00	X	X		X			
266	0.00	0	0.00	0.00	X						
267	0.00	0	0.00	0.00	X						
268	0.00	0	0.00	0.00	X						
269	0.00	0	0.00	0.00	X						
270	0.00	0	0.00	0.00	X						
271	0.00	0	0.00	0.00	X						
272	0.00	0	0.00	0.00	X						
273	0.00	0	0.00	0.00	X						
274	0.00	0	0.00	0.00	X						
275	0.00	0	0.00	0.00	X						
276	0.00	0	0.00	0.00	X						
277	0.00	0	0.00	0.00	X						
278	0.00	0	0.00	0.00	X						
279	0.00	0	0.00	0.00	X						
280	0.00	0	0.00	0.00	X						
281	0.00	0	0.00	0.00	X						
282	0.00	0	0.00	0.00	X						
283	0.00	0	0.00	0.00	X						
284	0.00	0	0.00	0.00	X						
285	0.00	0	0.00	0.00	X						
286	0.00	0	0.00	0.00	X						
287	0.00	0	0.00	0.00	X						
288	0.00	0	0.00	0.00	X						
289	0.00	0	0.00	0.00	X						
290	0.00	0	0.00	0.00	X						
291	0.00	0	0.00	0.00	X						
292	0.00	0	0.00	0.00	X						
293	0.00	0	0.00	0.00	X						
294	0.00	0	0.00	0.00	X						
295	0.00	0	0.00	0.00	X						
296	0.00	0	0.00	0.00	X						
297	0.00	0	0.00	0.00	X						
298	0.00	0	0.00	0.00	X						
299	0.00	0	0.00	0.00	X						
300	0.00	0	0.00	0.00	X						
301	0.00	0	0.00	0.00	X						
302	0.00	0	0.00	0.00	X						
303	0.00	0	0.00	0.00	X						
304	0.00	0	0.00	0.00	X						
305	0.00	0	0.00	0.00	X						
306	0.00	0	0.00	0.00	X						
307	0.00	0	0.00	0.00	X						
308	0.00	0	0.00	0.00	X						
309	0.00	0	0.00	0.00	X						
310	0.00	0	0.00	0.00	X						
311	0.00	0	0.00	0.00	X						
312	0.00	0	0.00	0.00	X						
313	0.00	0	0.00	0.00	X						
314	0.00	0	0.00	0.00	X						
315	0.00	0	0.00	0.00	X						
316	0.00	0	0.00	0.00	X						
317	0.00	0	0.00	0.00	X						
318	0.00	0	0.00	0.00	X						
319	0.00	0	0.00	0.00	X						
320	0.00	0	0.00	0.00	X						
321	0.00	0	0.00	0.00	X						
322	0.00	0	0.00	0.00	X						
323	0.00	0	0.00	0.00	X		X		X		
324	0.00	0	0.00	0.00	X		X		X		
325	0.00	0	0.00	0.00	X		X		X		
326	0.00	0	0.00	0.00	X		X		X		
327	0.00	0	0.00	0.00	X		X		X		
328	0.00	0	0.00	0.00	X		X		X		
329	0.00	0	0.00	0.00	X		X		X		
330	0.00	0	0.00	0.00	X		X		X		
331	0.00	0	0.00	0.00	X		X		X		
332	0.00	0	0.00	0.00	X		X		X		
333	0.00	0	0.00	0.00	X		X		X		

334	0.00	0	0.00	0.00	X			X	X		
335	0.00	0	0.00	0.00	X			X	X		
336	0.00	0	0.00	0.00	X			X	X		
337	0.00	0	0.00	0.00	X			X	X		
338	0.00	0	0.00	0.00	X			X	X		
339	0.00	0	0.00	0.00	X			X	X		
340	0.00	0	0.00	0.00	X			X	X		
341	0.00	0	0.00	0.00	X			X	X		
342	0.00	0	0.00	0.00	X			X	X		
343	0.00	0	0.00	0.00	X			X	X		
344	0.00	0	0.00	0.00	X			X	X		
345	0.00	0	0.00	0.00	X			X	X		
346	0.00	0	0.00	0.00	X			X	X		
347	0.00	0	0.00	0.00	X			X	X		
348	0.00	0	0.00	0.00	X			X	X		
349	0.00	0	0.00	0.00	X			X	X		
350	0.00	0	0.00	0.00	X			X	X		
351	0.00	0	0.00	0.00	X			X	X		
352	0.00	0	0.00	0.00	X			X	X		
353	0.00	0	0.00	0.00	X			X	X		
354	0.00	0	0.00	0.00	X			X	X		
355	0.00	0	0.00	0.00	X			X	X		
356	0.00	0	0.00	0.00	X			X	X		
357	0.00	0	0.00	0.00	X			X	X		
358	0.00	0	0.00	0.00	X			X	X		
359	0.00	0	0.00	0.00	X			X	X		
360	0.00	0	0.00	0.00	X			X	X		
361	0.00	0	0.00	0.00	X			X	X		
362	0.00	0	0.00	0.00	X			X	X		
363	0.00	0	0.00	0.00	X			X	X		
364	0.00	0	0.00	0.00	X			X	X		
365	0.00	0	0.00	0.00	X			X	X		
366	0.00	0	0.00	0.00	X			X	X		
367	0.00	0	0.00	0.00	X			X	X		
368	0.00	0	0.00	0.00	X			X	X		
369	0.00	0	0.00	0.00	X			X	X		
370	0.00	0	0.00	0.00	X			X	X		
371	0.00	0	0.00	0.00	X			X	X		
372	0.00	0	0.00	0.00	X			X	X		
373	0.00	0	0.00	0.00	X			X	X		
374	0.00	0	0.00	0.00	X			X	X		
375	0.00	0	0.00	0.00	X			X	X		
376	0.00	0	0.00	0.00	X			X	X		
377	0.00	0	0.00	0.00	X			X	X		
378	0.00	0	0.00	0.00	X			X	X		
379	0.00	0	0.00	0.00	X			X	X		
380	0.00	0	0.00	0.00	X			X	X		
381	0.00	0	0.00	0.00	X			X	X		
382	0.00	0	0.00	0.00	X			X	X		
383	0.00	0	0.00	0.00	X			X	X		
384	0.00	0	0.00	0.00	X			X	X		
385	0.00	0	0.00	0.00	X			X	X		
386	0.00	0	0.00	0.00	X			X	X		
387	0.00	0	0.00	0.00	X			X	X		
388	0.00	0	0.00	0.00	X			X	X		
389	0.00	0	0.00	0.00	X			X	X		
390	0.00	0	0.00	0.00	X			X	X		
391	0.00	0	0.00	0.00	X			X	X		
392	0.00	0	0.00	0.00	X	X		X	X		
393	0.00	0	0.00	0.00	X	X		X	X		
394	0.00	0	0.00	0.00	X	X		X	X		
395	0.00	0	0.00	0.00	X	X		X	X		
396	0.00	0	0.00	0.00	X	X		X	X		
397	0.00	0	0.00	0.00	X	X		X	X		
398	0.00	0	0.00	0.00	X	X		X	X		
399	0.00	0	0.00	0.00	X	X		X	X		
400	0.00	0	0.00	0.00	X	X		X	X		
401	0.00	0	0.00	0.00	X	X		X	X		
402	0.00	0	0.00	0.00	X			X	X		
403	0.00	0	0.00	0.00	X			X	X		
404	0.00	0	0.00	0.00	X	X		X	X		
405	0.00	0	0.00	0.00	X	X		X	X		
406	0.00	0	0.00	0.00	X	X		X	X		
407	0.00	0	0.00	0.00	X	X		X	X		
408	0.00	0	0.00	0.00	X	X		X	X		
409	0.00	0	0.00	0.00	X	X		X	X		
410	0.00	0	0.00	0.00	X	X		X	X		
411	0.00	0	0.00	0.00	X	X		X	X		
412	0.00	0	0.00	0.00	X	X		X	X		
413	0.00	0	0.00	0.00	X	X		X	X		
414	0.00	0	0.00	0.00	X						
415	0.00	0	0.00	0.00	X						
416	0.00	0	0.00	0.00	X						
417	0.00	0	0.00	0.00	X						
418	0.00	0	0.00	0.00	X						
419	0.00	0	0.00	0.00	X						

420	0.00	0	0.00	0.00	X						
421	0.00	0	0.00	0.00	X						
422	0.00	0	0.00	0.00	X						
423	0.00	0	0.00	0.00	X						
424	0.00	0	0.00	0.00	X						
425	0.00	0	0.00	0.00	X						
426	0.00	0	0.00	0.00	X						
427	0.00	0	0.00	0.00	X						
428	0.00	0	0.00	0.00	X						
429	0.00	0	0.00	0.00	X	X	X	X			
430	0.00	0	0.00	0.00	X	X	X	X			
431	0.00	0	0.00	0.00	X						
432	0.00	0	0.00	0.00	X	X	X	X			
433	0.00	0	0.00	0.00	X	X	X	X			
434	0.00	0	0.00	0.00	X						
435	0.00	0	0.00	0.00	X						
436	0.00	0	0.00	0.00	X						
437	0.00	0	0.00	0.00	X						
438	0.00	0	0.00	0.00	X						
439	0.00	0	0.00	0.00	X						
440	0.00	0	0.00	0.00	X						
441	0.00	0	0.00	0.00	X						
442	0.00	0	0.00	0.00	X						
443	0.00	0	0.00	0.00	X						
444	0.00	0	0.00	0.00	X						
445	0.00	0	0.00	0.00	X						
446	0.00	0	0.00	0.00	X						
447	0.00	0	0.00	0.00	X						
448	0.00	0	0.00	0.00	X						
449	0.00	0	0.00	0.00	X						
450	0.00	0	0.00	0.00	X						
451	0.00	0	0.00	0.00	X						
452	0.00	0	0.00	0.00	X						
453	0.00	0	0.00	0.00	X						
454	0.00	0	0.00	0.00	X						
455	0.00	0	0.00	0.00	X						
456	0.00	0	0.00	0.00	X						
457	0.00	0	0.00	0.00	X						
458	0.00	0	0.00	0.00	X						
459	0.00	0	0.00	0.00	X						
460	0.00	0	0.00	0.00	X						
461	0.00	0	0.00	0.00	X						
462	0.00	0	0.00	0.00	X						
463	0.00	0	0.00	0.00	X						
464	0.00	0	0.00	0.00	X						
465	0.00	0	0.00	0.00	X						
466	0.00	0	0.00	0.00	X						
467	0.00	0	0.00	0.00	X						
468	0.00	0	0.00	0.00	X						
469	0.00	0	0.00	0.00	X						
470	0.00	0	0.00	0.00	X						
471	0.00	0	0.00	0.00	X						
472	0.00	0	0.00	0.00	X						
473	0.00	0	0.00	0.00	X						
474	0.00	0	0.00	0.00	X						
475	0.00	0	0.00	0.00	X						
476	0.00	0	0.00	0.00	X						
477	0.00	0	0.00	0.00	X						
478	0.00	0	0.00	0.00	X						
479	0.00	0	0.00	0.00	X						
480	0.00	0	0.00	0.00	X						
481	0.00	0	0.00	0.00	X						
482	0.00	0	0.00	0.00	X						
483	0.00	0	0.00	0.00	X						
484	0.00	0	0.00	0.00	X						
485	0.00	0	0.00	0.00	X						
486	0.00	0	0.00	0.00	X						
487	0.00	0	0.00	0.00	X						
488	0.00	0	0.00	0.00	X						
489	0.00	0	0.00	0.00	X						
490	0.00	0	0.00	0.00	X						
491	0.00	0	0.00	0.00	X						
492	0.00	0	0.00	0.00	X	X	X	X			
493	0.00	0	0.00	0.00	X	X	X	X			
494	0.00	0	0.00	0.00	X						
495	0.00	0	0.00	0.00	X						
496	0.00	0	0.00	0.00	X		X	X			
497	0.00	0	0.00	0.00	X		X	X			
498	0.00	0	0.00	0.00	X		X	X			
499	0.00	0	0.00	0.00	X		X	X			
500	0.00	0	0.00	0.00	X						
501	0.00	0	0.00	0.00	X						
502	0.00	0	0.00	0.00	X						
503	0.00	0	0.00	0.00	X						
504	0.00	0	0.00	0.00	X						
505	0.00	0	0.00	0.00	X						

506	0.00	0	0.00	0.00	X						
507	0.00	0	0.00	0.00	X						
508	0.00	0	0.00	0.00	X						
509	0.00	0	0.00	0.00	X						
510	0.00	0	0.00	0.00	X						
511	0.00	0	0.00	0.00	X						

Descrizione dei DATI SOLAI

I solai sono elementi strutturali finalizzati alla generazione dei carichi sulle aste che ne definiscono il contorno. I carichi agenti sulla struttura utilizzati nell'analisi sono in ogni caso quelli definiti nelle CCE, e includono oltre ai carichi direttamente derivanti dai solai anche altri carichi definiti in input su singole aste.

N°: numero progressivo del solaio

Tipologia: solaio piano, falda, volta a botte o volta a padiglione

Piano: piano (o impalcato) a cui il solaio appartiene

Rigido: X indica che il solaio è considerato infinitamente rigido. Se l'impalcato (o piano) a cui appartiene il solaio è un piano rigido, questo parametro è ininfluente. Qualora il piano sia flessibile, la qualifica di solaio rigido consente la generazione automatica di link rigidi di contorno in grado di assicurare l'indeformabilità della maglia nel piano orizzontale

G1, G2, Q: carichi di superficie, in kN/m², di tipo G1 (peso proprio), G2 (permanente oltre peso proprio), Q (variabile) agenti sul solaio. I carichi di superficie sono sempre da considerarsi come componente verticale

Sup.: superficie del solaio in m². Nel caso di falda (solaio con pendenza non nulla) la superficie è l'area effettiva del solaio, maggiore quindi della sua proiezione sul piano orizzontale

Direz. princ.: direzione principale (angolo di orditura del solaio)

Distr. trasv.: distribuzione trasversale. Rappresenta la quota parte del carico di un solaio che viene ripartita sulle aste orientate parallelamente alla direzione di orditura del solaio (aste scariche nei classici solai monodirezionali)

H volta: altezza della volta, data dalla distanza fra l'estradosso piano di calpestio realizzato sulla volta, e l'imposta della volta stessa. Permette il calcolo della spinta della volta

Pend.: pendenza del solaio a falda. Nel calcolo, la risultante del carico verticale è calcolata tenendo conto della superficie effettiva, di dimensioni maggiori della proiezione sul piano orizzontale

G1 tot., G2 tot., Q tot.: carichi complessivi di solaio (peso proprio, permanente oltre peso proprio, variabile), in kN, definiti dai carichi di superficie (verticali, cioè paralleli all'asse Z globale) moltiplicati per la superficie effettiva del solaio (nel caso di falda, tale superficie è maggiore della sua proiezione sul piano orizzontale)

8. Dati SOLAI

N°	Tipologia	Piano	Rigido	G1 (kN/m^2)	G2 =	Q =	Superf. (m^2)	Direz. princ. (°)	Distr. trasv. (%)	Pend. (%)	G1 tot. (kN)	G2 tot. =	Q tot. =
1	Falda	2	X	0.35	1.00	2.00	13.10	0	0	40	4.59	13.10	26.20
2	Falda	2	X	0.35	1.00	2.00	13.10	0	0	40	4.59	13.10	26.20
3	Falda	2	X	0.35	1.00	2.00	10.37	0	0	40	3.63	10.37	20.73
4	Falda	2	X	0.35	1.00	2.00	11.68	0	0	40	4.09	11.68	23.35
5	Falda	2	X	0.35	1.00	2.00	11.68	0	0	40	4.09	11.68	23.35
6	Falda	2		0.75	0.00	2.00	11.94	0	0	40	8.96	0.00	23.88
7	Falda	2	X	0.35	1.00	2.00	10.26	0	0	40	3.59	10.26	20.52
8	Falda	2	X	0.35	1.00	2.00	10.26	0	0	40	3.59	10.26	20.52
9	Falda	2	X	0.35	1.00	2.00	10.26	0	0	40	3.59	10.26	20.52
10	Falda	2	X	0.35	1.00	2.00	10.26	0	0	40	3.59	10.26	20.52
11	Falda	2		0.75	0.00	2.00	11.49	0	0	40	8.61	0.00	22.97
12	Falda	2	X	0.35	1.00	2.00	10.92	0	0	40	3.82	10.92	21.84
13	Falda	2	X	0.35	1.00	2.00	10.92	0	0	40	3.82	10.92	21.84
14	Falda	2	X	0.35	1.00	2.00	11.95	0	0	40	4.18	11.95	23.90
15	Falda	2	X	0.35	1.00	2.00	11.94	0	0	40	4.18	11.94	23.88
16	Falda	2	X	0.35	1.00	2.00	10.92	0	0	40	3.82	10.92	21.84
17	Falda	2	X	0.35	1.00	2.00	10.92	0	0	40	3.82	10.92	21.84
18	Falda	2		0.75	0.00	2.00	11.49	0	0	40	8.62	0.00	22.98
19	Falda	2	X	0.35	1.00	2.00	10.26	0	0	40	3.59	10.26	20.52
20	Falda	2	X	0.35	1.00	2.00	10.26	0	0	40	3.59	10.26	20.52
21	Falda	2	X	0.35	1.00	2.00	10.26	0	0	40	3.59	10.26	20.52
22	Falda	2	X	0.35	1.00	2.00	10.26	0	0	40	3.59	10.26	20.52
23	Falda	2		0.75	0.00	2.00	11.94	0	0	40	8.96	0.00	23.88
24	Falda	2	X	0.35	1.00	2.00	11.68	0	0	40	4.09	11.68	23.35
25	Falda	2	X	0.35	1.00	2.00	11.68	0	0	40	4.09	11.68	23.35
26	Falda	2	X	0.35	1.00	2.00	10.37	0	0	40	3.63	10.37	20.73

Descrizione dei DATI CARICHI

CONDIZIONI DI CARICO ELEMENTARI

Ogni Condizione di Carico elementare (CCE) descrive un gruppo di dati omogenei, che possono essere cioè trattati con i medesimi coefficienti moltiplicativi sia nelle Combinazioni delle Condizioni di Carico (CCC) definite per analisi lineari statiche non sismiche (§2.3), sia nella combinazione sismica (§3.2.4). Le CCE vengono create da PCM in base alla popolazione dei diversi Tipi di Azioni previste dalla Normativa vigente (§2.5.3).

PARAMETRI GENERALI

Dopo una descrizione sintetica della CCE, sono riportati i seguenti parametri.

Tipologia: indica la tipologia dell'azione.

Tipo di Azione: specifica il tipo di azione in accordo con [Tab.2.5.1 \(§2.5.3\)](#).

Livelli di intensità dell'azione variabile: (psi),0 (valore raro), (psi),1 (valore frequente), (psi),2 (valore quasi-permanente).

I coefficienti di combinazione ψ (§2.5.3, [Tab.2.5.1](#)) sono suddivisi in ψ_0 , ψ_1 e ψ_2 , ed assumono valori dipendenti dal tipo di ambiente (uso residenziale, uffici, ecc.) e dal tipo di azione. Ai fini dell'analisi sismica, gli unici coefficienti moltiplicativi delle azioni variabili sono gli ψ_2 (§2.5.5, §2.5.3); pertanto, le masse sismiche non dipendono dallo stato limite di riferimento (SLD o SLV).

Per l'Analisi Statica (non sismica) degli edifici in muratura, le combinazioni dei carichi utilizzano i coefficienti ψ_0 (§2.5.1, §2.5.3) e i coefficienti parziali di sicurezza γ (γ_G e γ_Q) (§2.6.1, [Tab.2.6.1](#)).

Per i carichi permanenti G_K , ed i carichi di precompressione P_K , i coefficienti ψ_0 , ψ_1 e ψ_2 vengono tutti posti pari a 1.0.

Moltiplicatori per Generazione Masse

I 6 valori (una sequenza di caratteri 0 o 1) indicano i moltiplicatori dei carichi agenti sui nodi ai fini della generazione delle masse a partire dai carichi applicati, e più esattamente corrispondono a: m_X , m_Y , m_Z , I_X , I_Y , I_Z , dove (con riferimento agli assi globali XYZ):

m_X , m_Y , m_Z sono le masse traslazionali; I_X , I_Y , I_Z sono le inerzie rotazionali.

Normalmente, nelle analisi 3D le masse generate automaticamente sono masse traslazionali lungo gli assi orizzontali (m_X e m_Y) e inerzie rotazionali intorno all'asse verticale (I_Z), quindi i moltiplicatori sono definiti da: "110001".

Per analisi 2D, viene considerata la sola traslazione lungo l'asse orizzontale X: "100000".

Qualora si considerino anche effetti sismici verticali, si può avere: nel 3D: "111001"; nel 2D: "101000".

Nell'analisi modale verranno considerate, nelle Condizioni di Carico sismicamente attive:

- sia le masse concentrate direttamente specificate, in corrispondenza dei nodi;
- sia le masse generate automaticamente nei nodi a partire dai carichi applicati, secondo i 'moltiplicatori per generazione masse'. Qualora si desideri che nessun carico direttamente specificato nella Condizione di Carico si traduca in massa, è sufficiente specificare "000000": in tal caso, se la condizione è sismicamente attiva (cioè, non deve essere ignorata: si riconosce dai valori del coefficiente sismico ψ_2), verranno considerate solo le masse concentrate direttamente specificate.

Le masse generate coincidono con le masse sismicamente attive, cioè associate ai carichi gravitazionali secondo la (§3.2.17), §3.2.4:

$$G_{1,j} + G_{2,j} + \sum (\psi_{2,j} \cdot Q_{k,j})$$

NODI

I carichi sui Nodi sono organizzati in un elenco dove sono indicati i numeri dei nodi interessati dai carichi, ed i carichi stessi, espressi nelle coordinate globali (XYZ). Si tratta di carichi in senso generalizzato: oltre infatti ai veri e propri carichi, possono essere applicati anche cedimenti vincolari anelastici e masse concentrate.

Le **tipologie di carico** consentite dalla versione corrente di PCM sono le seguenti (per ogni carico sono elencati i dati corrispondenti):

- **Carichi Concentrati:** FX FY FZ , MX MY MZ (forze e coppie)
- **Cedimenti Vincolari:** u_X u_Y u_Z , ϕ_X ϕ_Y ϕ_Z (cedimenti traslazionali e rotazionali). L'unità di misura angolare *mrاد* indica i millesimi di radiante. Per esempio: 1 mrاد = 0.001 rad.
- **Masse Concentrate:** m_X m_Y m_Z , I_X I_Y I_Z (masse traslazionali e inerzie rotazionali)

Non è prevista l'applicazione ad uno stesso nodo, nella medesima Condizione di Carico Elementare, di un cedimento vincolare e di un'azione concentrata corrispondente. I cedimenti vincolari devono sempre corrispondere a componenti vincolate del nodo (per esempio, in caso di cedimento lungo Z, la componente w del nodo - specificata nei dati geometrici - deve essere 0). Le forze concentrate ed i cedimenti vincolari traslazionali sono **positivi se equiversi agli assi globali X Y Z**; le coppie concentrate ed i cedimenti vincolari rotazionali sono **positivi se antiorari** (si tratta delle medesime convenzioni adottate in ogni parte di PCM, per esempio anche per gli spostamenti incogniti e per le reazioni vincolari). Le aste ai cui nodi estremi sono applicati cedimenti vincolari devono necessariamente non presentare rigidità, e quindi devono avere luce deformabile coincidente con la lunghezza.

ASTE

I carichi sulle Aste sono organizzati in un elenco dove sono indicati i numeri delle aste interessate dai carichi, ed i carichi stessi espressi in coordinate globali (XYZ).

Le **tipologie di carico** consentite dalla versione corrente di PCM sono le seguenti (per ogni carico sono elencati i dati corrispondenti):

- **Carico Distribuito Uniforme:** n° asta, Sist.rif., Componenti X,Y,Z, Su luce deformabile, Generato da Solai
- **Carico Distribuito Lineare (max al vertice iniziale 'i'):** n° asta, Sist.rif., Componenti X,Y,Z, Su luce deformabile
- **Carico Distribuito Lineare (max al vertice finale 'j'):** n° asta, Sist.rif., Componenti X,Y,Z, Su luce deformabile
- **Carico Concentrato:** n° asta, Sist.rif., P_x , P_y , P_z , M_x , M_y , M_z , DPI , Generato da Solai
[P_i = intensità delle componenti del carico concentrato: forze e coppie; DPI = distanza del carico concentrato dal vertice iniziale i]
- **Carico Termico (nel piano locale xz):** n° asta, ΔT estradosso, ΔT intradosso.

Componenti X,Y,Z = i carichi agenti sulle aste (distribuiti e concentrati) sono forniti in coordinate globali: le componenti X, Y, Z sono parallele alle corrispondenti direzioni globali.

I carichi (distribuiti e concentrati) sono positivi se equiversi agli assi globali; le coppie sono positive se antiorarie. Con questa convenzione, ad esempio per le travi di un impalcato, i carichi dovuti ai pesi propri sono orientati secondo l'asse globale Z, con segno negativo.

COMBINAZIONI DI CONDIZIONI DI CARICO

Le CCC (Combinazioni di Condizioni di Carico elementari) consentono la generazione di caratteristiche di sollecitazione e di deformazione per le combinazioni delle condizioni di carico elementari ai fini delle analisi statiche (la combinazione di carico sismica viene generata automaticamente dal software, vd. oltre).

Ogni CCC è caratterizzata anzitutto da una descrizione sintetica, e poi dai parametri qui di seguito elencati.

Tipo di Combinazione Statica (§2.5.3): specifica la tipologia della singola Combinazione, secondo la convenzione qui di seguito riportata:

- 1) Generica
- 2) Fondamentale (SLU) (§2.5.1),§2.5.3
- 3) Caratteristica (rara) (SLE) (§2.5.2),§2.5.3
- 4) Frequente (SLE) (§2.5.3),§2.5.3
- 5) Quasi permanente (SLE) (§2.5.4),§2.5.3

In ogni CCC sono prese in considerazione tutte le CCE, e per ognuna delle CCE sono riportati i seguenti parametri:

Coefficiente γ (gamma), (moltiplicatore);

Variabile, dominante: se affermativo, indica che, nella CCC, la CCE assume il ruolo dominante svolto, nella combinazione, da un carico variabile. Il dato è influente per le CCE corrispondenti a carichi permanenti;

ψ (psi) = coefficiente di combinazione dell'azione variabile; il valore coincide con il corrispondente dato definito nelle CCE, e si riferisce a: ψ_0 per i carichi variabili (non dominanti) delle combinazioni di tipo fondamentale o caratteristica (rara) (per il variabile dominante: $\psi=1.0$); ψ_1 per il variabile dominante della

combinazione di tipo frequente; ψ_2 per i variabili non dominanti della combinazione frequente e per tutti i variabili della combinazione quasi permanente.

Moltiplicatore di calcolo.

L'organizzazione dei dati permette le seguenti valutazioni:

(a) effetti di combinazioni delle CCE con moltiplicatori generici (senza diretti riferimenti a combinazioni di tipo statico o sismico, o alla tipologia della struttura, che può essere o meno in muratura). In tal caso:

la CCC è una combinazione Generica (tipo 1 nella convenzione di PCM); i coefficienti γ sono trattati come moltiplicatori generici (il molt. di calcolo di ogni singola CCE è direttamente uguale al γ (molt.) della CCE);

(b) combinazioni di CCE di tipo fondamentale per l'analisi statica e le corrispondenti verifiche di sicurezza di edifici in muratura a SLU, secondo (2.5.1), §2.5.3. In tal caso:

la CCC è una combinazione di tipo Fondamentale (tipo 2 nella convenzione di PCM). PCM esegue le verifiche statiche a SLU (per la muratura), secondo §4.5.6, in corrispondenza delle sole CCC Fondamentali; il coefficiente γ coincide con il coefficiente parziale per le azioni γ_G o γ_Q (§2.6.1, Tab.2.6.1); il moltiplicatore di calcolo di ogni CCE è pari a $\gamma \cdot \psi_0$. Si osservi che: per le CCE di tipo G1, G2 e P, ψ_0 è automaticamente posto pari a 1.0; per le CCC dove è dominante un tipo di azione variabile, per essa viene trascurata la riduzione dovuta a ψ_0 (il che equivale a porlo = 1.0).

(c) combinazioni di CCE di tipo raro, frequente o quasi permanente per l'analisi statica a SLE, secondo §2.5.3. In tal caso:

la CCC è una combinazione relativa ad uno Stato Limite di Esercizio (la combinazione è identificata da uno dei tipi 3, 4 o 5 nella convenzione di PCM). Per tali combinazioni viene eseguita l'analisi, e quindi sono forniti spostamenti e sollecitazioni, ma non vengono eseguite verifiche di sicurezza. Per gli edifici in muratura, secondo §4.5.6.3 non è generalmente necessario eseguire verifiche nei confronti degli SLE quando siano soddisfatte le verifiche nei confronti degli SLU. I risultati dell'analisi per SLE possono essere convenientemente utilizzati ad esempio per verifiche a parte di SLE riguardanti elementi in altra tecnologia (c.a., acciaio) presenti in una struttura in muratura mista.

Le combinazioni per SLE sono caratterizzate dai seguenti parametri:

- non sono considerati coefficienti parziali per le azioni γ_G o γ_Q , specifici per combinazioni SLU (in pratica: $\gamma_G = \gamma_Q = 1.0$);

- i coefficienti ψ di combinazione delle CCE corrispondenti ad azioni variabili dipendono dal tipo di combinazione.

Il moltiplicatore di calcolo di ogni CCE è pari a ψ . Si osservi che: per le CCE di tipo G1, G2 e P, ψ è sempre posto pari a 1.0; per le CCC rare (analogamente alle fondamentali) dove è dominante un tipo di azione variabile, per tale azione viene trascurata la riduzione dovuta a ψ_0 (il che equivale a porlo = 1.0).

In ogni caso, l'elenco delle CCC si riferisce alla risoluzione di combinazioni di tipo statico (non sismico), e vengono quindi processate solo se è stata selezionata l'Analisi Statica Lineare NON Sismica.

COMBINAZIONI DI CARICO per ANALISI STATICA: SLU per Verifiche di sicurezza di Edifici in Muratura

Per quanto sopra descritto, le combinazioni di carico processate da PCM in Analisi Statica non sismica, finalizzate alle Verifiche di sicurezza di Edifici in muratura, sono le combinazioni di tipo fondamentale, impiegate per gli stati limite ultimi SLU (2.5.1) §2.5.3, espresse dalla formulazione:

$$\gamma_{G1} * G_{1,1} + \gamma_{G2} * G_{2,2} + \gamma_P * P + \gamma_{Q1} * Q_{k,1} + \gamma_{Q2} * \psi_{0,2} Q_{k,2} + \gamma_{Q3} * \psi_{0,3} Q_{k,3} + \dots$$

La definizione delle azioni rispetta quanto formulato in §2.5.1.3 e §2.5.2; in particolare $Q_{k,1}$ è l'azione variabile dominante, mentre $Q_{k,2}$, $Q_{k,3}$, ..., sono azioni variabili che possono agire contemporaneamente a quella dominante. Le azioni variabili $Q_{k,j}$ vengono combinate con i coefficienti di combinazione ψ i cui valori sono forniti in §2.5.3, Tab.2.5.1.

Come già osservato, in base a quanto espressamente indicato per gli edifici in muratura in §4.5.6.3: "Non è generalmente necessario eseguire verifiche nei confronti di stati limite di esercizio (SLE) di strutture in muratura, quando siano soddisfatte le verifiche nei confronti degli stati limite ultimi (SLU)", le combinazioni fondamentali (2.5.1) sono esaustive nei confronti delle verifiche in Analisi Statica non sismica.

COMBINAZIONI DI CARICO per ANALISI SISMICA

Per quanto riguarda le azioni competenti al calcolo sismico, la combinazione sismica (§3.2.4) viene creata automaticamente e quindi non richiede una sua identificazione specifica nell'elenco delle combinazioni di PCM. La combinazione sismica esaminata è quindi la seguente:

$$G_{1,1} + G_{2,2} + P + E + \Sigma(\psi_{2,j} * Q_{k,j})$$

Conformemente a §2.5.3, la combinazione sismica viene impiegata per gli Stati Limite Ultimi connessi all'azione sismica E.

9. CARICHI: CONDIZIONI DI CARICO ELEMENTARI

Condizione di Carico Elementare n°1

PARAMETRI GENERALI

Permanente

Tipo di Azione [§2.5] = 1. Permanente strutturale (G1)

Livelli di intensità dell'azione variabile:

- (ψ_1),0 (valore raro) = 1.00

- (ψ_1),1 (valore frequente) = 1.00

- (ψ_1),2 (valore quasi-permanente) = 1.00

Moltiplicatori per Generazione Masse = 111001

NODI: Carichi Concentrati

N.nodo	Forze (kN)			Momenti (kNm)		
	PX	PY	PZ	MX	MY	MZ
4			-14.49			
7			-14.49			
11			-47.84			
12			-12.56			
15			-47.84			
16			-12.56			
20			-26.01			
23			-26.01			
27			-26.01			
30			-26.01			
34			-47.84			
35			-12.56			
38			-47.84			

39			-12.56			
43			-26.01			
46			-26.01			
50			-47.84			
51			-12.56			
54			-47.84			
55			-12.56			
58			-17.17			
61			-17.17			
65			-47.84			
66			-12.56			
69			-47.84			
70			-12.56			
74			-26.01			
77			-26.01			
81			-47.84			
82			-12.56			
85			-47.84			
86			-12.56			
90			-26.01			
93			-26.01			
97			-26.01			
100			-26.01			
104			-26.01			
107			-26.01			
115			-11.63			
118			-11.63			
123			-5.71			
126			-5.71			
184			-0.16			
184			-14.10			
184			-0.06			
185			-0.16			
185			-0.06			
185			-0.16			
185			-0.06			
185			-14.10			
185			-14.10			
186			-0.06			
186			-14.10			
186			-0.16			

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		
	qX	qY	qZ
1			-39.95
4			-39.95
8			-20.96
11			-25.31
16			-25.31
19			-43.13
23			-7.49
26			-6.83
30			-38.51
34			-81.41
40			-7.49
43			-43.20
46			-43.20
49			-17.77
54			-17.55
56			-11.40
60			-11.40
64			-25.31
69			-25.31
71			-7.49
75			-81.41
79			-38.51
85			-6.83
88			-7.49
92			-43.13
95			-25.31
99			-25.31
101			-20.96
104			-54.95
105			-0.25
105			-0.11
106			-20.92
109			-22.29
113			-20.92
116			-22.29
120			-49.01
122			-44.22
123			-92.51

124	-28.76
126	-44.22
128	-43.76
130	-42.49
132	-62.70
133	-46.69
135	-42.15
136	
137	
138	-49.70
140	-25.39
143	-29.74
146	-21.03
149	-25.39
152	-29.74
155	-21.03
158	-39.95
159	-0.28
159	-0.11
160	-0.28
160	-0.11
163	-39.95
164	-0.28
164	-0.11
165	-0.28
165	-0.11
166	-33.97
169	-43.76
171	-29.00
173	-33.97
176	-28.76
178	-92.51
179	-33.97
182	-49.01
184	-33.97
187	-49.09
189	-33.37
191	-20.20
194	-54.95
195	-0.25
195	-0.11
196	-0.25
196	-0.11
197	-15.84
198	-0.23
198	-0.28
198	-0.22
199	-0.19
200	-0.19
201	-0.19
202	-0.19
203	-0.19
204	-0.22
204	-0.28
204	-0.23
205	-0.23
205	-0.22
205	-0.25
206	-0.23
206	-0.22
206	-0.25
207	-0.25
207	-0.33
207	-0.23
208	-0.23
208	-0.33
208	-0.25
209	-0.23
209	-1.08
209	-0.33
210	-0.23
210	-1.08
210	-0.33
211	-0.19
212	-0.19
213	-0.19
214	-0.19
215	-0.19
216	-0.22
216	-0.23
217	-0.22
217	-0.29
217	-0.23
218	-0.23
218	-0.22
218	-0.22

219		-0.22
219		-0.23
219		-0.22
220		-0.23
220		-0.22
220		-0.29
221		-0.23
221		-0.22
221		-0.29
222		-0.23
222		-1.04
222		-0.29
223		-0.23
223		-0.29
223		-1.04
224		-0.23
224		-0.31
224		-0.23
225		-0.23
225		-0.31
225		-0.23
226		-0.23
226		-0.25
226		-0.23
227		-0.23
227		-0.23
227		-0.25
228		-0.23
229		-0.23
230		-0.23
231		-0.23
232		-0.23
233		-0.23
234		-0.23
235		-0.23
236		-0.23
237		-0.23
238		-0.23
239		-0.23
240		-0.23
241		-0.25
241		-0.11
241		-5.25
242		-0.29
242		-1.08
242		-0.23
243		-1.08
243		-0.23
243		-0.29
244		-0.23
244		-0.29
244		-1.08
245		-1.08
245		-0.23
246		-0.23
246		-1.08
247		-0.31
247		-0.23
247		-1.04
248		-1.04
248		-0.31
248		-0.23
249		-0.31
249		-1.04
249		-0.23
250		-1.04
250		-0.31
250		-0.23
251		-0.23
251		-0.31
251		-1.04
252		-0.19
253		-0.19
254		-0.19
255		-0.19
256		-0.19
257		-0.19
258		-0.19
259		-0.19
262		-12.94
262		-0.26
265		-0.26
265		-5.92
273		-1.16
274		-0.33
274		-1.12

275		-0.12
275		-0.27
323		-15.84
324		-15.84
325		-15.84
326		-15.84
327		-15.84
328		-15.84
329		-15.84
330		-15.84
331		-15.84
332		-15.84
333		-15.84
334		-15.84
335		-15.84
336		-15.84
337		-15.84
338		-15.84
339		-15.84
340		-15.84
341		-15.84
342		-15.84
343		-15.84
344		-15.84
345		-15.84
346		-15.84
347		-15.84
348		-15.84
349		-15.84
350		-15.84
351		-15.84
352		-15.84
353		-15.84
354		-15.84
355		-15.84
356		-15.84
357		-15.84
358		-15.84
359		-15.84
360		-15.84
361		-15.84
362		-15.84
363		-15.84
364		-15.84
365		-15.84
366		-15.84
367		-15.84
368		-15.84
369		-15.84
370		-15.84
371		-15.84
372		-15.84
373		-15.84
374		-15.84
375		-15.84
376		-15.84
377		-15.84
378		-15.84
379		-15.84
380		-15.84
381		-15.84
382		-15.84
383		-15.84
384		-15.84
385		-15.84
386		-15.84
387		-15.84
388		-15.84
389		-15.84
390		-15.84
391		-15.84
392		-12.00
393		-12.00
394		-12.00
395		-12.00
396		-12.00
397		-12.00
398		-12.00
399		-12.00
400		-12.00
401		-12.00
402		-15.84
403		-15.84
404		-12.00
405		-12.00
406		-12.00

407		-12.00
408		-12.00
409		-12.00
410		-12.00
411		-12.00
412		-12.00
413		-12.00
423		-0.23
424		-1.08
424		-0.23
426		-0.23
427		-1.04
427		-0.23
427		-0.31
429		-5.25
430		-0.11
430		-5.25
430		-0.28
432		-5.25
433		-0.28
433		-0.11
433		-5.25
475		-0.30
475		-0.23
475		-0.24
476		-0.30
476		-0.23
476		-0.24
477		-0.24
477		-0.26
477		-0.23
478		-0.23
478		-0.26
478		-0.24
479		-0.35
479		-0.23
479		-0.26
480		-0.23
480		-0.35
480		-0.26
481		-0.23
481		-0.23
481		-0.31
482		-0.23
482		-0.23
483		-0.23
483		-0.23
483		-0.23
484		-0.23
484		-0.23
484		-0.23
485		-0.31
485		-0.23
485		-0.23
486		-0.23
486		-0.31
486		-0.23
487		-0.33
487		-0.23
487		-0.25
488		-0.25
488		-0.23
488		-0.33
489		-0.27
489		-0.25
489		-0.23
490		-0.23
490		-0.25
490		-0.27
491		-0.25
491		-0.11
492		-0.25
492		-0.11
492		-5.25
493		-0.25
493		-5.25
493		-0.11
496		-15.84
497		-15.84
498		-15.84
499		-15.84

Condizione di Carico Elementare n°2

PARAMETRI GENERALI

Permanente non strutturale

Tipo di Azione [§2.5] = 2. Permanente non strutturale (G2)

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 1.00
- (psi),1 (valore frequente) = 1.00
- (psi),2 (valore quasi-permanente) = 1.00

Moltiplicatori per Generazione Masse = 111001

NODI: Carichi Concentrati

N.nodo	Forze (kN)			Momenti (kNm)		
	PX	PY	PZ	MX	MY	MZ
184			-0.45			
184			-0.18			
185			-0.45			
185			-0.45			
185			-0.18			
185			-0.18			
186			-0.18			
186			-0.45			

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		
	qX	qY	qZ
105			-0.31
105			-0.72
136			
136			
137			
137			
159			-0.79
159			-0.31
160			-0.79
160			-0.31
164			-0.79
164			-0.31
165			-0.79
165			-0.31
195			-0.72
195			-0.31
196			-0.72
196			-0.31
198			-0.62
198			-0.79
204			-0.62
204			-0.79
205			-0.62
205			-0.70
206			-0.62
206			-0.70
207			-0.94
207			-0.70
208			-0.70
208			-0.94
209			-0.94
210			-0.94
216			-0.62
217			-0.62
217			-0.82
218			-0.62
218			-0.62
219			-0.62
219			-0.62
220			-0.82
220			-0.62
221			-0.62
221			-0.82
222			-0.82
223			-0.82
224			-0.88
224			-0.66
225			-0.66
225			-0.88
226			-0.72
226			-0.66
227			-0.72
227			-0.66
241			-0.31
241			-0.72
242			-0.82
243			-0.82
244			-0.82

247			-0.88
248			-0.88
249			-0.88
250			-0.88
251			-0.88
274			-0.94
275			-0.77
275			-0.33
427			-0.88
430			-0.31
430			-0.79
433			-0.31
433			-0.79
475			-0.85
475			-0.67
476			-0.67
476			-0.85
477			-0.67
477			-0.76
478			-0.67
478			-0.76
479			-1.01
479			-0.76
480			-0.76
480			-1.01
481			-0.89
481			-0.66
482			-0.66
483			-0.66
483			-0.66
484			-0.66
484			-0.66
485			-0.66
485			-0.89
486			-0.89
486			-0.66
487			-0.71
487			-0.94
488			-0.94
488			-0.71
489			-0.77
489			-0.71
490			-0.77
490			-0.71
491			-0.72
491			-0.31
492			-0.31
492			-0.72
493			-0.72
493			-0.31

Condizione di Carico Elementare n°3

PARAMETRI GENERALI

Vento +X

Tipo di Azione [§2.5] = 12. Var.(Qk): Vento +X

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 0.60

- (psi),1 (valore frequente) = 0.20

- (psi),2 (valore quasi-permanente) = 0.00

Moltiplicatori per Generazione Masse = 111001

NODI: Carichi Concentrati

N.nodo	Forze (kN)			Momenti (kNm)		
	PX	PY	PZ	MX	MY	MZ
184			-0.21			
184			-0.08			
185			-0.21			
185			-0.21			
185			-0.08			
185			-0.08			
186			-0.08			
186			-0.21			

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		
	qX	qY	qZ
1	2.08		
4	2.08		
104	0.18		

104	2.08		
105			-0.14
105			-0.33
136			
137			
158	1.51		
159			-0.14
159			-0.37
160			-0.37
160			-0.14
163	1.51		
164			-0.37
164			-0.14
165			-0.14
165			-0.37
194	0.18		
194	2.08		
195			-0.33
195			-0.14
196			-0.33
196			-0.14
198			-0.37
198			-0.29
204			-0.37
204			-0.29
205			-0.33
205			-0.29
206			-0.33
206			-0.29
207			-0.33
207			-0.43
208			-0.33
208			-0.43
209			-0.67
209			-0.43
210			-0.43
210			-0.67
216			-0.29
217			-0.29
217			-0.38
218			-0.29
218			-0.29
219			-0.29
219			-0.29
220			-0.38
220			-0.29
221			-0.38
221			-0.29
222			-0.64
222			-0.38
223			-0.38
223			-0.64
224			-0.41
224			-0.30
225			-0.30
225			-0.41
226			-0.30
226			-0.33
227			-0.30
227			-0.33
241			-0.33
241			-0.14
242			-0.67
242			-0.38
243			-0.38
243			-0.67
244			-0.38
244			-0.67
245			-0.67
246			-0.67
247			-0.64
247			-0.41
248			-0.41
248			-0.64
249			-0.64
249			-0.41
250			-0.41
250			-0.64
251			-0.64
251			-0.41
273			-0.72
274			-0.44
274			-0.69
275			-0.36
275			-0.15
424			-0.67

427			-0.64
427			-0.41
430			-0.14
430			-0.37
433			-0.37
433			-0.14
475			-0.39
475			-0.31
476			-0.39
476			-0.31
477			-0.31
477			-0.35
478			-0.31
478			-0.35
479			-0.35
479			-0.47
480			-0.35
480			-0.47
481			-0.41
481			-0.31
482			-0.31
483			-0.31
483			-0.31
484			-0.31
484			-0.31
485			-0.31
485			-0.41
486			-0.31
486			-0.41
487			-0.33
487			-0.44
488			-0.44
488			-0.33
489			-0.36
489			-0.33
490			-0.36
490			-0.33
491			-0.14
491			-0.33
492			-0.14
492			-0.33
493			-0.33
493			-0.14

Condizione di Carico Elementare n°4

PARAMETRI GENERALI

Vento +Y

Tipo di Azione [§2.5] = 13. Var.(Qk): Vento +Y

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 0.60

- (psi),1 (valore frequente) = 0.20

- (psi),2 (valore quasi-permanente) = 0.00

Moltiplicatori per Generazione Masse = 111001

NODI: Carichi Concentrati

N.nodo	Forze (kN)			Momenti (kNm)		
	PX	PY	PZ	MX	MY	MZ
184			-0.21			
184			-0.08			
185			-0.21			
185			-0.21			
185			-0.08			
185			-0.08			
186			-0.08			
186			-0.21			

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		
	qX	qY	qZ
8		1.36	
11		1.52	
16		1.52	
19		2.20	
23		0.85	
26		0.82	
30		2.02	
34		3.65	
40		0.85	
43		2.20	

46	2.20	
49	1.24	
54	0.91	
56	0.68	
60	1.00	
64	1.52	
69	1.52	
71	0.85	
75	3.65	
79	2.02	
85	0.82	
88	0.85	
92	2.20	
95	1.52	
99	1.52	
101	1.36	
105		-0.14
105		-0.33
120	1.63	
122	1.68	
123	3.08	
124	0.96	
126	1.68	
128	1.46	
130	1.42	
132	2.38	
133	1.55	
135	1.60	
136		
137		
138	1.66	
140	0.96	
143	1.15	
146	0.79	
149	0.96	
152	1.15	
155	0.79	
159		-0.14
159		-0.37
160		-0.14
160		-0.37
164		-0.37
164		-0.14
165		-0.37
165		-0.14
166	1.15	
169	1.46	
171	0.97	
173	1.15	
176	0.96	
178	3.08	
179	1.15	
182	1.63	
184	1.15	
187	1.64	
189	1.10	
191	0.65	
195		-0.33
195		-0.14
196		-0.33
196		-0.14
198		-0.37
198		-0.29
204		-0.37
204		-0.29
205		-0.33
205		-0.29
206		-0.33
206		-0.29
207		-0.33
207		-0.43
208		-0.33
208		-0.43
209		-0.67
209		-0.43
210		-0.43
210		-0.67
216		-0.29
217		-0.29
217		-0.38
218		-0.29
218		-0.29
219		-0.29
219		-0.29
220		-0.38
220		-0.29

221		-0.38
221		-0.29
222		-0.64
222		-0.38
223		-0.38
223		-0.64
224		-0.41
224		-0.30
225		-0.30
225		-0.41
226		-0.30
226		-0.33
227		-0.30
227		-0.33
241		-0.33
241		-0.14
242		-0.67
242		-0.38
243		-0.38
243		-0.67
244		-0.38
244		-0.67
245		-0.67
246		-0.67
247		-0.64
247		-0.41
248		-0.41
248		-0.64
249		-0.64
249		-0.41
250		-0.41
250		-0.64
251		-0.64
251		-0.41
273		-0.72
274		-0.44
274		-0.69
275		-0.36
275		-0.15
424		-0.67
427		-0.64
427		-0.41
430		-0.14
430		-0.37
433		-0.37
433		-0.14
475		-0.39
475		-0.31
476		-0.39
476		-0.31
477		-0.31
477		-0.35
478		-0.31
478		-0.35
479		-0.35
479		-0.47
480		-0.35
480		-0.47
481		-0.41
481		-0.31
482		-0.31
483		-0.31
483		-0.31
484		-0.31
484		-0.31
485		-0.31
485		-0.41
486		-0.31
486		-0.41
487		-0.33
487		-0.44
488		-0.44
488		-0.33
489		-0.36
489		-0.33
490		-0.36
490		-0.33
491		-0.14
491		-0.33
492		-0.14
492		-0.33
493		-0.33
493		-0.14

Condizione di Carico Elementare n°5

PARAMETRI GENERALI

Vento -X

Tipo di Azione [§2.5] = 14. Var.(Qk): Vento -X

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 0.60

- (psi),1 (valore frequente) = 0.20

- (psi),2 (valore quasi-permanente) = 0.00

Moltiplicatori per Generazione Masse = 111001

NODI: Carichi Concentrati

N.nodo	Forze (kN)			Momenti (kNm)		
	PX	PY	PZ	MX	MY	MZ
184			-0.21			
184			-0.08			
185			-0.21			
185			-0.21			
185			-0.08			
185			-0.08			
186			-0.08			
186			-0.21			

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		
	qX	qY	qZ
1	-2.08		
4	-2.08		
104	-0.18		
104	-2.08		
105			-0.14
105			-0.33
136			
137			
158	-1.51		
159			-0.14
159			-0.37
160			-0.37
160			-0.14
163	-1.51		
164			-0.37
164			-0.14
165			-0.14
165			-0.37
194	-0.18		
194	-2.08		
195			-0.33
195			-0.14
196			-0.33
196			-0.14
198			-0.37
198			-0.29
204			-0.37
204			-0.29
205			-0.33
205			-0.29
206			-0.33
206			-0.29
207			-0.33
207			-0.43
208			-0.33
208			-0.43
209			-0.67
209			-0.43
210			-0.43
210			-0.67
216			-0.29
217			-0.29
217			-0.38
218			-0.29
218			-0.29
219			-0.29
219			-0.29
220			-0.38
220			-0.29
221			-0.38
221			-0.29
222			-0.64
222			-0.38
223			-0.38
223			-0.64
224			-0.41

224			-0.30
225			-0.30
225			-0.41
226			-0.30
226			-0.33
227			-0.30
227			-0.33
241			-0.33
241			-0.14
242			-0.67
242			-0.38
243			-0.38
243			-0.67
244			-0.38
244			-0.67
245			-0.67
246			-0.67
247			-0.64
247			-0.41
248			-0.41
248			-0.64
249			-0.64
249			-0.41
250			-0.41
250			-0.64
251			-0.64
251			-0.41
273			-0.72
274			-0.44
274			-0.69
275			-0.36
275			-0.15
424			-0.67
427			-0.64
427			-0.41
430			-0.14
430			-0.37
433			-0.37
433			-0.14
475			-0.39
475			-0.31
476			-0.39
476			-0.31
477			-0.31
477			-0.35
478			-0.31
478			-0.35
479			-0.35
479			-0.47
480			-0.35
480			-0.47
481			-0.41
481			-0.31
482			-0.31
483			-0.31
483			-0.31
484			-0.31
484			-0.31
485			-0.31
485			-0.41
486			-0.31
486			-0.41
487			-0.33
487			-0.44
488			-0.44
488			-0.33
489			-0.36
489			-0.33
490			-0.36
490			-0.33
491			-0.14
491			-0.33
492			-0.14
492			-0.33
493			-0.33
493			-0.14

Condizione di Carico Elementare n°6

PARAMETRI GENERALI

Vento -Y

Tipo di Azione [§2.5] = 15. Var.(Qk): Vento -Y

Livelli di intensità dell'azione variabile:

- (psi),0 (valore raro) = 0.60

- (psi),1 (valore frequente) = 0.20

- (psi),2 (valore quasi-permanente) = 0.00
 Moltiplicatori per Generazione Masse = 111001

NODI: Carichi Concentrati

N.nodo	Forze (kN)			Momenti (kNm)		
	PX	PY	PZ	MX	MY	MZ
184			-0.21			
184			-0.08			
185			-0.21			
185			-0.21			
185			-0.08			
185			-0.08			
186			-0.08			
186			-0.21			

ASTE: Carichi Distribuiti Uniformi

N.asta	Carichi (kN/m)		
	qX	qY	qZ
8		-1.36	
11		-1.52	
16		-1.52	
19		-2.20	
23		-0.85	
26		-0.82	
30		-2.02	
34		-3.65	
40		-0.85	
43		-2.20	
46		-2.20	
49		-1.24	
54		-0.91	
56		-0.68	
60		-1.00	
64		-1.52	
69		-1.52	
71		-0.85	
75		-3.65	
79		-2.02	
85		-0.82	
88		-0.85	
92		-2.20	
95		-1.52	
99		-1.52	
101		-1.36	
105			-0.14
105			-0.33
120		-1.63	
122		-1.68	
123		-3.08	
124		-0.96	
126		-1.68	
128		-1.46	
130		-1.42	
132		-2.38	
133		-1.55	
135		-1.60	
136			
137			
138		-1.66	
140		-0.96	
143		-1.15	
146		-0.79	
149		-0.96	
152		-1.15	
155		-0.79	
159			-0.14
159			-0.37
160			-0.14
160			-0.37
164			-0.37
164			-0.14
165			-0.37
165			-0.14
166		-1.15	
169		-1.46	
171		-0.97	
173		-1.15	
176		-0.96	
178		-3.08	
179		-1.15	
182		-1.63	

184	-1.15	
187	-1.64	
189	-1.10	
191	-0.65	
195		-0.33
195		-0.14
196		-0.33
196		-0.14
198		-0.37
198		-0.29
204		-0.37
204		-0.29
205		-0.33
205		-0.29
206		-0.33
206		-0.29
207		-0.33
207		-0.43
208		-0.33
208		-0.43
209		-0.67
209		-0.43
210		-0.43
210		-0.67
216		-0.29
217		-0.29
217		-0.38
218		-0.29
218		-0.29
219		-0.29
219		-0.29
220		-0.38
220		-0.29
221		-0.38
221		-0.29
222		-0.64
222		-0.38
223		-0.38
223		-0.64
224		-0.41
224		-0.30
225		-0.30
225		-0.41
226		-0.30
226		-0.33
227		-0.30
227		-0.33
241		-0.33
241		-0.14
242		-0.67
242		-0.38
243		-0.38
243		-0.67
244		-0.38
244		-0.67
245		-0.67
246		-0.67
247		-0.64
247		-0.41
248		-0.41
248		-0.64
249		-0.64
249		-0.41
250		-0.41
250		-0.64
251		-0.64
251		-0.41
273		-0.72
274		-0.44
274		-0.69
275		-0.36
275		-0.15
424		-0.67
427		-0.64
427		-0.41
430		-0.14
430		-0.37
433		-0.37
433		-0.14
475		-0.39
475		-0.31
476		-0.39
476		-0.31
477		-0.31
477		-0.35
478		-0.31

478			-0.35
479			-0.35
479			-0.47
480			-0.35
480			-0.47
481			-0.41
481			-0.31
482			-0.31
483			-0.31
483			-0.31
484			-0.31
484			-0.31
485			-0.31
485			-0.41
486			-0.31
486			-0.41
487			-0.33
487			-0.44
488			-0.44
488			-0.33
489			-0.36
489			-0.33
490			-0.36
490			-0.33
491			-0.14
491			-0.33
492			-0.14
492			-0.33
493			-0.33
493			-0.14

Condizione di Carico Elementare n°7

Non risulta definito alcun carico su Nodi o Aste

10. CARICHI: COMBINAZIONI DI CONDIZIONI DI CARICO ELEMENTARI

Segue: elenco delle CCC (Combinazioni di Condizioni di Carico), utilizzate in Analisi Statica Lineare (non Sismica), in accordo con §2.5 D.M.14.1.2008.

Per quanto riguarda l'Analisi Sismica, PCM considera automaticamente l'unica combinazione di carichi prevista (§3.2.4): si intende che l'analisi sismica viene quindi svolta tenendo conto degli eventuali effetti torsionali aggiuntivi (§7.2.6) e combinando i risultati corrispondenti alle diverse direzioni di analisi (§7.3.5), secondo le opzioni scelte nei Parametri di Calcolo.

Elenco delle CCC. Per ogni CCC vengono indicati:

- la numerazione progressiva;

per CCC non generiche:

- lo Stato Limite di riferimento (SLU o SLE);

- il codice identificativo della CCC in ambiente software PCM;

- la Tipologia (Fondamentale, Frequente, QuasiPermanente) / l'Azione Dominante / l'eventuale altra azione che caratterizza la CCC;

- per CCC SLU (di tipo Fondamentale): i coefficienti gamma (moltiplicatori) per le CCE (coefficienti parziali di sicurezza, Tab. 2.6.I in §2.6.1);

- i coefficienti (psi) (coefficienti di combinazione, Tab. 2.5.I in §2.5.3):

per la tipologia Fondamentale: (psi) = (psi),0;

per la tipologia Frequente: (psi) = (psi),1 per l'Azione Dominante, e: (psi) = (psi),2 per le altre azioni variabili che possono agire contemporaneamente all'azione dominante;

per la tipologia QuasiPermanente: (psi) = (psi),2;

- per CCC SLU (di tipo Fondamentale): i moltiplicatori di calcolo per le CCE, pari a: (gamma) per l'Azione Dominante,

(gamma)*(psi),0 per le altre azioni variabili che possono agire contemporaneamente all'azione dominante;

per eventuali CCC generiche:

- i coefficienti gamma (moltiplicatori) per le CCE.

Combinazione di Condizioni di Carico n°1

SLU: Combinazione 41 (Fondamentale/Vento +X)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.00

(psi),0 per le CCE = 1) 1.00, 2) 1.00, 3) -, 4) 0.60, 5) 0.60, 6) 0.60, 7) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 1.50, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.00

Combinazione di Condizioni di Carico n°2

SLU: Combinazione 42 (Fondamentale/Vento +Y)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 0.00, 4) 1.50, 5) 0.00, 6) 0.00, 7) 1.00

(psi),0 per le CCE = 1) 1.00, 2) 1.00, 3) 0.60, 4) -, 5) 0.60, 6) 0.60, 7) 1.00

Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 0.00, 4) 1.50, 5) 0.00, 6) 0.00, 7) 1.00

Combinazione di Condizioni di Carico n°3

SLU: Combinazione 43 (Fondamentale/Vento -X)

CCC fondamentale (SLU)

Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 0.00, 4) 0.00, 5) 1.50, 6) 0.00, 7) 1.00

(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.60, 4) 0.60, 5) -, 6) 0.60, 7) 1.00
Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 0.00, 4) 0.00, 5) 1.50, 6) 0.00, 7) 1.00

Combinazione di Condizioni di Carico n°4

SLU: Combinazione 44 (Fondamentale/Vento -Y)
CCC fondamentale (SLU)
Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.30, 2) 1.50, 3) 0.00, 4) 0.00, 5) 0.00, 6) 1.50, 7) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.60, 4) 0.60, 5) 0.60, 6) -, 7) 1.00
Moltiplicatori di calcolo per le CCE = 1) 1.30, 2) 1.50, 3) 0.00, 4) 0.00, 5) 0.00, 6) 1.50, 7) 1.00

Combinazione di Condizioni di Carico n°5

SLU: Combinazione 45 (Fondamentale/Vento +X)
CCC fondamentale (SLU)
Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 1.50, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) -, 4) 0.60, 5) 0.60, 6) 0.60, 7) 1.00
Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 1.50, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.00

Combinazione di Condizioni di Carico n°6

SLU: Combinazione 46 (Fondamentale/Vento +Y)
CCC fondamentale (SLU)
Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 1.50, 5) 0.00, 6) 0.00, 7) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.60, 4) -, 5) 0.60, 6) 0.60, 7) 1.00
Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 1.50, 5) 0.00, 6) 0.00, 7) 1.00

Combinazione di Condizioni di Carico n°7

SLU: Combinazione 47 (Fondamentale/Vento -X)
CCC fondamentale (SLU)
Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 1.50, 6) 0.00, 7) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.60, 4) 0.60, 5) -, 6) 0.60, 7) 1.00
Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 1.50, 6) 0.00, 7) 1.00

Combinazione di Condizioni di Carico n°8

SLU: Combinazione 48 (Fondamentale/Vento -Y)
CCC fondamentale (SLU)
Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 0.00, 6) 1.50, 7) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.60, 4) 0.60, 5) 0.60, 6) -, 7) 1.00
Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 0.00, 6) 1.50, 7) 1.00

Combinazione di Condizioni di Carico n°9

CCC fondamentale (SLU)
Coefficienti gamma (moltiplicatori) per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.00
(psi,0) per le CCE = 1) 1.00, 2) 1.00, 3) 0.60, 4) 0.60, 5) 0.60, 6) 0.60, 7) 1.00
Moltiplicatori di calcolo per le CCE = 1) 1.00, 2) 1.00, 3) 0.00, 4) 0.00, 5) 0.00, 6) 0.00, 7) 1.00

RISULTATI DELL'ELABORAZIONE

Per alcuni parametri utilizzati in analisi sismica, viene fatto diretto riferimento ai corrispondenti paragrafi del D.M.17.1.2018 (NTC18; riferimenti evidenziati in colore blu).

ANALISI STATICA LINEARE (NON sismica)

In analisi statica non sismica, per gli edifici in muratura viene sottoposto a verifiche di sicurezza il solo **Stato Limite Ultimo (SLU) di salvaguardia della Vita (SLV)** in base a quanto espressamente indicato in §4.5.6.3: "Non è generalmente necessario eseguire verifiche nei confronti di stati limite di esercizio di strutture in muratura, quando siano soddisfatte le verifiche nei confronti degli stati limite ultimi". L'analisi può comprendere tuttavia anche Combinazioni di Carico per Stati Limite di Esercizio (per le quali PCM non esegue verifiche di sicurezza).

Le **Combinazioni di Carico per Analisi Statica non sismica** sono le combinazioni di tipo fondamentale, impiegate per gli stati limite ultimi (2.5.1) §2.5.3, espresse dalla formulazione:

$$\gamma_{G1} * G_{1,1} + \gamma_{G2} * G_{2,2} + \gamma_P * P + \gamma_{Q1} * Q_{k,1} + \gamma_{Q2} * \psi_{0,2} Q_{k,2} + \gamma_{Q3} * \psi_{0,3} Q_{k,3} + \dots$$

La definizione delle azioni rispetta quanto formulato in §2.5.1.3 e §2.5.2; in particolare $Q_{k,1}$ è l'azione variabile dominante, mentre $Q_{k,2}$, $Q_{k,3}$, ..., sono azioni variabili che possono agire contemporaneamente a quella dominante. Le azioni variabili $Q_{k,j}$ vengono combinate con i coefficienti di combinazione ψ_j i cui valori sono forniti in §2.5.3, Tab.2.5.I.

E' inoltre possibile analizzare la Combinazione sismica (§3.2.4), definita da:

$$G_{1,1} + G_{2,2} + P + E + \Sigma(\psi_{2,j} * Q_{k,j})$$

le cui sollecitazioni coincidono quindi con la combinazione di carico prevista al passo iniziale dell'analisi pushover, e alla componente statica delle sollecitazioni sismiche nelle analisi sismiche lineari. Ai fini delle verifiche di sicurezza, vengono considerate le resistenze utilizzate in analisi sismica statica non lineare (pushover), in modo tale da rendere i risultati delle verifiche statiche della Combinazione Sismica coerenti con le verifiche condotte al passo iniziale dell'analisi pushover.

ANALISI SISMICA LINEARE (STATICA e DINAMICA MODALE)

Dal punto di vista sismico, l'edificio può essere schematizzato con un modello tridimensionale (modellazione 3D) oppure scomposto in più modelli piani (modellazione 2D) ognuno analizzato singolarmente. La scomposizione in modelli piani è prevista nel caso di edifici esistenti in muratura con impalcati flessibili (§8.7.1).

Nella **modellazione 3D**, il sisma è rappresentato da forze sismiche di nodo in coordinate globali: FX, FY, FZ, MX, MY, MZ [normalmente sono diverse da zero solo le componenti: FX, FY (forze orizzontali), FZ (forze verticali), MZ (momento torcente intorno all'asse verticale)]. Nel caso di piano rigido con ipotesi master/slave, FX e FY sono applicate nel solo nodo master. Gli effetti torcenti sull'edificio vengono interpretati dai momenti torcenti MZ, determinati dal prodotto: forza orizzontale per eccentricità aggiuntiva. Essi sono presenti nel caso di piano rigido, dove assume significato il centro delle rigidità e quindi può essere considerata una sua eccentricità rispetto al baricentro.

Nella **modellazione 2D**: la forza sismica orizzontale viene in genere applicata al traverso orizzontale, spesso considerato rigido: in tal caso, l'unico grado di libertà dinamico per il traverso è la traslazione orizzontale ed i modi di vibrare sono pari al numero di piani (=numero dei traversi); l'unica forza sismica è FX, dal momento che il telaio piano risiede nel piano XZ. Gli effetti torcenti sull'edificio vengono rappresentati tramite il coefficiente di amplificazione δ da applicarsi direttamente alle forze sui traversi. Anche nella modellazione 2D si fa riferimento al nodo master di piano: generalmente, viene fatto coincidere con il nodo estremo sinistro del traverso posto alla quota del piano (nodo dove si considera concentrata l'azione sismica di origine modale).

Secondo Normativa, per gli edifici devono essere analizzati alcuni stati limite di riferimento. Per le costruzioni in muratura, questi sono:

- **Stati Limite di Esercizio (SLE)**: Stato Limite di Operatività (SLO) e Stato Limite di Danno (SLD)
- **Stati Limite Ultimi (SLU)**: Stato Limite di salvaguardia della Vita (SLV) e Stato Limite di Collasso (SLC).

Per tutti i **nuovi edifici** in **Classe I e II** si devono analizzare **SLV (con verifiche di resistenza) e SLD (con verifiche di rigidità)**. Per gli edifici nuovi di **Classe III e IV**, per limitare i danneggiamenti strutturali, si devono eseguire verifiche di **resistenza per SLD** e verifiche di **rigidità per SLO** (§7.3.6). Per gli **edifici esistenti** è possibile, se non diversamente richiesto, fare riferimento a §8.3, secondo cui la valutazione della sicurezza e la progettazione degli interventi sulle costruzioni esistenti potranno essere eseguiti con riferimento ai soli SLU, salvo che per le costruzioni in classe d'uso IV per le quali viene richiesto il rispetto di requisiti prestazionali: in tali casi si eseguiranno quindi anche verifiche a **SLD e SLO**.

Per ogni Stato Limite, la Normativa definisce lo Spettro di Risposta elastico. Per **SLO** lo spettro di progetto è lo spettro elastico corrispondente (§3.2.3.4), mentre per gli altri Stati Limite ultimi lo spettro di progetto si ottiene dallo spettro elastico dividendo le ordinate per il fattore di comportamento q (§3.2.3.5, §7.3).

L'analisi sismica è organizzata secondo la seguente procedura:

- (A) generazione e risoluzione di apposite C.C. elementari sismiche;
- (B) determinazione degli effetti sismici risultanti dalla simultaneità delle componenti sismiche (per 'effetti' si intendono le caratteristiche di sollecitazione e di deformazione);
- (C) combinazione degli effetti sismici con gli effetti dovuti ad altre azioni non sismiche.

(A) Le Condizioni di Carico elementari sismiche vengono determinate in base alle seguenti considerazioni (il riferimento corrente è alla **modellazione 3D**; in rosso le caratteristiche della **modellazione 2D**. **Nota bene:** la modellazione 2D è consentita per edifici regolari in pianta da alcuni testi normativi (cfr. OPCM 3274/2003-3431/2005, §4.4), ma non dal D.M.14.1.2018: quest'ultimo prevede invece la possibilità di modellazioni 2D per edifici esistenti in muratura (§8.7.1) con impalcati flessibili):

- il sisma orizzontale è considerato agente in due direzioni ortogonali (§3.2.3), indicate con α e $\alpha+90$;

(2D: una sola direzione, la X, nel piano del telaio, piano XZ);

- per tenere conto della variabilità spaziale del moto sismico nonché di eventuali incertezze (§7.2.6) è possibile considerare un'eccentricità aggiuntiva, il cui effetto è quello di generare un momento torcente aggiuntivo $M_{t,agg}$ di piano applicato direttamente nel centro di massa in caso di impalcato rigido, o scomposto in un sistema di forze autoequilibrato corrispondenti alle masse di piano nel caso di impalcato flessibile (2D: viene considerato il Coefficiente Amplificativo δ definito in §7.3.3.2, direttamente applicato alla forza orizzontale).

Pertanto, in direzione α si avranno 2 C.C. elementari:

(1) $\alpha + M_{t,agg}$

(2) $\alpha - M_{t,agg}$

dove $M_{t,agg}$ è calcolato in base all'Eccentricità Aggiuntiva lungo $\alpha+90$ (definita in §7.2.6) (ad ogni piano, il valore di $M_{t,agg}$ può essere diverso, anche se NTC18 prevede un'eccentricità costante su tutti gli orizzontamenti).

(2D: 1 C.C. elementare: α)

e altrettante in direzione $\alpha+90$:

(3) $(\alpha + 90) + M_{t,\alpha+90,agg}$

(4) $(\alpha + 90) - M_{t,\alpha+90,agg}$

dove $M_{t,\alpha+90,agg}$ è calcolato in base all'Eccentricità Aggiuntiva lungo α (definita in §7.2.6) (ad ogni piano, il valore di $M_{t,\alpha+90,agg}$ può essere diverso).

In caso di **Analisi Sismica Statica Lineare**, frequentemente i piani sono considerati rigidi (l'applicazione di questa analisi è in genere lecita solo quando sono soddisfatte le condizioni di regolarità) ed in tal caso le 4 (2D: 1; la modellazione 2D con piani rigidi è consentita da alcune Norme: cfr. OPCM 3274/2003-3431/2005) C.C. elementari sono tutte da risolvere.

Queste Condizioni di Carico elementari di tipo sismico vengono prodotte automaticamente dal software.

Nel caso di piani rigidi, ognuna di queste Condizioni di Carico elementari è costituita da carichi concentrati nei nodi master (baricentri di piano), e più precisamente: forze orizzontali nelle direzioni globali X e Y, e momenti torcenti MZ dati dal prodotto forza orizzontale per l'eccentricità aggiuntiva (2D: c'è solo una forza orizzontale in direzione X, amplificata col coefficiente di amplificazione δ).

Il sisma verticale non viene considerato in Analisi Sismica Statica Lineare (§7.3.3.2), definita solo dal sistema di forze orizzontali distribuite lungo l'altezza dell'edificio. In caso di effetti sismici verticali rilevanti, si eseguirà l'Analisi Sismica Dinamica Modale; in alternativa, poiché gli effetti del sisma verticale possono essere limitati a modelli parziali comprendenti i soli elementi interessati (§7.2.1; p.es. sbalzi, strutture spingenti), all'Analisi Sismica Statica Lineare del modello globale per la valutazione degli effetti del sisma orizzontale, potranno essere associate valutazioni a parte riguardanti il sisma verticale effettuate appunto solo sugli elementi interessati.

In caso di **Analisi Sismica Dinamica Modale**, si devono considerare gli effetti dei singoli modi, che vanno combinati tra loro. In analisi sismica dinamica modale, più frequentemente che in analisi sismica statica lineare, è possibile che un impalcato sia non rigido e che quindi non esista un nodo master, ma le masse siano considerate vibranti indipendentemente l'una dall'altra.

Pertanto:

- se è considerata l'eccentricità accidentale (momenti torcenti aggiuntivi), sono da risolvere 4 (2D: 1; la modellazione 2D con piani rigidi è consentita da alcune Norme: cfr. OPCM 3274/2003-3431/2005) C.C. elementari per ogni modo;

- se si ignora l'eccentricità accidentale, le C.C. elementari si riducono a 2 per ogni modo: α , $\alpha+90$ (2D: 1; la modellazione 2D con piani flessibili è consentita, per edifici esistenti in muratura (cfr. §8.7.1), dal D.M.14.1.2018).

Ognuna di queste Condizioni di Carico elementari è costituita da carichi concentrati corrispondenti ai gradi di libertà dinamici, applicati nei nodi sedi di masse indipendenti (anche nell'analisi dinamica, in caso di piano rigido le forze orizzontali agiscono nel nodo master, o baricentro di piano), e più precisamente:

forze orizzontali nelle direzioni globali X e Y e forze verticali nella direzione globale Z; in corrispondenza di un piano rigido, sarà anche applicato - nel nodo master del piano - il momento torcente MZ dato dal prodotto forza orizzontale per l'eccentricità aggiuntiva, mentre nel caso di piano flessibile l'eventuale azione torcente si scompone in un sistema di forze autoequilibrato corrispondenti alle masse di piano (2D: c'è solo una forza orizzontale in direzione X, amplificata col coefficiente di amplificazione δ).

In caso di presenza di effetti di sisma verticale (ossia, qualora fra i gradi di libertà dinamici vi sia la traslazione di masse in direzione verticale Z), deve essere considerata una ulteriore Condizione di Carico elementare determinata da sisma Z. Pertanto: nel caso 3D: in presenza di almeno un piano rigido, le C.C. elementari da risolvere per ogni modo sono 5; in assenza di piani rigidi, sono 3. Nel 2D: sono 2 (sisma orizzontale e sisma verticale).

Considerando i risultati di tutti gli N modi di vibrare, gli effetti delle C.C. elementari - tra loro corrispondenti (cioè la (1) del 1° modo con la (1) del 2° modo, ecc.; la (2) del 1° modo con la (2) del 2° modo ecc. fino alla (4)) - vanno sovrapposti tra loro con la modalità di combinazione modi scelta (generalmente la CQC).

Ne derivano così gli effetti sismici complessivi competenti alle 4 (o alle 2) (2D: 1) C.C. elementari.

Questa procedura viene gestita automaticamente da PCM, che:

I) partendo dai risultati dell'analisi modale crea le Condizioni di Carico elementari con le forze spettrali di origine modale;

II) risolve le Condizioni di Carico elementari stesse,

III) combina con il metodo scelto (in genere: CQC) gli effetti dei singoli modi di vibrare.

(B) Ottenuti gli effetti sismici complessivi corrispondenti alle 4 (o 2) (2D: 1) Condizioni di Carico elementari sismiche, si devono ora determinare i massimi effetti:

(b1) per sisma in direzione α , i massimi effetti sono: per 4 Condizioni di Carico elementari sismiche, i valori massimi fra (1)(2); per 2 Condizioni di Carico direttamente i valori di (1) (2D: direttamente i valori di (1));

(b2) per sisma in direzione ($\alpha + 90$), analogamente: i massimi fra (3)(4), o direttamente i valori di (3).

Nei modelli tridimensionali, le varie componenti orizzontali dell'azione sismica (α , $\alpha + 90$ ed eventualmente verticale) devono essere considerate agenti simultaneamente (§7.3.5). Per le due componenti orizzontali (α e $\alpha + 90$), i valori massimi (b1) e (b2) vengono combinati (a seconda della scelta dell'Utente):

- o calcolando la radice quadrata della somma dei quadrati: $E = \sqrt{E_{\alpha}^2 + E_{(\alpha+90)}^2}$

- o sommando ai massimi ottenuti per l'azione applicata in una direzione, il 30% dei massimi ottenuti per l'azione applicata nell'altra direzione: $\text{Max} [(E_{\alpha} + "0.30 E_{(\alpha+90)}); (0.30 E_{\alpha} + "0.30 E_{(\alpha+90)})]$ (§7.3.15), §7.3.5).

Per quanto riguarda gli effetti del sisma verticale, questo deve essere considerato ove necessario (§7.2.1). Complessivamente, viene scelto il massimo valore fra le seguenti combinazioni (regola fissa, quindi non c'è un corrispondente parametro di impostazione scelto dall'Utente):

$0.30 E_{\alpha} + "0.30 E_{(\alpha+90)} + "0.30 E_{\text{vert}}$

$E_{\alpha} + "0.30 E_{(\alpha+90)} + "0.30 E_{\text{vert}}$

$0.30 E_{\alpha} + "0.30 E_{(\alpha+90)} + "0.30 E_{\text{vert}}$

Una considerazione importante riguarda il segno "+" nelle combinazioni degli effetti nelle direzioni orizzontali e verticale. Il segno indica che deve essere assunto + o -, al fine di ottenere il risultato più sfavorevole.

In caso di analisi sismica dinamica modale 3D (e analogamente nel 2D), gli effetti sono però tutti privi di segno (derivano dalla sovrapposizione modale) e quindi il "+" è un + effettivo. L'effetto finale della combinazione è ovviamente ancora privo di segno.

In caso di analisi sismica statica lineare 3D, gli effetti hanno invece un segno e quindi il "+" può essere interpretato come + o -. Il risultato della combinazione è quindi con il segno, usando la formula del 30%; è invece senza segno, se si utilizza la formula della radice quadrata della somma dei quadrati.

Si osservi che nel D.M. 16.1.1996 non si prescriveva la simultaneità del sisma nelle due direzioni orizzontali (per esse si consentiva in generale l'analisi sismica separata): pertanto, la perdita del segno poteva dipendere solo dalla sovrapposizione modale e interessava quindi la sola analisi dinamica.

Nell'analisi sismica statica lineare 2D, gli effetti sono invece sempre con il segno (non si devono eseguire combinazioni fra direzioni, perché l'orizzontale è unica ed il verticale è assente in quanto per considerarlo occorre necessariamente eseguire l'analisi sismica dinamica modale).

Nei confronti dei vari stati limite analizzati, gli effetti sismici E_{isism} vengono valutati applicando, ove necessario, alcuni fattori correttivi, secondo il seguente schema:

- le sollecitazioni in SLV sono direttamente i valori risultanti dall'analisi svolta applicando forze sismiche determinate attraverso lo spettro di risposta di progetto allo stato limite SLV;

- gli spostamenti in SLV si ottengono amplificando i valori risultanti dall'analisi per il fattore μ_d (§7.3.3.3). Gli spostamenti in SLV vengono utilizzati per particolari valutazioni, quali ad esempio la distanza tra costruzioni contigue (§7.2.2), ma in SLV non sono previste verifiche specifiche agli spostamenti alle quali corrispondano coefficienti di sicurezza caratteristici dell'edificio;

- le sollecitazioni in SLD sono direttamente i valori risultanti dall'analisi svolta applicando forze sismiche determinate attraverso lo spettro di risposta di progetto allo stato limite SLD;

- gli spostamenti in SLD si ottengono amplificando i valori risultanti dall'analisi per il fattore di comportamento q . Gli spostamenti in SLD vengono utilizzati per le verifiche di spostamento degli interpiani (§7.3.6.1);

- le sollecitazioni e gli spostamenti in SLO sono direttamente i valori risultanti dall'analisi svolta applicando forze sismiche determinate attraverso lo spettro di risposta di progetto allo stato limite SLO.

(C) A questo punto, gli effetti sismici E_{isism} si combinano con le altre azioni (§3.2.4) per ottenere gli effetti finali da utilizzare nella verifica degli elementi strutturali.

Gli effetti delle altre azioni sono riconducibili alla sommatoria delle Condizioni di Carico elementari (NON sismiche), ognuna delle quali contribuisce con i coefficienti ψ_2 .

La Combinazione di Carico per Analisi Sismica esaminata è quindi la seguente:

$$G_1 + G_2 + P + E + \Sigma(\psi_{2,j} * Q_{k,j})$$

I risultati complessivi sono sempre espressi nella forma $E_{\text{stat}} \pm E_{\text{isism}}$, per ottenere l'effetto massimo e l'effetto minimo.

Se il segno non è perduto (vedi casi precedenti), all'effetto statico viene prima sommato, quindi sottratto l'effetto sismico: in dipendenza dal segno di questo, si formeranno corrispondentemente l'effetto complessivo massimo (con la somma) e minimo (con la sottrazione), o minimo con la somma e massimo con la sottrazione (minimo e massimo si intendono in valore assoluto). La congruenza fra caratteristiche di sollecitazione diverse (ad esempio, M e N per la pressoflessione, o M e T per lo scorrimento che interessa la zona reagente) viene tuttavia mantenuta solo qualora non siano state effettuate le combinazioni con la formula del 30%, e più esattamente nei seguenti casi: analisi sismica statica lineare in assenza di sisma verticale, 2D o 3D in una sola direzione (X o Y). Negli altri casi, le caratteristiche di sollecitazione verranno accoppiate secondo le combinazioni possibili; ad esempio, nelle verifiche a pressoflessione, si possono considerare $N_{\text{max}}, M_{\text{max}}$ e $N_{\text{min}}, M_{\text{min}}$ oppure anche $N_{\text{max}}, M_{\text{min}}$ e $N_{\text{min}}, M_{\text{max}}$.

Se il segno è perduto (analisi dinamiche modali), l'effetto complessivo massimo (sempre in valore assoluto) è dato dalla somma dell'effetto statico e dell'effetto sismico assunto con il segno dell'effetto statico; viceversa, per l'effetto complessivo minimo, si somma allo statico l'effetto sismico con il segno opposto dello statico; a causa della perdita di segno, la congruenza fra caratteristiche di sollecitazione diverse viene perduta.

11. RISULTATI Analisi Sismica Dinamica Modale

Risultati analisi strutturale eseguita con il software Aedes.PCM (c)Aedes

Denominazione del Progetto: TP_E_Prog

Tipo di Analisi: Analisi Sismica, Dinamica Modale

Fattore di Comportamento q = 3.000

Data e Ora di elaborazione: (26/04/21 - 10:23:36)

SLE di Operatività (SLO)

Piani: Pesì sismici, Forze e Taglianti (kN)

N.	Peso sismico (kN)		Forze sismiche (kN)		Taglianti (kN)	
	dir.X	dir.Y	dir.X	dir.Y	dir.X	dir.Y
1	3018.22	3018.22	99.49	122.04	139.89	175.40
2	1233.29	1233.29	40.40	53.36	40.40	53.36

Piani: Rigidezze (kN/m,kNm) - Spostamenti (mm) - Baricentro G, Centro delle rigidezze R ed Eccentricità GR (m)

N.	Rigidezze (trasl.:kN/m, tors.:kNm)			Spost. max (mm)				Baricentro G, Centro rigidezze R, Eccentricità e					
	trasl.X	trasl.Y	tors.	dir.X+	dir.X-	dir.Y+	dir.Y-	G.X	G.Y	R.X	R.Y	e.X	e.Y
1	7014866	2791905	496514080	0.108	-0.011	0.383	-0.754	18.499	4.195	15.013	3.810	3.486	
2	844505856	715875840	93682130944	0.112	-0.004	0.540	-0.884	24.384	4.124	22.312	3.670	2.072	

SLE di Danno (SLD)

Piani: Pesì sismici, Forze e Taglianti (kN)

N.	Peso sismico (kN)		Forze sismiche (kN)		Taglianti (kN)	
	dir.X	dir.Y	dir.X	dir.Y	dir.X	dir.Y
1	3018.22	3018.22	99.05	110.40	139.23	158.48
2	1233.29	1233.29	40.17	48.08	40.17	48.08

Piani: Rigidezze (kN/m,kNm) - Spostamenti (mm) - Baricentro G, Centro delle rigidezze R ed Eccentricità GR (m)

N.	Rigidezze (trasl.:kN/m, tors.:kNm)			Spost. max (mm)				Baricentro G, Centro rigidezze R, Eccentricità e					
	trasl.X	trasl.Y	tors.	dir.X+	dir.X-	dir.Y+	dir.Y-	G.X	G.Y	R.X	R.Y	e.X	e.Y
1	7014866	2791905	496514080	0.130	-0.033	0.575	-0.946	18.499	4.195	15.013	3.810	3.486	
2	844505856	715875840	93682130944	0.132	-0.024	0.718	-1.062	24.384	4.124	22.312	3.670	2.072	

SLU di salvaguardia della Vita (SLV)

Piani: Pesì sismici, Forze e Taglianti (kN)

N.	Peso sismico (kN)		Forze sismiche (kN)		Taglianti (kN)	
	dir.X	dir.Y	dir.X	dir.Y	dir.X	dir.Y
1	3018.22	3018.22	179.39	146.51	251.96	209.11
2	1233.29	1233.29	72.57	62.60	72.57	62.60

Piani: Rigidezze (kN/m,kNm) - Spostamenti (mm) - Baricentro G, Centro delle rigidezze R ed Eccentricità GR (m)

N.	Rigidezze (trasl.:kN/m, tors.:kNm)			Spost. max (mm)				Baricentro G, Centro rigidezze R, Eccentricità e					
	trasl.X	trasl.Y	tors.	dir.X+	dir.X-	dir.Y+	dir.Y-	G.X	G.Y	R.X	R.Y	e.X	e.Y
1	7014866	2791905	496514080	0.130	-0.033	0.575	-0.946	18.499	4.195	15.013	3.810	3.486	
2	844505856	715875840	93682130944	0.132	-0.024	0.718	-1.062	24.384	4.124	22.312	3.670	2.072	

1	7014866	2791905	496514080	0.890	-0.794	6.737	-7.110	18.499	4.195	15.013	3.810	3.486
0.385												
2	844505856	715875840	93682130944	0.825	-0.718	7.216	-7.602	24.384	4.124	22.312	3.670	2.072
0.454												

Effetti Azioni NON Sismiche (per eseguire la combinazione secondo §2.5.3)

--> Spostamenti dei Nodi (u=sX, v=sY, w=sZ, fiX, fiY, fiZ) (XYZ=assi globali) [mm, mrad]

1,	0.000E+00,	0.000E+00,	-7.154E+00,	-1.390E-03,	-4.113E-02,	0.000E+00
2,	4.304E-02,	-1.348E-01,	-7.241E+00,	2.554E-02,	5.261E-03,	-1.477E-04
3,	4.327E-02,	-1.348E-01,	-7.202E+00,	2.554E-02,	5.261E-03,	-1.477E-04
4,	4.282E-02,	-1.348E-01,	-7.280E+00,	2.554E-02,	5.261E-03,	-1.477E-04
5,	0.000E+00,	0.000E+00,	-7.306E+00,	6.062E-02,	-8.072E-04,	0.000E+00
6,	4.226E-02,	-1.348E-01,	-7.387E+00,	3.017E-02,	5.217E-03,	-1.477E-04
7,	4.248E-02,	-1.348E-01,	-7.341E+00,	3.017E-02,	5.217E-03,	-1.477E-04
8,	4.204E-02,	-1.348E-01,	-7.433E+00,	3.017E-02,	5.217E-03,	-1.477E-04
9,	0.000E+00,	0.000E+00,	-7.398E+00,	6.061E-02,	-8.094E-04,	0.000E+00
10,	4.204E-02,	-1.349E-01,	-7.437E+00,	3.017E-02,	5.217E-03,	-1.477E-04
11,	0.000E+00,	0.000E+00,	-7.397E+00,	6.061E-02,	-8.095E-04,	0.000E+00
12,	4.204E-02,	-1.350E-01,	-7.441E+00,	3.017E-02,	5.217E-03,	-1.477E-04
13,	0.000E+00,	0.000E+00,	-7.393E+00,	4.281E-02,	-3.620E-03,	0.000E+00
14,	4.204E-02,	-1.355E-01,	-7.458E+00,	3.017E-02,	5.219E-03,	-1.477E-04
15,	0.000E+00,	0.000E+00,	-7.396E+00,	4.281E-02,	-3.620E-03,	0.000E+00
16,	4.204E-02,	-1.354E-01,	-7.453E+00,	3.017E-02,	5.218E-03,	-1.477E-04
17,	4.204E-02,	-1.356E-01,	-7.463E+00,	3.017E-02,	5.220E-03,	-1.477E-04
18,	0.000E+00,	0.000E+00,	-7.386E+00,	4.280E-02,	-3.671E-03,	0.000E+00
19,	4.204E-02,	-1.358E-01,	-7.468E+00,	3.018E-02,	5.222E-03,	-1.477E-04
20,	4.204E-02,	-1.359E-01,	-7.473E+00,	3.018E-02,	5.223E-03,	-1.477E-04
21,	0.000E+00,	0.000E+00,	-7.385E+00,	4.527E-02,	-7.736E-04,	0.000E+00
22,	4.204E-02,	-1.365E-01,	-7.493E+00,	3.018E-02,	5.234E-03,	-1.477E-04
23,	4.204E-02,	-1.363E-01,	-7.485E+00,	3.018E-02,	5.228E-03,	-1.477E-04
24,	4.204E-02,	-1.367E-01,	-7.502E+00,	3.019E-02,	5.240E-03,	-1.477E-04
25,	0.000E+00,	0.000E+00,	-7.384E+00,	4.528E-02,	-8.580E-04,	0.000E+00
26,	4.204E-02,	-1.368E-01,	-7.503E+00,	3.019E-02,	5.242E-03,	-1.477E-04
27,	4.204E-02,	-1.368E-01,	-7.505E+00,	3.019E-02,	5.243E-03,	-1.477E-04
28,	0.000E+00,	0.000E+00,	-7.330E+00,	4.531E-01,	3.329E-02,	0.000E+00
29,	4.204E-02,	-1.372E-01,	-7.518E+00,	3.019E-02,	5.254E-03,	-1.477E-04
30,	4.204E-02,	-1.372E-01,	-7.516E+00,	3.019E-02,	5.253E-03,	-1.477E-04
31,	4.204E-02,	-1.372E-01,	-7.519E+00,	3.019E-02,	5.255E-03,	-1.477E-04
32,	0.000E+00,	0.000E+00,	-7.387E+00,	4.529E-01,	3.324E-02,	0.000E+00
33,	4.204E-02,	-1.374E-01,	-7.527E+00,	3.019E-02,	5.262E-03,	-1.477E-04
34,	0.000E+00,	0.000E+00,	-7.436E+00,	4.529E-01,	3.323E-02,	0.000E+00
35,	4.204E-02,	-1.377E-01,	-7.535E+00,	3.019E-02,	5.269E-03,	-1.477E-04
36,	0.000E+00,	0.000E+00,	-7.490E+00,	6.437E-02,	1.537E-03,	0.000E+00
37,	4.204E-02,	-1.385E-01,	-7.563E+00,	3.019E-02,	5.288E-03,	-1.477E-04
38,	0.000E+00,	0.000E+00,	-7.485E+00,	6.437E-02,	1.539E-03,	0.000E+00
39,	4.204E-02,	-1.380E-01,	-7.546E+00,	3.019E-02,	5.277E-03,	-1.477E-04
40,	4.204E-02,	-1.389E-01,	-7.579E+00,	3.019E-02,	5.299E-03,	-1.477E-04
41,	0.000E+00,	0.000E+00,	-7.495E+00,	6.417E-02,	1.241E-03,	0.000E+00
42,	4.204E-02,	-1.390E-01,	-7.581E+00,	3.019E-02,	5.300E-03,	-1.477E-04
43,	4.204E-02,	-1.390E-01,	-7.582E+00,	3.019E-02,	5.301E-03,	-1.477E-04
44,	0.000E+00,	0.000E+00,	-7.447E+00,	3.810E-01,	2.777E-02,	0.000E+00
45,	4.204E-02,	-1.396E-01,	-7.603E+00,	3.019E-02,	5.313E-03,	-1.477E-04
46,	4.204E-02,	-1.393E-01,	-7.594E+00,	3.019E-02,	5.308E-03,	-1.477E-04
47,	4.204E-02,	-1.398E-01,	-7.612E+00,	3.019E-02,	5.317E-03,	-1.477E-04
48,	0.000E+00,	0.000E+00,	-7.538E+00,	3.806E-01,	2.753E-02,	0.000E+00
49,	4.204E-02,	-1.401E-01,	-7.620E+00,	3.019E-02,	5.319E-03,	-1.477E-04
50,	0.000E+00,	0.000E+00,	-7.583E+00,	3.806E-01,	2.753E-02,	0.000E+00
51,	4.204E-02,	-1.403E-01,	-7.629E+00,	3.019E-02,	5.321E-03,	-1.477E-04
52,	0.000E+00,	0.000E+00,	-7.617E+00,	3.126E-02,	1.441E-02,	0.000E+00
53,	4.204E-02,	-1.407E-01,	-7.645E+00,	3.019E-02,	5.322E-03,	-1.477E-04
54,	0.000E+00,	0.000E+00,	-7.608E+00,	3.126E-02,	1.441E-02,	0.000E+00
55,	4.204E-02,	-1.406E-01,	-7.641E+00,	3.019E-02,	5.322E-03,	-1.477E-04
56,	0.000E+00,	0.000E+00,	-7.358E+00,	3.117E-02,	1.439E-02,	0.000E+00
57,	4.327E-02,	-1.407E-01,	-7.415E+00,	2.553E-02,	5.332E-03,	-1.477E-04
58,	4.327E-02,	-1.406E-01,	-7.412E+00,	2.553E-02,	5.332E-03,	-1.477E-04
59,	0.000E+00,	0.000E+00,	-7.336E+00,	-1.878E-01,	1.038E-02,	0.000E+00
60,	4.327E-02,	-1.404E-01,	-7.404E+00,	2.553E-02,	5.332E-03,	-1.477E-04
61,	4.327E-02,	-1.405E-01,	-7.406E+00,	2.553E-02,	5.332E-03,	-1.477E-04
62,	4.327E-02,	-1.404E-01,	-7.402E+00,	2.553E-02,	5.331E-03,	-1.477E-04
63,	0.000E+00,	0.000E+00,	-7.327E+00,	-1.878E-01,	1.039E-02,	0.000E+00
64,	4.327E-02,	-1.403E-01,	-7.400E+00,	2.553E-02,	5.331E-03,	-1.477E-04
65,	0.000E+00,	0.000E+00,	-7.322E+00,	-1.878E-01,	1.039E-02,	0.000E+00
66,	4.327E-02,	-1.402E-01,	-7.397E+00,	2.553E-02,	5.331E-03,	-1.477E-04
67,	0.000E+00,	0.000E+00,	-7.261E+00,	-4.140E-01,	2.947E-02,	0.000E+00
68,	4.327E-02,	-1.398E-01,	-7.380E+00,	2.553E-02,	5.328E-03,	-1.477E-04
69,	0.000E+00,	0.000E+00,	-7.290E+00,	-4.140E-01,	2.946E-02,	0.000E+00
70,	4.327E-02,	-1.399E-01,	-7.385E+00,	2.553E-02,	5.329E-03,	-1.477E-04
71,	4.327E-02,	-1.396E-01,	-7.375E+00,	2.553E-02,	5.326E-03,	-1.477E-04
72,	0.000E+00,	0.000E+00,	-7.205E+00,	-4.142E-01,	2.954E-02,	0.000E+00
73,	4.327E-02,	-1.395E-01,	-7.370E+00,	2.553E-02,	5.324E-03,	-1.477E-04
74,	4.327E-02,	-1.393E-01,	-7.365E+00,	2.552E-02,	5.322E-03,	-1.477E-04
75,	0.000E+00,	0.000E+00,	-7.269E+00,	-1.176E-02,	9.020E-04,	0.000E+00

76,	4.327E-02,	-1.390E-01,	-7.351E+00,	2.552E-02,	5.316E-03,	-1.477E-04
77,	4.327E-02,	-1.390E-01,	-7.353E+00,	2.552E-02,	5.316E-03,	-1.477E-04
78,	4.327E-02,	-1.389E-01,	-7.350E+00,	2.552E-02,	5.315E-03,	-1.477E-04
79,	0.000E+00,	0.000E+00,	-7.265E+00,	-1.195E-02,	1.193E-03,	0.000E+00
80,	4.327E-02,	-1.385E-01,	-7.333E+00,	2.553E-02,	5.307E-03,	-1.477E-04
81,	0.000E+00,	0.000E+00,	-7.262E+00,	-1.195E-02,	1.196E-03,	0.000E+00
82,	4.327E-02,	-1.380E-01,	-7.317E+00,	2.553E-02,	5.301E-03,	-1.477E-04
83,	0.000E+00,	0.000E+00,	-7.164E+00,	-3.955E-01,	3.322E-02,	0.000E+00
84,	4.327E-02,	-1.374E-01,	-7.297E+00,	2.553E-02,	5.291E-03,	-1.477E-04
85,	0.000E+00,	0.000E+00,	-7.213E+00,	-3.955E-01,	3.322E-02,	0.000E+00
86,	4.327E-02,	-1.377E-01,	-7.305E+00,	2.553E-02,	5.295E-03,	-1.477E-04
87,	4.327E-02,	-1.372E-01,	-7.290E+00,	2.553E-02,	5.286E-03,	-1.477E-04
88,	0.000E+00,	0.000E+00,	-7.107E+00,	-3.957E-01,	3.328E-02,	0.000E+00
89,	4.327E-02,	-1.372E-01,	-7.288E+00,	2.553E-02,	5.286E-03,	-1.477E-04
90,	4.327E-02,	-1.372E-01,	-7.287E+00,	2.553E-02,	5.285E-03,	-1.477E-04
91,	0.000E+00,	0.000E+00,	-7.158E+00,	7.944E-03,	-2.508E-03,	0.000E+00
92,	4.327E-02,	-1.368E-01,	-7.273E+00,	2.553E-02,	5.277E-03,	-1.477E-04
93,	4.327E-02,	-1.368E-01,	-7.275E+00,	2.553E-02,	5.278E-03,	-1.477E-04
94,	4.327E-02,	-1.367E-01,	-7.272E+00,	2.553E-02,	5.276E-03,	-1.477E-04
95,	0.000E+00,	0.000E+00,	-7.163E+00,	7.958E-03,	-2.428E-03,	0.000E+00
96,	4.327E-02,	-1.365E-01,	-7.263E+00,	2.553E-02,	5.271E-03,	-1.477E-04
97,	4.327E-02,	-1.363E-01,	-7.255E+00,	2.553E-02,	5.268E-03,	-1.477E-04
98,	0.000E+00,	0.000E+00,	-7.140E+00,	2.247E-02,	1.469E-02,	0.000E+00
99,	4.327E-02,	-1.358E-01,	-7.238E+00,	2.554E-02,	5.264E-03,	-1.477E-04
100,	4.327E-02,	-1.359E-01,	-7.243E+00,	2.553E-02,	5.265E-03,	-1.477E-04
101,	4.327E-02,	-1.356E-01,	-7.233E+00,	2.554E-02,	5.263E-03,	-1.477E-04
102,	0.000E+00,	0.000E+00,	-7.112E+00,	2.247E-02,	1.474E-02,	0.000E+00
103,	4.327E-02,	-1.355E-01,	-7.228E+00,	2.554E-02,	5.262E-03,	-1.477E-04
104,	4.327E-02,	-1.354E-01,	-7.223E+00,	2.554E-02,	5.262E-03,	-1.477E-04
105,	0.000E+00,	0.000E+00,	-7.123E+00,	-1.373E-03,	-4.115E-02,	0.000E+00
106,	4.327E-02,	-1.349E-01,	-7.206E+00,	2.554E-02,	5.261E-03,	-1.477E-04
107,	4.327E-02,	-1.350E-01,	-7.211E+00,	2.554E-02,	5.261E-03,	-1.477E-04
108,	0.000E+00,	0.000E+00,	-7.562E+00,	3.119E-02,	1.440E-02,	0.000E+00
109,	4.916E-02,	-1.764E-01,	-7.591E+00,	2.753E-02,	5.343E-03,	-1.535E-04
110,	4.440E-02,	-1.535E-01,	-7.649E+00,	2.753E-02,	5.340E-03,	-1.535E-04
111,	5.393E-02,	-1.993E-01,	-7.534E+00,	2.753E-02,	5.344E-03,	-1.535E-04
112,	0.000E+00,	0.000E+00,	-7.171E+00,	7.943E-03,	-2.500E-03,	0.000E+00
113,	3.987E-02,	-1.214E-01,	-7.311E+00,	2.553E-02,	5.276E-03,	-1.477E-04
114,	4.010E-02,	-1.214E-01,	-7.272E+00,	2.553E-02,	5.276E-03,	-1.477E-04
115,	3.965E-02,	-1.214E-01,	-7.350E+00,	2.553E-02,	5.276E-03,	-1.477E-04
116,	0.000E+00,	0.000E+00,	-7.310E+00,	4.529E-02,	-8.498E-04,	0.000E+00
117,	3.913E-02,	-1.186E-01,	-7.452E+00,	3.019E-02,	5.240E-03,	-1.477E-04
118,	3.937E-02,	-1.186E-01,	-7.403E+00,	3.019E-02,	5.240E-03,	-1.477E-04
119,	3.889E-02,	-1.186E-01,	-7.502E+00,	3.019E-02,	5.240E-03,	-1.477E-04
120,	0.000E+00,	0.000E+00,	-7.250E+00,	-1.175E-02,	9.116E-04,	0.000E+00
121,	3.985E-02,	-1.236E-01,	-7.389E+00,	2.552E-02,	5.315E-03,	-1.477E-04
122,	4.008E-02,	-1.236E-01,	-7.350E+00,	2.552E-02,	5.315E-03,	-1.477E-04
123,	3.962E-02,	-1.236E-01,	-7.428E+00,	2.552E-02,	5.315E-03,	-1.477E-04
124,	0.000E+00,	0.000E+00,	-7.390E+00,	6.416E-02,	1.251E-03,	0.000E+00
125,	3.910E-02,	-1.208E-01,	-7.530E+00,	3.019E-02,	5.299E-03,	-1.477E-04
126,	3.934E-02,	-1.208E-01,	-7.481E+00,	3.019E-02,	5.299E-03,	-1.477E-04
127,	3.886E-02,	-1.208E-01,	-7.579E+00,	3.019E-02,	5.299E-03,	-1.477E-04
128,	4.567E-02,	-1.490E-01,	-7.264E+00,	2.757E-02,	5.275E-03,	-1.535E-04
129,	4.567E-02,	-1.492E-01,	-7.272E+00,	2.757E-02,	5.279E-03,	-1.535E-04
130,	4.567E-02,	-1.487E-01,	-7.255E+00,	2.757E-02,	5.271E-03,	-1.535E-04
131,	4.327E-02,	-1.370E-01,	-7.281E+00,	2.553E-02,	5.281E-03,	-1.477E-04
132,	4.567E-02,	-1.495E-01,	-7.281E+00,	2.757E-02,	5.284E-03,	-1.535E-04
133,	4.567E-02,	-1.497E-01,	-7.290E+00,	2.756E-02,	5.290E-03,	-1.535E-04
134,	4.567E-02,	-1.510E-01,	-7.334E+00,	2.755E-02,	5.320E-03,	-1.535E-04
135,	4.567E-02,	-1.515E-01,	-7.350E+00,	2.755E-02,	5.330E-03,	-1.535E-04
136,	4.567E-02,	-1.505E-01,	-7.317E+00,	2.756E-02,	5.308E-03,	-1.535E-04
137,	4.440E-02,	-1.482E-01,	-7.468E+00,	2.750E-02,	5.231E-03,	-1.535E-04
138,	4.440E-02,	-1.481E-01,	-7.463E+00,	2.750E-02,	5.230E-03,	-1.535E-04
139,	4.440E-02,	-1.484E-01,	-7.473E+00,	2.750E-02,	5.233E-03,	-1.535E-04
140,	4.204E-02,	-1.370E-01,	-7.510E+00,	3.019E-02,	5.248E-03,	-1.477E-04
141,	4.440E-02,	-1.495E-01,	-7.511E+00,	2.751E-02,	5.251E-03,	-1.535E-04
142,	4.440E-02,	-1.492E-01,	-7.502E+00,	2.751E-02,	5.246E-03,	-1.535E-04
143,	4.440E-02,	-1.497E-01,	-7.520E+00,	2.751E-02,	5.256E-03,	-1.535E-04
144,	4.440E-02,	-1.500E-01,	-7.527E+00,	2.751E-02,	5.262E-03,	-1.535E-04
145,	4.440E-02,	-1.502E-01,	-7.535E+00,	2.751E-02,	5.267E-03,	-1.535E-04
146,	4.204E-02,	-1.391E-01,	-7.587E+00,	3.019E-02,	5.304E-03,	-1.477E-04
147,	4.440E-02,	-1.517E-01,	-7.587E+00,	2.752E-02,	5.308E-03,	-1.535E-04
148,	4.440E-02,	-1.515E-01,	-7.579E+00,	2.752E-02,	5.303E-03,	-1.535E-04
149,	4.440E-02,	-1.519E-01,	-7.595E+00,	2.752E-02,	5.314E-03,	-1.535E-04
150,	4.327E-02,	-1.393E-01,	-7.362E+00,	2.552E-02,	5.321E-03,	-1.477E-04
151,	4.567E-02,	-1.518E-01,	-7.363E+00,	2.755E-02,	5.336E-03,	-1.535E-04
152,	4.567E-02,	-1.522E-01,	-7.376E+00,	2.755E-02,	5.342E-03,	-1.535E-04
153,	4.327E-02,	-1.401E-01,	-7.394E+00,	2.553E-02,	5.331E-03,	-1.477E-04
154,	4.567E-02,	-1.527E-01,	-7.394E+00,	2.754E-02,	5.348E-03,	-1.535E-04
155,	4.567E-02,	-1.530E-01,	-7.403E+00,	2.754E-02,	5.349E-03,	-1.535E-04
156,	4.567E-02,	-1.525E-01,	-7.386E+00,	2.754E-02,	5.345E-03,	-1.535E-04
157,	4.327E-02,	-1.406E-01,	-7.410E+00,	2.553E-02,	5.332E-03,	-1.477E-04
158,	4.567E-02,	-1.532E-01,	-7.411E+00,	2.754E-02,	5.350E-03,	-1.535E-04
159,	4.567E-02,	-1.535E-01,	-7.419E+00,	2.754E-02,	5.349E-03,	-1.535E-04
160,	4.204E-02,	-1.401E-01,	-7.620E+00,	3.019E-02,	5.319E-03,	-1.477E-04
161,	4.440E-02,	-1.527E-01,	-7.621E+00,	2.753E-02,	5.331E-03,	-1.535E-04

162,	4.440E-02,	-1.524E-01,	-7.612E+00,	2.752E-02,	5.326E-03,	-1.535E-04
163,	4.440E-02,	-1.529E-01,	-7.630E+00,	2.753E-02,	5.335E-03,	-1.535E-04
164,	4.327E-02,	-1.355E-01,	-7.228E+00,	2.554E-02,	5.262E-03,	-1.477E-04
165,	4.567E-02,	-1.479E-01,	-7.228E+00,	2.758E-02,	5.262E-03,	-1.535E-04
166,	4.567E-02,	-1.481E-01,	-7.233E+00,	2.757E-02,	5.263E-03,	-1.535E-04
167,	4.567E-02,	-1.478E-01,	-7.223E+00,	2.758E-02,	5.261E-03,	-1.535E-04
168,	4.327E-02,	-1.352E-01,	-7.217E+00,	2.554E-02,	5.261E-03,	-1.477E-04
169,	4.567E-02,	-1.476E-01,	-7.217E+00,	2.758E-02,	5.260E-03,	-1.535E-04
170,	4.567E-02,	-1.474E-01,	-7.211E+00,	2.758E-02,	5.259E-03,	-1.535E-04
171,	4.327E-02,	-1.349E-01,	-7.206E+00,	2.554E-02,	5.261E-03,	-1.477E-04
172,	4.567E-02,	-1.473E-01,	-7.207E+00,	2.758E-02,	5.259E-03,	-1.535E-04
173,	4.567E-02,	-1.472E-01,	-7.203E+00,	2.758E-02,	5.259E-03,	-1.535E-04
174,	4.204E-02,	-1.355E-01,	-7.458E+00,	3.017E-02,	5.219E-03,	-1.477E-04
175,	4.440E-02,	-1.479E-01,	-7.458E+00,	2.750E-02,	5.229E-03,	-1.535E-04
176,	4.440E-02,	-1.478E-01,	-7.453E+00,	2.750E-02,	5.228E-03,	-1.535E-04
177,	4.204E-02,	-1.352E-01,	-7.447E+00,	3.017E-02,	5.218E-03,	-1.477E-04
178,	4.440E-02,	-1.476E-01,	-7.447E+00,	2.750E-02,	5.227E-03,	-1.535E-04
179,	4.440E-02,	-1.474E-01,	-7.441E+00,	2.750E-02,	5.227E-03,	-1.535E-04
180,	4.204E-02,	-1.349E-01,	-7.437E+00,	3.017E-02,	5.217E-03,	-1.477E-04
181,	4.440E-02,	-1.473E-01,	-7.437E+00,	2.750E-02,	5.227E-03,	-1.535E-04
182,	4.440E-02,	-1.472E-01,	-7.433E+00,	2.749E-02,	5.226E-03,	-1.535E-04
183,	4.863E-02,	-1.639E-01,	-7.244E+00,	2.758E-02,	5.259E-03,	-1.535E-04
184,	5.158E-02,	-1.806E-01,	-7.286E+00,	2.758E-02,	5.259E-03,	-1.535E-04
185,	5.451E-02,	-1.932E-01,	-7.338E+00,	2.766E-02,	5.693E-03,	-1.535E-04
186,	5.119E-02,	-1.805E-01,	-7.350E+00,	2.749E-02,	5.226E-03,	-1.535E-04
187,	4.780E-02,	-1.638E-01,	-7.391E+00,	2.749E-02,	5.226E-03,	-1.535E-04
188,	4.327E-02,	-1.378E-01,	-7.311E+00,	2.553E-02,	5.298E-03,	-1.477E-04
189,	4.567E-02,	-1.503E-01,	-7.311E+00,	2.756E-02,	5.304E-03,	-1.535E-04
190,	4.567E-02,	-1.502E-01,	-7.305E+00,	2.756E-02,	5.300E-03,	-1.535E-04
191,	4.567E-02,	-1.500E-01,	-7.298E+00,	2.756E-02,	5.295E-03,	-1.535E-04
192,	4.327E-02,	-1.398E-01,	-7.380E+00,	2.553E-02,	5.328E-03,	-1.477E-04
193,	4.567E-02,	-1.523E-01,	-7.381E+00,	2.754E-02,	5.344E-03,	-1.535E-04
194,	4.327E-02,	-1.361E-01,	-7.249E+00,	2.553E-02,	5.266E-03,	-1.477E-04
195,	4.567E-02,	-1.485E-01,	-7.249E+00,	2.757E-02,	5.268E-03,	-1.535E-04
196,	4.567E-02,	-1.484E-01,	-7.243E+00,	2.757E-02,	5.266E-03,	-1.535E-04
197,	4.567E-02,	-1.482E-01,	-7.238E+00,	2.757E-02,	5.264E-03,	-1.535E-04
198,	4.440E-02,	-1.510E-01,	-7.563E+00,	2.752E-02,	5.289E-03,	-1.535E-04
199,	4.440E-02,	-1.505E-01,	-7.547E+00,	2.751E-02,	5.276E-03,	-1.535E-04
200,	4.204E-02,	-1.378E-01,	-7.541E+00,	3.019E-02,	5.273E-03,	-1.477E-04
201,	4.440E-02,	-1.503E-01,	-7.541E+00,	2.751E-02,	5.272E-03,	-1.535E-04
202,	4.440E-02,	-1.490E-01,	-7.493E+00,	2.750E-02,	5.241E-03,	-1.535E-04
203,	4.440E-02,	-1.487E-01,	-7.485E+00,	2.750E-02,	5.237E-03,	-1.535E-04
204,	4.204E-02,	-1.361E-01,	-7.479E+00,	3.018E-02,	5.225E-03,	-1.477E-04
205,	4.440E-02,	-1.485E-01,	-7.479E+00,	2.750E-02,	5.235E-03,	-1.535E-04
206,	4.440E-02,	-1.522E-01,	-7.603E+00,	2.752E-02,	5.320E-03,	-1.535E-04
207,	4.204E-02,	-1.405E-01,	-7.635E+00,	3.019E-02,	5.322E-03,	-1.477E-04
208,	4.440E-02,	-1.531E-01,	-7.636E+00,	2.753E-02,	5.337E-03,	-1.535E-04
209,	4.440E-02,	-1.533E-01,	-7.641E+00,	2.753E-02,	5.339E-03,	-1.535E-04
210,	4.440E-02,	-1.534E-01,	-7.645E+00,	2.753E-02,	5.339E-03,	-1.535E-04
211,	0.000E+00,	0.000E+00,	-7.432E+00,	3.117E-02,	1.439E-02,	0.000E+00
212,	4.980E-02,	-1.764E-01,	-7.477E+00,	2.753E-02,	5.346E-03,	-1.535E-04
213,	0.000E+00,	0.000E+00,	-7.156E+00,	-1.376E-03,	-4.115E-02,	0.000E+00
214,	0.000E+00,	0.000E+00,	-7.152E+00,	-1.426E-03,	-4.113E-02,	0.000E+00
215,	0.000E+00,	0.000E+00,	-7.215E+00,	6.066E-02,	-8.099E-04,	0.000E+00
216,	0.000E+00,	0.000E+00,	-7.398E+00,	6.061E-02,	-8.078E-04,	0.000E+00
217,	0.000E+00,	0.000E+00,	-7.389E+00,	4.281E-02,	-3.649E-03,	0.000E+00
218,	0.000E+00,	0.000E+00,	-7.384E+00,	4.528E-02,	-8.501E-04,	0.000E+00
219,	0.000E+00,	0.000E+00,	-7.339E+00,	4.531E-01,	3.329E-02,	0.000E+00
220,	0.000E+00,	0.000E+00,	-7.494E+00,	6.417E-02,	1.251E-03,	0.000E+00
221,	0.000E+00,	0.000E+00,	-7.492E+00,	3.808E-01,	2.767E-02,	0.000E+00
222,	0.000E+00,	0.000E+00,	-7.627E+00,	3.121E-02,	1.441E-02,	0.000E+00
223,	0.000E+00,	0.000E+00,	-7.367E+00,	3.118E-02,	1.439E-02,	0.000E+00
224,	0.000E+00,	0.000E+00,	-7.331E+00,	-1.878E-01,	1.038E-02,	0.000E+00
225,	0.000E+00,	0.000E+00,	-7.233E+00,	-4.141E-01,	2.951E-02,	0.000E+00
226,	0.000E+00,	0.000E+00,	-7.268E+00,	-1.176E-02,	9.113E-04,	0.000E+00
227,	0.000E+00,	0.000E+00,	-7.116E+00,	-3.957E-01,	3.328E-02,	0.000E+00
228,	0.000E+00,	0.000E+00,	-7.159E+00,	7.949E-03,	-2.501E-03,	0.000E+00
229,	0.000E+00,	0.000E+00,	-7.126E+00,	2.247E-02,	1.471E-02,	0.000E+00
230,	0.000E+00,	0.000E+00,	-7.497E+00,	3.118E-02,	1.440E-02,	0.000E+00
231,	5.570E-02,	-1.938E-01,	-8.128E+00,	2.766E-02,	6.407E-03,	-1.535E-04
232,	3.466E-02,	-7.941E-02,	-6.330E+00,	2.409E-02,	3.483E-03,	-1.477E-04
233,	3.058E-02,	-7.597E-02,	-7.290E+00,	2.553E-02,	5.286E-03,	-1.477E-04
234,	3.522E-02,	-7.624E-02,	-5.855E+00,	2.541E-02,	3.169E-03,	-1.477E-04
235,	3.528E-02,	-6.625E-02,	-5.855E+00,	2.958E-02,	3.011E-03,	-1.477E-04
236,	3.459E-02,	-6.266E-02,	-6.353E+00,	3.107E-02,	3.218E-03,	-1.477E-04
237,	2.942E-02,	-6.478E-02,	-7.519E+00,	3.019E-02,	5.255E-03,	-1.477E-04
238,	0.000E+00,	0.000E+00,	-7.192E+00,	-4.142E-01,	2.954E-02,	0.000E+00
239,	0.000E+00,	0.000E+00,	-7.416E+00,	3.813E-01,	2.782E-02,	0.000E+00
240,	4.567E-02,	-1.482E-01,	-7.238E+00,	2.757E-02,	5.264E-03,	-1.535E-04
241,	5.476E-02,	-1.942E-01,	-8.116E+00,	2.764E-02,	5.842E-03,	-1.535E-04
242,	4.440E-02,	-1.482E-01,	-7.468E+00,	2.750E-02,	5.231E-03,	-1.535E-04
243,	4.567E-02,	-1.487E-01,	-7.255E+00,	2.757E-02,	5.271E-03,	-1.535E-04
244,	5.298E-02,	-1.947E-01,	-8.270E+00,	2.763E-02,	4.772E-03,	-1.535E-04
245,	4.440E-02,	-1.487E-01,	-7.485E+00,	2.750E-02,	5.237E-03,	-1.535E-04
246,	4.567E-02,	-1.492E-01,	-7.272E+00,	2.757E-02,	5.279E-03,	-1.535E-04
247,	5.246E-02,	-1.952E-01,	-7.905E+00,	2.764E-02,	4.464E-03,	-1.535E-04

248,	4.440E-02,	-1.492E-01,	-7.502E+00,	2.751E-02,	5.246E-03,	-1.535E-04
249,	3.277E-02,	-6.818E-02,	-5.989E+00,	2.968E-02,	4.058E-03,	-1.477E-04
250,	3.226E-02,	-6.476E-02,	-6.495E+00,	3.110E-02,	4.187E-03,	-1.477E-04
251,	3.304E-02,	-7.806E-02,	-5.943E+00,	2.556E-02,	4.079E-03,	-1.477E-04
252,	3.283E-02,	-8.134E-02,	-6.400E+00,	2.419E-02,	4.248E-03,	-1.477E-04
253,	2.929E-02,	-6.695E-02,	-7.597E+00,	3.019E-02,	5.310E-03,	-1.477E-04
254,	3.049E-02,	-7.814E-02,	-7.368E+00,	2.553E-02,	5.323E-03,	-1.477E-04
255,	4.567E-02,	-1.502E-01,	-7.305E+00,	2.756E-02,	5.300E-03,	-1.535E-04
256,	5.545E-02,	-2.099E-01,	-8.029E+00,	3.587E-02,	6.257E-03,	-1.535E-04
257,	4.440E-02,	-1.502E-01,	-7.535E+00,	2.751E-02,	5.267E-03,	-1.535E-04
258,	4.567E-02,	-1.506E-01,	-7.320E+00,	2.756E-02,	5.310E-03,	-1.535E-04
259,	5.508E-02,	-1.966E-01,	-8.146E+00,	2.761E-02,	6.038E-03,	-1.535E-04
260,	4.440E-02,	-1.506E-01,	-7.550E+00,	2.751E-02,	5.279E-03,	-1.535E-04
261,	4.567E-02,	-1.511E-01,	-7.336E+00,	2.755E-02,	5.321E-03,	-1.535E-04
262,	5.363E-02,	-1.969E-01,	-8.248E+00,	2.757E-02,	5.166E-03,	-1.535E-04
263,	4.440E-02,	-1.511E-01,	-7.565E+00,	2.752E-02,	5.291E-03,	-1.535E-04
264,	4.567E-02,	-1.515E-01,	-7.351E+00,	2.755E-02,	5.330E-03,	-1.535E-04
265,	5.351E-02,	-1.974E-01,	-7.951E+00,	2.756E-02,	5.091E-03,	-1.535E-04
266,	4.440E-02,	-1.515E-01,	-7.580E+00,	2.752E-02,	5.303E-03,	-1.535E-04
267,	4.440E-02,	-1.525E-01,	-7.614E+00,	2.752E-02,	5.327E-03,	-1.535E-04
268,	5.403E-02,	-1.983E-01,	-8.347E+00,	2.754E-02,	5.404E-03,	-1.535E-04
269,	4.567E-02,	-1.525E-01,	-7.384E+00,	2.754E-02,	5.345E-03,	-1.535E-04
270,	4.440E-02,	-1.529E-01,	-7.630E+00,	2.753E-02,	5.335E-03,	-1.535E-04
271,	5.221E-02,	-1.988E-01,	-8.287E+00,	2.754E-02,	4.309E-03,	-1.535E-04
272,	4.567E-02,	-1.529E-01,	-7.401E+00,	2.754E-02,	5.349E-03,	-1.535E-04
273,	5.428E-02,	-2.086E-01,	-7.851E+00,	3.540E-02,	5.557E-03,	-1.535E-04
274,	5.475E-02,	-1.980E-01,	-8.056E+00,	2.767E-02,	5.838E-03,	-1.535E-04
275,	5.393E-02,	-1.993E-01,	-7.534E+00,	2.753E-02,	5.344E-03,	-1.535E-04
276,	4.567E-02,	-1.472E-01,	-7.203E+00,	2.758E-02,	5.259E-03,	-1.535E-04
277,	4.440E-02,	-1.472E-01,	-7.433E+00,	2.749E-02,	5.226E-03,	-1.535E-04
278,	4.876E-02,	3.175E-03,	-8.149E+00,	-2.066E-01,	5.515E-03,	-1.535E-04
279,	5.192E-02,	-9.118E-02,	-8.061E+00,	-4.617E-02,	5.550E-03,	-1.535E-04
280,	4.567E-02,	-1.497E-01,	-7.290E+00,	2.756E-02,	5.290E-03,	-1.535E-04
281,	5.059E-02,	-2.871E-01,	-7.833E+00,	1.857E-01,	7.025E-03,	-1.535E-04
282,	5.258E-02,	-2.605E-01,	-7.897E+00,	8.738E-02,	5.826E-03,	-1.535E-04
283,	5.428E-02,	-2.086E-01,	-7.851E+00,	3.540E-02,	5.557E-03,	-1.535E-04
284,	4.440E-02,	-1.520E-01,	-7.597E+00,	2.752E-02,	5.316E-03,	-1.535E-04
285,	4.895E-02,	1.722E-02,	-8.309E+00,	-2.287E-01,	5.764E-03,	-1.535E-04
286,	5.227E-02,	-7.655E-02,	-8.253E+00,	-5.949E-02,	5.824E-03,	-1.535E-04
287,	5.307E-02,	-2.975E-01,	-8.198E+00,	1.148E-01,	6.220E-03,	-1.535E-04
288,	5.475E-02,	-1.980E-01,	-8.056E+00,	2.767E-02,	5.838E-03,	-1.535E-04
289,	5.125E-02,	-3.618E-01,	-8.180E+00,	2.836E-01,	7.921E-03,	-1.535E-04
290,	4.567E-02,	-1.520E-01,	-7.368E+00,	2.755E-02,	5.339E-03,	-1.535E-04
291,	0.000E+00,	0.000E+00,	-6.326E+00,	-4.763E-01,	3.309E-02,	0.000E+00
292,	4.720E-02,	-1.661E-01,	-6.330E+00,	2.409E-02,	3.483E-03,	-1.477E-04
293,	0.000E+00,	0.000E+00,	-5.820E+00,	-2.629E-01,	3.302E-02,	0.000E+00
294,	4.821E-02,	-1.804E-01,	-5.855E+00,	2.541E-02,	3.169E-03,	-1.477E-04
295,	0.000E+00,	0.000E+00,	-5.821E+00,	2.687E-01,	3.302E-02,	0.000E+00
296,	4.762E-02,	-1.875E-01,	-5.855E+00,	2.958E-02,	3.011E-03,	-1.477E-04
297,	0.000E+00,	0.000E+00,	-6.351E+00,	5.100E-01,	3.309E-02,	0.000E+00
298,	4.617E-02,	-1.745E-01,	-6.353E+00,	3.107E-02,	3.218E-03,	-1.477E-04
299,	0.000E+00,	0.000E+00,	-6.494E+00,	5.036E-01,	2.805E-02,	0.000E+00
300,	4.733E-02,	-1.767E-01,	-6.495E+00,	3.110E-02,	4.187E-03,	-1.477E-04
301,	0.000E+00,	0.000E+00,	-5.956E+00,	2.847E-01,	2.827E-02,	0.000E+00
302,	4.940E-02,	-1.899E-01,	-5.989E+00,	2.968E-02,	4.058E-03,	-1.477E-04
303,	0.000E+00,	0.000E+00,	-5.909E+00,	-2.427E-01,	2.872E-02,	0.000E+00
304,	4.976E-02,	-1.829E-01,	-5.943E+00,	2.556E-02,	4.079E-03,	-1.477E-04
305,	0.000E+00,	0.000E+00,	-6.395E+00,	-4.682E-01,	2.905E-02,	0.000E+00
306,	4.812E-02,	-1.684E-01,	-6.400E+00,	2.419E-02,	4.248E-03,	-1.477E-04
307,	3.256E-02,	-8.497E-02,	-7.280E+00,	2.555E-02,	5.261E-03,	-1.477E-04
308,	3.231E-02,	-7.596E-02,	-7.341E+00,	3.017E-02,	5.217E-03,	-1.477E-04
309,	3.059E-02,	-8.021E-02,	-7.428E+00,	2.552E-02,	5.315E-03,	-1.477E-04
310,	3.033E-02,	-6.947E-02,	-7.481E+00,	3.019E-02,	5.299E-03,	-1.477E-04
311,	4.504E-02,	-1.478E-01,	-8.128E+00,	2.766E-02,	6.407E-03,	-1.535E-04
312,	4.504E-02,	-1.482E-01,	-8.116E+00,	2.764E-02,	5.842E-03,	-1.535E-04
313,	4.504E-02,	-1.487E-01,	-8.270E+00,	2.763E-02,	4.772E-03,	-1.535E-04
314,	4.504E-02,	-1.502E-01,	-8.029E+00,	3.587E-02,	6.257E-03,	-1.535E-04
315,	4.504E-02,	-1.506E-01,	-8.146E+00,	2.761E-02,	6.038E-03,	-1.535E-04
316,	4.504E-02,	-1.525E-01,	-8.347E+00,	2.754E-02,	5.404E-03,	-1.535E-04
317,	4.504E-02,	-1.529E-01,	-8.287E+00,	2.754E-02,	4.309E-03,	-1.535E-04
318,	4.504E-02,	-1.511E-01,	-8.248E+00,	2.757E-02,	5.166E-03,	-1.535E-04
319,	4.568E-02,	-1.498E-01,	-7.290E+00,	2.756E-02,	5.290E-03,	-1.535E-04
320,	0.000E+00,	0.000E+00,	-7.382E+00,	4.280E-02,	-3.687E-03,	0.000E+00
321,	0.000E+00,	0.000E+00,	-7.387E+00,	4.527E-02,	-7.240E-04,	0.000E+00
322,	0.000E+00,	0.000E+00,	-7.384E+00,	4.529E-02,	-8.639E-04,	0.000E+00
323,	0.000E+00,	0.000E+00,	-7.321E+00,	4.531E-01,	3.329E-02,	0.000E+00
324,	0.000E+00,	0.000E+00,	-7.495E+00,	6.418E-02,	1.234E-03,	0.000E+00
325,	0.000E+00,	0.000E+00,	-7.402E+00,	3.813E-01,	2.781E-02,	0.000E+00
326,	0.000E+00,	0.000E+00,	-7.348E+00,	3.116E-02,	1.439E-02,	0.000E+00
327,	0.000E+00,	0.000E+00,	-7.340E+00,	-1.878E-01,	1.037E-02,	0.000E+00
328,	0.000E+00,	0.000E+00,	-7.176E+00,	-4.142E-01,	2.954E-02,	0.000E+00
329,	0.000E+00,	0.000E+00,	-7.269E+00,	-1.177E-02,	8.949E-04,	0.000E+00
330,	0.000E+00,	0.000E+00,	-7.098E+00,	-3.957E-01,	3.327E-02,	0.000E+00
331,	0.000E+00,	0.000E+00,	-7.157E+00,	7.939E-03,	-2.514E-03,	0.000E+00
332,	0.000E+00,	0.000E+00,	-7.167E+00,	7.959E-03,	-2.382E-03,	0.000E+00
333,	0.000E+00,	0.000E+00,	-7.154E+00,	2.247E-02,	1.467E-02,	0.000E+00

334,	0.000E+00,	0.000E+00,	-7.098E+00,	2.247E-02,	1.476E-02,	0.000E+00
335,	0.000E+00,	0.000E+00,	-7.090E+00,	-1.372E-03,	-4.115E-02,	0.000E+00
336,	0.000E+00,	0.000E+00,	-7.183E+00,	7.929E-03,	-2.500E-03,	0.000E+00
337,	0.000E+00,	0.000E+00,	-7.236E+00,	4.530E-02,	-8.500E-04,	0.000E+00
338,	0.000E+00,	0.000E+00,	-7.232E+00,	-1.176E-02,	9.116E-04,	0.000E+00
339,	0.000E+00,	0.000E+00,	-7.285E+00,	6.418E-02,	1.251E-03,	0.000E+00
340,	4.204E-02,	-1.394E-01,	-7.597E+00,	3.019E-02,	5.310E-03,	-1.477E-04
341,	4.327E-02,	-1.394E-01,	-7.368E+00,	2.553E-02,	5.323E-03,	-1.477E-04
342,	5.392E-02,	-1.992E-01,	-7.534E+00,	2.753E-02,	5.344E-03,	-1.535E-04
343,	4.567E-02,	-1.497E-01,	-7.290E+00,	2.756E-02,	5.290E-03,	-1.535E-04
344,	4.568E-02,	-1.520E-01,	-7.368E+00,	2.755E-02,	5.339E-03,	-1.535E-04
345,	4.567E-02,	-1.520E-01,	-7.368E+00,	2.755E-02,	5.339E-03,	-1.535E-04
346,	4.568E-02,	-1.472E-01,	-7.203E+00,	2.758E-02,	5.259E-03,	-1.535E-04
347,	4.441E-02,	-1.472E-01,	-7.433E+00,	2.749E-02,	5.226E-03,	-1.535E-04
348,	4.266E-02,	-1.375E-01,	0.000E+00,	0.000E+00,	0.000E+00,	-1.477E-04
349,	4.503E-02,	-1.509E-01,	0.000E+00,	0.000E+00,	0.000E+00,	-1.535E-04

--> Sollecitazioni nelle Aste (N, Ty, Tz, Mx, My, Mz) [kN, kN m]

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1 (1-j'-2) [l=480 cm] [Piano XZ: 402 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
  1, 231.72, 2.92, -25.17, 0.01, 87.70, 9.10
  j', 39.96, 71.32, 2.92, -25.17, 0.01, -13.35, -4.89
  2, 39.96, 2.92, -25.17, 0.01, -33.11, -4.89
2 (3-2) [l=151 cm] - K.
  3, 0.00, 0.00, 33.85, 4.91, -153.06, 0.00
  2, 0.00, 0.00, 33.85, 4.91, -101.85, 0.00
3 (2-4) [l=151 cm] - K.
  2, 0.00, 0.00, 28.77, 0.00, -56.82, 0.00
  4, 0.00, 0.00, 28.77, 0.00, -13.26, 0.00
4 (5-j'-6) [l=480 cm] [Piano XZ: 402 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
  5, 220.58, 0.72, 27.04, 0.01, -96.32, 1.99
  j', 28.83, 60.19, 0.72, 27.04, 0.01, 12.24, -1.44
  6, 28.83, 0.72, 27.04, 0.01, 33.46, -1.44
5 (7-6) [l=151 cm] - K.
  7, 0.00, 0.00, -30.11, 0.00, -14.77, 0.00
  6, 0.00, 0.00, -30.11, 0.00, -60.33, 0.00
6 (6-8) [l=151 cm] - K.
  6, 0.00, 0.00, -51.99, -1.46, -109.41, 0.00
  8, 0.00, 0.00, -51.99, -1.46, -188.07, 0.00
7 (4-7) [l=227 cm] - S.
  4, 0.00, 0.00, -0.66, 0.00, -2.27, 0.00
  7, 0.00, 0.00, -0.66, 0.00, -3.78, 0.00
8 (9-i'-j'-10) [l=480 cm] [Piano XZ: 192 rig.-267 def.-21 rig.] [in i' j': N=Nxy,Nxz] - M.
  9, 99.17, -0.98, 8.94, 0.01, -30.88, -3.08
  i', 99.17, 59.01, -0.98, 8.94, 0.01, -13.76, -3.08
  j', -1.43, 2.97, -0.98, 8.94, 0.01, 10.15, 1.63
  10, -1.43, -0.98, 8.94, 0.01, 12.02, 1.63
9 (9-11) [l=79 cm] - K.
  9, 0.00, 0.00, -20.44, 3.32, 43.06, 0.00
  11, 0.00, 0.00, -20.44, 3.32, 26.83, 0.00
10 (8-10) [l=79 cm] - K.
  8, 0.00, 0.00, -51.99, -188.07, 1.46, 0.00
  10, 0.00, 0.00, -51.99, -188.07, -39.82, 0.00
11 (13-i'-j'-14) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.] [in i' j': N=Nxy,Nxz] - M.
  13, 148.63, -0.57, 13.78, 0.01, -48.00, -1.73
  i', 148.63, 104.74, -0.57, 13.78, 0.01, -24.11, -1.73
  j', 27.13, 32.09, -0.57, 13.78, 0.01, 15.42, 1.00
  14, 27.13, -0.57, 13.78, 0.01, 18.12, 1.00
12 (15-13) [l=96 cm] - K.
  15, 0.00, 0.00, 34.20, 3.32, 39.35, 0.00
  13, 0.00, 0.00, 34.20, 3.32, 72.12, 0.00
13 (14-17) [l=96 cm] - K.
  14, 0.00, 0.00, -77.53, -194.26, -326.23, 0.00
  17, 0.00, 0.00, -77.53, -194.26, -400.58, 0.00
14 (11-15) [l=227 cm] - F.
  11, 0.00, 0.00, 4.00, 2.61, 3.60, 0.00
  15, 0.00, 0.00, 4.00, 2.61, 12.66, 0.00
15 (12-16) [l=227 cm] - S.
  12, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
  16, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
16 (18-j'-19) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
  18, 141.55, -0.56, 5.42, 0.01, -13.99, -1.72
  j', 20.06, 40.03, -0.56, 5.42, 0.01, 7.74, 0.99
  19, 20.06, -0.56, 5.42, 0.01, 12.01, 0.99
17 (17-19) [l=96 cm] - K.
  17, 0.00, 0.00, -77.53, -194.26, -400.58, 0.00
  19, 0.00, 0.00, -77.53, -194.26, -474.93, 0.00
18 (19-20) [l=96 cm] - K.
  19, 0.00, 0.00, -90.02, -204.43, -462.64, 0.00
  20, 0.00, 0.00, -90.02, -204.43, -548.97, 0.00
19 (21-j'-22) [l=480 cm] [Piano XZ: 425 def.-55 rig.] [in j': N=Nxy,Nxz] - M.
  21, 284.29, -1.09, 11.67, 0.01, -34.67, -3.35
  j', 77.26, 100.90, -1.09, 11.67, 0.01, 14.95, 1.87
  22, 77.26, -1.09, 11.67, 0.01, 21.34, 1.87
20 (23-22) [l=163 cm] - K.
  23, 0.00, 0.00, -182.36, -215.20, -857.04, 0.00

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22, 0.00, 0.00, -182.36, -215.20, -1154.83, 0.00
 21 (22-24) [l=163 cm] - K.
 22, 0.00, 0.00, -166.80, -232.50, -1132.54, 0.00
 24, 0.00, 0.00, -166.80, -232.50, -1405.10, 0.00
 22 (20-23) [l=227 cm] - S.
 20, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 23, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 23 (25-j'-26) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
 25, 54.57, -0.19, 0.25, 0.00, -0.51, -0.58
 j', 18.62, 28.08, -0.19, 0.25, 0.00, 0.39, 0.32
 26, 18.62, -0.19, 0.25, 0.00, 0.71, 0.32
 24 (24-26) [l=28 cm] - K.
 24, 0.00, 0.00, 9.13, 6.71, -1404.20, 0.00
 26, 0.00, 0.00, 9.13, 6.71, -1401.61, 0.00
 25 (26-27) [l=28 cm] - K.
 26, 0.00, 0.00, 27.75, 6.39, -1400.90, 0.00
 27, 0.00, 0.00, 27.75, 6.39, -1393.02, 0.00
 26 (28-j'-29) [l=480 cm] [Piano XZ: 352 def.-128 rig.] [in j': N=Nxy,Nxz] - M.
 28, 70.38, -3.95, -0.23, 0.00, 0.63, -12.77
 j', 37.58, 46.35, -3.95, -0.23, 0.00, -0.19, 6.20
 29, 37.58, -3.95, -0.23, 0.00, -0.49, 6.20
 27 (30-29) [l=26 cm] - K.
 30, 0.00, 0.00, -41.26, 4.39, -1408.70, 0.00
 29, 0.00, 0.00, -41.26, 4.39, -1419.34, 0.00
 28 (29-31) [l=26 cm] - K.
 29, 0.00, 0.00, -3.68, -1.81, -1419.83, 0.00
 31, 0.00, 0.00, -3.68, -1.81, -1420.79, 0.00
 29 (27-30) [l=227 cm] - S.
 27, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 30, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 30 (32-i'-j'-33) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.] [in i' j': N=Nxy,Nxz] - M.
 32, 343.38, -22.25, -32.00, 0.01, 136.25, -71.89
 i', 343.38, 293.78, -22.25, -32.00, 0.01, 95.04, -71.89
 j', 158.53, 164.81, -22.25, -32.00, 0.01, -12.11, 34.90
 33, 158.53, -22.25, -32.00, 0.01, -17.33, 34.90
 31 (32-34) [l=146 cm] - K.
 32, 0.00, 0.00, -36.23, 72.39, 150.90, 0.00
 34, 0.00, 0.00, -36.23, 72.39, 98.04, 0.00
 32 (31-33) [l=146 cm] - K.
 31, 0.00, 0.00, -1.39, 1.23, -1420.80, 0.00
 33, 0.00, 0.00, -1.39, 1.23, -1422.84, 0.00
 33 (33-35) [l=146 cm] - K.
 33, 0.00, 0.00, 99.49, -47.15, -1440.27, 0.00
 35, 0.00, 0.00, 99.49, -47.15, -1295.11, 0.00
 34 (36-i'-j'-37) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.] [in i' j': N=Nxy,Nxz] - M.
 36, 442.18, -4.07, 26.64, 0.02, -110.82, -12.94
 i', 442.18, 402.86, -4.07, 26.64, 0.02, -97.96, -12.94
 j', 51.41, 58.73, -4.07, 26.64, 0.02, 14.65, 6.61
 37, 51.41, -4.07, 26.64, 0.02, 17.05, 6.61
 35 (38-36) [l=308 cm] - K.
 38, 0.00, 0.00, 110.46, 72.39, 96.05, 0.00
 36, 0.00, 0.00, 110.46, 72.39, 436.60, 0.00
 36 (39-37) [l=308 cm] - K.
 39, 0.00, 0.00, 30.13, -57.52, -1148.48, 0.00
 37, 0.00, 0.00, 30.13, -57.52, -1055.58, 0.00
 37 (37-40) [l=308 cm] - K.
 37, 0.00, 0.00, -38.02, -91.99, -1038.01, 0.00
 40, 0.00, 0.00, -38.02, -91.99, -1155.27, 0.00
 38 (34-38) [l=227 cm] - F.
 34, 0.00, 0.00, 9.92, 56.92, 80.47, 0.00
 38, 0.00, 0.00, 9.92, 56.92, 102.94, 0.00
 39 (35-39) [l=227 cm] - S.
 35, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 39, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 40 (41-j'-42) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
 41, 43.77, -0.37, 0.22, 0.00, -0.43, -1.18
 j', 7.81, 17.27, -0.37, 0.22, 0.00, 0.35, 0.60
 42, 7.81, -0.37, 0.22, 0.00, 0.62, 0.60
 41 (40-42) [l=28 cm] - K.
 40, 0.00, 0.00, 134.28, 119.21, -1154.49, 0.00
 42, 0.00, 0.00, 134.28, 119.21, -1116.36, 0.00
 42 (42-43) [l=28 cm] - K.
 42, 0.00, 0.00, 142.09, 118.61, -1115.74, 0.00
 43, 0.00, 0.00, 142.09, 118.61, -1075.38, 0.00
 43 (44-j'-45) [l=480 cm] [Piano XZ: 425 def.-55 rig.] [in j': N=Nxy,Nxz] - M.
 44, 368.13, -20.70, -12.30, 0.01, 63.20, -66.90
 j', 160.77, 184.44, -20.70, -12.30, 0.01, 10.89, 32.45
 45, 160.77, -20.70, -12.30, 0.01, 4.15, 32.45
 44 (45-47) [l=164 cm] - K.
 45, 0.00, 0.00, 128.89, 62.15, -830.31, 0.00
 47, 0.00, 0.00, 128.89, 62.15, -619.44, 0.00
 45 (43-46) [l=227 cm] - S.
 43, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 46, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 46 (48-i'-j'-49) [l=480 cm] [Piano XZ: 116 rig.-349 def.-15 rig.] [in i' j': N=Nxy,Nxz] - M.
 48, 271.24, -20.66, -26.15, 0.01, 120.59, -66.78

i', 271.24, 221.13, -20.66, -26.15, 0.01, 90.26, -66.78
 j', 63.88, 70.54, -20.66, -26.15, 0.01, -0.90, 32.38
 49, 63.88, -20.66, -26.15, 0.01, -4.92, 32.38
 47 (48-50) [l=164 cm] - K.
 48, 0.00, 0.00, -82.40, 65.08, 227.39, 0.00
 50, 0.00, 0.00, -82.40, 65.08, 92.58, 0.00
 48 (47-49) [l=164 cm] - K.
 47, 0.00, 0.00, 128.89, 62.15, -619.44, 0.00
 49, 0.00, 0.00, 128.89, 62.15, -408.45, 0.00
 49 (52-i'-j'-53) [l=480 cm] [Piano XZ: 206 rig.-252 def.-22 rig.] [in i' j': N=Nxy,Nxz] - M.
 52, 75.00, -0.07, -2.71, 0.00, 10.77, -0.18
 i', 75.00, 38.31, -0.07, -2.71, 0.00, 5.17, -0.18
 j', -10.31, -6.40, -0.07, -2.71, 0.00, -1.65, 0.14
 53, -10.31, -0.07, -2.71, 0.00, -2.24, 0.14
 50 (54-52) [l=67 cm] - K.
 54, 0.00, 0.00, 3.56, 65.08, 28.79, 0.00
 52, 0.00, 0.00, 3.56, 65.08, 31.19, 0.00
 51 (55-53) [l=67 cm] - K.
 55, 0.00, 0.00, 43.41, 5.87, -26.96, 0.00
 53, 0.00, 0.00, 43.41, 5.87, 2.26, 0.00
 52 (50-54) [l=227 cm] - F.
 50, 0.00, 0.00, -21.88, 51.17, 62.74, 0.00
 54, 0.00, 0.00, -21.88, 51.17, 13.17, 0.00
 53 (51-55) [l=227 cm] - S.
 51, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 55, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 54 (56-j'-57) [l=480 cm] [Piano XZ: 261 def.-219 rig.] [in j': N=Nxy,Nxz] - M.
 56, 81.95, 0.05, 1.03, 0.00, 0.27, 0.00
 j', -2.27, 36.10, 0.05, 1.03, 0.00, 2.98, -0.22
 57, -2.27, 0.05, 1.03, 0.00, 5.24, -0.22
 55 (57-58) [l=67 cm] - K.
 57, 0.00, 0.00, -2.27, -0.23, -5.24, 0.00
 58, 0.00, 0.00, -2.27, -0.23, -6.75, 0.00
 56 (59-j'-60) [l=480 cm] [Piano XZ: 231 def.-249 rig.] [in j': N=Nxy,Nxz] - M.
 59, 60.24, 3.42, 1.00, 0.00, -0.85, 10.96
 j', 5.52, 33.91, 3.42, 1.00, 0.00, 1.46, -5.43
 60, 5.52, 3.42, 1.00, 0.00, 3.96, -5.43
 57 (61-60) [l=43 cm] - K.
 61, 0.00, 0.00, -57.92, -1.99, -42.01, 0.00
 60, 0.00, 0.00, -57.92, -1.99, -67.03, 0.00
 58 (60-62) [l=43 cm] - K.
 60, 0.00, 0.00, -52.40, -7.42, -70.99, 0.00
 62, 0.00, 0.00, -52.40, -7.42, -93.62, 0.00
 59 (58-61) [l=100 cm] - S.
 58, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 61, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 60 (63-i'-j'-64) [l=480 cm] [Piano XZ: 238 rig.-213 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
 63, 77.07, 3.42, 0.02, 0.00, 0.22, 10.96
 i', 77.07, 49.89, 3.42, 0.02, 0.00, 0.28, 10.96
 j', 22.35, 25.58, 3.42, 0.02, 0.00, 0.33, -5.43
 64, 22.35, 3.42, 0.02, 0.00, 0.34, -5.43
 61 (63-65) [l=43 cm] - K.
 63, 0.00, 0.00, -3.15, -42.13, 63.18, 0.00
 65, 0.00, 0.00, -3.15, -42.13, 61.82, 0.00
 62 (62-64) [l=43 cm] - K.
 62, 0.00, 0.00, -52.40, -7.21, -93.64, 0.00
 64, 0.00, 0.00, -52.40, -7.21, -116.23, 0.00
 63 (64-66) [l=43 cm] - K.
 64, 0.00, 0.00, -30.05, -12.64, -116.56, 0.00
 66, 0.00, 0.00, -30.05, -12.64, -129.54, 0.00
 64 (67-i'-j'-68) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.] [in i' j': N=Nxy,Nxz] - M.
 67, 213.00, 15.34, -18.00, 0.01, 68.91, 49.47
 i', 213.00, 169.11, 15.34, -18.00, 0.01, 37.70, 49.47
 j', 91.50, 96.47, 15.34, -18.00, 0.01, -13.96, -24.18
 68, 91.50, 15.34, -18.00, 0.01, -17.49, -24.18
 65 (69-67) [l=96 cm] - K.
 69, 0.00, 0.00, 41.52, -42.13, 102.06, 0.00
 67, 0.00, 0.00, 41.52, -42.13, 141.87, 0.00
 66 (68-71) [l=96 cm] - K.
 68, 0.00, 0.00, -112.12, -58.50, -500.84, 0.00
 71, 0.00, 0.00, -112.12, -58.50, -608.36, 0.00
 67 (65-69) [l=227 cm] - F.
 65, 0.00, 0.00, 12.35, -33.13, 41.22, 0.00
 69, 0.00, 0.00, 12.35, -33.13, 69.18, 0.00
 68 (66-70) [l=227 cm] - S.
 66, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 70, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 69 (72-j'-73) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
 72, 228.28, 15.35, -4.80, 0.01, 18.15, 49.48
 j', 106.79, 126.76, 15.35, -4.80, 0.01, -1.11, -24.18
 73, 106.79, 15.35, -4.80, 0.01, -4.90, -24.18
 70 (71-73) [l=96 cm] - K.
 71, 0.00, 0.00, -112.12, -58.50, -608.36, 0.00
 73, 0.00, 0.00, -112.12, -58.50, -715.88, 0.00
 71 (75-j'-76) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
 75, 42.63, 0.45, 0.24, 0.00, -0.46, 1.40

j', 6.67, 16.13, 0.45, 0.24, 0.00, 0.37, -0.76
 76, 6.67, 0.45, 0.24, 0.00, 0.67, -0.76
 72 (77-76) [l=28 cm] - K.
 77, 0.00, 0.00, -82.50, -81.23, -830.31, 0.00
 76, 0.00, 0.00, -82.50, -81.23, -853.74, 0.00
 73 (76-78) [l=28 cm] - K.
 76, 0.00, 0.00, -75.83, -81.99, -854.41, 0.00
 78, 0.00, 0.00, -75.83, -81.99, -875.95, 0.00
 74 (74-77) [l=227 cm] - S.
 74, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 77, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 75 (79-i'-j'-80) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.] [in i' j': N=Nxy,Nxz] - M.
 79, 426.79, 4.87, 28.74, 0.02, -120.30, 15.16
 i', 426.79, 387.47, 4.87, 28.74, 0.02, -106.42, 15.16
 j', 36.02, 43.35, 4.87, 28.74, 0.02, 15.06, -8.23
 80, 36.02, 4.87, 28.74, 0.02, 17.65, -8.23
 76 (79-81) [l=308 cm] - K.
 79, 0.00, 0.00, -104.51, -71.46, 419.19, 0.00
 81, 0.00, 0.00, -104.51, -71.46, 96.99, 0.00
 77 (78-80) [l=308 cm] - K.
 78, 0.00, 0.00, 84.73, 85.11, -876.72, 0.00
 80, 0.00, 0.00, 84.73, 85.11, -615.42, 0.00
 78 (80-82) [l=308 cm] - K.
 80, 0.00, 0.00, -20.30, 51.33, -643.16, 0.00
 82, 0.00, 0.00, -20.30, 51.33, -705.75, 0.00
 79 (83-i'-j'-84) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.] [in i' j': N=Nxy,Nxz] - M.
 83, 331.88, 22.32, -31.41, 0.01, 134.45, 71.99
 i', 331.88, 282.28, 22.32, -31.41, 0.01, 93.99, 71.99
 j', 147.03, 153.31, 22.32, -31.41, 0.01, -11.19, -35.15
 84, 147.03, 22.32, -31.41, 0.01, -16.31, -35.15
 80 (85-83) [l=146 cm] - K.
 85, 0.00, 0.00, 33.21, -71.46, 98.71, 0.00
 83, 0.00, 0.00, 33.21, -71.46, 147.16, 0.00
 81 (86-84) [l=146 cm] - K.
 86, 0.00, 0.00, -93.78, 42.09, -835.33, 0.00
 84, 0.00, 0.00, -93.78, 42.09, -972.15, 0.00
 82 (84-87) [l=146 cm] - K.
 84, 0.00, 0.00, -7.84, -4.83, -956.40, 0.00
 87, 0.00, 0.00, -7.84, -4.83, -967.84, 0.00
 83 (81-85) [l=227 cm] - F.
 81, 0.00, 0.00, -9.57, -56.19, 103.51, 0.00
 85, 0.00, 0.00, -9.57, -56.19, 81.82, 0.00
 84 (82-86) [l=227 cm] - S.
 82, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 86, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 85 (88-j'-89) [l=480 cm] [Piano XZ: 352 def.-128 rig.] [in j': N=Nxy,Nxz] - M.
 88, 68.35, 3.96, -0.23, 0.00, 0.62, 12.79
 j', 35.56, 44.32, 3.96, -0.23, 0.00, -0.18, -6.24
 89, 35.56, 3.96, -0.23, 0.00, -0.46, -6.24
 86 (87-89) [l=26 cm] - K.
 87, 0.00, 0.00, -4.86, -0.73, -967.82, 0.00
 89, 0.00, 0.00, -4.86, -0.73, -969.08, 0.00
 87 (89-90) [l=26 cm] - K.
 89, 0.00, 0.00, 30.70, -6.97, -968.61, 0.00
 90, 0.00, 0.00, 30.70, -6.97, -960.69, 0.00
 88 (91-j'-92) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
 91, 53.22, 0.24, 0.29, 0.00, -0.59, 0.72
 j', 17.27, 26.73, 0.24, 0.29, 0.00, 0.43, -0.42
 92, 17.27, 0.24, 0.29, 0.00, 0.80, -0.42
 89 (93-92) [l=28 cm] - K.
 93, 0.00, 0.00, -38.71, -8.67, -969.41, 0.00
 92, 0.00, 0.00, -38.71, -8.67, -980.40, 0.00
 90 (92-94) [l=28 cm] - K.
 92, 0.00, 0.00, -21.44, -9.10, -981.20, 0.00
 94, 0.00, 0.00, -21.44, -9.10, -987.29, 0.00
 91 (90-93) [l=227 cm] - S.
 90, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 93, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 92 (95-j'-96) [l=480 cm] [Piano XZ: 425 def.-55 rig.] [in j': N=Nxy,Nxz] - M.
 95, 271.51, 1.37, 13.49, 0.01, -41.33, 4.15
 j', 64.48, 88.12, 1.37, 13.49, 0.01, 16.05, -2.42
 96, 64.48, 1.37, 13.49, 0.01, 23.44, -2.42
 93 (94-96) [l=163 cm] - K.
 94, 0.00, 0.00, 141.60, 190.10, -988.23, 0.00
 96, 0.00, 0.00, 141.60, 190.10, -756.86, 0.00
 94 (96-97) [l=163 cm] - K.
 96, 0.00, 0.00, 140.37, 174.81, -781.07, 0.00
 97, 0.00, 0.00, 140.37, 174.81, -551.85, 0.00
 95 (98-j'-99) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
 98, 157.66, 0.29, -0.14, 0.01, 3.60, 0.79
 j', 36.17, 56.14, 0.29, -0.14, 0.01, 3.03, -0.62
 99, 36.17, 0.29, -0.14, 0.01, 2.92, -0.62
 96 (100-99) [l=96 cm] - K.
 100, 0.00, 0.00, 43.65, 166.00, -343.79, 0.00
 99, 0.00, 0.00, 43.65, 166.00, -301.93, 0.00
 97 (99-101) [l=96 cm] - K.

99, 0.00, 0.00, 42.13, 158.00, -305.11, 0.00
 101, 0.00, 0.00, 42.13, 158.00, -264.70, 0.00
 98 (97-100) [l=227 cm] - S.
 97, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 100, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 99 (102-j'-103) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
 102, 176.60, 0.29, -0.16, 0.01, 3.65, 0.78
 j', 55.11, 75.08, 0.29, -0.16, 0.01, 3.02, -0.61
 103, 55.11, 0.29, -0.16, 0.01, 2.90, -0.61
 100 (101-103) [l=96 cm] - K.
 101, 0.00, 0.00, 42.13, 158.00, -264.70, 0.00
 103, 0.00, 0.00, 42.13, 158.00, -224.30, 0.00
 101 (105-j'-106) [l=480 cm] [Piano XZ: 391 def.-90 rig.] [in j': N=Nxy,Nxz] - M.
 105, 118.56, 0.91, 11.72, 0.00, -32.40, 2.83
 j', 17.96, 36.72, 0.91, 11.72, 0.00, 13.36, -1.55
 106, 17.96, 0.91, 11.72, 0.00, 23.85, -1.55
 102 (106-3) [l=79 cm] - K.
 106, 0.00, 0.00, 33.85, 153.06, -21.97, 0.00
 3, 0.00, 0.00, 33.85, 153.06, 4.91, 0.00
 103 (104-107) [l=227 cm] - S.
 104, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 107, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 104 (108-109) [l=608 cm] - M.
 108, 215.36, -0.17, 0.71, 0.01, -10.83, -0.96
 109, -118.85, -0.17, 0.71, 0.01, -6.54, 0.07
 105 (110-109) [l=224 cm] - K.
 110, 182.17, 59.21, 80.57, -155.36, 118.19, 214.46
 109, 181.02, 59.21, 77.69, -155.36, 295.52, 81.77
 106 (112-j'-113) [l=420 cm] [Piano XZ: 361 def.-59 rig.] [in j': N=Nxy,Nxz] - M.
 112, 261.59, 0.40, -17.86, 0.00, 55.63, 0.98
 j', 173.71, 186.08, 0.40, -17.86, 0.00, -8.81, -0.70
 113, 173.71, 0.40, -17.86, 0.00, -19.37, -0.70
 107 (114-113) [l=153 cm] - K.
 114, -32.86, 0.39, -163.04, 0.70, 179.48, 0.30
 113, -32.86, 0.39, -163.04, 0.70, -69.96, -0.30
 108 (113-115) [l=153 cm] - K.
 113, 5.30, 0.00, 10.68, 0.00, -16.99, 0.00
 115, 5.30, 0.00, 10.68, 0.00, -0.67, 0.00
 109 (116-j'-117) [l=420 cm] [Piano XZ: 363 def.-57 rig.] [in j': N=Nxy,Nxz] - M.
 116, 282.14, 0.37, 15.18, 0.00, -51.71, 0.90
 j', 188.52, 201.31, 0.37, 15.18, 0.00, 3.33, -0.67
 117, 188.52, 0.37, 15.18, 0.00, 12.04, -0.67
 110 (118-117) [l=163 cm] - K.
 118, 7.06, 0.00, -12.58, 0.00, -1.51, 0.00
 117, 7.06, 0.00, -12.58, 0.00, -22.01, 0.00
 111 (117-119) [l=163 cm] - K.
 117, -42.31, -0.37, 175.94, -0.67, -72.78, -0.30
 119, -42.31, -0.37, 175.94, -0.67, 213.82, 0.30
 112 (115-118) [l=200 cm] - S.
 115, 4.79, 0.00, -0.95, 0.00, -0.97, 0.00
 118, 4.79, 0.00, -0.95, 0.00, -2.87, 0.00
 113 (120-j'-121) [l=420 cm] [Piano XZ: 361 def.-59 rig.] [in j': N=Nxy,Nxz] - M.
 120, 259.21, 0.31, -32.52, 0.00, 108.30, 0.74
 j', 171.33, 183.70, 0.31, -32.52, 0.00, -9.06, -0.58
 121, 171.33, 0.31, -32.52, 0.00, -28.28, -0.58
 114 (122-121) [l=153 cm] - K.
 122, -19.53, 0.32, -160.55, 0.58, 155.38, 0.24
 121, -19.53, 0.32, -160.55, 0.58, -90.26, -0.24
 115 (121-123) [l=153 cm] - K.
 121, 9.93, 0.00, 10.78, 0.00, -24.79, 0.00
 123, 9.93, 0.00, 10.78, 0.00, -8.31, 0.00
 116 (124-j'-125) [l=420 cm] [Piano XZ: 363 def.-57 rig.] [in j': N=Nxy,Nxz] - M.
 124, 278.92, 0.32, 28.88, 0.00, -106.78, 0.74
 j', 185.29, 198.09, 0.32, 28.88, 0.00, -2.07, -0.59
 125, 185.29, 0.32, 28.88, 0.00, 14.50, -0.59
 117 (126-125) [l=163 cm] - K.
 126, 11.94, 0.00, -12.99, 0.00, -9.32, 0.00
 125, 11.94, 0.00, -12.99, 0.00, -30.49, 0.00
 118 (125-127) [l=163 cm] - K.
 125, -31.26, -0.32, 172.30, -0.59, -88.24, -0.26
 127, -31.26, -0.32, 172.30, -0.59, 192.44, 0.26
 119 (123-126) [l=200 cm] - S.
 123, 4.80, 0.00, -1.10, 0.00, -0.83, 0.00
 126, 4.80, 0.00, -1.10, 0.00, -3.02, 0.00
 120 (96-128) [l=45 cm] - C.
 96, 65.71, 20.44, 1.65, 0.04, -0.77, 12.86
 128, 43.66, 20.44, 1.65, 0.04, -0.02, 3.66
 121 (129-128) [l=163 cm] - K.
 129, 0.00, 0.00, 29.75, 133.84, -890.99, 0.00
 128, 0.00, 0.00, 29.75, 133.84, -842.37, 0.00
 122 (131-132) [l=45 cm] - M.
 131, 17.38, 2.70, 0.18, 0.00, -0.09, 1.70
 132, -2.52, 2.70, 0.18, 0.00, -0.01, 0.48
 123 (80-134) [l=45 cm] - C.
 80, 141.05, 44.58, 1.50, 0.07, -10.09, 25.56
 134, 99.42, 44.58, 1.50, 0.07, -9.41, 5.49

124 (19-137) [l=45 cm] - C.
 19, 32.55, -12.50, 0.22, 0.02, -0.28, -9.18
 137, 19.61, -12.50, 0.22, 0.02, -0.18, -3.55
 125 (138-137) [l=96 cm] - K.
 138, 0.00, 0.00, -83.62, -110.10, -385.12, 0.00
 137, 0.00, 0.00, -83.62, -110.10, -465.31, 0.00
 126 (140-141) [l=45 cm] - M.
 140, 16.99, -2.49, -0.01, 0.00, -0.05, -2.00
 141, -2.91, -2.49, -0.01, 0.00, -0.05, -0.88
 127 (141-143) [l=168 cm] - K.
 141, 0.00, 0.00, -54.68, -115.05, -983.81, 0.00
 143, 0.00, 0.00, -54.68, -115.05, -1075.39, 0.00
 128 (33-144) [l=45 cm] - C.
 33, 57.65, -16.87, -0.32, 0.03, 0.11, -13.48
 144, 37.95, -16.87, -0.32, 0.03, -0.04, -5.89
 129 (143-144) [l=146 cm] - K.
 143, 0.00, 0.00, -64.80, -117.24, -1075.39, 0.00
 144, 0.00, 0.00, -64.80, -117.24, -1169.94, 0.00
 130 (146-147) [l=45 cm] - C.
 146, 56.45, -14.26, -1.12, 0.03, -0.09, -12.59
 147, 37.33, -14.26, -1.12, 0.03, -0.59, -6.17
 131 (147-149) [l=142 cm] - K.
 147, 0.00, 0.00, 51.82, -113.14, -1262.66, 0.00
 149, 0.00, 0.00, 51.82, -113.14, -1189.23, 0.00
 132 (150-151) [l=45 cm] - M.
 150, 28.15, 4.49, 0.08, 0.01, -0.75, 2.55
 151, -0.06, 4.49, 0.08, 0.01, -0.71, 0.53
 133 (153-154) [l=45 cm] - C.
 153, 93.52, 25.05, 0.24, 0.03, -1.81, 13.41
 154, 72.51, 25.05, 0.24, 0.03, -1.70, 2.14
 134 (154-156) [l=156 cm] - K.
 154, 0.00, 0.00, -72.12, 159.11, -397.30, 0.00
 156, 0.00, 0.00, -72.12, 159.11, -509.52, 0.00
 135 (157-158) [l=45 cm] - M.
 157, 21.32, 3.28, 0.02, 0.00, -0.20, 1.76
 158, 2.35, 3.28, 0.02, 0.00, -0.20, 0.29
 136 (159-158) [l=160 cm] - K.
 159, 0.00, 0.00, -128.15, 163.55, 224.51, 0.00
 158, 0.00, 0.00, -128.16, 163.55, 19.85, 0.00
 137 (158-155) [l=160 cm] - K.
 158, 0.00, 0.00, -125.81, 163.84, 20.05, 0.00
 155, 0.00, 0.00, -125.82, 163.84, -180.88, 0.00
 138 (160-161) [l=45 cm] - C.
 160, 72.34, -15.23, -1.72, 0.04, -1.00, -14.36
 161, 49.98, -15.23, -1.72, 0.04, -1.77, -7.50
 139 (161-163) [l=166 cm] - K.
 161, 0.00, 0.00, 115.22, -108.82, -865.34, 0.00
 163, 0.00, 0.00, 115.22, -108.82, -674.54, 0.00
 140 (164-165) [l=45 cm] - M.
 164, 9.76, 1.37, 0.13, 0.00, -0.03, 0.94
 165, -1.67, 1.37, 0.13, 0.00, 0.03, 0.32
 141 (166-165) [l=96 cm] - K.
 166, 0.00, 0.00, 87.12, 126.76, -413.57, 0.00
 165, 0.00, 0.00, 87.12, 126.76, -329.85, 0.00
 142 (165-167) [l=96 cm] - K.
 165, 0.00, 0.00, 85.45, 127.08, -329.89, 0.00
 167, 0.00, 0.00, 85.45, 127.08, -247.68, 0.00
 143 (168-169) [l=45 cm] - M.
 168, 11.45, 1.56, 0.16, 0.00, -0.03, 1.09
 169, -1.93, 1.56, 0.16, 0.00, 0.04, 0.38
 144 (167-169) [l=113 cm] - K.
 167, 0.00, 0.00, 66.18, 119.58, -247.68, 0.00
 169, 0.00, 0.00, 66.18, 119.58, -173.10, 0.00
 145 (169-170) [l=113 cm] - K.
 169, 0.00, 0.00, 64.24, 119.97, -173.14, 0.00
 170, 0.00, 0.00, 64.24, 119.97, -100.74, 0.00
 146 (171-172) [l=45 cm] - M.
 171, 8.12, 1.07, 0.11, 0.00, -0.02, 0.76
 172, -1.34, 1.07, 0.11, 0.00, 0.03, 0.28
 147 (170-172) [l=80 cm] - K.
 170, 0.00, 0.00, 64.24, 119.97, -100.74, 0.00
 172, 0.00, 0.00, 64.24, 119.97, -49.60, 0.00
 148 (172-173) [l=80 cm] - K.
 172, 0.00, 0.00, 62.90, 120.24, -49.63, 0.00
 173, 0.00, 0.00, 62.90, 120.24, 0.50, 0.00
 149 (174-175) [l=45 cm] - M.
 174, 8.90, -1.58, 0.03, 0.00, -0.04, -1.18
 175, -2.52, -1.58, 0.03, 0.00, -0.02, -0.47
 150 (138-175) [l=96 cm] - K.
 138, 0.00, 0.00, 83.62, -110.10, -385.12, 0.00
 175, 0.00, 0.00, 83.62, -110.10, -304.76, 0.00
 151 (175-176) [l=96 cm] - K.
 175, 0.00, 0.00, 81.10, -110.56, -304.73, 0.00
 176, 0.00, 0.00, 81.10, -110.56, -226.72, 0.00
 152 (177-178) [l=45 cm] - M.
 177, 10.18, -1.89, 0.04, 0.00, -0.06, -1.39

178, -3.20, -1.89, 0.04, 0.00, -0.04, -0.54
 153 (176-178) [l=113 cm] - K.
 176, 0.00, 0.00, 61.83, -103.06, -226.72, 0.00
 178, 0.00, 0.00, 61.83, -103.06, -157.04, 0.00
 154 (178-179) [l=113 cm] - K.
 178, 0.00, 0.00, 58.62, -103.60, -157.00, 0.00
 179, 0.00, 0.00, 58.62, -103.60, -90.93, 0.00
 155 (180-181) [l=45 cm] - M.
 180, 7.04, -1.36, 0.03, 0.00, -0.02, -0.99
 181, -2.42, -1.36, 0.03, 0.00, -0.01, -0.37
 156 (179-181) [l=80 cm] - K.
 179, 0.00, 0.00, 58.62, -103.60, -90.93, 0.00
 181, 0.00, 0.00, 58.62, -103.60, -44.27, 0.00
 157 (181-182) [l=80 cm] - K.
 181, 0.00, 0.00, 56.20, -103.98, -44.25, 0.00
 182, 0.00, 0.00, 56.20, -103.98, 0.54, 0.00
 158 (2-183) [l=106 cm] - M.
 2, 45.04, 0.04, -2.34, 0.00, 11.92, 0.02
 183, 2.85, 0.04, -2.34, 0.00, 9.45, -0.02
 159 (173-183) [l=163 cm] - K.
 173, 16.38, -0.11, 40.48, 0.35, -109.45, -0.42
 183, 15.49, -0.11, 38.25, 0.35, -45.29, -0.25
 160 (183-184) [l=163 cm] - K.
 183, 17.55, -0.21, 40.49, 0.23, -56.83, -0.39
 184, 16.65, -0.21, 38.25, 0.23, 7.36, -0.05
 161 (184-185) [l=122 cm] - S.
 184, 25.51, -0.30, 18.61, 0.05, -11.42, -0.20
 185, 25.51, -0.30, 18.61, 0.05, 11.27, 0.17
 162 (186-185) [l=122 cm] - S.
 186, 25.39, 0.32, 17.58, -0.06, -10.58, 0.22
 185, 25.39, 0.32, 17.58, -0.06, 10.87, -0.18
 163 (6-187) [l=106 cm] - M.
 6, 50.71, 0.02, 3.05, 0.00, -15.63, 0.02
 187, 8.52, 0.02, 3.05, 0.00, -12.41, -0.01
 164 (182-187) [l=163 cm] - K.
 182, 13.68, 0.11, 34.37, -0.38, -93.20, 0.45
 187, 12.78, 0.11, 32.13, -0.38, -39.01, 0.27
 165 (187-186) [l=163 cm] - K.
 187, 17.74, 0.22, 39.32, -0.25, -54.45, 0.42
 186, 16.84, 0.22, 37.09, -0.25, 7.81, 0.06
 166 (188-189) [l=45 cm] - C.
 188, 48.36, 15.67, 0.73, 0.02, -0.40, 9.24
 189, 33.07, 15.67, 0.73, 0.02, -0.07, 2.18
 167 (136-189) [l=113 cm] - K.
 136, 0.00, 0.00, -10.93, 137.89, -1138.57, 0.00
 189, 0.00, 0.00, -10.93, 137.89, -1150.95, 0.00
 168 (189-190) [l=113 cm] - K.
 189, 0.00, 0.00, 22.14, 140.07, -1150.88, 0.00
 190, 0.00, 0.00, 22.14, 140.07, -1125.81, 0.00
 169 (84-191) [l=45 cm] - C.
 84, 61.09, 19.63, 1.10, 0.03, -0.56, 11.78
 191, 41.40, 19.63, 1.10, 0.03, -0.07, 2.94
 170 (191-133) [l=146 cm] - K.
 191, 0.00, 0.00, 51.72, 139.06, -1110.17, 0.00
 133, 0.00, 0.00, 51.72, 139.06, -1034.71, 0.00
 171 (192-193) [l=45 cm] - C.
 192, 54.94, 15.21, 0.19, 0.02, -0.43, 8.26
 193, 41.89, 15.21, 0.19, 0.02, -0.35, 1.42
 172 (193-152) [l=97 cm] - K.
 193, 0.00, 0.00, -50.96, 152.46, -593.07, 0.00
 152, 0.00, 0.00, -50.96, 152.46, -642.35, 0.00
 173 (194-195) [l=45 cm] - C.
 194, 44.70, 13.69, 1.22, 0.02, -0.35, 8.81
 195, 29.41, 13.69, 1.22, 0.02, 0.20, 2.64
 174 (130-195) [l=113 cm] - K.
 130, 0.00, 0.00, 51.40, 128.93, -723.51, 0.00
 195, 0.00, 0.00, 51.40, 128.93, -665.27, 0.00
 175 (195-196) [l=113 cm] - K.
 195, 0.00, 0.00, 80.81, 131.57, -665.47, 0.00
 196, 0.00, 0.00, 80.81, 131.57, -574.00, 0.00
 176 (99-197) [l=45 cm] - C.
 99, 37.68, 11.29, 1.07, 0.02, -0.25, 7.39
 197, 24.74, 11.29, 1.07, 0.02, 0.23, 2.31
 177 (197-166) [l=96 cm] - K.
 197, 0.00, 0.00, 87.12, 126.76, -497.12, 0.00
 166, 0.00, 0.00, 87.12, 126.76, -413.57, 0.00
 178 (37-198) [l=45 cm] - C.
 37, 119.56, -32.91, -1.77, 0.07, -0.52, -27.85
 198, 77.93, -32.91, -1.77, 0.07, -1.32, -13.04
 179 (200-201) [l=45 cm] - C.
 200, 44.25, -12.71, -0.40, 0.02, 0.15, -10.38
 201, 28.96, -12.71, -0.40, 0.02, -0.04, -4.65
 180 (145-201) [l=113 cm] - K.
 145, 0.00, 0.00, -44.47, -118.78, -1209.91, 0.00
 201, 0.00, 0.00, -44.47, -118.78, -1260.25, 0.00
 181 (201-199) [l=113 cm] - K.

201, 0.00, 0.00, -15.52, -114.12, -1260.29, 0.00
 199, 0.00, 0.00, -15.52, -114.12, -1277.86, 0.00
 182 (22-202) [l=45 cm] - C.
 22, 61.71, -20.29, 0.15, 0.04, -0.95, -15.43
 202, 39.65, -20.29, 0.15, 0.04, -0.88, -6.29
 183 (202-142) [l=163 cm] - K.
 202, 0.00, 0.00, -39.77, -111.67, -832.41, 0.00
 142, 0.00, 0.00, -39.77, -111.67, -897.40, 0.00
 184 (204-205) [l=45 cm] - C.
 204, 40.31, -14.46, 0.21, 0.02, -0.42, -10.77
 205, 25.03, -14.46, 0.21, 0.02, -0.33, -4.27
 185 (139-205) [l=113 cm] - K.
 139, 0.00, 0.00, -82.44, -113.65, -544.16, 0.00
 205, 0.00, 0.00, -82.44, -113.65, -637.48, 0.00
 186 (205-203) [l=113 cm] - K.
 205, 0.00, 0.00, -57.41, -109.39, -637.81, 0.00
 203, 0.00, 0.00, -57.41, -109.39, -702.86, 0.00
 187 (45-206) [l=45 cm] - C.
 45, 67.64, -15.79, -1.52, 0.04, -0.53, -14.37
 206, 45.55, -15.79, -1.52, 0.04, -1.21, -7.26
 188 (206-162) [l=164 cm] - K.
 206, 0.00, 0.00, 85.97, -108.25, -1118.42, 0.00
 162, 0.00, 0.00, 85.97, -108.25, -977.78, 0.00
 189 (207-208) [l=45 cm] - C.
 207, 51.91, -9.81, -1.21, 0.02, -0.31, -9.54
 208, 36.89, -9.81, -1.21, 0.02, -0.85, -5.13
 190 (208-209) [l=111 cm] - K.
 208, 0.00, 0.00, 133.29, -111.02, -567.50, 0.00
 209, 0.00, 0.00, 133.29, -111.02, -419.28, 0.00
 191 (53-210) [l=45 cm] - C.
 53, 33.10, -5.78, -0.72, 0.01, 0.02, -5.73
 210, 24.01, -5.78, -0.72, 0.01, -0.31, -3.13
 192 (209-210) [l=67 cm] - K.
 209, 0.00, 0.00, 133.29, -111.02, -419.28, 0.00
 210, 0.00, 0.00, 133.29, -111.02, -329.58, 0.00
 193 (210-110) [l=67 cm] - K.
 210, 0.00, 0.00, 157.30, -107.89, -329.89, 0.00
 110, 0.00, 0.00, 157.30, -107.89, -223.87, 0.00
 194 (211-212) [l=608 cm] - M.
 211, 240.29, -0.16, 0.69, 0.01, -10.73, -0.93
 212, -93.92, -0.16, 0.69, 0.01, -6.53, 0.04
 195 (159-212) [l=224 cm] - K.
 159, 166.25, 59.49, 55.55, -156.12, 173.31, 215.46
 212, 165.10, 59.49, 52.67, -156.12, 294.63, 82.08
 196 (212-111) [l=224 cm] - K.
 212, 186.17, 94.96, -56.92, -83.05, 251.62, 185.59
 111, 185.02, 94.96, -59.80, -83.05, 120.82, -27.23
 197 (214-215) [l=227 cm] - Z.
 214, 0.00, 0.00, -61.24, 1.66, 14.71, 0.00
 215, 0.00, 0.00, 58.70, 1.66, 11.59, 0.00
 198 (176-231) [l=448 cm] - T.
 176, 26.93, 0.00, 4.62, 0.00, -3.71, 0.00
 231, 23.38, 0.00, -4.26, 0.00, -2.91, 0.00
 199 (232-i'-233) [l=165 cm][8 rig.-157 def.] [in i' : N=Nxy,Nxz] - T.
 232, -0.70, -0.01, 3.30, 0.00, -2.76, -0.01
 i', -0.70, -0.70, -0.01, 3.28, 0.00, -2.50, -0.01
 233, -0.70, -0.01, 2.98, 0.00, 2.42, 0.01
 200 (232-i'-j'-234) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 232, 0.87, 0.00, -3.65, 0.00, 2.46, 0.00
 i', 0.87, 0.87, 0.00, -3.67, 0.00, 2.17, 0.00
 j', 0.87, 0.87, 0.00, -3.89, 0.00, -2.22, 0.00
 234, 0.87, 0.00, -3.91, 0.00, -2.53, 0.00
 201 (234-i'-j'-235) [l=218 cm][8 rig.-202 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 234, 1.58, 0.00, 0.12, 0.00, 0.02, 0.00
 i', 1.58, 1.58, 0.00, 0.10, 0.00, 0.02, 0.00
 j', 1.58, 1.58, 0.00, -0.28, 0.00, -0.16, 0.00
 235, 1.58, 0.00, -0.30, 0.00, -0.18, 0.00
 202 (235-i'-j'-236) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 235, 0.99, 0.00, 3.54, 0.00, -2.28, 0.00
 i', 0.99, 0.99, 0.00, 3.52, 0.00, -2.00, 0.00
 j', 0.99, 0.99, 0.00, 3.30, 0.00, 1.96, 0.00
 236, 0.99, 0.00, 3.29, 0.00, 2.22, 0.00
 203 (236-i'-237) [l=185 cm][8 rig.-177 def.] [in i' : N=Nxy,Nxz] - T.
 236, -0.38, 0.01, 2.64, 0.00, -2.43, 0.01
 i', -0.38, -0.38, 0.01, 2.62, 0.00, -2.22, 0.01
 237, -0.38, 0.01, 2.28, 0.00, 2.12, -0.01
 204 (167-231) [l=448 cm] - T.
 167, 26.93, 0.00, 4.62, 0.00, -3.71, 0.00
 231, 23.38, 0.00, -4.26, 0.00, -2.91, 0.00
 205 (240-241) [l=448 cm] - T.
 240, 25.98, 0.00, 4.37, 0.00, -3.52, 0.00
 241, 22.62, 0.00, -4.03, 0.00, -2.75, 0.00
 206 (242-241) [l=448 cm] - T.
 242, 25.98, 0.00, 4.37, 0.00, -3.52, 0.00
 241, 22.62, 0.00, -4.03, 0.00, -2.75, 0.00
 207 (243-244) [l=448 cm] - T.

243, 30.70, 0.00, 5.28, 0.00, -4.25, 0.00
 244, 26.63, 0.00, -4.87, 0.00, -3.34, 0.00
 208 (245-244) [l=448 cm] - T.
 245, 30.70, 0.00, 5.28, 0.00, -4.25, 0.00
 244, 26.63, 0.00, -4.87, 0.00, -3.34, 0.00
 209 (246-247) [l=448 cm] - T.
 246, 18.63, 0.00, 5.46, 0.00, -4.25, 0.00
 247, 14.35, 0.00, -5.23, 0.00, -3.73, 0.00
 210 (248-247) [l=448 cm] - T.
 248, 18.63, 0.00, 5.46, 0.00, -4.25, 0.00
 247, 14.36, 0.00, -5.23, 0.00, -3.73, 0.00
 211 (249-i'-j'-250) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 249, 0.94, 0.00, 3.59, 0.00, -2.32, 0.00
 i', 0.94, 0.94, 0.00, 3.58, 0.00, -2.03, 0.00
 j', 0.94, 0.94, 0.00, 3.35, 0.00, 1.99, 0.00
 250, 0.94, 0.00, 3.34, 0.00, 2.25, 0.00
 212 (251-i'-j'-249) [l=218 cm][8 rig.-202 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 251, 1.57, 0.00, 0.19, 0.00, -0.06, 0.00
 i', 1.57, 1.57, 0.00, 0.17, 0.00, -0.05, 0.00
 j', 1.57, 1.57, 0.00, -0.22, 0.00, -0.09, 0.00
 249, 1.57, 0.00, -0.23, 0.00, -0.11, 0.00
 213 (252-i'-j'-251) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 252, 0.90, 0.00, -3.52, 0.00, 2.38, 0.00
 i', 0.90, 0.90, 0.00, -3.54, 0.00, 2.09, 0.00
 j', 0.90, 0.90, 0.00, -3.76, 0.00, -2.14, 0.00
 251, 0.90, 0.00, -3.77, 0.00, -2.44, 0.00
 214 (250-i'-253) [l=185 cm][8 rig.-177 def.] [in i' : N=Nxy,Nxz] - T.
 250, -0.40, 0.00, 2.50, 0.00, -2.29, 0.00
 i', -0.40, -0.40, 0.00, 2.48, 0.00, -2.10, 0.00
 253, -0.40, 0.00, 2.14, 0.00, 2.00, 0.00
 215 (252-i'-254) [l=165 cm][8 rig.-157 def.] [in i' : N=Nxy,Nxz] - T.
 252, -0.65, -0.01, 3.32, 0.00, -2.78, 0.00
 i', -0.65, -0.65, -0.01, 3.31, 0.00, -2.52, 0.00
 254, -0.65, -0.01, 3.01, 0.00, 2.44, 0.00
 216 (255-256) [l=448 cm] - T.
 255, 19.17, 0.00, 2.34, 0.00, -1.95, 0.00
 256, 17.40, 0.00, -2.08, 0.00, -1.35, 0.00
 217 (257-256) [l=448 cm] - T.
 257, 22.28, 0.00, 4.66, 0.00, -3.69, 0.00
 256, 18.67, 0.00, -4.38, 0.00, -3.05, 0.00
 218 (258-259) [l=448 cm] - T.
 258, 24.21, 0.00, 4.10, 0.00, -3.30, 0.00
 259, 21.06, 0.00, -3.78, 0.00, -2.58, 0.00
 219 (260-259) [l=448 cm] - T.
 260, 24.22, 0.00, 4.10, 0.00, -3.30, 0.00
 259, 21.07, 0.00, -3.78, 0.00, -2.58, 0.00
 220 (261-262) [l=448 cm] - T.
 261, 27.21, 0.00, 4.70, 0.00, -3.78, 0.00
 262, 23.59, 0.00, -4.34, 0.00, -2.97, 0.00
 221 (263-262) [l=448 cm] - T.
 263, 27.21, 0.00, 4.70, 0.00, -3.78, 0.00
 262, 23.59, 0.00, -4.34, 0.00, -2.97, 0.00
 222 (264-265) [l=448 cm] - T.
 264, 17.43, 0.00, 5.05, 0.00, -3.93, 0.00
 265, 13.48, 0.00, -4.83, 0.00, -3.44, 0.00
 223 (266-265) [l=448 cm] - T.
 266, 17.43, 0.00, 5.05, 0.00, -3.93, 0.00
 265, 13.48, 0.00, -4.83, 0.00, -3.44, 0.00
 224 (267-268) [l=448 cm] - T.
 267, 28.93, 0.00, 4.97, 0.00, -4.00, 0.00
 268, 25.10, 0.00, -4.58, 0.00, -3.14, 0.00
 225 (269-268) [l=448 cm] - T.
 269, 28.93, 0.00, 4.97, 0.00, -4.00, 0.00
 268, 25.10, 0.00, -4.58, 0.00, -3.14, 0.00
 226 (270-271) [l=448 cm] - T.
 270, 26.30, 0.00, 4.51, 0.00, -3.63, 0.00
 271, 22.83, 0.00, -4.16, 0.00, -2.85, 0.00
 227 (272-271) [l=448 cm] - T.
 272, 26.29, 0.00, 4.51, 0.00, -3.63, 0.00
 271, 22.83, 0.00, -4.16, 0.00, -2.84, 0.00
 228 (185-231) [l=385 cm] - T.
 185, -0.12, 0.00, 0.74, 0.00, -0.85, 0.00
 231, -0.12, 0.00, -0.15, 0.00, 0.28, 0.00
 229 (231-241) [l=290 cm] - T.
 231, 0.12, 0.00, 0.31, 0.00, -0.12, 0.00
 241, 0.12, 0.00, -0.36, 0.00, -0.20, 0.00
 230 (241-244) [l=325 cm] - T.
 241, 0.21, 0.00, 0.46, 0.00, -0.34, 0.00
 244, 0.21, 0.00, -0.29, 0.00, -0.06, 0.00
 231 (244-247) [l=325 cm] - T.
 244, 0.06, 0.00, 0.13, 0.00, 0.19, 0.00
 247, 0.06, 0.00, -0.61, 0.00, -0.59, 0.00
 232 (247-273) [l=332 cm] - T.
 247, -0.21, 0.00, 0.34, 0.00, -0.14, 0.01
 273, -0.21, 0.00, -0.42, 0.00, -0.28, -0.01
 233 (273-256) [l=288 cm] - T.

273, -0.16, 0.00, 0.48, 0.00, -0.37, 0.00
 256, -0.16, 0.00, -0.18, 0.00, 0.05, 0.00
 234 (256-259) [l=288 cm] - T.
 256, 0.05, -0.01, 0.42, 0.00, -0.29, -0.01
 259, 0.05, -0.01, -0.24, 0.00, -0.03, 0.01
 235 (259-262) [l=288 cm] - T.
 259, 0.19, 0.00, 0.41, 0.00, -0.27, 0.00
 262, 0.19, 0.00, -0.25, 0.00, -0.05, 0.00
 236 (262-265) [l=288 cm] - T.
 262, 0.02, 0.00, 0.05, 0.00, 0.25, 0.00
 265, 0.02, 0.00, -0.61, 0.00, -0.57, 0.00
 237 (265-274) [l=320 cm] - T.
 265, -0.15, 0.00, 0.43, 0.00, -0.29, 0.00
 274, -0.15, 0.00, -0.31, 0.00, -0.10, 0.00
 238 (274-268) [l=305 cm] - T.
 274, 0.09, 0.00, 0.56, 0.00, -0.50, 0.00
 268, 0.09, 0.00, -0.14, 0.00, 0.14, 0.00
 239 (268-271) [l=305 cm] - T.
 268, 0.23, 0.00, 0.29, 0.00, -0.09, 0.00
 271, 0.23, 0.00, -0.41, 0.00, -0.27, 0.00
 240 (271-275) [l=354 cm] - T.
 271, -0.19, 0.00, 0.03, 0.00, 0.43, 0.00
 275, -0.19, 0.00, -0.78, 0.00, -0.91, 0.00
 241 (159-111) [l=448 cm] - T.
 159, 5.52, 0.00, 13.81, 0.00, -10.32, 0.00
 111, -5.52, 0.00, -13.81, 0.00, -10.32, 0.00
 242 (143-278) [l=199 cm] - T.
 143, 18.58, 0.00, 3.47, 0.00, -2.19, 0.00
 278, 16.79, 0.00, -1.00, 0.00, 0.27, 0.00
 243 (278-279) [l=142 cm] - T.
 278, 15.49, 0.00, -0.48, 0.00, 1.31, 0.00
 279, 14.22, 0.00, -3.67, 0.00, -1.65, 0.00
 244 (279-273) [l=107 cm] - T.
 279, 11.57, 0.00, -2.62, 0.00, 1.96, 0.00
 273, 10.62, 0.00, -5.01, 0.00, -2.10, 0.00
 245 (281-282) [l=142 cm] - T.
 281, 13.46, 0.00, -0.15, 0.00, 0.64, 0.00
 282, 12.77, 0.00, -1.87, 0.00, -0.80, 0.00
 246 (282-283) [l=107 cm] - T.
 282, 11.43, 0.00, -1.34, 0.00, 1.03, 0.00
 283, 10.91, 0.00, -2.63, 0.00, -1.08, 0.00
 247 (284-285) [l=199 cm] - T.
 284, 21.55, 0.00, 3.66, 0.00, -2.38, 0.00
 285, 19.74, 0.00, -0.87, 0.00, 0.40, 0.00
 248 (285-286) [l=142 cm] - T.
 285, 18.62, 0.00, -0.42, 0.00, 1.29, 0.00
 286, 17.33, 0.00, -3.66, 0.00, -1.61, 0.00
 249 (286-274) [l=107 cm] - T.
 286, 14.71, 0.00, -2.61, 0.00, 1.97, 0.00
 274, 13.74, 0.00, -5.03, 0.00, -2.10, 0.00
 250 (287-288) [l=107 cm] - T.
 287, 14.71, 0.00, -2.61, 0.00, 1.97, 0.00
 288, 13.74, 0.00, -5.03, 0.00, -2.10, 0.00
 251 (289-287) [l=142 cm] - T.
 289, 18.62, 0.01, -0.42, 0.00, 1.28, 0.00
 287, 17.33, 0.01, -3.65, 0.00, -1.61, 0.00
 252 (291-j'-292) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 291, 0.80, 0.43, -0.01, 0.00, 0.02, 0.63
 j', 0.37, 0.37, 0.43, -0.01, 0.00, 0.01, -0.32
 292, -0.35, 0.43, -0.01, 0.00, -0.02, -1.96
 253 (293-j'-294) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 293, 5.27, 0.25, -0.01, 0.00, 0.02, 0.37
 j', 4.85, 4.85, 0.25, -0.01, 0.00, 0.01, -0.19
 294, 4.03, 0.25, -0.01, 0.00, -0.02, -1.27
 254 (295-j'-296) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 295, 5.09, 0.20, 0.01, 0.00, -0.02, 0.30
 j', 4.66, 4.66, 0.20, 0.01, 0.00, -0.01, -0.15
 296, 3.84, 0.20, 0.01, 0.00, 0.02, -1.02
 255 (297-j'-298) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 297, 0.50, 0.41, 0.01, 0.00, -0.02, 0.60
 j', 0.08, 0.08, 0.41, 0.01, 0.00, -0.01, -0.30
 298, -0.65, 0.41, 0.01, 0.00, 0.02, -1.85
 256 (299-j'-300) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 299, 0.31, 0.40, 0.00, 0.00, -0.02, 0.59
 j', -0.11, -0.11, 0.40, 0.00, 0.00, -0.01, -0.29
 300, -0.84, 0.40, 0.00, 0.00, 0.01, -1.81
 257 (301-j'-302) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 301, 5.07, 0.21, 0.00, 0.00, -0.02, 0.31
 j', 4.65, 4.65, 0.21, 0.00, 0.00, -0.01, -0.16
 302, 3.82, 0.21, 0.00, 0.00, 0.01, -1.08
 258 (303-j'-304) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 303, 5.21, 0.24, 0.00, 0.00, 0.02, 0.34
 j', 4.79, 4.79, 0.24, 0.00, 0.00, 0.01, -0.18
 304, 3.96, 0.24, 0.00, 0.00, -0.01, -1.19
 259 (305-j'-306) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 305, 0.96, 0.43, -0.01, 0.00, 0.02, 0.62

j¹, 0.53, 0.53, 0.43, -0.01, 0.00, 0.01, -0.32
 306, -0.20, 0.43, -0.01, 0.00, -0.01, -1.94
 260 (307-4) [l=195 cm] - K.
 307, -14.95, 2.74, 0.00, 0.00, 0.00, -5.65
 4, -14.95, 2.74, 0.00, 0.00, 0.00, -10.99
 261 (308-7) [l=195 cm] - K.
 308, -14.95, -2.74, 0.00, 0.00, 0.00, 5.65
 7, -14.95, -2.74, 0.00, 0.00, 0.00, 11.00
 262 (307-308) [l=227 cm] - W_23957_24_-1_-1.
 307, 2.74, 0.00, 14.95, 0.00, -5.65, 0.00
 308, 2.74, 0.00, -14.95, 0.00, -5.65, 0.00
 263 (309-123) [l=170 cm] - K.
 309, -6.17, 3.70, 0.00, 0.00, 0.00, -2.06
 123, -6.17, 3.70, 0.00, 0.00, 0.00, -8.34
 264 (310-126) [l=170 cm] - K.
 310, -6.19, -3.70, 0.00, 0.00, 0.00, 2.07
 126, -6.19, -3.70, 0.00, 0.00, 0.00, 8.36
 265 (309-310) [l=200 cm] - W_23976_24_-1_-1.
 309, 3.70, 0.00, 6.17, 0.00, -2.06, 0.00
 310, 3.70, 0.00, -6.19, 0.00, -2.07, 0.00
 266 (129-246) [l=3 cm] - K.
 129, 0.00, 0.00, -14.88, 66.92, -445.50, 0.00
 246, 0.00, 0.00, -14.88, 66.92, -445.94, 0.00
 267 (130-243) [l=5 cm] - K.
 130, 0.00, 0.00, -25.70, 64.46, -361.75, 0.00
 243, 0.00, 0.00, -25.70, 64.46, -362.96, 0.00
 268 (203-245) [l=5 cm] - K.
 203, 0.00, 0.00, -28.71, -54.69, -351.43, 0.00
 245, 0.00, 0.00, -28.71, -54.69, -352.78, 0.00
 269 (142-248) [l=3 cm] - K.
 142, 0.00, 0.00, -19.89, -55.84, -448.70, 0.00
 248, 0.00, 0.00, -19.89, -55.84, -449.30, 0.00
 270 (190-255) [l=4 cm] - K.
 190, 0.00, 0.00, 11.07, 70.04, -562.91, 0.00
 255, 0.00, 0.00, 11.07, 70.04, -562.43, 0.00
 271 (145-257) [l=4 cm] - K.
 145, 0.00, 0.00, 22.24, -59.39, -604.95, 0.00
 257, 0.00, 0.00, 22.24, -59.39, -604.00, 0.00
 272 (163-270) [l=3 cm] - K.
 163, 0.00, 0.00, 57.61, -54.41, -337.27, 0.00
 270, 0.00, 0.00, 57.61, -54.41, -335.43, 0.00
 273 (283-273) [l=0 cm] - K.
 283, 7.68, 0.00, 1.61, 0.00, 4.61, 0.00
 273, 7.68, 0.00, 1.61, 0.00, 4.62, 0.00
 274 (288-274) [l=0 cm] - K.
 288, 9.82, 0.00, 0.44, 0.00, 5.90, 0.00
 274, 9.82, 0.00, 0.43, 0.00, 5.90, 0.00
 275 (111-275) [l=0 cm] - K.
 111, 191.31, 99.35, -1.73, -59.70, 114.97, 0.20
 275, 191.31, 99.35, -1.73, -59.70, 114.97, -0.20
 276 (231-311) [l=166 cm] - K.
 231, -9.01, 0.00, 0.00, 0.00, 0.00, 0.00
 311, -9.01, 0.00, 0.00, 0.00, 0.00, 0.00
 277 (241-312) [l=166 cm] - K.
 241, -8.51, 0.00, 0.00, 0.00, 0.00, 0.00
 312, -8.51, 0.00, 0.00, 0.00, 0.00, 0.00
 278 (244-313) [l=166 cm] - K.
 244, -10.32, 0.00, 0.00, 0.00, 0.00, 0.00
 313, -10.32, 0.00, 0.00, 0.00, 0.00, 0.00
 279 (256-314) [l=166 cm] - K.
 256, -6.80, 0.43, 0.00, 0.00, 0.00, -0.99
 314, -6.80, 0.43, 0.00, 0.00, 0.00, -1.69
 280 (259-315) [l=166 cm] - K.
 259, -7.98, 0.00, 0.00, 0.00, 0.00, 0.00
 315, -7.98, 0.00, 0.00, 0.00, 0.00, 0.00
 281 (268-316) [l=166 cm] - K.
 268, -9.70, 0.00, 0.00, 0.00, 0.00, 0.00
 316, -9.70, 0.00, 0.00, 0.00, 0.00, 0.00
 282 (271-317) [l=166 cm] - K.
 271, -8.80, 0.00, 0.00, 0.00, 0.00, 0.00
 317, -8.80, 0.00, 0.00, 0.00, 0.00, 0.00
 283 (262-318) [l=166 cm] - K.
 262, -9.17, 0.00, 0.00, 0.00, 0.00, 0.00
 318, -9.17, 0.00, 0.00, 0.00, 0.00, 0.00
 284 (133-319) [l=0 cm] - K.
 133, 24.18, -0.02, 10.23, 25.88, -303.07, -61.71
 319, 24.18, -0.02, 10.23, 25.88, -303.05, -61.71
 285 (131-90) [l=116 cm] - K.
 131, 0.00, 0.00, -4.69, -6.97, -955.26, 0.00
 90, 0.00, 0.00, -4.69, -6.97, -960.69, 0.00
 286 (131-93) [l=111 cm] - K.
 131, 0.00, 0.00, -12.70, -8.67, -955.35, 0.00
 93, 0.00, 0.00, -12.70, -8.67, -969.40, 0.00
 287 (140-27) [l=111 cm] - K.
 140, 0.00, 0.00, -1.74, 6.39, -1391.09, 0.00
 27, 0.00, 0.00, -1.74, 6.39, -1393.01, 0.00

288 (140-30) [l=116 cm] - K.
 140, 0.00, 0.00, -15.25, 4.39, -1391.04, 0.00
 30, 0.00, 0.00, -15.25, 4.39, -1408.70, 0.00
 289 (146-43) [l=85 cm] - K.
 146, 0.00, 0.00, -116.08, 118.61, -976.94, 0.00
 43, 0.00, 0.00, -116.08, 118.61, -1075.38, 0.00
 290 (146-46) [l=142 cm] - K.
 146, 0.00, 0.00, 59.63, 106.02, -976.86, 0.00
 46, 0.00, 0.00, 59.63, 106.02, -892.36, 0.00
 291 (150-74) [l=46 cm] - K.
 150, 0.00, 0.00, 28.33, -78.68, -727.49, 0.00
 74, 0.00, 0.00, 28.33, -78.68, -714.51, 0.00
 292 (150-77) [l=181 cm] - K.
 150, 0.00, 0.00, -56.49, -81.23, -728.24, 0.00
 77, 0.00, 0.00, -56.49, -81.23, -830.31, 0.00
 293 (153-66) [l=69 cm] - K.
 153, 0.00, 0.00, 42.60, -12.64, -159.07, 0.00
 66, 0.00, 0.00, 42.60, -12.64, -129.54, 0.00
 294 (153-70) [l=157 cm] - K.
 153, 0.00, 0.00, -136.13, -26.06, -160.88, 0.00
 70, 0.00, 0.00, -136.13, -26.06, -374.87, 0.00
 295 (157-58) [l=27 cm] - K.
 157, 0.00, 0.00, 19.43, -0.21, -11.94, 0.00
 58, 0.00, 0.00, 19.43, -0.21, -6.75, 0.00
 296 (157-61) [l=73 cm] - K.
 157, 0.00, 0.00, -40.75, -2.01, -12.14, 0.00
 61, 0.00, 0.00, -40.75, -2.01, -42.01, 0.00
 297 (49-160) [l=2 cm] - K.
 49, 0.00, 0.00, 192.78, 29.78, -413.37, 0.00
 160, 0.00, 0.00, 192.78, 29.78, -409.51, 0.00
 298 (160-51) [l=162 cm] - K.
 160, 0.00, 0.00, 120.44, 15.42, -408.51, 0.00
 51, 0.00, 0.00, 120.44, 15.42, -213.89, 0.00
 299 (103-164) [l=0 cm] - K.
 103, 0.00, 0.00, 97.25, 157.39, -227.19, 0.00
 164, 0.00, 0.00, 97.25, 157.39, -227.00, 0.00
 300 (164-104) [l=96 cm] - K.
 164, 0.00, 0.00, 87.49, 156.46, -227.03, 0.00
 104, 0.00, 0.00, 87.49, 156.46, -143.39, 0.00
 301 (168-104) [l=113 cm] - K.
 168, 0.00, 0.00, -61.48, 156.46, -73.73, 0.00
 104, 0.00, 0.00, -61.48, 156.46, -143.39, 0.00
 302 (168-107) [l=113 cm] - K.
 168, 0.00, 0.00, 50.02, 155.37, -73.77, 0.00
 107, 0.00, 0.00, 50.02, 155.37, -17.14, 0.00
 303 (107-171) [l=79 cm] - K.
 107, 0.00, 0.00, 24.01, 155.37, -17.14, 0.00
 171, 0.00, 0.00, 24.01, 155.37, 1.86, 0.00
 304 (171-106) [l=0 cm] - K.
 171, 0.00, 0.00, 15.89, 154.61, 1.84, 0.00
 106, 0.00, 0.00, 15.89, 154.61, 1.88, 0.00
 305 (16-174) [l=96 cm] - K.
 16, 0.00, 0.00, -95.76, -192.08, -252.63, 0.00
 174, 0.00, 0.00, -95.76, -192.08, -344.18, 0.00
 306 (174-14) [l=0 cm] - K.
 174, 0.00, 0.00, -104.66, -193.26, -344.14, 0.00
 14, 0.00, 0.00, -104.66, -193.26, -344.35, 0.00
 307 (177-12) [l=113 cm] - K.
 177, 0.00, 0.00, 73.02, -190.69, -158.42, 0.00
 12, 0.00, 0.00, 73.02, -190.69, -75.76, 0.00
 308 (177-16) [l=113 cm] - K.
 177, 0.00, 0.00, -83.20, -192.08, -158.36, 0.00
 16, 0.00, 0.00, -83.20, -192.08, -252.63, 0.00
 309 (10-180) [l=0 cm] - K.
 10, 0.00, 0.00, -53.42, -189.71, -27.79, 0.00
 180, 0.00, 0.00, -53.42, -189.71, -27.95, 0.00
 310 (180-12) [l=79 cm] - K.
 180, 0.00, 0.00, -60.46, -190.69, -27.93, 0.00
 12, 0.00, 0.00, -60.46, -190.69, -75.76, 0.00
 311 (188-82) [l=113 cm] - K.
 188, 0.00, 0.00, 32.86, 51.33, -742.98, 0.00
 82, 0.00, 0.00, 32.86, 51.33, -705.75, 0.00
 312 (188-86) [l=113 cm] - K.
 188, 0.00, 0.00, -81.22, 42.09, -743.38, 0.00
 86, 0.00, 0.00, -81.22, 42.09, -835.33, 0.00
 313 (70-192) [l=95 cm] - K.
 70, 0.00, 0.00, -148.68, -26.06, -374.87, 0.00
 192, 0.00, 0.00, -148.68, -26.06, -516.27, 0.00
 314 (192-68) [l=1 cm] - K.
 192, 0.00, 0.00, -203.62, -34.32, -516.70, 0.00
 68, 0.00, 0.00, -203.62, -34.32, -518.33, 0.00
 315 (194-97) [l=113 cm] - K.
 194, 0.00, 0.00, -114.35, 174.81, -422.29, 0.00
 97, 0.00, 0.00, -114.35, 174.81, -551.85, 0.00
 316 (194-100) [l=113 cm] - K.
 194, 0.00, 0.00, 69.66, 166.00, -422.64, 0.00

100, 0.00, 0.00, 69.66, 166.00, -343.79, 0.00
 317 (200-35) [l=113 cm] - K.
 200, 0.00, 0.00, -86.94, -47.15, -1196.70, 0.00
 35, 0.00, 0.00, -86.94, -47.15, -1295.11, 0.00
 318 (200-39) [l=113 cm] - K.
 200, 0.00, 0.00, 42.69, -57.52, -1196.85, 0.00
 39, 0.00, 0.00, 42.69, -57.52, -1148.48, 0.00
 319 (204-20) [l=113 cm] - K.
 204, 0.00, 0.00, 116.03, -204.43, -680.32, 0.00
 20, 0.00, 0.00, 116.03, -204.43, -548.97, 0.00
 320 (204-23) [l=113 cm] - K.
 204, 0.00, 0.00, -156.35, -215.20, -679.90, 0.00
 23, 0.00, 0.00, -156.35, -215.20, -857.04, 0.00
 321 (207-51) [l=115 cm] - K.
 207, 0.00, 0.00, -107.88, 15.42, -89.50, 0.00
 51, 0.00, 0.00, -107.88, 15.42, -213.89, 0.00
 322 (207-55) [l=111 cm] - K.
 207, 0.00, 0.00, 55.97, 5.87, -89.20, 0.00
 55, 0.00, 0.00, 55.97, 5.87, -26.96, 0.00
 323 (213-1) [l=151 cm] - Z.
 213, 0.00, 0.00, 10.55, 10.76, 3.81, 0.00
 1, 0.00, 0.00, 90.50, 10.76, 80.26, 0.00
 324 (1-214) [l=151 cm] - Z.
 1, 0.00, 0.00, -141.21, 1.66, 167.96, 0.00
 214, 0.00, 0.00, -61.24, 1.66, 14.71, 0.00
 325 (215-5) [l=151 cm] - Z.
 215, 0.00, 0.00, 58.70, 1.66, 11.59, 0.00
 5, 0.00, 0.00, 140.19, 1.66, 161.88, 0.00
 326 (5-216) [l=151 cm] - Z.
 5, 0.00, 0.00, -80.39, -0.33, 65.56, 0.00
 216, 0.00, 0.00, 2.44, -0.33, 6.42, 0.00
 327 (216-9) [l=79 cm] - Z.
 216, 0.00, 0.00, 2.44, 6.42, 0.33, 0.00
 9, 0.00, 0.00, 46.25, 6.42, 19.66, 0.00
 328 (9-11) [l=79 cm] - Z.
 9, 0.00, 0.00, -32.48, 0.02, 7.49, 0.00
 11, 0.00, 0.00, 11.33, 0.02, -0.91, 0.00
 329 (11-15) [l=227 cm] - Z.
 11, 0.00, 0.00, -60.94, 0.73, 22.32, 0.00
 15, 0.00, 0.00, 63.89, 0.73, 25.65, 0.00
 330 (15-13) [l=96 cm] - Z.
 15, 0.00, 0.00, -14.15, 0.02, -1.04, 0.00
 13, 0.00, 0.00, 38.68, 0.02, 10.72, 0.00
 331 (13-217) [l=96 cm] - Z.
 13, 0.00, 0.00, -75.74, 1.61, 130.84, 0.00
 217, 0.00, 0.00, -22.89, 1.61, 83.54, 0.00
 332 (217-18) [l=96 cm] - Z.
 217, 0.00, 0.00, -22.89, 1.61, 83.54, 0.00
 18, 0.00, 0.00, 29.93, 1.61, 86.92, 0.00
 333 (18-320) [l=96 cm] - Z.
 18, 0.00, 0.00, -111.62, -0.10, 100.91, 0.00
 320, 0.00, 0.00, -58.84, -0.10, 19.18, 0.00
 334 (320-321) [l=226 cm] - Z.
 320, 0.00, 0.00, -58.84, -0.10, 19.18, 0.00
 321, 0.00, 0.00, 65.66, -0.10, 26.87, 0.00
 335 (321-21) [l=163 cm] - Z.
 321, 0.00, 0.00, 65.66, -0.10, 26.87, 0.00
 21, 0.00, 0.00, 155.63, -0.10, 207.67, 0.00
 336 (21-218) [l=163 cm] - Z.
 21, 0.00, 0.00, -128.66, -3.45, 242.34, 0.00
 218, 0.00, 0.00, -38.70, -3.45, 105.61, 0.00
 337 (218-25) [l=28 cm] - Z.
 218, 0.00, 0.00, -73.98, -16.20, 106.18, 0.00
 25, 0.00, 0.00, -58.35, -16.20, 87.39, 0.00
 338 (25-322) [l=28 cm] - Z.
 25, 0.00, 0.00, -112.92, -16.78, 87.90, 0.00
 322, 0.00, 0.00, -97.35, -16.78, 58.15, 0.00
 339 (322-323) [l=227 cm] - Z.
 322, 0.00, 0.00, -97.35, -16.78, 58.15, 0.00
 323, 0.00, 0.00, 26.38, -16.78, -21.88, 0.00
 340 (323-28) [l=26 cm] - Z.
 323, 0.00, 0.00, 26.38, -16.78, -21.88, 0.00
 28, 0.00, 0.00, 40.49, -16.78, -13.22, 0.00
 341 (28-219) [l=26 cm] - Z.
 28, 0.00, 0.00, -29.88, -29.56, -13.86, 0.00
 219, 0.00, 0.00, -15.75, -29.56, -19.77, 0.00
 342 (219-32) [l=146 cm] - Z.
 219, 0.00, 0.00, 181.02, 144.79, -19.81, 0.00
 32, 0.00, 0.00, 261.04, 144.79, 302.59, 0.00
 343 (32-34) [l=146 cm] - Z.
 32, 0.00, 0.00, -46.11, 0.52, 15.45, 0.00
 34, 0.00, 0.00, 34.58, 0.52, 6.95, 0.00
 344 (34-38) [l=227 cm] - Z.
 34, 0.00, 0.00, -59.40, 15.99, 24.52, 0.00
 38, 0.00, 0.00, 66.94, 15.99, 32.84, 0.00
 345 (38-36) [l=308 cm] - Z.

38, 0.00, 0.00, -81.43, 0.52, 39.74, 0.00
 36, 0.00, 0.00, 91.34, 0.52, 54.97, 0.00
 346 (36-220) [l=308 cm] - Z.
 36, 0.00, 0.00, -240.38, 59.97, 602.39, 0.00
 220, 0.00, 0.00, -67.41, 59.97, 127.75, 0.00
 347 (220-41) [l=28 cm] - Z.
 220, 0.00, 0.00, -96.33, -11.87, 128.42, 0.00
 41, 0.00, 0.00, -80.40, -11.87, 103.32, 0.00
 348 (41-324) [l=28 cm] - Z.
 41, 0.00, 0.00, -124.16, -13.05, 103.75, 0.00
 324, 0.00, 0.00, -108.23, -13.05, 70.75, 0.00
 349 (324-325) [l=227 cm] - Z.
 324, 0.00, 0.00, -108.23, -13.05, 70.75, 0.00
 325, 0.00, 0.00, 17.61, -13.05, -31.38, 0.00
 350 (44-221) [l=164 cm] - Z.
 44, 0.00, 0.00, -51.81, 132.33, 241.14, 0.00
 221, 0.00, 0.00, 39.59, 132.33, 231.04, 0.00
 351 (221-48) [l=164 cm] - Z.
 221, 0.00, 0.00, 39.59, 132.33, 231.04, 0.00
 48, 0.00, 0.00, 131.76, 132.33, 371.20, 0.00
 352 (48-50) [l=164 cm] - Z.
 48, 0.00, 0.00, -57.08, 0.47, 23.21, 0.00
 50, 0.00, 0.00, 35.74, 0.47, 5.66, 0.00
 353 (50-54) [l=227 cm] - Z.
 50, 0.00, 0.00, -72.62, 14.37, 35.51, 0.00
 54, 0.00, 0.00, 56.58, 14.37, 17.26, 0.00
 354 (54-52) [l=67 cm] - Z.
 54, 0.00, 0.00, -16.71, 0.47, 1.64, 0.00
 52, 0.00, 0.00, 21.82, 0.47, 3.35, 0.00
 355 (52-222) [l=67 cm] - Z.
 52, 0.00, 0.00, -49.62, 65.37, 23.77, 0.00
 222, 0.00, 0.00, -10.98, 65.37, 3.35, 0.00
 356 (223-56) [l=67 cm] - Z.
 223, 0.00, 0.00, 0.73, -20.42, -1.40, 0.00
 56, 0.00, 0.00, 37.20, -20.42, 11.22, 0.00
 357 (56-326) [l=67 cm] - Z.
 56, 0.00, 0.00, -44.75, -20.41, 11.49, 0.00
 326, 0.00, 0.00, -8.34, -20.41, -6.16, 0.00
 358 (326-327) [l=100 cm] - Z.
 326, 0.00, 0.00, -8.34, -20.41, -6.18, 0.00
 327, 0.00, 0.00, 46.32, -20.41, 12.82, 0.00
 359 (327-59) [l=43 cm] - Z.
 327, 0.00, 0.00, 46.32, -20.40, 12.82, 0.00
 59, 0.00, 0.00, 69.91, -20.40, 37.93, 0.00
 360 (59-224) [l=43 cm] - Z.
 59, 0.00, 0.00, 9.67, -31.37, 37.08, 0.00
 224, 0.00, 0.00, 33.24, -31.37, 46.35, 0.00
 361 (224-63) [l=43 cm] - Z.
 224, 0.00, 0.00, 33.24, -31.47, 46.28, 0.00
 63, 0.00, 0.00, 56.74, -31.47, 65.67, 0.00
 362 (63-65) [l=43 cm] - Z.
 63, 0.00, 0.00, -17.18, -0.30, 2.71, 0.00
 65, 0.00, 0.00, 6.35, -0.30, 0.37, 0.00
 363 (65-69) [l=227 cm] - Z.
 65, 0.00, 0.00, -56.98, -9.31, 20.97, 0.00
 69, 0.00, 0.00, 65.95, -9.31, 31.25, 0.00
 364 (69-67) [l=96 cm] - Z.
 69, 0.00, 0.00, -11.06, -0.30, -1.63, 0.00
 67, 0.00, 0.00, 40.73, -0.30, 12.62, 0.00
 365 (67-225) [l=96 cm] - Z.
 67, 0.00, 0.00, -130.75, -91.91, 223.41, 0.00
 225, 0.00, 0.00, -79.22, -91.91, 122.76, 0.00
 366 (225-72) [l=96 cm] - Z.
 225, 0.00, 0.00, -79.22, -91.91, 122.76, 0.00
 72, 0.00, 0.00, -27.95, -91.91, 71.39, 0.00
 367 (328-329) [l=226 cm] - Z.
 328, 0.00, 0.00, -14.83, 16.57, -32.96, 0.00
 329, 0.00, 0.00, 106.04, 16.57, 69.81, 0.00
 368 (329-75) [l=28 cm] - Z.
 329, 0.00, 0.00, 106.04, 16.57, 69.81, 0.00
 75, 0.00, 0.00, 121.36, 16.57, 102.10, 0.00
 369 (75-226) [l=28 cm] - Z.
 75, 0.00, 0.00, 78.74, 15.17, 101.64, 0.00
 226, 0.00, 0.00, 94.05, 15.17, 126.17, 0.00
 370 (226-79) [l=308 cm] - Z.
 226, 0.00, 0.00, 68.23, -56.81, 125.37, 0.00
 79, 0.00, 0.00, 234.53, -56.81, 592.25, 0.00
 371 (79-81) [l=308 cm] - Z.
 79, 0.00, 0.00, -87.75, -0.51, 52.77, 0.00
 81, 0.00, 0.00, 78.39, -0.51, 38.36, 0.00
 372 (81-85) [l=227 cm] - Z.
 81, 0.00, 0.00, -64.39, -15.78, 31.83, 0.00
 85, 0.00, 0.00, 57.11, -15.78, 23.80, 0.00
 373 (85-83) [l=146 cm] - Z.
 85, 0.00, 0.00, -33.51, -0.51, 6.91, 0.00
 83, 0.00, 0.00, 44.07, -0.51, 14.69, 0.00

374 (83-227) [l=146 cm] - Z.
 83, 0.00, 0.00, -254.61, -143.97, 296.30, 0.00
 227, 0.00, 0.00, -177.71, -143.97, -18.99, 0.00
 375 (227-88) [l=26 cm] - Z.
 227, 0.00, 0.00, 15.45, 29.40, -18.95, 0.00
 88, 0.00, 0.00, 29.03, 29.40, -13.19, 0.00
 376 (88-330) [l=26 cm] - Z.
 88, 0.00, 0.00, -39.32, 16.61, -12.57, 0.00
 330, 0.00, 0.00, -25.76, 16.61, -21.00, 0.00
 377 (330-331) [l=227 cm] - Z.
 330, 0.00, 0.00, -25.76, 16.61, -21.00, 0.00
 331, 0.00, 0.00, 93.08, 16.61, 54.92, 0.00
 378 (331-91) [l=28 cm] - Z.
 331, 0.00, 0.00, 93.08, 16.61, 54.92, 0.00
 91, 0.00, 0.00, 108.04, 16.61, 83.38, 0.00
 379 (91-228) [l=28 cm] - Z.
 91, 0.00, 0.00, 54.82, 15.89, 82.78, 0.00
 228, 0.00, 0.00, 69.84, 15.89, 100.48, 0.00
 380 (228-95) [l=163 cm] - Z.
 228, 0.00, 0.00, 39.14, 4.74, 99.18, 0.00
 95, 0.00, 0.00, 125.59, 4.74, 233.76, 0.00
 381 (95-332) [l=163 cm] - Z.
 95, 0.00, 0.00, -145.92, 0.60, 192.43, 0.00
 332, 0.00, 0.00, -59.42, 0.60, 24.66, 0.00
 382 (332-333) [l=226 cm] - Z.
 332, 0.00, 0.00, -59.42, 0.60, 24.66, 0.00
 333, 0.00, 0.00, 60.30, 0.60, 25.71, 0.00
 383 (333-98) [l=96 cm] - Z.
 333, 0.00, 0.00, 60.30, 0.60, 25.71, 0.00
 98, 0.00, 0.00, 110.91, 0.60, 107.82, 0.00
 384 (98-229) [l=96 cm] - Z.
 98, 0.00, 0.00, -46.75, -0.20, 111.41, 0.00
 229, 0.00, 0.00, 3.73, -0.20, 90.79, 0.00
 385 (229-102) [l=96 cm] - Z.
 229, 0.00, 0.00, 3.73, -0.20, 90.79, 0.00
 102, 0.00, 0.00, 54.08, -0.20, 118.52, 0.00
 386 (102-334) [l=96 cm] - Z.
 102, 0.00, 0.00, -122.53, -0.98, 122.17, 0.00
 334, 0.00, 0.00, -72.31, -0.98, 28.76, 0.00
 387 (334-335) [l=226 cm] - Z.
 334, 0.00, 0.00, -72.31, -0.98, 28.76, 0.00
 335, 0.00, 0.00, 45.67, -0.98, -1.34, 0.00
 388 (335-105) [l=79 cm] - Z.
 335, 0.00, 0.00, 45.67, -0.98, -1.34, 0.00
 105, 0.00, 0.00, 87.26, -0.98, 51.42, 0.00
 389 (105-213) [l=79 cm] - Z.
 105, 0.00, 0.00, -31.30, -3.81, 19.02, 0.00
 213, 0.00, 0.00, 10.55, -3.81, 10.76, 0.00
 390 (222-108) [l=208 cm] - Z.
 222, 0.00, 0.00, -10.98, 3.35, -65.37, 0.00
 108, 0.00, 0.00, 107.78, 3.35, 35.58, 0.00
 391 (108-230) [l=208 cm] - Z.
 108, 0.00, 0.00, -107.58, 2.39, 46.41, 0.00
 230, 0.00, 0.00, 9.93, 2.39, -55.02, 0.00
 392 (336-112) [l=153 cm] - Z.
 336, 0.00, 0.00, 57.02, 0.33, 4.17, 0.00
 112, 0.00, 0.00, 144.02, 0.33, 157.89, 0.00
 393 (112-228) [l=153 cm] - Z.
 112, 0.00, 0.00, -117.57, 1.30, 102.26, 0.00
 228, 0.00, 0.00, -30.69, 1.30, -11.14, 0.00
 394 (218-116) [l=163 cm] - Z.
 218, 0.00, 0.00, 35.28, -0.57, -12.75, 0.00
 116, 0.00, 0.00, 130.63, -0.57, 122.53, 0.00
 395 (337-336) [l=200 cm] - Z.
 337, 0.00, 0.00, -57.26, 0.33, 4.25, 0.00
 336, 0.00, 0.00, 57.02, 0.33, 4.17, 0.00
 396 (116-337) [l=163 cm] - Z.
 116, 0.00, 0.00, -151.51, 0.33, 174.24, 0.00
 337, 0.00, 0.00, -57.26, 0.33, 4.25, 0.00
 397 (226-120) [l=153 cm] - Z.
 226, 0.00, 0.00, 25.82, 0.80, -71.98, 0.00
 120, 0.00, 0.00, 114.09, 0.80, 35.08, 0.00
 398 (120-338) [l=153 cm] - Z.
 120, 0.00, 0.00, -145.12, 0.07, 143.38, 0.00
 338, 0.00, 0.00, -57.18, 0.07, -11.24, 0.00
 399 (338-339) [l=200 cm] - Z.
 338, 0.00, 0.00, -57.18, 0.07, -11.24, 0.00
 339, 0.00, 0.00, 57.91, 0.07, -10.68, 0.00
 400 (339-124) [l=163 cm] - Z.
 339, 0.00, 0.00, 57.91, 0.07, -10.68, 0.00
 124, 0.00, 0.00, 153.17, 0.07, 161.13, 0.00
 401 (124-220) [l=163 cm] - Z.
 124, 0.00, 0.00, -125.75, -0.67, 54.36, 0.00
 220, 0.00, 0.00, -28.92, -0.67, -71.84, 0.00
 402 (230-211) [l=208 cm] - Z.
 230, 0.00, 0.00, 9.93, 2.39, -55.02, 0.00

211, 0.00, 0.00, 126.10, 2.39, 86.75, 0.00
 403 (211-223) [l=208 cm] - Z.
 211, 0.00, 0.00, -114.19, 1.46, 97.48, 0.00
 223, 0.00, 0.00, 0.73, 1.46, -20.41, 0.00
 404 (291-227) [l=165 cm] - Z.
 291, 0.00, 0.00, 106.34, -0.04, -71.97, 0.00
 227, 0.00, 0.00, 193.16, -0.04, 173.37, 0.00
 405 (293-291) [l=132 cm] - Z.
 293, 0.00, 0.00, 46.32, -0.02, -171.91, 0.00
 291, 0.00, 0.00, 107.14, -0.02, -71.34, 0.00
 406 (295-293) [l=218 cm] - Z.
 295, 0.00, 0.00, -41.92, 0.00, -182.08, 0.00
 293, 0.00, 0.00, 51.59, 0.00, -171.55, 0.00
 407 (219-297) [l=185 cm] - Z.
 219, 0.00, 0.00, -196.77, 0.04, 174.35, 0.00
 297, 0.00, 0.00, -97.27, 0.04, -94.88, 0.00
 408 (297-295) [l=132 cm] - Z.
 297, 0.00, 0.00, -97.77, 0.02, -94.29, 0.00
 295, 0.00, 0.00, -36.83, 0.02, -182.38, 0.00
 409 (299-239) [l=185 cm] - Z.
 299, 0.00, 0.00, 106.38, -0.05, -75.96, 0.00
 239, 0.00, 0.00, 208.02, -0.05, 212.28, 0.00
 410 (301-299) [l=132 cm] - Z.
 301, 0.00, 0.00, 43.96, -0.07, -174.05, 0.00
 299, 0.00, 0.00, 106.70, -0.07, -75.37, 0.00
 411 (303-301) [l=218 cm] - Z.
 303, 0.00, 0.00, -46.83, -0.08, -175.96, 0.00
 301, 0.00, 0.00, 49.03, -0.08, -173.74, 0.00
 412 (238-305) [l=165 cm] - Z.
 238, 0.00, 0.00, -190.38, -0.12, 157.96, 0.00
 305, 0.00, 0.00, -102.47, -0.12, -81.88, 0.00
 413 (305-303) [l=132 cm] - Z.
 305, 0.00, 0.00, -103.42, -0.10, -81.25, 0.00
 303, 0.00, 0.00, -41.62, -0.10, -176.30, 0.00
 414 (24-119) [l=60 cm] - K.
 24, 175.94, -28.65, 0.11, 0.00, -0.90, -239.21
 119, 175.94, -28.65, 0.11, 0.00, -0.83, -222.01
 415 (31-237) [l=240 cm] - K.
 31, 2.28, -0.85, 0.00, 0.00, 0.02, -3.04
 237, 2.28, -0.85, 0.00, 0.00, 0.01, -1.01
 416 (40-127) [l=60 cm] - K.
 40, 172.30, -25.30, 0.09, 0.00, -0.78, -211.20
 127, 172.30, -25.30, 0.09, 0.00, -0.72, -196.02
 417 (340-253) [l=240 cm] - K.
 340, 2.14, -0.82, 0.00, 0.00, 0.01, -2.95
 253, 2.14, -0.82, 0.00, 0.00, 0.00, -0.98
 418 (341-254) [l=240 cm] - K.
 341, 3.01, 1.12, 0.00, 0.00, 0.01, 4.00
 254, 3.01, 1.12, 0.00, 0.00, 0.00, 1.32
 419 (78-122) [l=60 cm] - K.
 78, 160.55, 20.02, 0.09, 0.00, -0.77, 167.10
 122, 160.55, 20.02, 0.09, 0.00, -0.71, 155.09
 420 (87-233) [l=240 cm] - K.
 87, 2.98, 1.14, -0.01, 0.00, 0.02, 4.10
 233, 2.98, 1.14, -0.01, 0.00, 0.01, 1.36
 421 (94-114) [l=60 cm] - K.
 94, 163.04, 23.86, 0.11, 0.00, -0.94, 199.19
 114, 163.04, 23.86, 0.11, 0.00, -0.87, 184.88
 422 (342-275) [l=0 cm] - K.
 342, 2.52, 139.92, 72.26, 0.00, -103.69, 200.77
 275, 2.52, 139.92, 72.26, 0.00, -103.55, 200.49
 423 (280-319) [l=0 cm] - T.
 280, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 319, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 424 (319-281) [l=199 cm] - T.
 319, 14.77, 0.00, 2.12, 0.00, -1.46, 0.00
 281, 13.81, 0.00, -0.29, 0.00, 0.37, 0.00
 425 (343-319) [l=0 cm] - K.
 343, -16.88, -0.01, 0.06, 0.00, -303.04, -60.49
 319, -16.88, -0.01, 0.06, 0.00, -303.04, -60.49
 426 (290-344) [l=0 cm] - T.
 290, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 344, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 427 (344-289) [l=199 cm] - T.
 344, 21.53, 0.00, 3.66, 0.00, -2.38, 0.00
 289, 19.72, 0.00, -0.86, 0.00, 0.40, 0.00
 428 (345-344) [l=0 cm] - K.
 345, 11.39, 0.00, 0.00, 0.00, 0.00, 2.36
 344, 11.39, 0.00, 0.00, 0.00, 0.00, 2.36
 429 (276-346) [l=0 cm] - T.
 276, -0.01, 0.00, 0.00, 0.00, 0.00, 0.00
 346, -0.02, 0.00, -0.02, 0.00, 0.00, 0.00
 430 (346-185) [l=448 cm] - T.
 346, 16.33, -0.01, 14.16, 0.01, -10.81, -0.03
 185, 5.15, -0.01, -13.83, 0.01, -10.08, 0.01
 431 (173-346) [l=0 cm] - K.

173, 19.23, 0.00, 0.00, 0.00, -0.02, 10.79
 346, 19.23, 0.00, 0.00, 0.00, -0.02, 10.79
 432 (277-347) [l=0 cm] - T.
 277, -0.01, 0.00, 0.00, 0.00, 0.00, 0.00
 347, -0.02, 0.00, -0.02, 0.00, 0.00, 0.00
 433 (347-185) [l=448 cm] - T.
 347, 16.30, 0.01, 14.15, -0.01, -10.80, 0.03
 185, 5.11, 0.01, -13.84, -0.01, -10.09, -0.01
 434 (182-347) [l=0 cm] - K.
 182, 19.21, 0.00, 0.00, 0.00, -0.02, -10.78
 347, 19.21, 0.00, 0.00, 0.00, -0.02, -10.78
 435 (196-240) [l=94 cm] - K.
 196, 0.00, 0.00, 80.81, 131.57, -574.00, 0.00
 240, 0.00, 0.00, 80.81, 131.57, -498.20, 0.00
 436 (240-197) [l=2 cm] - K.
 240, 0.00, 0.00, 62.38, 124.46, -498.20, 0.00
 197, 0.00, 0.00, 62.38, 124.46, -496.89, 0.00
 437 (137-242) [l=2 cm] - K.
 137, 0.00, 0.00, -64.01, -106.54, -465.49, 0.00
 242, 0.00, 0.00, -64.01, -106.54, -466.84, 0.00
 438 (242-139) [l=94 cm] - K.
 242, 0.00, 0.00, -82.44, -113.65, -466.84, 0.00
 139, 0.00, 0.00, -82.44, -113.65, -544.16, 0.00
 439 (128-243) [l=159 cm] - K.
 128, 0.00, 0.00, 73.41, 137.51, -842.35, 0.00
 243, 0.00, 0.00, 73.41, 137.51, -725.92, 0.00
 440 (243-130) [l=5 cm] - K.
 243, 0.00, 0.00, 25.70, 64.46, -362.96, 0.00
 130, 0.00, 0.00, 25.70, 64.46, -361.75, 0.00
 441 (203-245) [l=5 cm] - K.
 203, 0.00, 0.00, -28.71, -54.69, -351.43, 0.00
 245, 0.00, 0.00, -28.71, -54.69, -352.78, 0.00
 442 (245-202) [l=159 cm] - K.
 245, 0.00, 0.00, -79.42, -117.97, -705.56, 0.00
 202, 0.00, 0.00, -79.42, -117.97, -831.52, 0.00
 443 (132-246) [l=165 cm] - K.
 132, 0.00, 0.00, 41.75, 138.10, -960.56, 0.00
 246, 0.00, 0.00, 41.75, 138.10, -891.88, 0.00
 444 (246-129) [l=3 cm] - K.
 246, 0.00, 0.00, 14.88, 66.92, -445.94, 0.00
 129, 0.00, 0.00, 14.88, 66.92, -445.50, 0.00
 445 (142-248) [l=3 cm] - K.
 142, 0.00, 0.00, -19.89, -55.84, -448.70, 0.00
 248, 0.00, 0.00, -19.89, -55.84, -449.30, 0.00
 446 (248-141) [l=165 cm] - K.
 248, 0.00, 0.00, -51.77, -115.93, -898.59, 0.00
 141, 0.00, 0.00, -51.77, -115.93, -983.75, 0.00
 447 (46-340) [l=52 cm] - K.
 46, 0.00, 0.00, 33.62, 106.02, -892.37, 0.00
 340, 0.00, 0.00, 33.62, 106.02, -874.99, 0.00
 448 (340-45) [l=112 cm] - K.
 340, 0.00, 0.00, 35.76, 108.97, -875.00, 0.00
 45, 0.00, 0.00, 35.76, 108.97, -834.98, 0.00
 449 (73-341) [l=44 cm] - K.
 73, 0.00, 0.00, -5.33, -82.68, -710.98, 0.00
 341, 0.00, 0.00, -5.33, -82.68, -713.33, 0.00
 450 (341-74) [l=52 cm] - K.
 341, 0.00, 0.00, -2.32, -78.68, -713.31, 0.00
 74, 0.00, 0.00, -2.32, -78.68, -714.52, 0.00
 451 (190-255) [l=4 cm] - K.
 190, 0.00, 0.00, 11.07, 70.04, -562.91, 0.00
 255, 0.00, 0.00, 11.07, 70.04, -562.43, 0.00
 452 (255-191) [l=142 cm] - K.
 255, 0.00, 0.00, 10.32, 136.12, -1124.86, 0.00
 191, 0.00, 0.00, 10.32, 136.12, -1110.24, 0.00
 453 (144-257) [l=142 cm] - K.
 144, 0.00, 0.00, -26.85, -111.35, -1169.98, 0.00
 257, 0.00, 0.00, -26.85, -111.35, -1208.00, 0.00
 454 (257-145) [l=4 cm] - K.
 257, 0.00, 0.00, -22.24, -59.39, -604.00, 0.00
 145, 0.00, 0.00, -22.24, -59.39, -604.95, 0.00
 455 (134-258) [l=252 cm] - K.
 134, 0.00, 0.00, 6.30, 144.56, -1148.21, 0.00
 258, 0.00, 0.00, 6.30, 144.56, -1132.37, 0.00
 456 (258-136) [l=57 cm] - K.
 258, 0.00, 0.00, -10.93, 137.89, -1132.37, 0.00
 136, 0.00, 0.00, -10.93, 137.89, -1138.57, 0.00
 457 (199-260) [l=57 cm] - K.
 199, 0.00, 0.00, -15.52, -114.12, -1277.86, 0.00
 260, 0.00, 0.00, -15.52, -114.12, -1286.66, 0.00
 458 (260-198) [l=252 cm] - K.
 260, 0.00, 0.00, -32.74, -120.79, -1286.66, 0.00
 198, 0.00, 0.00, -32.74, -120.79, -1369.04, 0.00
 459 (135-261) [l=273 cm] - K.
 135, 0.00, 0.00, -73.58, 146.69, -923.69, 0.00
 261, 0.00, 0.00, -73.58, 146.69, -1124.20, 0.00

460 (261-134) [l=36 cm] - K.
 261, 0.00, 0.00, -93.12, 139.06, -1124.20, 0.00
 134, 0.00, 0.00, -93.12, 139.06, -1157.63, 0.00
 461 (198-263) [l=36 cm] - K.
 198, 0.00, 0.00, 45.19, -107.75, -1370.36, 0.00
 263, 0.00, 0.00, 45.19, -107.75, -1354.14, 0.00
 462 (263-148) [l=273 cm] - K.
 263, 0.00, 0.00, 25.65, -115.38, -1354.14, 0.00
 148, 0.00, 0.00, 25.65, -115.38, -1284.25, 0.00
 463 (151-264) [l=223 cm] - K.
 151, 0.00, 0.00, -62.42, 150.63, -773.77, 0.00
 264, 0.00, 0.00, -62.42, 150.63, -912.65, 0.00
 464 (264-135) [l=15 cm] - K.
 264, 0.00, 0.00, -73.58, 146.69, -912.65, 0.00
 135, 0.00, 0.00, -73.58, 146.69, -923.69, 0.00
 465 (148-266) [l=15 cm] - K.
 148, 0.00, 0.00, 25.65, -115.38, -1284.25, 0.00
 266, 0.00, 0.00, 25.65, -115.38, -1280.40, 0.00
 466 (266-147) [l=127 cm] - K.
 266, 0.00, 0.00, 14.48, -119.31, -1280.40, 0.00
 147, 0.00, 0.00, 14.48, -119.31, -1262.06, 0.00
 467 (162-267) [l=30 cm] - K.
 162, 0.00, 0.00, 85.97, -108.25, -977.78, 0.00
 267, 0.00, 0.00, 85.97, -108.25, -952.42, 0.00
 468 (267-161) [l=136 cm] - K.
 267, 0.00, 0.00, 65.24, -116.33, -952.42, 0.00
 161, 0.00, 0.00, 65.24, -116.33, -863.56, 0.00
 469 (156-269) [l=28 cm] - K.
 156, 0.00, 0.00, -72.12, 159.11, -509.52, 0.00
 269, 0.00, 0.00, -72.12, 159.11, -530.01, 0.00
 470 (269-193) [l=68 cm] - K.
 269, 0.00, 0.00, -92.85, 151.04, -530.01, 0.00
 193, 0.00, 0.00, -92.85, 151.04, -593.42, 0.00
 471 (163-270) [l=3 cm] - K.
 163, 0.00, 0.00, 57.61, -54.41, -337.27, 0.00
 270, 0.00, 0.00, 57.61, -54.41, -335.43, 0.00
 472 (270-208) [l=108 cm] - K.
 270, 0.00, 0.00, 96.39, -116.15, -670.85, 0.00
 208, 0.00, 0.00, 96.39, -116.15, -566.65, 0.00
 473 (155-272) [l=35 cm] - K.
 155, 0.00, 0.00, -125.82, 164.29, -180.47, 0.00
 272, 0.00, 0.00, -125.82, 164.29, -224.00, 0.00
 474 (272-154) [l=121 cm] - K.
 272, 0.00, 0.00, -144.63, 156.97, -224.00, 0.00
 154, 0.00, 0.00, -144.63, 156.97, -399.01, 0.00
 475 (176-311) [l=416 cm] - T.
 176, 0.00, 0.00, 4.98, 0.00, -3.79, 0.00
 311, 0.00, 0.00, -4.50, 0.00, -2.79, 0.00
 476 (311-167) [l=416 cm] - T.
 311, 0.00, 0.00, 4.50, 0.00, -2.79, 0.00
 167, 0.00, 0.00, -4.98, 0.00, -3.79, 0.00
 477 (242-312) [l=416 cm] - T.
 242, 0.00, 0.00, 4.72, 0.00, -3.59, 0.00
 312, 0.00, 0.00, -4.25, 0.00, -2.63, 0.00
 478 (312-240) [l=416 cm] - T.
 312, 0.00, 0.00, 4.25, 0.00, -2.63, 0.00
 240, 0.00, 0.00, -4.72, 0.00, -3.59, 0.00
 479 (245-313) [l=416 cm] - T.
 245, 0.00, 0.00, 5.71, 0.00, -4.33, 0.00
 313, 0.00, 0.00, -5.16, 0.00, -3.20, 0.00
 480 (313-243) [l=416 cm] - T.
 313, 0.00, 0.00, 5.16, 0.00, -3.20, 0.00
 243, 0.00, 0.00, -5.71, 0.00, -4.33, 0.00
 481 (257-314) [l=416 cm] - T.
 257, 0.00, 0.00, 5.02, 0.00, -3.74, 0.00
 314, 0.00, 0.00, -4.64, 0.00, -2.95, 0.00
 482 (314-255) [l=416 cm] - T.
 314, 0.00, 0.00, 2.16, 0.00, -1.25, 0.00
 255, 0.00, 0.00, -2.52, 0.00, -2.00, 0.00
 483 (260-315) [l=416 cm] - T.
 260, 0.00, 0.00, 4.42, 0.00, -3.36, 0.00
 315, 0.00, 0.00, -3.99, 0.00, -2.47, 0.00
 484 (315-258) [l=416 cm] - T.
 315, 0.00, 0.00, 3.99, 0.00, -2.47, 0.00
 258, 0.00, 0.00, -4.42, 0.00, -3.36, 0.00
 485 (263-318) [l=416 cm] - T.
 263, 0.00, 0.00, 5.07, 0.00, -3.85, 0.00
 318, 0.00, 0.00, -4.59, 0.00, -2.84, 0.00
 486 (318-261) [l=416 cm] - T.
 318, 0.00, 0.00, 4.59, 0.00, -2.84, 0.00
 261, 0.00, 0.00, -5.07, 0.00, -3.85, 0.00
 487 (267-316) [l=416 cm] - T.
 267, 0.00, 0.00, 5.37, 0.00, -4.08, 0.00
 316, 0.00, 0.00, -4.85, 0.00, -3.01, 0.00
 488 (316-269) [l=416 cm] - T.
 316, 0.00, 0.00, 4.85, 0.00, -3.01, 0.00

269, 0.00, 0.00, -5.37, 0.00, -4.08, 0.00
 489 (270-317) [l=416 cm] - T.
 270, 0.00, 0.00, 4.87, 0.00, -3.70, 0.00
 317, 0.00, 0.00, -4.40, 0.00, -2.72, 0.00
 490 (317-272) [l=416 cm] - T.
 317, 0.00, 0.00, 4.40, 0.00, -2.72, 0.00
 272, 0.00, 0.00, -4.87, 0.00, -3.70, 0.00
 491 (109-342) [l=224 cm] - K.
 109, 186.87, 94.48, -52.57, -82.67, 243.65, 184.45
 342, 185.72, 94.48, -55.45, -82.67, 122.78, -26.96
 492 (110-342) [l=448 cm] - T.
 110, 5.52, 0.00, 13.80, 0.00, -10.30, 0.00
 342, -5.51, 0.00, -13.80, 0.00, -10.30, 0.00
 493 (342-111) [l=0 cm] - T.
 342, 0.01, 0.00, 0.01, 0.00, 0.00, 0.00
 111, 0.00, 0.00, -0.01, 0.00, 0.00, 0.00
 494 (149-284) [l=52 cm] - K.
 149, 0.00, 0.00, 51.82, -113.14, -1189.23, 0.00
 284, 0.00, 0.00, 51.82, -113.14, -1162.44, 0.00
 495 (284-206) [l=112 cm] - K.
 284, 0.00, 0.00, 40.42, -115.52, -1162.44, 0.00
 206, 0.00, 0.00, 40.42, -115.52, -1117.21, 0.00
 496 (325-239) [l=52 cm] - Z.
 325, 0.00, 0.00, 17.61, -13.05, -31.38, 0.00
 239, 0.00, 0.00, 46.19, -13.05, -14.89, 0.00
 497 (239-44) [l=112 cm] - Z.
 239, 0.00, 0.00, 254.21, 199.23, -14.84, 0.00
 44, 0.00, 0.00, 316.32, 199.23, 304.34, 0.00
 498 (72-238) [l=44 cm] - Z.
 72, 0.00, 0.00, -256.22, -141.39, 89.54, 0.00
 238, 0.00, 0.00, -232.74, -141.39, -18.27, 0.00
 499 (238-328) [l=52 cm] - Z.
 238, 0.00, 0.00, -42.35, 16.57, -18.15, 0.00
 328, 0.00, 0.00, -14.83, 16.57, -32.96, 0.00
 500 (133-343) [l=0 cm] - K.
 133, 0.00, 0.00, 27.39, 77.12, -731.64, 0.00
 343, 0.00, 0.00, 27.39, 77.12, -731.62, 0.00
 501 (343-132) [l=167 cm] - K.
 343, 0.00, 0.00, 44.26, 137.61, -1034.66, 0.00
 132, 0.00, 0.00, 44.26, 137.61, -960.56, 0.00
 502 (152-345) [l=140 cm] - K.
 152, 0.00, 0.00, -50.96, 152.46, -642.35, 0.00
 345, 0.00, 0.00, -50.96, 152.46, -713.75, 0.00
 503 (345-151) [l=97 cm] - K.
 345, 0.00, 0.00, -62.35, 150.10, -713.75, 0.00
 151, 0.00, 0.00, -62.35, 150.10, -774.48, 0.00
 504 (292-232) [l=360 cm] - K.
 292, 0.35, 0.23, 0.00, 0.00, -0.02, 1.72
 232, 0.35, 0.23, 0.00, 0.00, -0.01, 0.90
 505 (294-234) [l=410 cm] - K.
 294, -4.03, 0.08, 0.00, 0.00, -0.01, 0.97
 234, -4.03, 0.08, 0.00, 0.00, -0.01, 0.66
 506 (296-235) [l=410 cm] - K.
 296, -3.84, -0.06, 0.00, 0.00, -0.01, -0.78
 235, -3.84, -0.06, 0.00, 0.00, -0.01, -0.53
 507 (298-236) [l=360 cm] - K.
 298, 0.65, -0.21, 0.00, 0.00, -0.01, -1.61
 236, 0.65, -0.21, 0.00, 0.00, -0.01, -0.85
 508 (300-250) [l=360 cm] - K.
 300, 0.84, -0.21, 0.00, 0.00, -0.01, -1.59
 250, 0.84, -0.21, 0.00, 0.00, 0.00, -0.83
 509 (302-249) [l=410 cm] - K.
 302, -3.82, -0.06, 0.00, 0.00, 0.00, -0.82
 249, -3.82, -0.06, 0.00, 0.00, 0.00, -0.56
 510 (304-251) [l=410 cm] - K.
 304, -3.96, 0.07, 0.00, 0.00, -0.01, 0.91
 251, -3.96, 0.07, 0.00, 0.00, 0.00, 0.62
 511 (306-252) [l=360 cm] - K.
 306, 0.20, 0.22, 0.00, 0.00, -0.01, 1.70
 252, 0.20, 0.22, 0.00, 0.00, -0.01, 0.89

--> Deformazioni nelle Aste (v=sy, w=sz, fiy, fiz) (yz=assi locali) [mm, mrad]

1 (1-j'-2) [l=480 cm] [Piano XZ: 402 def.-79 rig.] - M.
 1, 0.000E+00, 0.000E+00, 1.390E-03, 4.113E-02
 i', 0.000E+00, 0.000E+00, 1.390E-03, 4.113E-02
 j', -4.304E-02, 1.147E-01, -2.554E-02, -5.261E-03
 2, -4.304E-02, 1.348E-01, -2.554E-02, -5.261E-03 - K.
 2 (3-2) [l=151 cm] [151 def.]
 3, 4.327E-02, -7.202E+00, 2.554E-02, -1.477E-04
 i', 4.327E-02, -7.202E+00, 2.554E-02, -1.477E-04 - K.
 j', 4.304E-02, -7.241E+00, 2.554E-02, -1.477E-04
 2, 4.304E-02, -7.241E+00, 2.554E-02, -1.477E-04
 3 (2-4) [l=151 cm] [151 def.]
 2, 4.304E-02, -7.241E+00, 2.554E-02, -1.477E-04 - M.
 i', 4.304E-02, -7.241E+00, 2.554E-02, -1.477E-04

j', 4.282E-02, -7.280E+00, 2.554E-02, -1.477E-04
 4, 4.282E-02, -7.280E+00, 2.554E-02, -1.477E-04 - K.
 4 (5-j'-6) [l=480 cm] [Piano XZ: 402 def.-79 rig.]
 5, 0.000E+00, 0.000E+00, -6.062E-02, 8.072E-04
 i', 0.000E+00, 0.000E+00, -6.062E-02, 8.072E-04 - K.
 j', -4.226E-02, 1.111E-01, -3.017E-02, -5.217E-03
 6, -4.226E-02, 1.348E-01, -3.017E-02, -5.217E-03
 5 (7-6) [l=151 cm][151 def.]
 7, 4.248E-02, -7.341E+00, 3.017E-02, -1.477E-04 - S.
 i', 4.248E-02, -7.341E+00, 3.017E-02, -1.477E-04
 j', 4.226E-02, -7.387E+00, 3.017E-02, -1.477E-04
 6, 4.226E-02, -7.387E+00, 3.017E-02, -1.477E-04 - M.
 6 (6-8) [l=151 cm][151 def.]
 6, 4.226E-02, -7.387E+00, 3.017E-02, -1.477E-04
 i', 4.226E-02, -7.387E+00, 3.017E-02, -1.477E-04 - K.
 j', 4.204E-02, -7.433E+00, 3.017E-02, -1.477E-04
 8, 4.204E-02, -7.433E+00, 3.017E-02, -1.477E-04
 7 (4-7) [l=227 cm][227 def.]
 4, 4.282E-02, -7.280E+00, 2.554E-02, -1.477E-04 - K.
 i', 4.282E-02, -7.280E+00, 2.554E-02, -1.477E-04
 j', 4.248E-02, -7.341E+00, 3.017E-02, -1.477E-04
 7, 4.248E-02, -7.341E+00, 3.017E-02, -1.477E-04 - M.
 8 (9-i'-j'-10) [l=480 cm] [Piano XZ: 192 rig.-267 def.-21 rig.]
 9, 0.000E+00, 0.000E+00, -8.094E-04, -6.061E-02
 i', 0.000E+00, 1.551E-03, -8.094E-04, -6.061E-02 - K.
 j', -1.349E-01, -4.094E-02, 5.217E-03, -3.017E-02
 10, -1.349E-01, -4.204E-02, 5.217E-03, -3.017E-02
 9 (9-11) [l=79 cm][79 def.]
 9, 0.000E+00, -7.398E+00, -8.094E-04, 0.000E+00 - K.
 i', 0.000E+00, -7.398E+00, -8.094E-04, 0.000E+00
 j', 0.000E+00, -7.397E+00, -8.095E-04, 0.000E+00
 11, 0.000E+00, -7.397E+00, -8.095E-04, 0.000E+00 - F.
 10 (8-10) [l=79 cm][79 def.]
 8, -1.348E-01, -7.433E+00, 5.217E-03, -1.477E-04
 i', -1.348E-01, -7.433E+00, 5.217E-03, -1.477E-04 - S.
 j', -1.349E-01, -7.437E+00, 5.217E-03, -1.477E-04
 10, -1.349E-01, -7.437E+00, 5.217E-03, -1.477E-04
 11 (13-i'-j'-14) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.]
 13, 0.000E+00, 0.000E+00, -3.620E-03, -4.281E-02 - M.
 i', 0.000E+00, 6.277E-03, -3.620E-03, -4.281E-02
 j', -1.355E-01, -4.101E-02, 5.219E-03, -3.017E-02
 14, -1.355E-01, -4.204E-02, 5.219E-03, -3.017E-02 - K.
 12 (15-13) [l=96 cm][96 def.]
 15, 0.000E+00, -7.396E+00, -3.620E-03, 0.000E+00
 i', 0.000E+00, -7.396E+00, -3.620E-03, 0.000E+00 - K.
 j', 0.000E+00, -7.393E+00, -3.620E-03, 0.000E+00
 13, 0.000E+00, -7.393E+00, -3.620E-03, 0.000E+00
 13 (14-17) [l=96 cm][96 def.]
 14, -1.355E-01, -7.458E+00, 5.219E-03, -1.477E-04 - M.
 i', -1.355E-01, -7.458E+00, 5.219E-03, -1.477E-04
 j', -1.356E-01, -7.463E+00, 5.220E-03, -1.477E-04
 17, -1.356E-01, -7.463E+00, 5.220E-03, -1.477E-04 - K.
 14 (11-15) [l=227 cm][227 def.]
 11, 0.000E+00, -7.397E+00, -8.095E-04, 0.000E+00
 i', 0.000E+00, -7.397E+00, -8.095E-04, 0.000E+00 - K.
 j', 0.000E+00, -7.396E+00, -3.620E-03, 0.000E+00
 15, 0.000E+00, -7.396E+00, -3.620E-03, 0.000E+00
 15 (12-16) [l=227 cm][227 def.]
 12, -1.350E-01, -7.441E+00, 5.217E-03, -1.477E-04 - S.
 i', -1.350E-01, -7.441E+00, 5.217E-03, -1.477E-04
 j', -1.354E-01, -7.453E+00, 5.218E-03, -1.477E-04
 16, -1.354E-01, -7.453E+00, 5.218E-03, -1.477E-04 - M.
 16 (18-j'-19) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
 18, 0.000E+00, 0.000E+00, -3.671E-03, -4.280E-02
 i', 0.000E+00, 0.000E+00, -3.671E-03, -4.280E-02 - K.
 j', -1.358E-01, -3.792E-02, 5.222E-03, -3.018E-02
 19, -1.358E-01, -4.204E-02, 5.222E-03, -3.018E-02
 17 (17-19) [l=96 cm][96 def.]
 17, -1.356E-01, -7.463E+00, 5.220E-03, -1.477E-04 - K.
 i', -1.356E-01, -7.463E+00, 5.220E-03, -1.477E-04
 j', -1.358E-01, -7.468E+00, 5.222E-03, -1.477E-04
 19, -1.358E-01, -7.468E+00, 5.222E-03, -1.477E-04 - M.
 18 (19-20) [l=96 cm][96 def.]
 19, -1.358E-01, -7.468E+00, 5.222E-03, -1.477E-04
 i', -1.358E-01, -7.468E+00, 5.222E-03, -1.477E-04 - K.
 j', -1.359E-01, -7.473E+00, 5.223E-03, -1.477E-04
 20, -1.359E-01, -7.473E+00, 5.223E-03, -1.477E-04
 19 (21-j'-22) [l=480 cm] [Piano XZ: 425 def.-55 rig.]
 21, 0.000E+00, 0.000E+00, -7.736E-04, -4.527E-02 - K.
 i', 0.000E+00, 0.000E+00, -7.736E-04, -4.527E-02
 j', -1.365E-01, -3.917E-02, 5.234E-03, -3.018E-02
 22, -1.365E-01, -4.204E-02, 5.234E-03, -3.018E-02 - S.
 20 (23-22) [l=163 cm][163 def.]
 23, -1.363E-01, -7.485E+00, 5.228E-03, -1.477E-04
 i', -1.363E-01, -7.485E+00, 5.228E-03, -1.477E-04 - M.
 j', -1.365E-01, -7.493E+00, 5.234E-03, -1.477E-04

22, -1.365E-01, -7.493E+00, 5.234E-03, -1.477E-04
 21 (22-24) [l=163 cm][163 def.]
 22, -1.365E-01, -7.493E+00, 5.234E-03, -1.477E-04 - K.
 i', -1.365E-01, -7.493E+00, 5.234E-03, -1.477E-04
 j', -1.367E-01, -7.502E+00, 5.240E-03, -1.477E-04
 24, -1.367E-01, -7.502E+00, 5.240E-03, -1.477E-04 - K.
 22 (20-23) [l=227 cm][227 def.]
 20, -1.359E-01, -7.473E+00, 5.223E-03, -1.477E-04
 i', -1.359E-01, -7.473E+00, 5.223E-03, -1.477E-04 - K.
 j', -1.363E-01, -7.485E+00, 5.228E-03, -1.477E-04
 23, -1.363E-01, -7.485E+00, 5.228E-03, -1.477E-04
 23 (25-j'-26) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
 25, 0.000E+00, 0.000E+00, -8.580E-04, -4.528E-02 - M.
 i', 0.000E+00, 0.000E+00, -8.580E-04, -4.528E-02
 j', -1.368E-01, -3.542E-02, 5.242E-03, -3.019E-02
 26, -1.368E-01, -4.204E-02, 5.242E-03, -3.019E-02 - K.
 24 (24-26) [l=28 cm][28 def.]
 24, -1.367E-01, -7.502E+00, 5.240E-03, -1.477E-04
 i', -1.367E-01, -7.502E+00, 5.240E-03, -1.477E-04 - K.
 j', -1.368E-01, -7.503E+00, 5.242E-03, -1.477E-04
 26, -1.368E-01, -7.503E+00, 5.242E-03, -1.477E-04
 25 (26-27) [l=28 cm][28 def.]
 26, -1.368E-01, -7.503E+00, 5.242E-03, -1.477E-04 - K.
 i', -1.368E-01, -7.503E+00, 5.242E-03, -1.477E-04
 j', -1.368E-01, -7.505E+00, 5.243E-03, -1.477E-04
 27, -1.368E-01, -7.505E+00, 5.243E-03, -1.477E-04 - F.
 26 (28-j'-29) [l=480 cm] [Piano XZ: 352 def.-128 rig.]
 28, 0.000E+00, 0.000E+00, 3.329E-02, -4.531E-01
 i', 0.000E+00, 0.000E+00, 3.329E-02, -4.531E-01 - S.
 j', -1.372E-01, -3.530E-02, 5.254E-03, -3.019E-02
 29, -1.372E-01, -4.204E-02, 5.254E-03, -3.019E-02
 27 (30-29) [l=26 cm][26 def.]
 30, -1.372E-01, -7.516E+00, 5.253E-03, -1.477E-04 - M.
 i', -1.372E-01, -7.516E+00, 5.253E-03, -1.477E-04
 j', -1.372E-01, -7.518E+00, 5.254E-03, -1.477E-04
 29, -1.372E-01, -7.518E+00, 5.254E-03, -1.477E-04 - K.
 28 (29-31) [l=26 cm][26 def.]
 29, -1.372E-01, -7.518E+00, 5.254E-03, -1.477E-04
 i', -1.372E-01, -7.518E+00, 5.254E-03, -1.477E-04 - K.
 j', -1.372E-01, -7.519E+00, 5.255E-03, -1.477E-04
 31, -1.372E-01, -7.519E+00, 5.255E-03, -1.477E-04
 29 (27-30) [l=227 cm][227 def.]
 27, -1.368E-01, -7.505E+00, 5.243E-03, -1.477E-04 - M.
 i', -1.368E-01, -7.505E+00, 5.243E-03, -1.477E-04
 j', -1.372E-01, -7.516E+00, 5.253E-03, -1.477E-04
 30, -1.372E-01, -7.516E+00, 5.253E-03, -1.477E-04 - K.
 30 (32-i'-j'-33) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.]
 32, 0.000E+00, 0.000E+00, 3.324E-02, -4.529E-01
 i', 0.000E+00, -4.281E-02, 3.324E-02, -4.529E-01 - S.
 j', -1.374E-01, -4.118E-02, 5.262E-03, -3.019E-02
 33, -1.374E-01, -4.204E-02, 5.262E-03, -3.019E-02
 31 (32-34) [l=146 cm][146 def.]
 32, 0.000E+00, -7.387E+00, 3.324E-02, 0.000E+00 - M.
 i', 0.000E+00, -7.387E+00, 3.324E-02, 0.000E+00
 j', 0.000E+00, -7.436E+00, 3.323E-02, 0.000E+00
 34, 0.000E+00, -7.436E+00, 3.323E-02, 0.000E+00 - K.
 32 (31-33) [l=146 cm][146 def.]
 31, -1.372E-01, -7.519E+00, 5.255E-03, -1.477E-04
 i', -1.372E-01, -7.519E+00, 5.255E-03, -1.477E-04 - K.
 j', -1.374E-01, -7.527E+00, 5.262E-03, -1.477E-04
 33, -1.374E-01, -7.527E+00, 5.262E-03, -1.477E-04
 33 (33-35) [l=146 cm][146 def.]
 33, -1.374E-01, -7.527E+00, 5.262E-03, -1.477E-04 - M.
 i', -1.374E-01, -7.527E+00, 5.262E-03, -1.477E-04
 j', -1.377E-01, -7.535E+00, 5.269E-03, -1.477E-04
 35, -1.377E-01, -7.535E+00, 5.269E-03, -1.477E-04 - K.
 34 (36-i'-j'-37) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.]
 36, 0.000E+00, 0.000E+00, 1.537E-03, -6.437E-02
 i', 0.000E+00, -7.423E-04, 1.537E-03, -6.437E-02 - K.
 j', -1.385E-01, -4.156E-02, 5.288E-03, -3.019E-02
 37, -1.385E-01, -4.204E-02, 5.288E-03, -3.019E-02
 35 (38-36) [l=308 cm][308 def.]
 38, 0.000E+00, -7.485E+00, 1.539E-03, 0.000E+00 - F.
 i', 0.000E+00, -7.485E+00, 1.539E-03, 0.000E+00
 j', 0.000E+00, -7.490E+00, 1.537E-03, 0.000E+00
 36, 0.000E+00, -7.490E+00, 1.537E-03, 0.000E+00 - S.
 36 (39-37) [l=308 cm][308 def.]
 39, -1.380E-01, -7.546E+00, 5.277E-03, -1.477E-04
 i', -1.380E-01, -7.546E+00, 5.277E-03, -1.477E-04 - M.
 j', -1.385E-01, -7.563E+00, 5.288E-03, -1.477E-04
 37, -1.385E-01, -7.563E+00, 5.288E-03, -1.477E-04
 37 (37-40) [l=308 cm][308 def.]
 37, -1.385E-01, -7.563E+00, 5.288E-03, -1.477E-04 - K.
 i', -1.385E-01, -7.563E+00, 5.288E-03, -1.477E-04
 j', -1.389E-01, -7.579E+00, 5.299E-03, -1.477E-04
 40, -1.389E-01, -7.579E+00, 5.299E-03, -1.477E-04 - M.

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38 (34-38) [l=227 cm][227 def.]
34, 0.000E+00, -7.436E+00, 3.323E-02, 0.000E+00
    i', 0.000E+00, -7.436E+00, 3.323E-02, 0.000E+00 - K.
j', 0.000E+00, -7.485E+00, 1.539E-03, 0.000E+00
38, 0.000E+00, -7.485E+00, 1.539E-03, 0.000E+00
39 (35-39) [l=227 cm][227 def.]
35, -1.377E-01, -7.535E+00, 5.269E-03, -1.477E-04 - K.
i', -1.377E-01, -7.535E+00, 5.269E-03, -1.477E-04
j', -1.380E-01, -7.546E+00, 5.277E-03, -1.477E-04
39, -1.380E-01, -7.546E+00, 5.277E-03, -1.477E-04 - S.
40 (41-j'-42) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
41, 0.000E+00, 0.000E+00, 1.241E-03, -6.417E-02
    i', 0.000E+00, 0.000E+00, 1.241E-03, -6.417E-02 - M.
j', -1.390E-01, -3.534E-02, 5.300E-03, -3.019E-02
42, -1.390E-01, -4.204E-02, 5.300E-03, -3.019E-02
41 (40-42) [l=28 cm][28 def.]
40, -1.389E-01, -7.579E+00, 5.299E-03, -1.477E-04 - K.
i', -1.389E-01, -7.579E+00, 5.299E-03, -1.477E-04
j', -1.390E-01, -7.581E+00, 5.300E-03, -1.477E-04
42, -1.390E-01, -7.581E+00, 5.300E-03, -1.477E-04 - K.
42 (42-43) [l=28 cm][28 def.]
42, -1.390E-01, -7.581E+00, 5.300E-03, -1.477E-04
    i', -1.390E-01, -7.581E+00, 5.300E-03, -1.477E-04 - K.
j', -1.390E-01, -7.582E+00, 5.301E-03, -1.477E-04
43, -1.390E-01, -7.582E+00, 5.301E-03, -1.477E-04
43 (44-j'-45) [l=480 cm] [Piano XZ: 425 def.-55 rig.]
44, 0.000E+00, 0.000E+00, 2.777E-02, -3.810E-01 - M.
i', 0.000E+00, 0.000E+00, 2.777E-02, -3.810E-01
j', -1.396E-01, -3.913E-02, 5.313E-03, -3.019E-02
45, -1.396E-01, -4.204E-02, 5.313E-03, -3.019E-02 - K.
44 (45-47) [l=164 cm][164 def.]
45, -1.396E-01, -7.603E+00, 5.313E-03, -1.477E-04
    i', -1.396E-01, -7.603E+00, 5.313E-03, -1.477E-04 - K.
j', -1.398E-01, -7.612E+00, 5.317E-03, -1.477E-04
47, -1.398E-01, -7.612E+00, 5.317E-03, -1.477E-04
45 (43-46) [l=227 cm][227 def.]
43, -1.390E-01, -7.582E+00, 5.301E-03, -1.477E-04 - F.
i', -1.390E-01, -7.582E+00, 5.301E-03, -1.477E-04
j', -1.393E-01, -7.594E+00, 5.308E-03, -1.477E-04
46, -1.393E-01, -7.594E+00, 5.308E-03, -1.477E-04 - S.
46 (48-i'-j'-49) [l=480 cm] [Piano XZ: 116 rig.-349 def.-15 rig.]
48, 0.000E+00, 0.000E+00, 2.753E-02, -3.806E-01
    i', 0.000E+00, -3.194E-02, 2.753E-02, -3.806E-01 - M.
j', -1.401E-01, -4.122E-02, 5.319E-03, -3.019E-02
49, -1.401E-01, -4.204E-02, 5.319E-03, -3.019E-02
47 (48-50) [l=164 cm][164 def.]
48, 0.000E+00, -7.538E+00, 2.753E-02, 0.000E+00 - K.
i', 0.000E+00, -7.538E+00, 2.753E-02, 0.000E+00
j', 0.000E+00, -7.583E+00, 2.753E-02, 0.000E+00
50, 0.000E+00, -7.583E+00, 2.753E-02, 0.000E+00 - M.
48 (47-49) [l=164 cm][164 def.]
47, -1.398E-01, -7.612E+00, 5.317E-03, -1.477E-04
    i', -1.398E-01, -7.612E+00, 5.317E-03, -1.477E-04 - K.
j', -1.401E-01, -7.620E+00, 5.319E-03, -1.477E-04
49, -1.401E-01, -7.620E+00, 5.319E-03, -1.477E-04
49 (52-i'-j'-53) [l=480 cm] [Piano XZ: 206 rig.-252 def.-22 rig.]
52, 0.000E+00, 0.000E+00, 1.441E-02, -3.126E-02 - K.
i', 0.000E+00, -2.975E-02, 1.441E-02, -3.126E-02
j', -1.407E-01, -4.087E-02, 5.322E-03, -3.019E-02
53, -1.407E-01, -4.204E-02, 5.322E-03, -3.019E-02 - S.
50 (54-52) [l=67 cm][67 def.]
54, 0.000E+00, -7.608E+00, 1.441E-02, 0.000E+00
    i', 0.000E+00, -7.608E+00, 1.441E-02, 0.000E+00 - M.
j', 0.000E+00, -7.617E+00, 1.441E-02, 0.000E+00
52, 0.000E+00, -7.617E+00, 1.441E-02, 0.000E+00
51 (55-53) [l=67 cm][67 def.]
55, -1.406E-01, -7.641E+00, 5.322E-03, -1.477E-04 - K.
i', -1.406E-01, -7.641E+00, 5.322E-03, -1.477E-04
j', -1.407E-01, -7.645E+00, 5.322E-03, -1.477E-04
53, -1.407E-01, -7.645E+00, 5.322E-03, -1.477E-04 - K.
52 (50-54) [l=227 cm][227 def.]
50, 0.000E+00, -7.583E+00, 2.753E-02, 0.000E+00
    i', 0.000E+00, -7.583E+00, 2.753E-02, 0.000E+00 - K.
j', 0.000E+00, -7.608E+00, 1.441E-02, 0.000E+00
54, 0.000E+00, -7.608E+00, 1.441E-02, 0.000E+00
53 (51-55) [l=227 cm][227 def.]
51, -1.403E-01, -7.629E+00, 5.321E-03, -1.477E-04 - M.
i', -1.403E-01, -7.629E+00, 5.321E-03, -1.477E-04
j', -1.406E-01, -7.641E+00, 5.322E-03, -1.477E-04
55, -1.406E-01, -7.641E+00, 5.322E-03, -1.477E-04 - K.
54 (56-j'-57) [l=480 cm] [Piano XZ: 261 def.-219 rig.]
56, 0.000E+00, 0.000E+00, 1.433E-02, -3.120E-02
    i', 0.000E+00, 0.000E+00, 1.433E-02, -3.120E-02 - K.
j', -1.408E-01, -3.144E-02, 5.281E-03, -2.554E-02
57, -1.408E-01, -4.299E-02, 5.281E-03, -2.554E-02
55 (57-58) [l=67 cm][67 def.]

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57, 1.409E-01, -7.415E+00, -5.255E-03, -1.477E-04 - K.
 i', 1.409E-01, -7.415E+00, -5.255E-03, -1.477E-04
 j', 1.408E-01, -7.412E+00, -5.255E-03, -1.477E-04
 58, 1.408E-01, -7.412E+00, -5.255E-03, -1.477E-04 - F.
 56 (59-j'-60) [l=480 cm] [Piano XZ: 231 def.-249 rig.]
 59, 0.000E+00, 0.000E+00, 1.075E-02, 1.878E-01
 i', 0.000E+00, 0.000E+00, 1.075E-02, 1.878E-01 - S.
 j', -1.405E-01, -2.983E-02, 5.280E-03, -2.554E-02
 60, -1.405E-01, -4.299E-02, 5.280E-03, -2.554E-02
 57 (61-60) [l=43 cm] [43 def.]
 61, 1.406E-01, -7.406E+00, -5.273E-03, -1.477E-04 - M.
 i', 1.406E-01, -7.406E+00, -5.273E-03, -1.477E-04
 j', 1.405E-01, -7.404E+00, -5.272E-03, -1.477E-04
 60, 1.405E-01, -7.404E+00, -5.272E-03, -1.477E-04 - K.
 58 (60-62) [l=43 cm] [43 def.]
 60, 1.405E-01, -7.404E+00, -5.272E-03, -1.477E-04
 i', 1.405E-01, -7.404E+00, -5.272E-03, -1.477E-04 - K.
 j', 1.405E-01, -7.402E+00, -5.272E-03, -1.477E-04
 62, 1.405E-01, -7.402E+00, -5.272E-03, -1.477E-04
 59 (58-61) [l=100 cm] [100 def.]
 58, 1.407E-01, -7.412E+00, -5.281E-03, -1.477E-04 - M.
 i', 1.407E-01, -7.412E+00, -5.281E-03, -1.477E-04
 j', 1.406E-01, -7.406E+00, -5.281E-03, -1.477E-04
 61, 1.406E-01, -7.406E+00, -5.281E-03, -1.477E-04 - K.
 60 (63-i'-j'-64) [l=480 cm] [Piano XZ: 238 rig.-213 def.-28 rig.]
 63, 0.000E+00, 0.000E+00, 1.039E-02, 1.878E-01
 i', 0.000E+00, -2.476E-02, 1.039E-02, 1.878E-01 - K.
 j', -1.403E-01, -4.176E-02, 5.331E-03, -2.553E-02
 64, -1.403E-01, -4.327E-02, 5.331E-03, -2.553E-02
 61 (63-65) [l=43 cm] [43 def.]
 63, 0.000E+00, -7.327E+00, -1.039E-02, 0.000E+00 - S.
 i', 0.000E+00, -7.327E+00, -1.039E-02, 0.000E+00
 j', 0.000E+00, -7.322E+00, -1.039E-02, 0.000E+00
 65, 0.000E+00, -7.322E+00, -1.039E-02, 0.000E+00 - M.
 62 (62-64) [l=43 cm] [43 def.]
 62, 1.404E-01, -7.402E+00, -5.331E-03, -1.477E-04
 i', 1.404E-01, -7.402E+00, -5.331E-03, -1.477E-04 - K.
 j', 1.403E-01, -7.400E+00, -5.331E-03, -1.477E-04
 64, 1.403E-01, -7.400E+00, -5.331E-03, -1.477E-04
 63 (64-66) [l=43 cm] [43 def.]
 64, 1.403E-01, -7.400E+00, -5.331E-03, -1.477E-04 - K.
 i', 1.403E-01, -7.400E+00, -5.331E-03, -1.477E-04
 j', 1.402E-01, -7.397E+00, -5.331E-03, -1.477E-04
 66, 1.402E-01, -7.397E+00, -5.331E-03, -1.477E-04 - M.
 64 (67-i'-j'-68) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.]
 67, 0.000E+00, 0.000E+00, 2.947E-02, 4.140E-01
 i', 0.000E+00, -5.109E-02, 2.947E-02, 4.140E-01 - K.
 j', -1.398E-01, -4.222E-02, 5.328E-03, -2.553E-02
 68, -1.398E-01, -4.327E-02, 5.328E-03, -2.553E-02
 65 (69-67) [l=96 cm] [96 def.]
 69, 0.000E+00, -7.290E+00, -2.946E-02, 0.000E+00 - K.
 i', 0.000E+00, -7.290E+00, -2.946E-02, 0.000E+00
 j', 0.000E+00, -7.261E+00, -2.947E-02, 0.000E+00
 67, 0.000E+00, -7.261E+00, -2.947E-02, 0.000E+00 - S.
 66 (68-71) [l=96 cm] [96 def.]
 68, 1.398E-01, -7.380E+00, -5.328E-03, -1.477E-04
 i', 1.398E-01, -7.380E+00, -5.328E-03, -1.477E-04 - M.
 j', 1.396E-01, -7.375E+00, -5.326E-03, -1.477E-04
 71, 1.396E-01, -7.375E+00, -5.326E-03, -1.477E-04
 67 (65-69) [l=227 cm] [227 def.]
 65, 0.000E+00, -7.322E+00, -1.039E-02, 0.000E+00 - K.
 i', 0.000E+00, -7.322E+00, -1.039E-02, 0.000E+00
 j', 0.000E+00, -7.290E+00, -2.946E-02, 0.000E+00
 69, 0.000E+00, -7.290E+00, -2.946E-02, 0.000E+00 - M.
 68 (66-70) [l=227 cm] [227 def.]
 66, 1.402E-01, -7.397E+00, -5.331E-03, -1.477E-04
 i', 1.402E-01, -7.397E+00, -5.331E-03, -1.477E-04 - K.
 j', 1.399E-01, -7.385E+00, -5.329E-03, -1.477E-04
 70, 1.399E-01, -7.385E+00, -5.329E-03, -1.477E-04
 69 (72-j'-73) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
 72, 0.000E+00, 0.000E+00, 2.954E-02, 4.142E-01 - S.
 i', 0.000E+00, 0.000E+00, 2.954E-02, 4.142E-01
 j', -1.395E-01, -3.906E-02, 5.324E-03, -2.553E-02
 73, -1.395E-01, -4.327E-02, 5.324E-03, -2.553E-02 - M.
 70 (71-73) [l=96 cm] [96 def.]
 71, 1.396E-01, -7.375E+00, -5.326E-03, -1.477E-04
 i', 1.396E-01, -7.375E+00, -5.326E-03, -1.477E-04 - K.
 j', 1.395E-01, -7.370E+00, -5.324E-03, -1.477E-04
 73, 1.395E-01, -7.370E+00, -5.324E-03, -1.477E-04
 71 (75-j'-76) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
 75, 0.000E+00, 0.000E+00, 9.020E-04, 1.176E-02 - M.
 i', 0.000E+00, 0.000E+00, 9.020E-04, 1.176E-02
 j', -1.390E-01, -3.655E-02, 5.316E-03, -2.552E-02
 76, -1.390E-01, -4.327E-02, 5.316E-03, -2.552E-02 - K.
 72 (77-76) [l=28 cm] [28 def.]
 77, 1.390E-01, -7.353E+00, -5.316E-03, -1.477E-04

i', 1.390E-01, -7.353E+00, -5.316E-03, -1.477E-04 - K.
 j', 1.390E-01, -7.351E+00, -5.316E-03, -1.477E-04
 76, 1.390E-01, -7.351E+00, -5.316E-03, -1.477E-04
 73 (76-78) [l=28 cm][28 def.]
 76, 1.390E-01, -7.351E+00, -5.316E-03, -1.477E-04 - M.
 i', 1.390E-01, -7.351E+00, -5.316E-03, -1.477E-04
 j', 1.389E-01, -7.350E+00, -5.315E-03, -1.477E-04
 78, 1.389E-01, -7.350E+00, -5.315E-03, -1.477E-04 - K.
 74 (74-77) [l=227 cm][227 def.]
 74, 1.393E-01, -7.365E+00, -5.322E-03, -1.477E-04
 i', 1.393E-01, -7.365E+00, -5.322E-03, -1.477E-04 - K.
 j', 1.390E-01, -7.353E+00, -5.316E-03, -1.477E-04
 77, 1.390E-01, -7.353E+00, -5.316E-03, -1.477E-04
 75 (79-i'-j'-80) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.]
 79, 0.000E+00, 0.000E+00, 1.193E-03, 1.195E-02 - S.
 i', 0.000E+00, -5.764E-04, 1.193E-03, 1.195E-02
 j', -1.385E-01, -4.279E-02, 5.307E-03, -2.553E-02
 80, -1.385E-01, -4.327E-02, 5.307E-03, -2.553E-02 - M.
 76 (79-81) [l=308 cm][308 def.]
 79, 0.000E+00, -7.265E+00, -1.193E-03, 0.000E+00
 i', 0.000E+00, -7.265E+00, -1.193E-03, 0.000E+00 - K.
 j', 0.000E+00, -7.262E+00, -1.196E-03, 0.000E+00
 81, 0.000E+00, -7.262E+00, -1.196E-03, 0.000E+00
 77 (78-80) [l=308 cm][308 def.]
 78, 1.389E-01, -7.350E+00, -5.315E-03, -1.477E-04 - K.
 i', 1.389E-01, -7.350E+00, -5.315E-03, -1.477E-04
 j', 1.385E-01, -7.333E+00, -5.307E-03, -1.477E-04
 80, 1.385E-01, -7.333E+00, -5.307E-03, -1.477E-04 - M.
 78 (80-82) [l=308 cm][308 def.]
 80, 1.385E-01, -7.333E+00, -5.307E-03, -1.477E-04
 i', 1.385E-01, -7.333E+00, -5.307E-03, -1.477E-04 - K.
 j', 1.380E-01, -7.317E+00, -5.301E-03, -1.477E-04
 82, 1.380E-01, -7.317E+00, -5.301E-03, -1.477E-04
 79 (83-i'-j'-84) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.]
 83, 0.000E+00, 0.000E+00, 3.322E-02, 3.955E-01 - K.
 i', 0.000E+00, -4.279E-02, 3.322E-02, 3.955E-01
 j', -1.374E-01, -4.240E-02, 5.291E-03, -2.553E-02
 84, -1.374E-01, -4.327E-02, 5.291E-03, -2.553E-02 - S.
 80 (85-83) [l=146 cm][146 def.]
 85, 0.000E+00, -7.213E+00, -3.322E-02, 0.000E+00
 i', 0.000E+00, -7.213E+00, -3.322E-02, 0.000E+00 - C.
 j', 0.000E+00, -7.164E+00, -3.322E-02, 0.000E+00
 83, 0.000E+00, -7.164E+00, -3.322E-02, 0.000E+00
 81 (86-84) [l=146 cm][146 def.]
 86, 1.377E-01, -7.305E+00, -5.295E-03, -1.477E-04 - K.
 i', 1.377E-01, -7.305E+00, -5.295E-03, -1.477E-04
 j', 1.374E-01, -7.297E+00, -5.291E-03, -1.477E-04
 84, 1.374E-01, -7.297E+00, -5.291E-03, -1.477E-04 - M.
 82 (84-87) [l=146 cm][146 def.]
 84, 1.374E-01, -7.297E+00, -5.291E-03, -1.477E-04
 i', 1.374E-01, -7.297E+00, -5.291E-03, -1.477E-04 - C.
 j', 1.372E-01, -7.290E+00, -5.286E-03, -1.477E-04
 87, 1.372E-01, -7.290E+00, -5.286E-03, -1.477E-04
 83 (81-85) [l=227 cm][227 def.]
 81, 0.000E+00, -7.262E+00, -1.196E-03, 0.000E+00 - C.
 i', 0.000E+00, -7.262E+00, -1.196E-03, 0.000E+00
 j', 0.000E+00, -7.213E+00, -3.322E-02, 0.000E+00
 85, 0.000E+00, -7.213E+00, -3.322E-02, 0.000E+00 - K.
 84 (82-86) [l=227 cm][227 def.]
 82, 1.380E-01, -7.317E+00, -5.301E-03, -1.477E-04
 i', 1.380E-01, -7.317E+00, -5.301E-03, -1.477E-04 - M.
 j', 1.377E-01, -7.305E+00, -5.295E-03, -1.477E-04
 86, 1.377E-01, -7.305E+00, -5.295E-03, -1.477E-04
 85 (88-j'-89) [l=480 cm] [Piano XZ: 352 def.-128 rig.]
 88, 0.000E+00, 0.000E+00, 3.328E-02, 3.957E-01 - K.
 i', 0.000E+00, 0.000E+00, 3.328E-02, 3.957E-01
 j', -1.372E-01, -3.648E-02, 5.286E-03, -2.553E-02
 89, -1.372E-01, -4.327E-02, 5.286E-03, -2.553E-02 - C.
 86 (87-89) [l=26 cm][26 def.]
 87, 1.372E-01, -7.290E+00, -5.286E-03, -1.477E-04
 i', 1.372E-01, -7.290E+00, -5.286E-03, -1.477E-04 - K.
 j', 1.372E-01, -7.288E+00, -5.286E-03, -1.477E-04
 89, 1.372E-01, -7.288E+00, -5.286E-03, -1.477E-04
 87 (89-90) [l=26 cm][26 def.]
 89, 1.372E-01, -7.288E+00, -5.286E-03, -1.477E-04 - C.
 i', 1.372E-01, -7.288E+00, -5.286E-03, -1.477E-04
 j', 1.372E-01, -7.287E+00, -5.285E-03, -1.477E-04
 90, 1.372E-01, -7.287E+00, -5.285E-03, -1.477E-04 - K.
 88 (91-j'-92) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
 91, 0.000E+00, 0.000E+00, -2.508E-03, -7.944E-03
 i', 0.000E+00, 0.000E+00, -2.508E-03, -7.944E-03 - M.
 j', -1.368E-01, -3.660E-02, 5.277E-03, -2.553E-02
 92, -1.368E-01, -4.327E-02, 5.277E-03, -2.553E-02
 89 (93-92) [l=28 cm][28 def.]
 93, 1.368E-01, -7.275E+00, -5.278E-03, -1.477E-04 - C.
 i', 1.368E-01, -7.275E+00, -5.278E-03, -1.477E-04

j', 1.368E-01, -7.273E+00, -5.277E-03, -1.477E-04
 92, 1.368E-01, -7.273E+00, -5.277E-03, -1.477E-04 - K.
 90 (92-94) [l=28 cm][28 def.]
 92, 1.368E-01, -7.273E+00, -5.277E-03, -1.477E-04
 i', 1.368E-01, -7.273E+00, -5.277E-03, -1.477E-04 - M.
 j', 1.367E-01, -7.272E+00, -5.276E-03, -1.477E-04
 94, 1.367E-01, -7.272E+00, -5.276E-03, -1.477E-04
 91 (90-93) [l=227 cm][227 def.]
 90, 1.372E-01, -7.287E+00, -5.285E-03, -1.477E-04 - K.
 i', 1.372E-01, -7.287E+00, -5.285E-03, -1.477E-04
 j', 1.368E-01, -7.275E+00, -5.278E-03, -1.477E-04
 93, 1.368E-01, -7.275E+00, -5.278E-03, -1.477E-04 - K.
 92 (95-j'-96) [l=480 cm] [Piano XZ: 425 def.-55 rig.]
 95, 0.000E+00, 0.000E+00, -2.428E-03, -7.958E-03
 i', 0.000E+00, 0.000E+00, -2.428E-03, -7.958E-03 - C.
 j', -1.365E-01, -4.038E-02, 5.271E-03, -2.553E-02
 96, -1.365E-01, -4.327E-02, 5.271E-03, -2.553E-02
 93 (94-96) [l=163 cm][163 def.]
 94, 1.367E-01, -7.272E+00, -5.276E-03, -1.477E-04 - K.
 i', 1.367E-01, -7.272E+00, -5.276E-03, -1.477E-04
 j', 1.365E-01, -7.263E+00, -5.271E-03, -1.477E-04
 96, 1.365E-01, -7.263E+00, -5.271E-03, -1.477E-04 - M.
 94 (96-97) [l=163 cm][163 def.]
 96, 1.365E-01, -7.263E+00, -5.271E-03, -1.477E-04
 i', 1.365E-01, -7.263E+00, -5.271E-03, -1.477E-04 - K.
 j', 1.363E-01, -7.255E+00, -5.268E-03, -1.477E-04
 97, 1.363E-01, -7.255E+00, -5.268E-03, -1.477E-04
 95 (98-j'-99) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
 98, 0.000E+00, 0.000E+00, 1.469E-02, -2.247E-02 - K.
 i', 0.000E+00, 0.000E+00, 1.469E-02, -2.247E-02
 j', -1.358E-01, -3.911E-02, 5.264E-03, -2.554E-02
 99, -1.358E-01, -4.327E-02, 5.264E-03, -2.554E-02 - M.
 96 (100-99) [l=96 cm][96 def.]
 100, 1.359E-01, -7.243E+00, -5.265E-03, -1.477E-04
 i', 1.359E-01, -7.243E+00, -5.265E-03, -1.477E-04 - K.
 j', 1.358E-01, -7.238E+00, -5.264E-03, -1.477E-04
 99, 1.358E-01, -7.238E+00, -5.264E-03, -1.477E-04
 97 (99-101) [l=96 cm][96 def.]
 99, 1.358E-01, -7.238E+00, -5.264E-03, -1.477E-04 - K.
 i', 1.358E-01, -7.238E+00, -5.264E-03, -1.477E-04
 j', 1.356E-01, -7.233E+00, -5.263E-03, -1.477E-04
 101, 1.356E-01, -7.233E+00, -5.263E-03, -1.477E-04 - M.
 98 (97-100) [l=227 cm][227 def.]
 97, 1.363E-01, -7.255E+00, -5.268E-03, -1.477E-04
 i', 1.363E-01, -7.255E+00, -5.268E-03, -1.477E-04 - K.
 j', 1.359E-01, -7.243E+00, -5.265E-03, -1.477E-04
 100, 1.359E-01, -7.243E+00, -5.265E-03, -1.477E-04
 99 (102-j'-103) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
 102, 0.000E+00, 0.000E+00, 1.474E-02, -2.247E-02 - K.
 i', 0.000E+00, 0.000E+00, 1.474E-02, -2.247E-02
 j', -1.355E-01, -3.911E-02, 5.262E-03, -2.554E-02
 103, -1.355E-01, -4.327E-02, 5.262E-03, -2.554E-02 - M.
 100 (101-103) [l=96 cm][96 def.]
 101, 1.356E-01, -7.233E+00, -5.263E-03, -1.477E-04
 i', 1.356E-01, -7.233E+00, -5.263E-03, -1.477E-04 - K.
 j', 1.355E-01, -7.228E+00, -5.262E-03, -1.477E-04
 103, 1.355E-01, -7.228E+00, -5.262E-03, -1.477E-04
 101 (105-j'-106) [l=480 cm] [Piano XZ: 391 def.-90 rig.]
 105, 0.000E+00, 0.000E+00, -4.115E-02, 1.373E-03 - K.
 i', 0.000E+00, 0.000E+00, -4.115E-02, 1.373E-03
 j', -1.349E-01, -3.856E-02, 5.261E-03, -2.554E-02
 106, -1.349E-01, -4.327E-02, 5.261E-03, -2.554E-02 - M.
 102 (106-3) [l=79 cm][79 def.]
 106, 1.349E-01, -7.206E+00, -5.261E-03, -1.477E-04
 i', 1.349E-01, -7.206E+00, -5.261E-03, -1.477E-04 - K.
 j', 1.348E-01, -7.202E+00, -5.261E-03, -1.477E-04
 3, 1.348E-01, -7.202E+00, -5.261E-03, -1.477E-04
 103 (104-107) [l=227 cm][227 def.]
 104, 1.354E-01, -7.223E+00, -5.262E-03, -1.477E-04 - K.
 i', 1.354E-01, -7.223E+00, -5.262E-03, -1.477E-04
 j', 1.350E-01, -7.211E+00, -5.261E-03, -1.477E-04
 107, 1.350E-01, -7.211E+00, -5.261E-03, -1.477E-04 - M.
 104 (108-109) [l=608 cm][608 def.]
 108, 0.000E+00, 0.000E+00, -3.119E-02, -1.440E-02
 i', 0.000E+00, 0.000E+00, -3.119E-02, -1.440E-02 - K.
 j', -4.916E-02, 1.764E-01, -2.753E-02, -5.343E-03
 109, -4.916E-02, 1.764E-01, -2.753E-02, -5.343E-03
 105 (110-109) [l=224 cm][224 def.]
 110, -4.440E-02, -7.045E+00, -2.753E-02, -2.125E-03 - K.
 i', -4.440E-02, -7.045E+00, -2.753E-02, -2.125E-03
 j', -4.916E-02, -6.983E+00, -2.753E-02, -2.126E-03
 109, -4.916E-02, -6.983E+00, -2.753E-02, -2.126E-03 - M.
 106 (112-j'-113) [l=420 cm] [Piano XZ: 361 def.-59 rig.]
 112, 0.000E+00, 0.000E+00, -7.943E-03, 2.500E-03
 i', 0.000E+00, 0.000E+00, -7.943E-03, 2.500E-03 - K.
 j', -3.987E-02, 1.063E-01, -2.553E-02, -5.276E-03

113, -3.987E-02, 1.214E-01, -2.553E-02, -5.276E-03
 107 (114-113) [l=153 cm][153 def.]
 114, 4.010E-02, -7.272E+00, 2.553E-02, -1.477E-04 - K.
 i', 4.010E-02, -7.272E+00, 2.553E-02, -1.477E-04
 j', 3.987E-02, -7.311E+00, 2.553E-02, -1.477E-04
 113, 3.987E-02, -7.311E+00, 2.553E-02, -1.477E-04 - S.
 108 (113-115) [l=153 cm][153 def.]
 113, 3.987E-02, -7.311E+00, 2.553E-02, -1.477E-04
 i', 3.987E-02, -7.311E+00, 2.553E-02, -1.477E-04 - S.
 j', 3.965E-02, -7.350E+00, 2.553E-02, -1.477E-04
 115, 3.965E-02, -7.350E+00, 2.553E-02, -1.477E-04
 109 (116-j'-117) [l=420 cm] [Piano XZ: 363 def.-57 rig.]
 116, 0.000E+00, 0.000E+00, -4.529E-02, 8.498E-04 - M.
 i', 0.000E+00, 0.000E+00, -4.529E-02, 8.498E-04
 j', -3.913E-02, 1.013E-01, -3.019E-02, -5.240E-03
 117, -3.913E-02, 1.186E-01, -3.019E-02, -5.240E-03 - K.
 110 (118-117) [l=163 cm][163 def.]
 118, 3.937E-02, -7.403E+00, 3.019E-02, -1.477E-04
 i', 3.937E-02, -7.403E+00, 3.019E-02, -1.477E-04 - K.
 j', 3.913E-02, -7.452E+00, 3.019E-02, -1.477E-04
 117, 3.913E-02, -7.452E+00, 3.019E-02, -1.477E-04
 111 (117-119) [l=163 cm][163 def.]
 117, 3.913E-02, -7.452E+00, 3.019E-02, -1.477E-04 - C.
 i', 3.913E-02, -7.452E+00, 3.019E-02, -1.477E-04
 j', 3.889E-02, -7.502E+00, 3.019E-02, -1.477E-04
 119, 3.889E-02, -7.502E+00, 3.019E-02, -1.477E-04 - K.
 112 (115-118) [l=200 cm][200 def.]
 115, 3.965E-02, -7.350E+00, 2.553E-02, -1.477E-04
 i', 3.965E-02, -7.350E+00, 2.553E-02, -1.477E-04 - K.
 j', 3.937E-02, -7.403E+00, 3.019E-02, -1.477E-04
 118, 3.937E-02, -7.403E+00, 3.019E-02, -1.477E-04
 113 (120-j'-121) [l=420 cm] [Piano XZ: 361 def.-59 rig.]
 120, 0.000E+00, 0.000E+00, 1.175E-02, -9.116E-04 - C.
 i', 0.000E+00, 0.000E+00, 1.175E-02, -9.116E-04
 j', -3.985E-02, 1.085E-01, -2.552E-02, -5.315E-03
 121, -3.985E-02, 1.236E-01, -2.552E-02, -5.315E-03 - K.
 114 (122-121) [l=153 cm][153 def.]
 122, 4.008E-02, -7.350E+00, 2.552E-02, -1.477E-04
 i', 4.008E-02, -7.350E+00, 2.552E-02, -1.477E-04 - C.
 j', 3.985E-02, -7.389E+00, 2.552E-02, -1.477E-04
 121, 3.985E-02, -7.389E+00, 2.552E-02, -1.477E-04
 115 (121-123) [l=153 cm][153 def.]
 121, 3.985E-02, -7.389E+00, 2.552E-02, -1.477E-04 - K.
 i', 3.985E-02, -7.389E+00, 2.552E-02, -1.477E-04
 j', 3.962E-02, -7.428E+00, 2.552E-02, -1.477E-04
 123, 3.962E-02, -7.428E+00, 2.552E-02, -1.477E-04 - C.
 116 (124-j'-125) [l=420 cm] [Piano XZ: 363 def.-57 rig.]
 124, 0.000E+00, 0.000E+00, -6.416E-02, -1.251E-03
 i', 0.000E+00, 0.000E+00, -6.416E-02, -1.251E-03 - K.
 j', -3.910E-02, 1.035E-01, -3.019E-02, -5.299E-03
 125, -3.910E-02, 1.208E-01, -3.019E-02, -5.299E-03
 117 (126-125) [l=163 cm][163 def.]
 126, 3.934E-02, -7.481E+00, 3.019E-02, -1.477E-04 - K.
 i', 3.934E-02, -7.481E+00, 3.019E-02, -1.477E-04
 j', 3.910E-02, -7.530E+00, 3.019E-02, -1.477E-04
 125, 3.910E-02, -7.530E+00, 3.019E-02, -1.477E-04 - C.
 118 (125-127) [l=163 cm][163 def.]
 125, 3.910E-02, -7.530E+00, 3.019E-02, -1.477E-04
 i', 3.910E-02, -7.530E+00, 3.019E-02, -1.477E-04 - K.
 j', 3.886E-02, -7.579E+00, 3.019E-02, -1.477E-04
 127, 3.886E-02, -7.579E+00, 3.019E-02, -1.477E-04
 119 (123-126) [l=200 cm][200 def.]
 123, 3.962E-02, -7.428E+00, 2.552E-02, -1.477E-04 - C.
 i', 3.962E-02, -7.428E+00, 2.552E-02, -1.477E-04
 j', 3.934E-02, -7.481E+00, 3.019E-02, -1.477E-04
 126, 3.934E-02, -7.481E+00, 3.019E-02, -1.477E-04 - C.
 120 (96-128) [l=45 cm][45 def.]
 96, -1.365E-01, -4.327E-02, 5.271E-03, -2.553E-02
 i', -1.365E-01, -4.327E-02, 5.271E-03, -2.553E-02 - K.
 j', -1.490E-01, -4.567E-02, 5.275E-03, -2.757E-02
 128, -1.490E-01, -4.567E-02, 5.275E-03, -2.757E-02
 121 (129-128) [l=163 cm][163 def.]
 129, 1.492E-01, -7.272E+00, -5.279E-03, -1.535E-04 - K.
 i', 1.492E-01, -7.272E+00, -5.279E-03, -1.535E-04
 j', 1.490E-01, -7.264E+00, -5.275E-03, -1.535E-04
 128, 1.490E-01, -7.264E+00, -5.275E-03, -1.535E-04 - C.
 122 (131-132) [l=45 cm][45 def.]
 131, -1.370E-01, -4.327E-02, 5.281E-03, -2.553E-02
 i', -1.370E-01, -4.327E-02, 5.281E-03, -2.553E-02 - K.
 j', -1.495E-01, -4.567E-02, 5.284E-03, -2.757E-02
 132, -1.495E-01, -4.567E-02, 5.284E-03, -2.757E-02
 123 (80-134) [l=45 cm][45 def.]
 80, -1.385E-01, -4.327E-02, 5.307E-03, -2.553E-02 - C.
 i', -1.385E-01, -4.327E-02, 5.307E-03, -2.553E-02
 j', -1.510E-01, -4.567E-02, 5.320E-03, -2.755E-02
 134, -1.510E-01, -4.567E-02, 5.320E-03, -2.755E-02 - K.

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124 (19-137) [l=45 cm][45 def.]
19, -1.358E-01, -4.204E-02, 5.222E-03, -3.018E-02
  i', -1.358E-01, -4.204E-02, 5.222E-03, -3.018E-02 - K.
  j', -1.482E-01, -4.440E-02, 5.231E-03, -2.750E-02
137, -1.482E-01, -4.440E-02, 5.231E-03, -2.750E-02
125 (138-137) [l=96 cm][96 def.]
138, -1.481E-01, -7.463E+00, 5.230E-03, -1.535E-04 - C.
  i', -1.481E-01, -7.463E+00, 5.230E-03, -1.535E-04
  j', -1.482E-01, -7.468E+00, 5.231E-03, -1.535E-04
137, -1.482E-01, -7.468E+00, 5.231E-03, -1.535E-04 - K.
126 (140-141) [l=45 cm][45 def.]
140, -1.370E-01, -4.204E-02, 5.248E-03, -3.019E-02
  i', -1.370E-01, -4.204E-02, 5.248E-03, -3.019E-02 - C.
  j', -1.495E-01, -4.440E-02, 5.251E-03, -2.751E-02
141, -1.495E-01, -4.440E-02, 5.251E-03, -2.751E-02
127 (141-143) [l=168 cm][168 def.]
141, -1.495E-01, -7.511E+00, 5.251E-03, -1.535E-04 - K.
  i', -1.495E-01, -7.511E+00, 5.251E-03, -1.535E-04
  j', -1.497E-01, -7.520E+00, 5.256E-03, -1.535E-04
143, -1.497E-01, -7.520E+00, 5.256E-03, -1.535E-04 - C.
128 (33-144) [l=45 cm][45 def.]
33, -1.374E-01, -4.204E-02, 5.262E-03, -3.019E-02
  i', -1.374E-01, -4.204E-02, 5.262E-03, -3.019E-02 - K.
  j', -1.500E-01, -4.440E-02, 5.262E-03, -2.751E-02
144, -1.500E-01, -4.440E-02, 5.262E-03, -2.751E-02
129 (143-144) [l=146 cm][146 def.]
143, -1.497E-01, -7.520E+00, 5.256E-03, -1.535E-04 - K.
  i', -1.497E-01, -7.520E+00, 5.256E-03, -1.535E-04
  j', -1.500E-01, -7.527E+00, 5.262E-03, -1.535E-04
144, -1.500E-01, -7.527E+00, 5.262E-03, -1.535E-04 - M.
130 (146-147) [l=45 cm][45 def.]
146, -1.391E-01, -4.204E-02, 5.304E-03, -3.019E-02
  i', -1.391E-01, -4.204E-02, 5.304E-03, -3.019E-02 - K.
  j', -1.517E-01, -4.440E-02, 5.308E-03, -2.752E-02
147, -1.517E-01, -4.440E-02, 5.308E-03, -2.752E-02
131 (147-149) [l=142 cm][142 def.]
147, -1.517E-01, -7.587E+00, 5.308E-03, -1.535E-04 - K.
  i', -1.517E-01, -7.587E+00, 5.308E-03, -1.535E-04
  j', -1.519E-01, -7.595E+00, 5.314E-03, -1.535E-04
149, -1.519E-01, -7.595E+00, 5.314E-03, -1.535E-04 - Z.
132 (150-151) [l=45 cm][45 def.]
150, -1.393E-01, -4.327E-02, 5.321E-03, -2.552E-02
  i', -1.393E-01, -4.327E-02, 5.321E-03, -2.552E-02 - T.
  j', -1.518E-01, -4.567E-02, 5.336E-03, -2.755E-02
151, -1.518E-01, -4.567E-02, 5.336E-03, -2.755E-02
133 (153-154) [l=45 cm][45 def.]
153, -1.401E-01, -4.327E-02, 5.331E-03, -2.553E-02 - T.
  i', -1.401E-01, -4.327E-02, 5.331E-03, -2.553E-02
  j', -1.527E-01, -4.567E-02, 5.348E-03, -2.754E-02
154, -1.527E-01, -4.567E-02, 5.348E-03, -2.754E-02 - T.
134 (154-156) [l=156 cm][156 def.]
154, 1.527E-01, -7.394E+00, -5.348E-03, -1.535E-04
  i', 1.527E-01, -7.394E+00, -5.348E-03, -1.535E-04 - T.
  j', 1.525E-01, -7.386E+00, -5.345E-03, -1.535E-04
156, 1.525E-01, -7.386E+00, -5.345E-03, -1.535E-04
135 (157-158) [l=45 cm][45 def.]
157, -1.407E-01, -4.299E-02, 5.281E-03, -2.554E-02 - T.
  i', -1.407E-01, -4.299E-02, 5.281E-03, -2.554E-02
  j', -1.533E-01, -4.537E-02, 5.294E-03, -2.755E-02
158, -1.533E-01, -4.537E-02, 5.294E-03, -2.755E-02 - T.
136 (159-158) [l=160 cm][160 def.]
159, 1.536E-01, -7.419E+00, -5.280E-03, -1.535E-04
  i', 1.536E-01, -7.419E+00, -5.280E-03, -1.535E-04 - T.
  j', 1.533E-01, -7.411E+00, -5.281E-03, -1.535E-04
158, 1.533E-01, -7.411E+00, -5.281E-03, -1.535E-04
137 (158-155) [l=160 cm][160 def.]
158, 1.533E-01, -7.411E+00, -5.281E-03, -1.535E-04 - T.
  i', 1.533E-01, -7.411E+00, -5.281E-03, -1.535E-04
  j', 1.531E-01, -7.403E+00, -5.280E-03, -1.535E-04
155, 1.531E-01, -7.403E+00, -5.280E-03, -1.535E-04 - T.
138 (160-161) [l=45 cm][45 def.]
160, -1.401E-01, -4.204E-02, 5.319E-03, -3.019E-02
  i', -1.401E-01, -4.204E-02, 5.319E-03, -3.019E-02 - T.
  j', -1.527E-01, -4.440E-02, 5.331E-03, -2.753E-02
161, -1.527E-01, -4.440E-02, 5.331E-03, -2.753E-02
139 (161-163) [l=166 cm][166 def.]
161, -1.527E-01, -7.621E+00, 5.331E-03, -1.535E-04 - T.
  i', -1.527E-01, -7.621E+00, 5.331E-03, -1.535E-04
  j', -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04
163, -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04 - T.
140 (164-165) [l=45 cm][45 def.]
164, -1.355E-01, -4.327E-02, 5.262E-03, -2.554E-02
  i', -1.355E-01, -4.327E-02, 5.262E-03, -2.554E-02 - T.
  j', -1.479E-01, -4.567E-02, 5.262E-03, -2.758E-02
165, -1.479E-01, -4.567E-02, 5.262E-03, -2.758E-02
141 (166-165) [l=96 cm][96 def.]

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166, 1.481E-01, -7.233E+00, -5.263E-03, -1.535E-04 - T.
 i', 1.481E-01, -7.233E+00, -5.263E-03, -1.535E-04
 j', 1.479E-01, -7.228E+00, -5.262E-03, -1.535E-04
 165, 1.479E-01, -7.228E+00, -5.262E-03, -1.535E-04 - T.
 142 (165-167) [l=96 cm][96 def.]
 165, 1.479E-01, -7.228E+00, -5.262E-03, -1.535E-04
 i', 1.479E-01, -7.228E+00, -5.262E-03, -1.535E-04 - T.
 j', 1.478E-01, -7.223E+00, -5.261E-03, -1.535E-04
 167, 1.478E-01, -7.223E+00, -5.261E-03, -1.535E-04
 143 (168-169) [l=45 cm][45 def.]
 168, -1.352E-01, -4.327E-02, 5.261E-03, -2.554E-02 - T.
 i', -1.352E-01, -4.327E-02, 5.261E-03, -2.554E-02
 j', -1.476E-01, -4.567E-02, 5.260E-03, -2.758E-02
 169, -1.476E-01, -4.567E-02, 5.260E-03, -2.758E-02 - T.
 144 (167-169) [l=113 cm][113 def.]
 167, 1.478E-01, -7.223E+00, -5.261E-03, -1.535E-04
 i', 1.478E-01, -7.223E+00, -5.261E-03, -1.535E-04 - T.
 j', 1.476E-01, -7.217E+00, -5.260E-03, -1.535E-04
 169, 1.476E-01, -7.217E+00, -5.260E-03, -1.535E-04
 145 (169-170) [l=113 cm][113 def.]
 169, 1.476E-01, -7.217E+00, -5.260E-03, -1.535E-04 - T.
 i', 1.476E-01, -7.217E+00, -5.260E-03, -1.535E-04
 j', 1.474E-01, -7.211E+00, -5.259E-03, -1.535E-04
 170, 1.474E-01, -7.211E+00, -5.259E-03, -1.535E-04 - T.
 146 (171-172) [l=45 cm][45 def.]
 171, -1.349E-01, -4.327E-02, 5.261E-03, -2.554E-02
 i', -1.349E-01, -4.327E-02, 5.261E-03, -2.554E-02 - T.
 j', -1.473E-01, -4.567E-02, 5.259E-03, -2.758E-02
 172, -1.473E-01, -4.567E-02, 5.259E-03, -2.758E-02
 147 (170-172) [l=80 cm][80 def.]
 170, 1.474E-01, -7.211E+00, -5.259E-03, -1.535E-04 - T.
 i', 1.474E-01, -7.211E+00, -5.259E-03, -1.535E-04
 j', 1.473E-01, -7.207E+00, -5.259E-03, -1.535E-04
 172, 1.473E-01, -7.207E+00, -5.259E-03, -1.535E-04 - T.
 148 (172-173) [l=80 cm][80 def.]
 172, 1.473E-01, -7.207E+00, -5.259E-03, -1.535E-04
 i', 1.473E-01, -7.207E+00, -5.259E-03, -1.535E-04 - T.
 j', 1.472E-01, -7.203E+00, -5.259E-03, -1.535E-04
 173, 1.472E-01, -7.203E+00, -5.259E-03, -1.535E-04
 149 (174-175) [l=45 cm][45 def.]
 174, -1.355E-01, -4.204E-02, 5.219E-03, -3.017E-02 - T.
 i', -1.355E-01, -4.204E-02, 5.219E-03, -3.017E-02
 j', -1.479E-01, -4.440E-02, 5.229E-03, -2.750E-02
 175, -1.479E-01, -4.440E-02, 5.229E-03, -2.750E-02 - T.
 150 (138-175) [l=96 cm][96 def.]
 138, 1.481E-01, -7.463E+00, -5.230E-03, -1.535E-04
 i', 1.481E-01, -7.463E+00, -5.230E-03, -1.535E-04 - T.
 j', 1.479E-01, -7.458E+00, -5.229E-03, -1.535E-04
 175, 1.479E-01, -7.458E+00, -5.229E-03, -1.535E-04
 151 (175-176) [l=96 cm][96 def.]
 175, 1.479E-01, -7.458E+00, -5.229E-03, -1.535E-04 - T.
 i', 1.479E-01, -7.458E+00, -5.229E-03, -1.535E-04
 j', 1.478E-01, -7.453E+00, -5.228E-03, -1.535E-04
 176, 1.478E-01, -7.453E+00, -5.228E-03, -1.535E-04 - T.
 152 (177-178) [l=45 cm][45 def.]
 177, -1.352E-01, -4.204E-02, 5.218E-03, -3.017E-02
 i', -1.352E-01, -4.204E-02, 5.218E-03, -3.017E-02 - T.
 j', -1.476E-01, -4.440E-02, 5.227E-03, -2.750E-02
 178, -1.476E-01, -4.440E-02, 5.227E-03, -2.750E-02
 153 (176-178) [l=113 cm][113 def.]
 176, 1.478E-01, -7.453E+00, -5.228E-03, -1.535E-04 - T.
 i', 1.478E-01, -7.453E+00, -5.228E-03, -1.535E-04
 j', 1.476E-01, -7.447E+00, -5.227E-03, -1.535E-04
 178, 1.476E-01, -7.447E+00, -5.227E-03, -1.535E-04 - T.
 154 (178-179) [l=113 cm][113 def.]
 178, 1.476E-01, -7.447E+00, -5.227E-03, -1.535E-04
 i', 1.476E-01, -7.447E+00, -5.227E-03, -1.535E-04 - T.
 j', 1.474E-01, -7.441E+00, -5.227E-03, -1.535E-04
 179, 1.474E-01, -7.441E+00, -5.227E-03, -1.535E-04
 155 (180-181) [l=45 cm][45 def.]
 180, -1.349E-01, -4.204E-02, 5.217E-03, -3.017E-02 - T.
 i', -1.349E-01, -4.204E-02, 5.217E-03, -3.017E-02
 j', -1.473E-01, -4.440E-02, 5.227E-03, -2.750E-02
 181, -1.473E-01, -4.440E-02, 5.227E-03, -2.750E-02 - T.
 156 (179-181) [l=80 cm][80 def.]
 179, 1.474E-01, -7.441E+00, -5.227E-03, -1.535E-04
 i', 1.474E-01, -7.441E+00, -5.227E-03, -1.535E-04 - T.
 j', 1.473E-01, -7.437E+00, -5.227E-03, -1.535E-04
 181, 1.473E-01, -7.437E+00, -5.227E-03, -1.535E-04
 157 (181-182) [l=80 cm][80 def.]
 181, 1.473E-01, -7.437E+00, -5.227E-03, -1.535E-04 - T.
 i', 1.473E-01, -7.437E+00, -5.227E-03, -1.535E-04
 j', 1.472E-01, -7.433E+00, -5.226E-03, -1.535E-04
 182, 1.472E-01, -7.433E+00, -5.226E-03, -1.535E-04 - T.
 158 (2-183) [l=106 cm][106 def.]
 2, -4.304E-02, 1.348E-01, -2.554E-02, -5.261E-03

i', -4.304E-02, 1.348E-01, -2.554E-02, -5.261E-03 - T.
 j', -4.863E-02, 1.639E-01, -2.758E-02, -5.259E-03
 183, -4.863E-02, 1.639E-01, -2.758E-02, -5.259E-03
 159 (173-183) [l=163 cm][163 def.]
 173, 4.567E-02, -6.741E+00, 2.758E-02, 1.813E-03 - T.
 i', 4.567E-02, -6.741E+00, 2.758E-02, 1.813E-03
 j', 4.863E-02, -6.786E+00, 2.758E-02, 1.813E-03
 183, 4.863E-02, -6.786E+00, 2.758E-02, 1.813E-03 - T.
 160 (183-184) [l=163 cm][163 def.]
 183, 4.863E-02, -6.788E+00, 2.758E-02, 1.809E-03
 i', 4.863E-02, -6.788E+00, 2.758E-02, 1.809E-03 - T.
 j', 5.158E-02, -6.833E+00, 2.758E-02, 1.809E-03
 184, 5.158E-02, -6.833E+00, 2.758E-02, 1.809E-03
 161 (184-185) [l=122 cm][122 def.]
 184, 5.158E-02, -6.832E+00, 2.758E-02, 1.811E-03 - T.
 i', 5.158E-02, -6.832E+00, 2.758E-02, 1.811E-03
 j', 5.451E-02, -6.884E+00, 2.766E-02, 1.973E-03
 185, 5.451E-02, -6.884E+00, 2.766E-02, 1.973E-03 - T.
 162 (186-185) [l=122 cm][122 def.]
 186, -5.119E-02, -6.757E+00, -2.749E-02, -2.083E-03
 i', -5.119E-02, -6.757E+00, -2.749E-02, -2.083E-03 - T.
 j', -5.451E-02, -6.742E+00, -2.766E-02, -2.256E-03
 185, -5.451E-02, -6.742E+00, -2.766E-02, -2.256E-03
 163 (6-187) [l=106 cm][106 def.]
 6, -4.226E-02, 1.348E-01, -3.017E-02, -5.217E-03 - T.
 i', -4.226E-02, 1.348E-01, -3.017E-02, -5.217E-03
 j', -4.780E-02, 1.638E-01, -2.749E-02, -5.226E-03
 187, -4.780E-02, 1.638E-01, -2.749E-02, -5.226E-03 - T.
 164 (182-187) [l=163 cm][163 def.]
 182, -4.440E-02, -6.845E+00, -2.749E-02, -2.086E-03
 i', -4.440E-02, -6.845E+00, -2.749E-02, -2.086E-03 - T.
 j', -4.780E-02, -6.800E+00, -2.749E-02, -2.086E-03
 187, -4.780E-02, -6.800E+00, -2.749E-02, -2.086E-03
 165 (187-186) [l=163 cm][163 def.]
 187, -4.780E-02, -6.802E+00, -2.749E-02, -2.083E-03 - T.
 i', -4.780E-02, -6.802E+00, -2.749E-02, -2.083E-03
 j', -5.119E-02, -6.757E+00, -2.749E-02, -2.083E-03
 186, -5.119E-02, -6.757E+00, -2.749E-02, -2.083E-03 - T.
 166 (188-189) [l=45 cm][45 def.]
 188, -1.378E-01, -4.327E-02, 5.298E-03, -2.553E-02
 i', -1.378E-01, -4.327E-02, 5.298E-03, -2.553E-02 - T.
 j', -1.503E-01, -4.567E-02, 5.304E-03, -2.756E-02
 189, -1.503E-01, -4.567E-02, 5.304E-03, -2.756E-02
 167 (136-189) [l=113 cm][113 def.]
 136, 1.505E-01, -7.317E+00, -5.308E-03, -1.535E-04 - T.
 i', 1.505E-01, -7.317E+00, -5.308E-03, -1.535E-04
 j', 1.503E-01, -7.311E+00, -5.304E-03, -1.535E-04
 189, 1.503E-01, -7.311E+00, -5.304E-03, -1.535E-04 - T.
 168 (189-190) [l=113 cm][113 def.]
 189, 1.503E-01, -7.311E+00, -5.304E-03, -1.535E-04
 i', 1.503E-01, -7.311E+00, -5.304E-03, -1.535E-04 - T.
 j', 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
 190, 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
 169 (84-191) [l=45 cm][45 def.]
 84, -1.374E-01, -4.327E-02, 5.291E-03, -2.553E-02 - T.
 i', -1.374E-01, -4.327E-02, 5.291E-03, -2.553E-02
 j', -1.500E-01, -4.567E-02, 5.295E-03, -2.756E-02
 191, -1.500E-01, -4.567E-02, 5.295E-03, -2.756E-02 - T.
 170 (191-133) [l=146 cm][146 def.]
 191, 1.500E-01, -7.298E+00, -5.295E-03, -1.535E-04
 i', 1.500E-01, -7.298E+00, -5.295E-03, -1.535E-04 - T.
 j', 1.497E-01, -7.290E+00, -5.290E-03, -1.535E-04
 133, 1.497E-01, -7.290E+00, -5.290E-03, -1.535E-04
 171 (192-193) [l=45 cm][45 def.]
 192, -1.398E-01, -4.327E-02, 5.328E-03, -2.553E-02 - T.
 i', -1.398E-01, -4.327E-02, 5.328E-03, -2.553E-02
 j', -1.523E-01, -4.567E-02, 5.344E-03, -2.754E-02
 193, -1.523E-01, -4.567E-02, 5.344E-03, -2.754E-02 - T.
 172 (193-152) [l=97 cm][97 def.]
 193, 1.523E-01, -7.381E+00, -5.344E-03, -1.535E-04
 i', 1.523E-01, -7.381E+00, -5.344E-03, -1.535E-04 - T.
 j', 1.522E-01, -7.376E+00, -5.342E-03, -1.535E-04
 152, 1.522E-01, -7.376E+00, -5.342E-03, -1.535E-04
 173 (194-195) [l=45 cm][45 def.]
 194, -1.361E-01, -4.327E-02, 5.266E-03, -2.553E-02 - T.
 i', -1.361E-01, -4.327E-02, 5.266E-03, -2.553E-02
 j', -1.485E-01, -4.567E-02, 5.268E-03, -2.757E-02
 195, -1.485E-01, -4.567E-02, 5.268E-03, -2.757E-02 - K.
 174 (130-195) [l=113 cm][113 def.]
 130, 1.487E-01, -7.255E+00, -5.271E-03, -1.535E-04
 i', 1.487E-01, -7.255E+00, -5.271E-03, -1.535E-04 - K.
 j', 1.485E-01, -7.249E+00, -5.268E-03, -1.535E-04
 195, 1.485E-01, -7.249E+00, -5.268E-03, -1.535E-04
 175 (195-196) [l=113 cm][113 def.]
 195, 1.485E-01, -7.249E+00, -5.268E-03, -1.535E-04 - W_23957_24_-1_-1.
 i', 1.485E-01, -7.249E+00, -5.268E-03, -1.535E-04

j', 1.484E-01, -7.243E+00, -5.266E-03, -1.535E-04
 196, 1.484E-01, -7.243E+00, -5.266E-03, -1.535E-04 - K.
 176 (99-197) [l=45 cm][45 def.]
 99, -1.358E-01, -4.327E-02, 5.264E-03, -2.554E-02
 i', -1.358E-01, -4.327E-02, 5.264E-03, -2.554E-02 - K.
 j', -1.482E-01, -4.567E-02, 5.264E-03, -2.757E-02
 197, -1.482E-01, -4.567E-02, 5.264E-03, -2.757E-02
 177 (197-166) [l=96 cm][96 def.]
 197, 1.482E-01, -7.238E+00, -5.264E-03, -1.535E-04 - W_23976_24_-1_-1.
 i', 1.482E-01, -7.238E+00, -5.264E-03, -1.535E-04
 j', 1.481E-01, -7.233E+00, -5.263E-03, -1.535E-04
 166, 1.481E-01, -7.233E+00, -5.263E-03, -1.535E-04 - K.
 178 (37-198) [l=45 cm][45 def.]
 37, -1.385E-01, -4.204E-02, 5.288E-03, -3.019E-02
 i', -1.385E-01, -4.204E-02, 5.288E-03, -3.019E-02 - K.
 j', -1.510E-01, -4.440E-02, 5.289E-03, -2.752E-02
 198, -1.510E-01, -4.440E-02, 5.289E-03, -2.752E-02
 179 (200-201) [l=45 cm][45 def.]
 200, -1.378E-01, -4.204E-02, 5.273E-03, -3.019E-02 - K.
 i', -1.378E-01, -4.204E-02, 5.273E-03, -3.019E-02
 j', -1.503E-01, -4.440E-02, 5.272E-03, -2.751E-02
 201, -1.503E-01, -4.440E-02, 5.272E-03, -2.751E-02 - K.
 180 (145-201) [l=113 cm][113 def.]
 145, -1.502E-01, -7.535E+00, 5.267E-03, -1.535E-04
 i', -1.502E-01, -7.535E+00, 5.267E-03, -1.535E-04 - K.
 j', -1.503E-01, -7.541E+00, 5.272E-03, -1.535E-04
 201, -1.503E-01, -7.541E+00, 5.272E-03, -1.535E-04
 181 (201-199) [l=113 cm][113 def.]
 201, -1.503E-01, -7.541E+00, 5.272E-03, -1.535E-04 - K.
 i', -1.503E-01, -7.541E+00, 5.272E-03, -1.535E-04
 j', -1.505E-01, -7.547E+00, 5.276E-03, -1.535E-04
 199, -1.505E-01, -7.547E+00, 5.276E-03, -1.535E-04 - K.
 182 (22-202) [l=45 cm][45 def.]
 22, -1.365E-01, -4.204E-02, 5.234E-03, -3.018E-02
 i', -1.365E-01, -4.204E-02, 5.234E-03, -3.018E-02 - K.
 j', -1.490E-01, -4.440E-02, 5.241E-03, -2.750E-02
 202, -1.490E-01, -4.440E-02, 5.241E-03, -2.750E-02
 183 (202-142) [l=163 cm][163 def.]
 202, -1.490E-01, -7.493E+00, 5.241E-03, -1.535E-04 - K.
 i', -1.490E-01, -7.493E+00, 5.241E-03, -1.535E-04
 j', -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04
 142, -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04 - K.
 184 (204-205) [l=45 cm][45 def.]
 204, -1.361E-01, -4.204E-02, 5.225E-03, -3.018E-02
 i', -1.361E-01, -4.204E-02, 5.225E-03, -3.018E-02 - K.
 j', -1.485E-01, -4.440E-02, 5.235E-03, -2.750E-02
 205, -1.485E-01, -4.440E-02, 5.235E-03, -2.750E-02
 185 (139-205) [l=113 cm][113 def.]
 139, -1.484E-01, -7.473E+00, 5.233E-03, -1.535E-04 - K.
 i', -1.484E-01, -7.473E+00, 5.233E-03, -1.535E-04
 j', -1.485E-01, -7.479E+00, 5.235E-03, -1.535E-04
 205, -1.485E-01, -7.479E+00, 5.235E-03, -1.535E-04 - K.
 186 (205-203) [l=113 cm][113 def.]
 205, -1.485E-01, -7.479E+00, 5.235E-03, -1.535E-04
 i', -1.485E-01, -7.479E+00, 5.235E-03, -1.535E-04 - K.
 j', -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
 203, -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
 187 (45-206) [l=45 cm][45 def.]
 45, -1.396E-01, -4.204E-02, 5.313E-03, -3.019E-02 - K.
 i', -1.396E-01, -4.204E-02, 5.313E-03, -3.019E-02
 j', -1.522E-01, -4.440E-02, 5.320E-03, -2.752E-02
 206, -1.522E-01, -4.440E-02, 5.320E-03, -2.752E-02 - K.
 188 (206-162) [l=164 cm][164 def.]
 206, -1.522E-01, -7.603E+00, 5.320E-03, -1.535E-04
 i', -1.522E-01, -7.603E+00, 5.320E-03, -1.535E-04 - K.
 j', -1.524E-01, -7.612E+00, 5.326E-03, -1.535E-04
 162, -1.524E-01, -7.612E+00, 5.326E-03, -1.535E-04
 189 (207-208) [l=45 cm][45 def.]
 207, -1.405E-01, -4.204E-02, 5.322E-03, -3.019E-02 - K.
 i', -1.405E-01, -4.204E-02, 5.322E-03, -3.019E-02
 j', -1.531E-01, -4.440E-02, 5.337E-03, -2.753E-02
 208, -1.531E-01, -4.440E-02, 5.337E-03, -2.753E-02 - K.
 190 (208-209) [l=111 cm][111 def.]
 208, -1.531E-01, -7.636E+00, 5.337E-03, -1.535E-04
 i', -1.531E-01, -7.636E+00, 5.337E-03, -1.535E-04 - K.
 j', -1.533E-01, -7.641E+00, 5.339E-03, -1.535E-04
 209, -1.533E-01, -7.641E+00, 5.339E-03, -1.535E-04
 191 (53-210) [l=45 cm][45 def.]
 53, -1.407E-01, -4.204E-02, 5.322E-03, -3.019E-02 - K.
 i', -1.407E-01, -4.204E-02, 5.322E-03, -3.019E-02
 j', -1.534E-01, -4.440E-02, 5.339E-03, -2.753E-02
 210, -1.534E-01, -4.440E-02, 5.339E-03, -2.753E-02 - K.
 192 (209-210) [l=67 cm][67 def.]
 209, -1.533E-01, -7.641E+00, 5.339E-03, -1.535E-04
 i', -1.533E-01, -7.641E+00, 5.339E-03, -1.535E-04 - K.
 j', -1.534E-01, -7.645E+00, 5.339E-03, -1.535E-04

210, -1.534E-01, -7.645E+00, 5.339E-03, -1.535E-04
 193 (210-110) [l=67 cm][67 def.]
 210, -1.534E-01, -7.645E+00, 5.339E-03, -1.535E-04 - K.
 i', -1.534E-01, -7.645E+00, 5.339E-03, -1.535E-04
 j', -1.535E-01, -7.649E+00, 5.340E-03, -1.535E-04
 110, -1.535E-01, -7.649E+00, 5.340E-03, -1.535E-04 - K.
 194 (211-212) [l=608 cm][608 def.]
 211, 0.000E+00, 0.000E+00, -3.117E-02, -1.439E-02
 i', 0.000E+00, 0.000E+00, -3.117E-02, -1.439E-02 - K.
 j', -4.980E-02, 1.764E-01, -2.753E-02, -5.346E-03
 212, -4.980E-02, 1.764E-01, -2.753E-02, -5.346E-03
 195 (159-212) [l=224 cm][224 def.]
 159, 4.567E-02, -6.947E+00, 2.754E-02, 1.842E-03 - K.
 i', 4.567E-02, -6.947E+00, 2.754E-02, 1.842E-03
 j', 4.980E-02, -7.008E+00, 2.753E-02, 1.841E-03
 212, 4.980E-02, -7.008E+00, 2.753E-02, 1.841E-03 - K.
 196 (212-111) [l=224 cm][224 def.]
 212, 4.980E-02, -7.008E+00, 2.753E-02, 1.842E-03
 i', 4.980E-02, -7.008E+00, 2.753E-02, 1.842E-03 - K.
 j', 5.393E-02, -7.070E+00, 2.753E-02, 1.842E-03
 111, 5.393E-02, -7.070E+00, 2.753E-02, 1.842E-03
 197 (214-215) [l=227 cm][227 def.]
 214, 0.000E+00, -7.152E+00, -1.426E-03, 0.000E+00 - K.
 i', 0.000E+00, -7.152E+00, -1.426E-03, 0.000E+00
 j', 0.000E+00, -7.215E+00, 6.066E-02, 0.000E+00
 215, 0.000E+00, -7.215E+00, 6.066E-02, 0.000E+00 - K.
 198 (176-231) [l=448 cm][448 def.]
 176, -4.440E-02, -6.865E+00, -2.750E-02, -2.084E-03
 i', -4.440E-02, -6.865E+00, -2.750E-02, -2.084E-03 - K.
 j', -5.570E-02, -7.474E+00, -2.766E-02, -2.522E-03
 231, -5.570E-02, -7.474E+00, -2.766E-02, -2.522E-03
 199 (232-i'-233) [l=165 cm][8 rig.-157 def.]
 232, -3.466E-02, -6.330E+00, -2.409E-02, -1.477E-04 - K.
 i', -3.468E-02, -6.328E+00, -2.409E-02, -1.477E-04
 j', -3.058E-02, -7.290E+00, -2.553E-02, -1.477E-04
 233, -3.058E-02, -7.290E+00, -2.553E-02, -1.477E-04 - K.
 200 (232-i'-j'-234) [l=132 cm][8 rig.-116 def.-8 rig.]
 232, 3.466E-02, -6.330E+00, 2.409E-02, -1.477E-04
 i', 3.465E-02, -6.332E+00, 2.409E-02, -1.477E-04 - K.
 j', 3.523E-02, -5.853E+00, 2.541E-02, -1.477E-04
 234, 3.522E-02, -5.855E+00, 2.541E-02, -1.477E-04
 201 (234-i'-j'-235) [l=218 cm][8 rig.-202 def.-8 rig.]
 234, 3.522E-02, -5.855E+00, 2.541E-02, -1.477E-04 - K.
 i', 3.521E-02, -5.857E+00, 2.541E-02, -1.477E-04
 j', 3.529E-02, -5.852E+00, 2.958E-02, -1.477E-04
 235, 3.528E-02, -5.855E+00, 2.958E-02, -1.477E-04 - K.
 202 (235-i'-j'-236) [l=132 cm][8 rig.-116 def.-8 rig.]
 235, 3.528E-02, -5.855E+00, 2.958E-02, -1.477E-04
 i', 3.527E-02, -5.857E+00, 2.958E-02, -1.477E-04 - K.
 j', 3.460E-02, -6.351E+00, 3.107E-02, -1.477E-04
 236, 3.459E-02, -6.353E+00, 3.107E-02, -1.477E-04
 203 (236-i'-237) [l=185 cm][8 rig.-177 def.]
 236, 3.459E-02, -6.353E+00, 3.107E-02, -1.477E-04 - K.
 i', 3.458E-02, -6.356E+00, 3.107E-02, -1.477E-04
 j', 2.942E-02, -7.519E+00, 3.019E-02, -1.477E-04
 237, 2.942E-02, -7.519E+00, 3.019E-02, -1.477E-04 - K.
 204 (167-231) [l=448 cm][448 def.]
 167, 4.567E-02, -6.761E+00, 2.758E-02, 1.812E-03
 i', 4.567E-02, -6.761E+00, 2.758E-02, 1.812E-03 - K.
 j', 5.570E-02, -7.618E+00, 2.766E-02, 2.237E-03
 231, 5.570E-02, -7.618E+00, 2.766E-02, 2.237E-03
 205 (240-241) [l=448 cm][448 def.]
 240, 4.567E-02, -6.775E+00, 2.757E-02, 1.813E-03 - K.
 i', 4.567E-02, -6.775E+00, 2.757E-02, 1.813E-03
 j', 5.476E-02, -7.608E+00, 2.764E-02, 2.028E-03
 241, 5.476E-02, -7.608E+00, 2.764E-02, 2.028E-03 - K.
 206 (242-241) [l=448 cm][448 def.]
 242, -4.440E-02, -6.879E+00, -2.750E-02, -2.086E-03
 i', -4.440E-02, -6.879E+00, -2.750E-02, -2.086E-03 - K.
 j', -5.476E-02, -7.463E+00, -2.764E-02, -2.313E-03
 241, -5.476E-02, -7.463E+00, -2.764E-02, -2.313E-03
 207 (243-244) [l=448 cm][448 def.]
 243, 4.567E-02, -6.791E+00, 2.757E-02, 1.815E-03 - K.
 i', 4.567E-02, -6.791E+00, 2.757E-02, 1.815E-03
 j', 5.298E-02, -7.751E+00, 2.763E-02, 1.630E-03
 244, 5.298E-02, -7.751E+00, 2.763E-02, 1.630E-03 - K.
 208 (245-244) [l=448 cm][448 def.]
 245, -4.440E-02, -6.894E+00, -2.750E-02, -2.088E-03
 i', -4.440E-02, -6.894E+00, -2.750E-02, -2.088E-03 - K.
 j', -5.298E-02, -7.606E+00, -2.763E-02, -1.915E-03
 244, -5.298E-02, -7.606E+00, -2.763E-02, -1.915E-03
 209 (246-247) [l=448 cm][448 def.]
 246, 4.567E-02, -6.807E+00, 2.757E-02, 1.819E-03 - K.
 i', 4.567E-02, -6.807E+00, 2.757E-02, 1.819E-03
 j', 5.246E-02, -7.412E+00, 2.764E-02, 1.516E-03
 247, 5.246E-02, -7.412E+00, 2.764E-02, 1.516E-03 - K.

210 (248-247) [l=448 cm][448 def.]
 248, -4.440E-02, -6.910E+00, -2.751E-02, -2.091E-03
 i', -4.440E-02, -6.910E+00, -2.751E-02, -2.091E-03 - K.
 j', -5.246E-02, -7.267E+00, -2.764E-02, -1.801E-03
 247, -5.246E-02, -7.267E+00, -2.764E-02, -1.801E-03
 211 (249-i'-j'-250) [l=132 cm][8 rig.-116 def.-8 rig.]
 249, 3.277E-02, -5.989E+00, 2.968E-02, -1.477E-04 - K.
 i', 3.276E-02, -5.991E+00, 2.968E-02, -1.477E-04
 j', 3.227E-02, -6.492E+00, 3.110E-02, -1.477E-04
 250, 3.226E-02, -6.495E+00, 3.110E-02, -1.477E-04 - K.
 212 (251-i'-j'-249) [l=218 cm][8 rig.-202 def.-8 rig.]
 251, 3.304E-02, -5.943E+00, 2.556E-02, -1.477E-04
 i', 3.303E-02, -5.945E+00, 2.556E-02, -1.477E-04 - K.
 j', 3.278E-02, -5.987E+00, 2.968E-02, -1.477E-04
 249, 3.277E-02, -5.989E+00, 2.968E-02, -1.477E-04
 213 (252-i'-j'-251) [l=132 cm][8 rig.-116 def.-8 rig.]
 252, 3.283E-02, -6.400E+00, 2.419E-02, -1.477E-04 - K.
 i', 3.281E-02, -6.402E+00, 2.419E-02, -1.477E-04
 j', 3.305E-02, -5.941E+00, 2.556E-02, -1.477E-04
 251, 3.304E-02, -5.943E+00, 2.556E-02, -1.477E-04 - K.
 214 (250-i'-253) [l=185 cm][8 rig.-177 def.]
 250, 3.226E-02, -6.495E+00, 3.110E-02, -1.477E-04
 i', 3.225E-02, -6.497E+00, 3.110E-02, -1.477E-04 - K.
 j', 2.929E-02, -7.597E+00, 3.019E-02, -1.477E-04
 253, 2.929E-02, -7.597E+00, 3.019E-02, -1.477E-04
 215 (252-i'-254) [l=165 cm][8 rig.-157 def.]
 252, -3.283E-02, -6.400E+00, -2.419E-02, -1.477E-04 - K.
 i', -3.284E-02, -6.398E+00, -2.419E-02, -1.477E-04
 j', -3.049E-02, -7.368E+00, -2.553E-02, -1.477E-04
 254, -3.049E-02, -7.368E+00, -2.553E-02, -1.477E-04 - Z.
 216 (255-256) [l=448 cm][448 def.]
 255, 4.567E-02, -6.838E+00, 2.756E-02, 1.826E-03
 i', 4.567E-02, -6.838E+00, 2.756E-02, 1.826E-03 - Z.
 j', 5.545E-02, -7.532E+00, 3.587E-02, 2.182E-03
 256, 5.545E-02, -7.532E+00, 3.587E-02, 2.182E-03
 217 (257-256) [l=448 cm][448 def.]
 257, -4.440E-02, -6.940E+00, -2.751E-02, -2.099E-03 - Z.
 i', -4.440E-02, -6.940E+00, -2.751E-02, -2.099E-03
 j', -5.545E-02, -7.376E+00, -3.587E-02, -2.467E-03
 256, -5.545E-02, -7.376E+00, -3.587E-02, -2.467E-03 - Z.
 218 (258-259) [l=448 cm][448 def.]
 258, 4.567E-02, -6.853E+00, 2.756E-02, 1.830E-03
 i', 4.567E-02, -6.853E+00, 2.756E-02, 1.830E-03 - Z.
 j', 5.508E-02, -7.636E+00, 2.761E-02, 2.100E-03
 259, 5.508E-02, -7.636E+00, 2.761E-02, 2.100E-03
 219 (260-259) [l=448 cm][448 def.]
 260, -4.440E-02, -6.954E+00, -2.751E-02, -2.103E-03 - Z.
 i', -4.440E-02, -6.954E+00, -2.751E-02, -2.103E-03
 j', -5.508E-02, -7.490E+00, -2.761E-02, -2.385E-03
 259, -5.508E-02, -7.490E+00, -2.761E-02, -2.385E-03 - Z.
 220 (261-262) [l=448 cm][448 def.]
 261, 4.567E-02, -6.867E+00, 2.755E-02, 1.834E-03
 i', 4.567E-02, -6.867E+00, 2.755E-02, 1.834E-03 - Z.
 j', 5.363E-02, -7.731E+00, 2.757E-02, 1.776E-03
 262, 5.363E-02, -7.731E+00, 2.757E-02, 1.776E-03
 221 (263-262) [l=448 cm][448 def.]
 263, -4.440E-02, -6.968E+00, -2.752E-02, -2.108E-03 - Z.
 i', -4.440E-02, -6.968E+00, -2.752E-02, -2.108E-03
 j', -5.363E-02, -7.585E+00, -2.757E-02, -2.061E-03
 262, -5.363E-02, -7.585E+00, -2.757E-02, -2.061E-03 - Z.
 222 (264-265) [l=448 cm][448 def.]
 264, 4.567E-02, -6.881E+00, 2.755E-02, 1.838E-03
 i', 4.567E-02, -6.881E+00, 2.755E-02, 1.838E-03 - Z.
 j', 5.351E-02, -7.455E+00, 2.756E-02, 1.749E-03
 265, 5.351E-02, -7.455E+00, 2.756E-02, 1.749E-03
 223 (266-265) [l=448 cm][448 def.]
 266, -4.440E-02, -6.982E+00, -2.752E-02, -2.112E-03 - Z.
 i', -4.440E-02, -6.982E+00, -2.752E-02, -2.112E-03
 j', -5.351E-02, -7.309E+00, -2.756E-02, -2.034E-03
 265, -5.351E-02, -7.309E+00, -2.756E-02, -2.034E-03 - Z.
 224 (267-268) [l=448 cm][448 def.]
 267, -4.440E-02, -7.012E+00, -2.752E-02, -2.121E-03
 i', -4.440E-02, -7.012E+00, -2.752E-02, -2.121E-03 - Z.
 j', -5.403E-02, -7.676E+00, -2.754E-02, -2.150E-03
 268, -5.403E-02, -7.676E+00, -2.754E-02, -2.150E-03
 225 (269-268) [l=448 cm][448 def.]
 269, 4.567E-02, -6.913E+00, 2.754E-02, 1.843E-03 - Z.
 i', 4.567E-02, -6.913E+00, 2.754E-02, 1.843E-03
 j', 5.403E-02, -7.824E+00, 2.754E-02, 1.865E-03
 268, 5.403E-02, -7.824E+00, 2.754E-02, 1.865E-03 - Z.
 226 (270-271) [l=448 cm][448 def.]
 270, -4.440E-02, -7.027E+00, -2.753E-02, -2.124E-03
 i', -4.440E-02, -7.027E+00, -2.753E-02, -2.124E-03 - Z.
 j', -5.221E-02, -7.620E+00, -2.754E-02, -1.743E-03
 271, -5.221E-02, -7.620E+00, -2.754E-02, -1.743E-03
 227 (272-271) [l=448 cm][448 def.]

272, 4.567E-02, -6.928E+00, 2.754E-02, 1.844E-03 - Z.
 i', 4.567E-02, -6.928E+00, 2.754E-02, 1.844E-03
 j', 5.221E-02, -7.767E+00, 2.754E-02, 1.458E-03
 271, 5.221E-02, -7.767E+00, 2.754E-02, 1.458E-03 - Z.
 228 (185-231) [l=385 cm][385 def.]
 185, -1.932E-01, -7.338E+00, 5.693E-03, -1.535E-04
 i', -1.932E-01, -7.338E+00, 5.693E-03, -1.535E-04 - Z.
 j', -1.938E-01, -8.128E+00, 6.407E-03, -1.535E-04
 231, -1.938E-01, -8.128E+00, 6.407E-03, -1.535E-04
 229 (231-241) [l=290 cm][290 def.]
 231, -1.938E-01, -8.128E+00, 6.407E-03, -1.535E-04 - Z.
 i', -1.938E-01, -8.128E+00, 6.407E-03, -1.535E-04
 j', -1.942E-01, -8.116E+00, 5.842E-03, -1.535E-04
 241, -1.942E-01, -8.116E+00, 5.842E-03, -1.535E-04 - Z.
 230 (241-244) [l=325 cm][325 def.]
 241, -1.942E-01, -8.116E+00, 5.842E-03, -1.535E-04
 i', -1.942E-01, -8.116E+00, 5.842E-03, -1.535E-04 - Z.
 j', -1.947E-01, -8.270E+00, 4.772E-03, -1.535E-04
 244, -1.947E-01, -8.270E+00, 4.772E-03, -1.535E-04
 231 (244-247) [l=325 cm][325 def.]
 244, -1.947E-01, -8.270E+00, 4.772E-03, -1.535E-04 - Z.
 i', -1.947E-01, -8.270E+00, 4.772E-03, -1.535E-04
 j', -1.952E-01, -7.905E+00, 4.464E-03, -1.535E-04
 247, -1.952E-01, -7.905E+00, 4.464E-03, -1.535E-04 - Z.
 232 (247-273) [l=332 cm][332 def.]
 247, -1.952E-01, -7.905E+00, 4.464E-03, -1.535E-04
 i', -1.952E-01, -7.905E+00, 4.464E-03, -1.535E-04 - Z.
 j', -2.086E-01, -7.851E+00, 5.557E-03, -1.535E-04
 273, -2.086E-01, -7.851E+00, 5.557E-03, -1.535E-04
 233 (273-256) [l=288 cm][288 def.]
 273, -2.086E-01, -7.851E+00, 5.557E-03, -1.535E-04 - Z.
 i', -2.086E-01, -7.851E+00, 5.557E-03, -1.535E-04
 j', -2.099E-01, -8.029E+00, 6.257E-03, -1.535E-04
 256, -2.099E-01, -8.029E+00, 6.257E-03, -1.535E-04 - Z.
 234 (256-259) [l=288 cm][288 def.]
 256, -2.099E-01, -8.029E+00, 6.257E-03, -1.535E-04
 i', -2.099E-01, -8.029E+00, 6.257E-03, -1.535E-04 - Z.
 j', -1.966E-01, -8.146E+00, 6.038E-03, -1.535E-04
 259, -1.966E-01, -8.146E+00, 6.038E-03, -1.535E-04
 235 (259-262) [l=288 cm][288 def.]
 259, -1.966E-01, -8.146E+00, 6.038E-03, -1.535E-04 - Z.
 i', -1.966E-01, -8.146E+00, 6.038E-03, -1.535E-04
 j', -1.969E-01, -8.248E+00, 5.166E-03, -1.535E-04
 262, -1.969E-01, -8.248E+00, 5.166E-03, -1.535E-04 - Z.
 236 (262-265) [l=288 cm][288 def.]
 262, -1.969E-01, -8.248E+00, 5.166E-03, -1.535E-04
 i', -1.969E-01, -8.248E+00, 5.166E-03, -1.535E-04 - Z.
 j', -1.974E-01, -7.951E+00, 5.091E-03, -1.535E-04
 265, -1.974E-01, -7.951E+00, 5.091E-03, -1.535E-04
 237 (265-274) [l=320 cm][320 def.]
 265, -1.974E-01, -7.951E+00, 5.091E-03, -1.535E-04 - Z.
 i', -1.974E-01, -7.951E+00, 5.091E-03, -1.535E-04
 j', -1.980E-01, -8.056E+00, 5.838E-03, -1.535E-04
 274, -1.980E-01, -8.056E+00, 5.838E-03, -1.535E-04 - Z.
 238 (274-268) [l=305 cm][305 def.]
 274, -1.980E-01, -8.056E+00, 5.838E-03, -1.535E-04
 i', -1.980E-01, -8.056E+00, 5.838E-03, -1.535E-04 - Z.
 j', -1.983E-01, -8.347E+00, 5.404E-03, -1.535E-04
 268, -1.983E-01, -8.347E+00, 5.404E-03, -1.535E-04
 239 (268-271) [l=305 cm][305 def.]
 268, -1.983E-01, -8.347E+00, 5.404E-03, -1.535E-04 - Z.
 i', -1.983E-01, -8.347E+00, 5.404E-03, -1.535E-04
 j', -1.988E-01, -8.287E+00, 4.309E-03, -1.535E-04
 271, -1.988E-01, -8.287E+00, 4.309E-03, -1.535E-04 - Z.
 240 (271-275) [l=354 cm][354 def.]
 271, -1.988E-01, -8.287E+00, 4.309E-03, -1.535E-04
 i', -1.988E-01, -8.287E+00, 4.309E-03, -1.535E-04 - Z.
 j', -1.993E-01, -7.534E+00, 5.344E-03, -1.535E-04
 275, -1.993E-01, -7.534E+00, 5.344E-03, -1.535E-04
 241 (159-111) [l=448 cm][448 def.]
 159, 4.567E-02, -6.946E+00, 2.754E-02, 1.843E-03 - Z.
 i', 4.567E-02, -6.946E+00, 2.754E-02, 1.843E-03
 j', 5.393E-02, -7.070E+00, 2.753E-02, 1.841E-03
 111, 5.393E-02, -7.070E+00, 2.753E-02, 1.841E-03 - Z.
 242 (143-278) [l=199 cm][199 def.]
 143, -4.440E-02, -6.926E+00, -2.751E-02, -2.095E-03
 i', -4.440E-02, -6.926E+00, -2.751E-02, -2.095E-03 - Z.
 j', -4.876E-02, -7.567E+00, 2.066E-01, -2.191E-03
 278, -4.876E-02, -7.567E+00, 2.066E-01, -2.191E-03
 243 (278-279) [l=142 cm][142 def.]
 278, -4.876E-02, -7.567E+00, 2.066E-01, -2.191E-03 - Z.
 i', -4.876E-02, -7.567E+00, 2.066E-01, -2.191E-03
 j', -5.192E-02, -7.451E+00, 4.617E-02, -2.204E-03
 279, -5.192E-02, -7.451E+00, 4.617E-02, -2.204E-03 - Z.
 244 (279-273) [l=107 cm][107 def.]
 279, -5.192E-02, -7.450E+00, 4.617E-02, -2.205E-03

i', -5.192E-02, -7.450E+00, 4.617E-02, -2.205E-03 - Z.
 j', -5.428E-02, -7.211E+00, -3.540E-02, -2.208E-03
 273, -5.428E-02, -7.211E+00, -3.540E-02, -2.208E-03
 245 (281-282) [l=142 cm][142 def.]
 281, 5.059E-02, -7.379E+00, 1.857E-01, 2.467E-03 - Z.
 i', 5.059E-02, -7.379E+00, 1.857E-01, 2.467E-03
 j', 5.258E-02, -7.429E+00, 8.738E-02, 2.021E-03
 282, 5.258E-02, -7.429E+00, 8.738E-02, 2.021E-03 - Z.
 246 (282-283) [l=107 cm][107 def.]
 282, 5.258E-02, -7.428E+00, 8.738E-02, 2.023E-03
 i', 5.258E-02, -7.428E+00, 8.738E-02, 2.023E-03 - Z.
 j', 5.428E-02, -7.366E+00, 3.540E-02, 1.923E-03
 283, 5.428E-02, -7.366E+00, 3.540E-02, 1.923E-03
 247 (284-285) [l=199 cm][199 def.]
 284, -4.440E-02, -6.997E+00, -2.752E-02, -2.117E-03 - Z.
 i', -4.440E-02, -6.997E+00, -2.752E-02, -2.117E-03
 j', -4.895E-02, -7.721E+00, 2.287E-01, -2.283E-03
 285, -4.895E-02, -7.721E+00, 2.287E-01, -2.283E-03 - Z.
 248 (285-286) [l=142 cm][142 def.]
 285, -4.895E-02, -7.721E+00, 2.287E-01, -2.283E-03
 i', -4.895E-02, -7.721E+00, 2.287E-01, -2.283E-03 - Z.
 j', -5.227E-02, -7.635E+00, 5.949E-02, -2.306E-03
 286, -5.227E-02, -7.635E+00, 5.949E-02, -2.306E-03
 249 (286-274) [l=107 cm][107 def.]
 286, -5.227E-02, -7.634E+00, 5.949E-02, -2.307E-03 - Z.
 i', -5.227E-02, -7.634E+00, 5.949E-02, -2.307E-03
 j', -5.475E-02, -7.405E+00, -2.767E-02, -2.313E-03
 274, -5.475E-02, -7.405E+00, -2.767E-02, -2.313E-03 - Z.
 250 (287-288) [l=107 cm][107 def.]
 287, 5.307E-02, -7.722E+00, 1.148E-01, 2.169E-03
 i', 5.307E-02, -7.722E+00, 1.148E-01, 2.169E-03 - Z.
 j', 5.475E-02, -7.553E+00, 2.767E-02, 2.028E-03
 288, 5.475E-02, -7.553E+00, 2.767E-02, 2.028E-03
 251 (289-287) [l=142 cm][142 def.]
 289, 5.125E-02, -7.730E+00, 2.836E-01, 2.799E-03 - Z.
 i', 5.125E-02, -7.730E+00, 2.836E-01, 2.799E-03
 j', 5.307E-02, -7.723E+00, 1.148E-01, 2.167E-03
 287, 5.307E-02, -7.723E+00, 1.148E-01, 2.167E-03 - Z.
 252 (291-j'-292) [l=600 cm][220 def.-380 rig.]
 291, 0.000E+00, 0.000E+00, 3.309E-02, 4.763E-01
 i', 0.000E+00, 0.000E+00, 3.309E-02, 4.763E-01 - Z.
 j', -7.459E-02, -3.397E-02, 3.483E-03, -2.409E-02
 292, -1.661E-01, -4.720E-02, 3.483E-03, -2.409E-02
 253 (293-j'-294) [l=650 cm][220 def.-430 rig.]
 293, 0.000E+00, 0.000E+00, 3.302E-02, 2.629E-01 - Z.
 i', 0.000E+00, 0.000E+00, 3.302E-02, 2.629E-01
 j', -7.116E-02, -3.459E-02, 3.169E-03, -2.541E-02
 294, -1.804E-01, -4.821E-02, 3.169E-03, -2.541E-02 - Z.
 254 (295-j'-296) [l=650 cm][220 def.-430 rig.]
 295, 0.000E+00, 0.000E+00, -3.302E-02, 2.687E-01
 i', 0.000E+00, 0.000E+00, -3.302E-02, 2.687E-01 - Z.
 j', 6.033E-02, 3.468E-02, -3.011E-03, 2.958E-02
 296, 1.875E-01, 4.762E-02, -3.011E-03, 2.958E-02
 255 (297-j'-298) [l=600 cm][220 def.-380 rig.]
 297, 0.000E+00, 0.000E+00, -3.309E-02, 5.100E-01 - Z.
 i', 0.000E+00, 0.000E+00, -3.309E-02, 5.100E-01
 j', 5.645E-02, 3.394E-02, -3.218E-03, 3.107E-02
 298, 1.745E-01, 4.617E-02, -3.218E-03, 3.107E-02 - Z.
 256 (299-j'-300) [l=600 cm][220 def.-380 rig.]
 299, 0.000E+00, 0.000E+00, -2.805E-02, 5.036E-01
 i', 0.000E+00, 0.000E+00, -2.805E-02, 5.036E-01 - Z.
 j', 5.854E-02, 3.142E-02, -4.187E-03, 3.110E-02
 300, 1.767E-01, 4.733E-02, -4.187E-03, 3.110E-02
 257 (301-j'-302) [l=650 cm][220 def.-430 rig.]
 301, 0.000E+00, 0.000E+00, -2.827E-02, 2.847E-01 - Z.
 i', 0.000E+00, 0.000E+00, -2.827E-02, 2.847E-01
 j', 6.224E-02, 3.196E-02, -4.058E-03, 2.968E-02
 302, 1.899E-01, 4.940E-02, -4.058E-03, 2.968E-02 - Z.
 258 (303-j'-304) [l=650 cm][220 def.-430 rig.]
 303, 0.000E+00, 0.000E+00, 2.872E-02, 2.427E-01
 i', 0.000E+00, 0.000E+00, 2.872E-02, 2.427E-01 - Z.
 j', -7.295E-02, -3.222E-02, 4.079E-03, -2.556E-02
 304, -1.829E-01, -4.976E-02, 4.079E-03, -2.556E-02
 259 (305-j'-306) [l=600 cm][220 def.-380 rig.]
 305, 0.000E+00, 0.000E+00, 2.905E-02, 4.682E-01 - Z.
 i', 0.000E+00, 0.000E+00, 2.905E-02, 4.682E-01
 j', -7.650E-02, -3.198E-02, 4.248E-03, -2.419E-02
 306, -1.684E-01, -4.812E-02, 4.248E-03, -2.419E-02 - Z.
 260 (307-4) [l=195 cm][195 def.]
 307, -8.497E-02, -3.256E-02, 5.261E-03, -2.555E-02
 i', -8.497E-02, -3.256E-02, 5.261E-03, -2.555E-02 - Z.
 j', -1.348E-01, -4.282E-02, 5.261E-03, -2.554E-02
 4, -1.348E-01, -4.282E-02, 5.261E-03, -2.554E-02
 261 (308-7) [l=195 cm][195 def.]
 308, -7.596E-02, -3.231E-02, 5.217E-03, -3.017E-02 - Z.
 i', -7.596E-02, -3.231E-02, 5.217E-03, -3.017E-02

j', -1.348E-01, -4.248E-02, 5.217E-03, -3.017E-02
 7, -1.348E-01, -4.248E-02, 5.217E-03, -3.017E-02 - Z.
 262 (307-308) [l=227 cm][227 def.]
 307, 3.256E-02, -7.280E+00, 2.555E-02, -1.477E-04
 i', 3.256E-02, -7.280E+00, 2.555E-02, -1.477E-04 - Z.
 j', 3.231E-02, -7.341E+00, 3.017E-02, -1.477E-04
 308, 3.231E-02, -7.341E+00, 3.017E-02, -1.477E-04
 263 (309-123) [l=170 cm][170 def.]
 309, -8.021E-02, -3.059E-02, 5.315E-03, -2.552E-02 - Z.
 i', -8.021E-02, -3.059E-02, 5.315E-03, -2.552E-02
 j', -1.236E-01, -3.962E-02, 5.315E-03, -2.552E-02
 123, -1.236E-01, -3.962E-02, 5.315E-03, -2.552E-02 - Z.
 264 (310-126) [l=170 cm][170 def.]
 310, -6.947E-02, -3.033E-02, 5.299E-03, -3.019E-02
 i', -6.947E-02, -3.033E-02, 5.299E-03, -3.019E-02 - Z.
 j', -1.208E-01, -3.934E-02, 5.299E-03, -3.019E-02
 126, -1.208E-01, -3.934E-02, 5.299E-03, -3.019E-02
 265 (309-310) [l=200 cm][200 def.]
 309, 3.059E-02, -7.428E+00, 2.552E-02, -1.477E-04 - Z.
 i', 3.059E-02, -7.428E+00, 2.552E-02, -1.477E-04
 j', 3.033E-02, -7.481E+00, 3.019E-02, -1.477E-04
 310, 3.033E-02, -7.481E+00, 3.019E-02, -1.477E-04 - Z.
 266 (129-246) [l=3 cm][3 def.]
 129, -1.492E-01, -7.272E+00, 5.279E-03, -1.535E-04
 i', -1.492E-01, -7.272E+00, 5.279E-03, -1.535E-04 - Z.
 j', -1.492E-01, -7.272E+00, 5.279E-03, -1.535E-04
 246, -1.492E-01, -7.272E+00, 5.279E-03, -1.535E-04
 267 (130-243) [l=5 cm][5 def.]
 130, -1.487E-01, -7.255E+00, 5.271E-03, -1.535E-04 - Z.
 i', -1.487E-01, -7.255E+00, 5.271E-03, -1.535E-04
 j', -1.487E-01, -7.255E+00, 5.271E-03, -1.535E-04
 243, -1.487E-01, -7.255E+00, 5.271E-03, -1.535E-04 - Z.
 268 (203-245) [l=5 cm][5 def.]
 203, -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
 i', -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04 - Z.
 j', -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
 245, -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
 269 (142-248) [l=3 cm][3 def.]
 142, -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04 - Z.
 i', -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04
 j', -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04
 248, -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04 - Z.
 270 (190-255) [l=4 cm][4 def.]
 190, 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
 i', 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04 - Z.
 j', 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
 255, 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
 271 (145-257) [l=4 cm][4 def.]
 145, 1.502E-01, -7.535E+00, -5.267E-03, -1.535E-04 - Z.
 i', 1.502E-01, -7.535E+00, -5.267E-03, -1.535E-04
 j', 1.502E-01, -7.535E+00, -5.267E-03, -1.535E-04
 257, 1.502E-01, -7.535E+00, -5.267E-03, -1.535E-04 - Z.
 272 (163-270) [l=3 cm][3 def.]
 163, -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04
 i', -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04 - Z.
 j', -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04
 270, -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04
 273 (283-273) [l=0 cm][0 def.]
 283, 5.428E-02, -7.851E+00, 3.540E-02, -1.535E-04 - Z.
 i', 5.428E-02, -7.851E+00, 3.540E-02, -1.535E-04
 j', 5.428E-02, -7.851E+00, 3.540E-02, -1.535E-04
 273, 5.428E-02, -7.851E+00, 3.540E-02, -1.535E-04 - Z.
 274 (288-274) [l=0 cm][0 def.]
 288, 5.475E-02, -8.056E+00, 2.767E-02, -1.535E-04
 i', 5.475E-02, -8.056E+00, 2.767E-02, -1.535E-04 - Z.
 j', 5.475E-02, -8.056E+00, 2.767E-02, -1.535E-04
 274, 5.475E-02, -8.056E+00, 2.767E-02, -1.535E-04
 275 (111-275) [l=0 cm][0 def.]
 111, 5.393E-02, -7.534E+00, 2.753E-02, -1.535E-04 - Z.
 i', 5.393E-02, -7.534E+00, 2.753E-02, -1.535E-04
 j', 5.393E-02, -7.534E+00, 2.753E-02, -1.535E-04
 275, 5.393E-02, -7.534E+00, 2.753E-02, -1.535E-04 - Z.
 276 (231-311) [l=166 cm][166 def.]
 231, -1.938E-01, 5.570E-02, 6.407E-03, 2.766E-02
 i', -1.938E-01, 5.570E-02, 6.407E-03, 2.766E-02 - K.
 j', -1.478E-01, 4.504E-02, 6.407E-03, 2.766E-02
 311, -1.478E-01, 4.504E-02, 6.407E-03, 2.766E-02
 277 (241-312) [l=166 cm][166 def.]
 241, -1.942E-01, 5.476E-02, 5.842E-03, 2.764E-02 - K.
 i', -1.942E-01, 5.476E-02, 5.842E-03, 2.764E-02
 j', -1.482E-01, 4.504E-02, 5.842E-03, 2.764E-02
 312, -1.482E-01, 4.504E-02, 5.842E-03, 2.764E-02 - K.
 278 (244-313) [l=166 cm][166 def.]
 244, -1.947E-01, 5.298E-02, 4.772E-03, 2.763E-02
 i', -1.947E-01, 5.298E-02, 4.772E-03, 2.763E-02 - K.
 j', -1.487E-01, 4.504E-02, 4.772E-03, 2.763E-02

313, -1.487E-01, 4.504E-02, 4.772E-03, 2.763E-02
 279 (256-314) [l=166 cm][166 def.]
 256, -2.099E-01, 5.545E-02, 6.257E-03, 3.587E-02 - K.
 i', -2.099E-01, 5.545E-02, 6.257E-03, 3.587E-02
 j', -1.502E-01, 4.504E-02, 6.257E-03, 3.587E-02
 314, -1.502E-01, 4.504E-02, 6.257E-03, 3.587E-02 - K.
 280 (259-315) [l=166 cm][166 def.]
 259, -1.966E-01, 5.508E-02, 6.038E-03, 2.761E-02
 i', -1.966E-01, 5.508E-02, 6.038E-03, 2.761E-02 - K.
 j', -1.506E-01, 4.504E-02, 6.038E-03, 2.761E-02
 315, -1.506E-01, 4.504E-02, 6.038E-03, 2.761E-02
 281 (268-316) [l=166 cm][166 def.]
 268, -1.983E-01, 5.403E-02, 5.404E-03, 2.754E-02 - K.
 i', -1.983E-01, 5.403E-02, 5.404E-03, 2.754E-02
 j', -1.525E-01, 4.504E-02, 5.404E-03, 2.754E-02
 316, -1.525E-01, 4.504E-02, 5.404E-03, 2.754E-02 - K.
 282 (271-317) [l=166 cm][166 def.]
 271, -1.988E-01, 5.221E-02, 4.309E-03, 2.754E-02
 i', -1.988E-01, 5.221E-02, 4.309E-03, 2.754E-02 - T.
 j', -1.529E-01, 4.504E-02, 4.309E-03, 2.754E-02
 317, -1.529E-01, 4.504E-02, 4.309E-03, 2.754E-02
 283 (262-318) [l=166 cm][166 def.]
 262, -1.969E-01, 5.363E-02, 5.166E-03, 2.757E-02 - T.
 i', -1.969E-01, 5.363E-02, 5.166E-03, 2.757E-02
 j', -1.511E-01, 4.504E-02, 5.166E-03, 2.757E-02
 318, -1.511E-01, 4.504E-02, 5.166E-03, 2.757E-02 - K.
 284 (133-319) [l=0 cm][0 def.]
 133, 1.497E-01, -5.122E+00, -5.290E-03, 1.938E-02
 i', 1.497E-01, -5.122E+00, -5.290E-03, 1.938E-02 - T.
 j', 1.498E-01, -5.122E+00, -5.290E-03, 1.938E-02
 319, 1.498E-01, -5.122E+00, -5.290E-03, 1.938E-02
 285 (131-90) [l=116 cm][116 def.]
 131, -1.370E-01, -7.281E+00, 5.281E-03, -1.477E-04 - T.
 i', -1.370E-01, -7.281E+00, 5.281E-03, -1.477E-04
 j', -1.372E-01, -7.287E+00, 5.285E-03, -1.477E-04
 90, -1.372E-01, -7.287E+00, 5.285E-03, -1.477E-04 - K.
 286 (131-93) [l=111 cm][111 def.]
 131, 1.370E-01, -7.281E+00, -5.281E-03, -1.477E-04
 i', 1.370E-01, -7.281E+00, -5.281E-03, -1.477E-04 - T.
 j', 1.368E-01, -7.275E+00, -5.278E-03, -1.477E-04
 93, 1.368E-01, -7.275E+00, -5.278E-03, -1.477E-04
 287 (140-27) [l=111 cm][111 def.]
 140, 1.370E-01, -7.510E+00, -5.248E-03, -1.477E-04 - T.
 i', 1.370E-01, -7.510E+00, -5.248E-03, -1.477E-04
 j', 1.368E-01, -7.505E+00, -5.243E-03, -1.477E-04
 27, 1.368E-01, -7.505E+00, -5.243E-03, -1.477E-04 - K.
 288 (140-30) [l=116 cm][116 def.]
 140, -1.370E-01, -7.510E+00, 5.248E-03, -1.477E-04
 i', -1.370E-01, -7.510E+00, 5.248E-03, -1.477E-04 - T.
 j', -1.372E-01, -7.516E+00, 5.253E-03, -1.477E-04
 30, -1.372E-01, -7.516E+00, 5.253E-03, -1.477E-04
 289 (146-43) [l=85 cm][85 def.]
 146, 1.391E-01, -7.587E+00, -5.304E-03, -1.477E-04 - T.
 i', 1.391E-01, -7.587E+00, -5.304E-03, -1.477E-04
 j', 1.390E-01, -7.582E+00, -5.301E-03, -1.477E-04
 43, 1.390E-01, -7.582E+00, -5.301E-03, -1.477E-04 - K.
 290 (146-46) [l=142 cm][142 def.]
 146, -1.391E-01, -7.587E+00, 5.304E-03, -1.477E-04
 i', -1.391E-01, -7.587E+00, 5.304E-03, -1.477E-04 - K.
 j', -1.393E-01, -7.594E+00, 5.308E-03, -1.477E-04
 46, -1.393E-01, -7.594E+00, 5.308E-03, -1.477E-04
 291 (150-74) [l=46 cm][46 def.]
 150, -1.393E-01, -7.362E+00, 5.321E-03, -1.477E-04 - K.
 i', -1.393E-01, -7.362E+00, 5.321E-03, -1.477E-04
 j', -1.393E-01, -7.365E+00, 5.322E-03, -1.477E-04
 74, -1.393E-01, -7.365E+00, 5.322E-03, -1.477E-04 - K.
 292 (150-77) [l=181 cm][181 def.]
 150, 1.393E-01, -7.362E+00, -5.321E-03, -1.477E-04
 i', 1.393E-01, -7.362E+00, -5.321E-03, -1.477E-04 - K.
 j', 1.390E-01, -7.353E+00, -5.316E-03, -1.477E-04
 77, 1.390E-01, -7.353E+00, -5.316E-03, -1.477E-04
 293 (153-66) [l=69 cm][69 def.]
 153, -1.401E-01, -7.394E+00, 5.331E-03, -1.477E-04 - K.
 i', -1.401E-01, -7.394E+00, 5.331E-03, -1.477E-04
 j', -1.402E-01, -7.397E+00, 5.331E-03, -1.477E-04
 66, -1.402E-01, -7.397E+00, 5.331E-03, -1.477E-04 - K.
 294 (153-70) [l=157 cm][157 def.]
 153, 1.401E-01, -7.394E+00, -5.331E-03, -1.477E-04
 i', 1.401E-01, -7.394E+00, -5.331E-03, -1.477E-04 - K.
 j', 1.399E-01, -7.385E+00, -5.329E-03, -1.477E-04
 70, 1.399E-01, -7.385E+00, -5.329E-03, -1.477E-04
 295 (157-58) [l=27 cm][27 def.]
 157, -1.406E-01, -7.410E+00, 5.332E-03, -1.477E-04 - K.
 i', -1.406E-01, -7.410E+00, 5.332E-03, -1.477E-04
 j', -1.406E-01, -7.412E+00, 5.332E-03, -1.477E-04
 58, -1.406E-01, -7.412E+00, 5.332E-03, -1.477E-04 - K.

296 (157-61) [l=73 cm][73 def.]
 157, 1.407E-01, -7.410E+00, -5.262E-03, -1.477E-04
 i', 1.407E-01, -7.410E+00, -5.262E-03, -1.477E-04 - K.
 j', 1.406E-01, -7.406E+00, -5.262E-03, -1.477E-04
 61, 1.406E-01, -7.406E+00, -5.262E-03, -1.477E-04
 297 (49-160) [l=2 cm][2 def.]
 49, -1.401E-01, -7.620E+00, 5.319E-03, -1.477E-04 - K.
 i', -1.401E-01, -7.620E+00, 5.319E-03, -1.477E-04
 j', -1.401E-01, -7.620E+00, 5.319E-03, -1.477E-04
 160, -1.401E-01, -7.620E+00, 5.319E-03, -1.477E-04 - K.
 298 (160-51) [l=162 cm][162 def.]
 160, -1.401E-01, -7.620E+00, 5.319E-03, -1.477E-04
 i', -1.401E-01, -7.620E+00, 5.319E-03, -1.477E-04 - K.
 j', -1.403E-01, -7.629E+00, 5.321E-03, -1.477E-04
 51, -1.403E-01, -7.629E+00, 5.321E-03, -1.477E-04
 299 (103-164) [l=0 cm][0 def.]
 103, 1.355E-01, -7.228E+00, -5.262E-03, -1.477E-04 - K.
 i', 1.355E-01, -7.228E+00, -5.262E-03, -1.477E-04
 j', 1.355E-01, -7.228E+00, -5.262E-03, -1.477E-04
 164, 1.355E-01, -7.228E+00, -5.262E-03, -1.477E-04 - K.
 300 (164-104) [l=96 cm][96 def.]
 164, 1.355E-01, -7.228E+00, -5.262E-03, -1.477E-04
 i', 1.355E-01, -7.228E+00, -5.262E-03, -1.477E-04 - K.
 j', 1.354E-01, -7.223E+00, -5.262E-03, -1.477E-04
 104, 1.354E-01, -7.223E+00, -5.262E-03, -1.477E-04
 301 (168-104) [l=113 cm][113 def.]
 168, -1.352E-01, -7.217E+00, 5.261E-03, -1.477E-04 - K.
 i', -1.352E-01, -7.217E+00, 5.261E-03, -1.477E-04
 j', -1.354E-01, -7.223E+00, 5.262E-03, -1.477E-04
 104, -1.354E-01, -7.223E+00, 5.262E-03, -1.477E-04 - K.
 302 (168-107) [l=113 cm][113 def.]
 168, 1.352E-01, -7.217E+00, -5.261E-03, -1.477E-04
 i', 1.352E-01, -7.217E+00, -5.261E-03, -1.477E-04 - K.
 j', 1.350E-01, -7.211E+00, -5.261E-03, -1.477E-04
 107, 1.350E-01, -7.211E+00, -5.261E-03, -1.477E-04
 303 (107-171) [l=79 cm][79 def.]
 107, 1.350E-01, -7.211E+00, -5.261E-03, -1.477E-04 - K.
 i', 1.350E-01, -7.211E+00, -5.261E-03, -1.477E-04
 j', 1.349E-01, -7.206E+00, -5.261E-03, -1.477E-04
 171, 1.349E-01, -7.206E+00, -5.261E-03, -1.477E-04 - K.
 304 (171-106) [l=0 cm][0 def.]
 171, 1.349E-01, -7.206E+00, -5.261E-03, -1.477E-04
 i', 1.349E-01, -7.206E+00, -5.261E-03, -1.477E-04 - K.
 j', 1.349E-01, -7.206E+00, -5.261E-03, -1.477E-04
 106, 1.349E-01, -7.206E+00, -5.261E-03, -1.477E-04
 305 (16-174) [l=96 cm][96 def.]
 16, -1.354E-01, -7.453E+00, 5.218E-03, -1.477E-04 - K.
 i', -1.354E-01, -7.453E+00, 5.218E-03, -1.477E-04
 j', -1.355E-01, -7.458E+00, 5.219E-03, -1.477E-04
 174, -1.355E-01, -7.458E+00, 5.219E-03, -1.477E-04 - K.
 306 (174-14) [l=0 cm][0 def.]
 174, -1.355E-01, -7.458E+00, 5.219E-03, -1.477E-04
 i', -1.355E-01, -7.458E+00, 5.219E-03, -1.477E-04 - K.
 j', -1.355E-01, -7.458E+00, 5.219E-03, -1.477E-04
 14, -1.355E-01, -7.458E+00, 5.219E-03, -1.477E-04
 307 (177-12) [l=113 cm][113 def.]
 177, 1.352E-01, -7.447E+00, -5.218E-03, -1.477E-04 - K.
 i', 1.352E-01, -7.447E+00, -5.218E-03, -1.477E-04
 j', 1.350E-01, -7.441E+00, -5.217E-03, -1.477E-04
 12, 1.350E-01, -7.441E+00, -5.217E-03, -1.477E-04 - K.
 308 (177-16) [l=113 cm][113 def.]
 177, -1.352E-01, -7.447E+00, 5.218E-03, -1.477E-04
 i', -1.352E-01, -7.447E+00, 5.218E-03, -1.477E-04 - K.
 j', -1.354E-01, -7.453E+00, 5.218E-03, -1.477E-04
 16, -1.354E-01, -7.453E+00, 5.218E-03, -1.477E-04
 309 (10-180) [l=0 cm][0 def.]
 10, -1.349E-01, -7.437E+00, 5.217E-03, -1.477E-04 - K.
 i', -1.349E-01, -7.437E+00, 5.217E-03, -1.477E-04
 j', -1.349E-01, -7.437E+00, 5.217E-03, -1.477E-04
 180, -1.349E-01, -7.437E+00, 5.217E-03, -1.477E-04 - K.
 310 (180-12) [l=79 cm][79 def.]
 180, -1.349E-01, -7.437E+00, 5.217E-03, -1.477E-04
 i', -1.349E-01, -7.437E+00, 5.217E-03, -1.477E-04 - K.
 j', -1.350E-01, -7.441E+00, 5.217E-03, -1.477E-04
 12, -1.350E-01, -7.441E+00, 5.217E-03, -1.477E-04
 311 (188-82) [l=113 cm][113 def.]
 188, -1.378E-01, -7.311E+00, 5.298E-03, -1.477E-04 - K.
 i', -1.378E-01, -7.311E+00, 5.298E-03, -1.477E-04
 j', -1.380E-01, -7.317E+00, 5.301E-03, -1.477E-04
 82, -1.380E-01, -7.317E+00, 5.301E-03, -1.477E-04 - K.
 312 (188-86) [l=113 cm][113 def.]
 188, 1.378E-01, -7.311E+00, -5.298E-03, -1.477E-04
 i', 1.378E-01, -7.311E+00, -5.298E-03, -1.477E-04 - K.
 j', 1.377E-01, -7.305E+00, -5.295E-03, -1.477E-04
 86, 1.377E-01, -7.305E+00, -5.295E-03, -1.477E-04
 313 (70-192) [l=95 cm][95 def.]

70, 1.399E-01, -7.385E+00, -5.329E-03, -1.477E-04 - K.
 i', 1.399E-01, -7.385E+00, -5.329E-03, -1.477E-04
 j', 1.398E-01, -7.380E+00, -5.328E-03, -1.477E-04
 192, 1.398E-01, -7.380E+00, -5.328E-03, -1.477E-04 - K.
 314 (192-68) [l=1 cm][1 def.]
 192, 1.398E-01, -7.380E+00, -5.328E-03, -1.477E-04
 i', 1.398E-01, -7.380E+00, -5.328E-03, -1.477E-04 - K.
 j', 1.398E-01, -7.380E+00, -5.328E-03, -1.477E-04
 68, 1.398E-01, -7.380E+00, -5.328E-03, -1.477E-04
 315 (194-97) [l=113 cm][113 def.]
 194, -1.361E-01, -7.249E+00, 5.266E-03, -1.477E-04 - K.
 i', -1.361E-01, -7.249E+00, 5.266E-03, -1.477E-04
 j', -1.363E-01, -7.255E+00, 5.268E-03, -1.477E-04
 97, -1.363E-01, -7.255E+00, 5.268E-03, -1.477E-04 - K.
 316 (194-100) [l=113 cm][113 def.]
 194, 1.361E-01, -7.249E+00, -5.266E-03, -1.477E-04
 i', 1.361E-01, -7.249E+00, -5.266E-03, -1.477E-04 - K.
 j', 1.359E-01, -7.243E+00, -5.265E-03, -1.477E-04
 100, 1.359E-01, -7.243E+00, -5.265E-03, -1.477E-04
 317 (200-35) [l=113 cm][113 def.]
 200, 1.378E-01, -7.541E+00, -5.273E-03, -1.477E-04 - T.
 i', 1.378E-01, -7.541E+00, -5.273E-03, -1.477E-04
 j', 1.377E-01, -7.535E+00, -5.269E-03, -1.477E-04
 35, 1.377E-01, -7.535E+00, -5.269E-03, -1.477E-04 - T.
 318 (200-39) [l=113 cm][113 def.]
 200, -1.378E-01, -7.541E+00, 5.273E-03, -1.477E-04
 i', -1.378E-01, -7.541E+00, 5.273E-03, -1.477E-04 - T.
 j', -1.380E-01, -7.546E+00, 5.277E-03, -1.477E-04
 39, -1.380E-01, -7.546E+00, 5.277E-03, -1.477E-04
 319 (204-20) [l=113 cm][113 def.]
 204, 1.361E-01, -7.479E+00, -5.225E-03, -1.477E-04 - T.
 i', 1.361E-01, -7.479E+00, -5.225E-03, -1.477E-04
 j', 1.359E-01, -7.473E+00, -5.223E-03, -1.477E-04
 20, 1.359E-01, -7.473E+00, -5.223E-03, -1.477E-04 - T.
 320 (204-23) [l=113 cm][113 def.]
 204, -1.361E-01, -7.479E+00, 5.225E-03, -1.477E-04
 i', -1.361E-01, -7.479E+00, 5.225E-03, -1.477E-04 - T.
 j', -1.363E-01, -7.485E+00, 5.228E-03, -1.477E-04
 23, -1.363E-01, -7.485E+00, 5.228E-03, -1.477E-04
 321 (207-51) [l=115 cm][115 def.]
 207, 1.405E-01, -7.635E+00, -5.322E-03, -1.477E-04 - T.
 i', 1.405E-01, -7.635E+00, -5.322E-03, -1.477E-04
 j', 1.403E-01, -7.629E+00, -5.321E-03, -1.477E-04
 51, 1.403E-01, -7.629E+00, -5.321E-03, -1.477E-04 - T.
 322 (207-55) [l=111 cm][111 def.]
 207, -1.405E-01, -7.635E+00, 5.322E-03, -1.477E-04
 i', -1.405E-01, -7.635E+00, 5.322E-03, -1.477E-04 - T.
 j', -1.406E-01, -7.641E+00, 5.322E-03, -1.477E-04
 55, -1.406E-01, -7.641E+00, 5.322E-03, -1.477E-04
 323 (213-1) [l=151 cm][151 def.]
 213, 0.000E+00, -7.156E+00, -1.376E-03, 0.000E+00 - T.
 i', 0.000E+00, -7.156E+00, -1.376E-03, 0.000E+00
 j', 0.000E+00, -7.154E+00, -1.390E-03, 0.000E+00
 1, 0.000E+00, -7.154E+00, -1.390E-03, 0.000E+00 - T.
 324 (1-214) [l=151 cm][151 def.]
 1, 0.000E+00, -7.154E+00, -1.390E-03, 0.000E+00
 i', 0.000E+00, -7.154E+00, -1.390E-03, 0.000E+00 - T.
 j', 0.000E+00, -7.152E+00, -1.426E-03, 0.000E+00
 214, 0.000E+00, -7.152E+00, -1.426E-03, 0.000E+00
 325 (215-5) [l=151 cm][151 def.]
 215, 0.000E+00, -7.215E+00, 6.066E-02, 0.000E+00 - T.
 i', 0.000E+00, -7.215E+00, 6.066E-02, 0.000E+00
 j', 0.000E+00, -7.306E+00, 6.062E-02, 0.000E+00
 5, 0.000E+00, -7.306E+00, 6.062E-02, 0.000E+00 - T.
 326 (5-216) [l=151 cm][151 def.]
 5, 0.000E+00, -7.306E+00, 6.062E-02, 0.000E+00
 i', 0.000E+00, -7.306E+00, 6.062E-02, 0.000E+00 - T.
 j', 0.000E+00, -7.398E+00, 6.061E-02, 0.000E+00
 216, 0.000E+00, -7.398E+00, 6.061E-02, 0.000E+00
 327 (216-9) [l=79 cm][79 def.]
 216, 0.000E+00, -7.398E+00, -8.078E-04, 0.000E+00 - T.
 i', 0.000E+00, -7.398E+00, -8.078E-04, 0.000E+00
 j', 0.000E+00, -7.398E+00, -8.094E-04, 0.000E+00
 9, 0.000E+00, -7.398E+00, -8.094E-04, 0.000E+00 - K.
 328 (9-11) [l=79 cm][79 def.]
 9, 0.000E+00, -7.398E+00, -8.094E-04, 0.000E+00
 i', 0.000E+00, -7.398E+00, -8.094E-04, 0.000E+00 - T.
 j', 0.000E+00, -7.397E+00, -8.095E-04, 0.000E+00
 11, 0.000E+00, -7.397E+00, -8.095E-04, 0.000E+00
 329 (11-15) [l=227 cm][227 def.]
 11, 0.000E+00, -7.397E+00, -8.095E-04, 0.000E+00 - T.
 i', 0.000E+00, -7.397E+00, -8.095E-04, 0.000E+00
 j', 0.000E+00, -7.396E+00, -3.620E-03, 0.000E+00
 15, 0.000E+00, -7.396E+00, -3.620E-03, 0.000E+00 - K.
 330 (15-13) [l=96 cm][96 def.]
 15, 0.000E+00, -7.396E+00, -3.620E-03, 0.000E+00

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i', 0.000E+00, -7.396E+00, -3.620E-03, 0.000E+00 - K.
j', 0.000E+00, -7.393E+00, -3.620E-03, 0.000E+00
13, 0.000E+00, -7.393E+00, -3.620E-03, 0.000E+00
331 (13-217) [l=96 cm][96 def.]
13, 0.000E+00, -7.393E+00, -3.620E-03, 0.000E+00 - Z.
i', 0.000E+00, -7.393E+00, -3.620E-03, 0.000E+00
j', 0.000E+00, -7.389E+00, -3.649E-03, 0.000E+00
217, 0.000E+00, -7.389E+00, -3.649E-03, 0.000E+00 - Z.
332 (217-18) [l=96 cm][96 def.]
217, 0.000E+00, -7.389E+00, -3.649E-03, 0.000E+00
i', 0.000E+00, -7.389E+00, -3.649E-03, 0.000E+00 - Z.
j', 0.000E+00, -7.386E+00, -3.671E-03, 0.000E+00
18, 0.000E+00, -7.386E+00, -3.671E-03, 0.000E+00
333 (18-320) [l=96 cm][96 def.]
18, 0.000E+00, -7.386E+00, -3.671E-03, 0.000E+00 - Z.
i', 0.000E+00, -7.386E+00, -3.671E-03, 0.000E+00
j', 0.000E+00, -7.382E+00, -3.687E-03, 0.000E+00
320, 0.000E+00, -7.382E+00, -3.687E-03, 0.000E+00 - K.
334 (320-321) [l=226 cm][226 def.]
320, 0.000E+00, -7.382E+00, -3.687E-03, 0.000E+00
i', 0.000E+00, -7.382E+00, -3.687E-03, 0.000E+00 - K.
j', 0.000E+00, -7.387E+00, -7.240E-04, 0.000E+00
321, 0.000E+00, -7.387E+00, -7.240E-04, 0.000E+00
335 (321-21) [l=163 cm][163 def.]
321, 0.000E+00, -7.387E+00, -7.240E-04, 0.000E+00 - K.
i', 0.000E+00, -7.387E+00, -7.240E-04, 0.000E+00
j', 0.000E+00, -7.385E+00, -7.736E-04, 0.000E+00
21, 0.000E+00, -7.385E+00, -7.736E-04, 0.000E+00 - K.
336 (21-218) [l=163 cm][163 def.]
21, 0.000E+00, -7.385E+00, -7.736E-04, 0.000E+00
i', 0.000E+00, -7.385E+00, -7.736E-04, 0.000E+00 - K.
j', 0.000E+00, -7.384E+00, -8.501E-04, 0.000E+00
218, 0.000E+00, -7.384E+00, -8.501E-04, 0.000E+00
337 (218-25) [l=28 cm][28 def.]
218, 0.000E+00, -7.384E+00, -8.501E-04, 0.000E+00 - K.
i', 0.000E+00, -7.384E+00, -8.501E-04, 0.000E+00
j', 0.000E+00, -7.384E+00, -8.580E-04, 0.000E+00
25, 0.000E+00, -7.384E+00, -8.580E-04, 0.000E+00 - K.
338 (25-322) [l=28 cm][28 def.]
25, 0.000E+00, -7.384E+00, -8.580E-04, 0.000E+00
i', 0.000E+00, -7.384E+00, -8.580E-04, 0.000E+00 - K.
j', 0.000E+00, -7.384E+00, -8.639E-04, 0.000E+00
322, 0.000E+00, -7.384E+00, -8.639E-04, 0.000E+00
339 (322-323) [l=227 cm][227 def.]
322, 0.000E+00, -7.384E+00, -8.639E-04, 0.000E+00 - K.
i', 0.000E+00, -7.384E+00, -8.639E-04, 0.000E+00
j', 0.000E+00, -7.321E+00, 3.329E-02, 0.000E+00
323, 0.000E+00, -7.321E+00, 3.329E-02, 0.000E+00 - K.
340 (323-28) [l=26 cm][26 def.]
323, 0.000E+00, -7.321E+00, 3.329E-02, 0.000E+00
i', 0.000E+00, -7.321E+00, 3.329E-02, 0.000E+00 - K.
j', 0.000E+00, -7.330E+00, 3.329E-02, 0.000E+00
28, 0.000E+00, -7.330E+00, 3.329E-02, 0.000E+00
341 (28-219) [l=26 cm][26 def.]
28, 0.000E+00, -7.330E+00, 3.329E-02, 0.000E+00 - K.
i', 0.000E+00, -7.330E+00, 3.329E-02, 0.000E+00
j', 0.000E+00, -7.339E+00, 3.329E-02, 0.000E+00
219, 0.000E+00, -7.339E+00, 3.329E-02, 0.000E+00
342 (219-32) [l=146 cm][146 def.]
219, 0.000E+00, -7.339E+00, 3.329E-02, 0.000E+00
i', 0.000E+00, -7.339E+00, 3.329E-02, 0.000E+00
j', 0.000E+00, -7.387E+00, 3.324E-02, 0.000E+00
32, 0.000E+00, -7.387E+00, 3.324E-02, 0.000E+00
343 (32-34) [l=146 cm][146 def.]
32, 0.000E+00, -7.387E+00, 3.324E-02, 0.000E+00
i', 0.000E+00, -7.387E+00, 3.324E-02, 0.000E+00
j', 0.000E+00, -7.436E+00, 3.323E-02, 0.000E+00
34, 0.000E+00, -7.436E+00, 3.323E-02, 0.000E+00
344 (34-38) [l=227 cm][227 def.]
34, 0.000E+00, -7.436E+00, 3.323E-02, 0.000E+00
i', 0.000E+00, -7.436E+00, 3.323E-02, 0.000E+00
j', 0.000E+00, -7.485E+00, 1.539E-03, 0.000E+00
38, 0.000E+00, -7.485E+00, 1.539E-03, 0.000E+00
345 (38-36) [l=308 cm][308 def.]
38, 0.000E+00, -7.485E+00, 1.539E-03, 0.000E+00
i', 0.000E+00, -7.485E+00, 1.539E-03, 0.000E+00
j', 0.000E+00, -7.490E+00, 1.537E-03, 0.000E+00
36, 0.000E+00, -7.490E+00, 1.537E-03, 0.000E+00
346 (36-220) [l=308 cm][308 def.]
36, 0.000E+00, -7.490E+00, 1.537E-03, 0.000E+00
i', 0.000E+00, -7.490E+00, 1.537E-03, 0.000E+00
j', 0.000E+00, -7.494E+00, 1.251E-03, 0.000E+00
220, 0.000E+00, -7.494E+00, 1.251E-03, 0.000E+00
347 (220-41) [l=28 cm][28 def.]
220, 0.000E+00, -7.494E+00, 1.251E-03, 0.000E+00
i', 0.000E+00, -7.494E+00, 1.251E-03, 0.000E+00

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j', 0.000E+00, -7.495E+00, 1.241E-03, 0.000E+00
41, 0.000E+00, -7.495E+00, 1.241E-03, 0.000E+00
348 (41-324) [l=28 cm][28 def.]
41, 0.000E+00, -7.495E+00, 1.241E-03, 0.000E+00
i', 0.000E+00, -7.495E+00, 1.241E-03, 0.000E+00
j', 0.000E+00, -7.495E+00, 1.234E-03, 0.000E+00
324, 0.000E+00, -7.495E+00, 1.234E-03, 0.000E+00
349 (324-325) [l=227 cm][227 def.]
324, 0.000E+00, -7.495E+00, 1.234E-03, 0.000E+00
i', 0.000E+00, -7.495E+00, 1.234E-03, 0.000E+00
j', 0.000E+00, -7.402E+00, 2.781E-02, 0.000E+00
325, 0.000E+00, -7.402E+00, 2.781E-02, 0.000E+00
350 (44-221) [l=164 cm][164 def.]
44, 0.000E+00, -7.447E+00, 2.777E-02, 0.000E+00
i', 0.000E+00, -7.447E+00, 2.777E-02, 0.000E+00
j', 0.000E+00, -7.492E+00, 2.767E-02, 0.000E+00
221, 0.000E+00, -7.492E+00, 2.767E-02, 0.000E+00
351 (221-48) [l=164 cm][164 def.]
221, 0.000E+00, -7.492E+00, 2.767E-02, 0.000E+00
i', 0.000E+00, -7.492E+00, 2.767E-02, 0.000E+00
j', 0.000E+00, -7.538E+00, 2.753E-02, 0.000E+00
48, 0.000E+00, -7.538E+00, 2.753E-02, 0.000E+00
352 (48-50) [l=164 cm][164 def.]
48, 0.000E+00, -7.538E+00, 2.753E-02, 0.000E+00
i', 0.000E+00, -7.538E+00, 2.753E-02, 0.000E+00
j', 0.000E+00, -7.583E+00, 2.753E-02, 0.000E+00
50, 0.000E+00, -7.583E+00, 2.753E-02, 0.000E+00
353 (50-54) [l=227 cm][227 def.]
50, 0.000E+00, -7.583E+00, 2.753E-02, 0.000E+00
i', 0.000E+00, -7.583E+00, 2.753E-02, 0.000E+00
j', 0.000E+00, -7.608E+00, 1.441E-02, 0.000E+00
54, 0.000E+00, -7.608E+00, 1.441E-02, 0.000E+00
354 (54-52) [l=67 cm][67 def.]
54, 0.000E+00, -7.608E+00, 1.441E-02, 0.000E+00
i', 0.000E+00, -7.608E+00, 1.441E-02, 0.000E+00
j', 0.000E+00, -7.617E+00, 1.441E-02, 0.000E+00
52, 0.000E+00, -7.617E+00, 1.441E-02, 0.000E+00
355 (52-222) [l=67 cm][67 def.]
52, 0.000E+00, -7.617E+00, 1.441E-02, 0.000E+00
i', 0.000E+00, -7.617E+00, 1.441E-02, 0.000E+00
j', 0.000E+00, -7.627E+00, 1.441E-02, 0.000E+00
222, 0.000E+00, -7.627E+00, 1.441E-02, 0.000E+00
356 (223-56) [l=67 cm][67 def.]
223, 0.000E+00, -7.367E+00, -1.430E-02, 0.000E+00
i', 0.000E+00, -7.367E+00, -1.430E-02, 0.000E+00
j', 0.000E+00, -7.358E+00, -1.430E-02, 0.000E+00
56, 0.000E+00, -7.358E+00, -1.430E-02, 0.000E+00
357 (56-326) [l=67 cm][67 def.]
56, 0.000E+00, -7.358E+00, -1.430E-02, 0.000E+00
i', 0.000E+00, -7.358E+00, -1.430E-02, 0.000E+00
j', 0.000E+00, -7.348E+00, -1.430E-02, 0.000E+00
326, 0.000E+00, -7.348E+00, -1.430E-02, 0.000E+00
358 (326-327) [l=100 cm][100 def.]
326, 0.000E+00, -7.348E+00, -1.433E-02, 0.000E+00
i', 0.000E+00, -7.348E+00, -1.433E-02, 0.000E+00
j', 0.000E+00, -7.340E+00, -1.075E-02, 0.000E+00
327, 0.000E+00, -7.340E+00, -1.075E-02, 0.000E+00
359 (327-59) [l=43 cm][43 def.]
327, 0.000E+00, -7.340E+00, -1.081E-02, 0.000E+00
i', 0.000E+00, -7.340E+00, -1.081E-02, 0.000E+00
j', 0.000E+00, -7.336E+00, -1.081E-02, 0.000E+00
59, 0.000E+00, -7.336E+00, -1.081E-02, 0.000E+00
360 (59-224) [l=43 cm][43 def.]
59, 0.000E+00, -7.336E+00, -1.081E-02, 0.000E+00
i', 0.000E+00, -7.336E+00, -1.081E-02, 0.000E+00
j', 0.000E+00, -7.331E+00, -1.082E-02, 0.000E+00
224, 0.000E+00, -7.331E+00, -1.082E-02, 0.000E+00
361 (224-63) [l=43 cm][43 def.]
224, 0.000E+00, -7.331E+00, -1.038E-02, 0.000E+00
i', 0.000E+00, -7.331E+00, -1.038E-02, 0.000E+00
j', 0.000E+00, -7.327E+00, -1.039E-02, 0.000E+00
63, 0.000E+00, -7.327E+00, -1.039E-02, 0.000E+00
362 (63-65) [l=43 cm][43 def.]
63, 0.000E+00, -7.327E+00, -1.039E-02, 0.000E+00
i', 0.000E+00, -7.327E+00, -1.039E-02, 0.000E+00
j', 0.000E+00, -7.322E+00, -1.039E-02, 0.000E+00
65, 0.000E+00, -7.322E+00, -1.039E-02, 0.000E+00
363 (65-69) [l=227 cm][227 def.]
65, 0.000E+00, -7.322E+00, -1.039E-02, 0.000E+00
i', 0.000E+00, -7.322E+00, -1.039E-02, 0.000E+00
j', 0.000E+00, -7.290E+00, -2.946E-02, 0.000E+00
69, 0.000E+00, -7.290E+00, -2.946E-02, 0.000E+00
364 (69-67) [l=96 cm][96 def.]
69, 0.000E+00, -7.290E+00, -2.946E-02, 0.000E+00
i', 0.000E+00, -7.290E+00, -2.946E-02, 0.000E+00
j', 0.000E+00, -7.261E+00, -2.947E-02, 0.000E+00

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        67,    0.000E+00, -7.261E+00, -2.947E-02,  0.000E+00
365 (67-225) [l=96 cm][96 def.]
        67,    0.000E+00, -7.261E+00, -2.947E-02,  0.000E+00
        i',    0.000E+00, -7.261E+00, -2.947E-02,  0.000E+00
        j',    0.000E+00, -7.233E+00, -2.951E-02,  0.000E+00
        225,    0.000E+00, -7.233E+00, -2.951E-02,  0.000E+00
366 (225-72) [l=96 cm][96 def.]
        225,    0.000E+00, -7.233E+00, -2.951E-02,  0.000E+00
        i',    0.000E+00, -7.233E+00, -2.951E-02,  0.000E+00
        j',    0.000E+00, -7.205E+00, -2.954E-02,  0.000E+00
        72,     0.000E+00, -7.205E+00, -2.954E-02,  0.000E+00
367 (328-329) [l=226 cm][226 def.]
        328,    0.000E+00, -7.176E+00, -2.954E-02,  0.000E+00
        i',    0.000E+00, -7.176E+00, -2.954E-02,  0.000E+00
        j',    0.000E+00, -7.269E+00, -8.949E-04,  0.000E+00
        329,    0.000E+00, -7.269E+00, -8.949E-04,  0.000E+00
368 (329-75) [l=28 cm][28 def.]
        329,    0.000E+00, -7.269E+00, -8.949E-04,  0.000E+00
        i',    0.000E+00, -7.269E+00, -8.949E-04,  0.000E+00
        j',    0.000E+00, -7.269E+00, -9.020E-04,  0.000E+00
        75,     0.000E+00, -7.269E+00, -9.020E-04,  0.000E+00
369 (75-226) [l=28 cm][28 def.]
        75,     0.000E+00, -7.269E+00, -9.020E-04,  0.000E+00
        i',    0.000E+00, -7.269E+00, -9.020E-04,  0.000E+00
        j',    0.000E+00, -7.268E+00, -9.113E-04,  0.000E+00
        226,    0.000E+00, -7.268E+00, -9.113E-04,  0.000E+00
370 (226-79) [l=308 cm][308 def.]
        226,    0.000E+00, -7.268E+00, -9.113E-04,  0.000E+00
        i',    0.000E+00, -7.268E+00, -9.113E-04,  0.000E+00
        j',    0.000E+00, -7.265E+00, -1.193E-03,  0.000E+00
        79,     0.000E+00, -7.265E+00, -1.193E-03,  0.000E+00
371 (79-81) [l=308 cm][308 def.]
        79,     0.000E+00, -7.265E+00, -1.193E-03,  0.000E+00
        i',    0.000E+00, -7.265E+00, -1.193E-03,  0.000E+00
        j',    0.000E+00, -7.262E+00, -1.196E-03,  0.000E+00
        81,     0.000E+00, -7.262E+00, -1.196E-03,  0.000E+00
372 (81-85) [l=227 cm][227 def.]
        81,     0.000E+00, -7.262E+00, -1.196E-03,  0.000E+00
        i',    0.000E+00, -7.262E+00, -1.196E-03,  0.000E+00
        j',    0.000E+00, -7.213E+00, -3.322E-02,  0.000E+00
        85,     0.000E+00, -7.213E+00, -3.322E-02,  0.000E+00
373 (85-83) [l=146 cm][146 def.]
        85,     0.000E+00, -7.213E+00, -3.322E-02,  0.000E+00
        i',    0.000E+00, -7.213E+00, -3.322E-02,  0.000E+00
        j',    0.000E+00, -7.164E+00, -3.322E-02,  0.000E+00
        83,     0.000E+00, -7.164E+00, -3.322E-02,  0.000E+00
374 (83-227) [l=146 cm][146 def.]
        83,     0.000E+00, -7.164E+00, -3.322E-02,  0.000E+00
        i',    0.000E+00, -7.164E+00, -3.322E-02,  0.000E+00
        j',    0.000E+00, -7.116E+00, -3.328E-02,  0.000E+00
        227,    0.000E+00, -7.116E+00, -3.328E-02,  0.000E+00
375 (227-88) [l=26 cm][26 def.]
        227,    0.000E+00, -7.116E+00, -3.328E-02,  0.000E+00
        i',    0.000E+00, -7.116E+00, -3.328E-02,  0.000E+00
        j',    0.000E+00, -7.107E+00, -3.328E-02,  0.000E+00
        88,     0.000E+00, -7.107E+00, -3.328E-02,  0.000E+00
376 (88-330) [l=26 cm][26 def.]
        88,     0.000E+00, -7.107E+00, -3.328E-02,  0.000E+00
        i',    0.000E+00, -7.107E+00, -3.328E-02,  0.000E+00
        j',    0.000E+00, -7.098E+00, -3.327E-02,  0.000E+00
        330,    0.000E+00, -7.098E+00, -3.327E-02,  0.000E+00
377 (330-331) [l=227 cm][227 def.]
        330,    0.000E+00, -7.098E+00, -3.327E-02,  0.000E+00
        i',    0.000E+00, -7.098E+00, -3.327E-02,  0.000E+00
        j',    0.000E+00, -7.157E+00,  2.514E-03,  0.000E+00
        331,    0.000E+00, -7.157E+00,  2.514E-03,  0.000E+00
378 (331-91) [l=28 cm][28 def.]
        331,    0.000E+00, -7.157E+00,  2.514E-03,  0.000E+00
        i',    0.000E+00, -7.157E+00,  2.514E-03,  0.000E+00
        j',    0.000E+00, -7.158E+00,  2.508E-03,  0.000E+00
        91,     0.000E+00, -7.158E+00,  2.508E-03,  0.000E+00
379 (91-228) [l=28 cm][28 def.]
        91,     0.000E+00, -7.158E+00,  2.508E-03,  0.000E+00
        i',    0.000E+00, -7.158E+00,  2.508E-03,  0.000E+00
        j',    0.000E+00, -7.159E+00,  2.501E-03,  0.000E+00
        228,    0.000E+00, -7.159E+00,  2.501E-03,  0.000E+00
380 (228-95) [l=163 cm][163 def.]
        228,    0.000E+00, -7.159E+00,  2.501E-03,  0.000E+00
        i',    0.000E+00, -7.159E+00,  2.501E-03,  0.000E+00
        j',    0.000E+00, -7.163E+00,  2.428E-03,  0.000E+00
        95,     0.000E+00, -7.163E+00,  2.428E-03,  0.000E+00
381 (95-332) [l=163 cm][163 def.]
        95,     0.000E+00, -7.163E+00,  2.428E-03,  0.000E+00
        i',    0.000E+00, -7.163E+00,  2.428E-03,  0.000E+00
        j',    0.000E+00, -7.167E+00,  2.382E-03,  0.000E+00
        332,    0.000E+00, -7.167E+00,  2.382E-03,  0.000E+00

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382 (332-333) [l=226 cm][226 def.]
    332, 0.000E+00, -7.167E+00, 2.382E-03, 0.000E+00
    i', 0.000E+00, -7.167E+00, 2.382E-03, 0.000E+00
    j', 0.000E+00, -7.154E+00, -1.467E-02, 0.000E+00
    333, 0.000E+00, -7.154E+00, -1.467E-02, 0.000E+00
383 (333-98) [l=96 cm][96 def.]
    333, 0.000E+00, -7.154E+00, -1.467E-02, 0.000E+00
    i', 0.000E+00, -7.154E+00, -1.467E-02, 0.000E+00
    j', 0.000E+00, -7.140E+00, -1.469E-02, 0.000E+00
    98, 0.000E+00, -7.140E+00, -1.469E-02, 0.000E+00
384 (98-229) [l=96 cm][96 def.]
    98, 0.000E+00, -7.140E+00, -1.469E-02, 0.000E+00
    i', 0.000E+00, -7.140E+00, -1.469E-02, 0.000E+00
    j', 0.000E+00, -7.126E+00, -1.471E-02, 0.000E+00
    229, 0.000E+00, -7.126E+00, -1.471E-02, 0.000E+00
385 (229-102) [l=96 cm][96 def.]
    229, 0.000E+00, -7.126E+00, -1.471E-02, 0.000E+00
    i', 0.000E+00, -7.126E+00, -1.471E-02, 0.000E+00
    j', 0.000E+00, -7.112E+00, -1.474E-02, 0.000E+00
    102, 0.000E+00, -7.112E+00, -1.474E-02, 0.000E+00
386 (102-334) [l=96 cm][96 def.]
    102, 0.000E+00, -7.112E+00, -1.474E-02, 0.000E+00
    i', 0.000E+00, -7.112E+00, -1.474E-02, 0.000E+00
    j', 0.000E+00, -7.098E+00, -1.476E-02, 0.000E+00
    334, 0.000E+00, -7.098E+00, -1.476E-02, 0.000E+00
387 (334-335) [l=226 cm][226 def.]
    334, 0.000E+00, -7.098E+00, -1.476E-02, 0.000E+00
    i', 0.000E+00, -7.098E+00, -1.476E-02, 0.000E+00
    j', 0.000E+00, -7.090E+00, 4.115E-02, 0.000E+00
    335, 0.000E+00, -7.090E+00, 4.115E-02, 0.000E+00
388 (335-105) [l=79 cm][79 def.]
    335, 0.000E+00, -7.090E+00, 4.115E-02, 0.000E+00
    i', 0.000E+00, -7.090E+00, 4.115E-02, 0.000E+00
    j', 0.000E+00, -7.123E+00, 4.115E-02, 0.000E+00
    105, 0.000E+00, -7.123E+00, 4.115E-02, 0.000E+00
389 (105-213) [l=79 cm][79 def.]
    105, 0.000E+00, -7.123E+00, 4.115E-02, 0.000E+00
    i', 0.000E+00, -7.123E+00, 4.115E-02, 0.000E+00
    j', 0.000E+00, -7.156E+00, 4.115E-02, 0.000E+00
    213, 0.000E+00, -7.156E+00, 4.115E-02, 0.000E+00
390 (222-108) [l=208 cm][208 def.]
    222, 0.000E+00, -7.627E+00, -3.121E-02, 0.000E+00
    i', 0.000E+00, -7.627E+00, -3.121E-02, 0.000E+00
    j', 0.000E+00, -7.562E+00, -3.119E-02, 0.000E+00
    108, 0.000E+00, -7.562E+00, -3.119E-02, 0.000E+00
391 (108-230) [l=208 cm][208 def.]
    108, 0.000E+00, -7.562E+00, -3.119E-02, 0.000E+00
    i', 0.000E+00, -7.562E+00, -3.119E-02, 0.000E+00
    j', 0.000E+00, -7.497E+00, -3.118E-02, 0.000E+00
    230, 0.000E+00, -7.497E+00, -3.118E-02, 0.000E+00
392 (336-112) [l=153 cm][153 def.]
    336, 0.000E+00, -7.183E+00, -7.929E-03, 0.000E+00
    i', 0.000E+00, -7.183E+00, -7.929E-03, 0.000E+00
    j', 0.000E+00, -7.171E+00, -7.943E-03, 0.000E+00
    112, 0.000E+00, -7.171E+00, -7.943E-03, 0.000E+00
393 (112-228) [l=153 cm][153 def.]
    112, 0.000E+00, -7.171E+00, -7.943E-03, 0.000E+00
    i', 0.000E+00, -7.171E+00, -7.943E-03, 0.000E+00
    j', 0.000E+00, -7.159E+00, -7.949E-03, 0.000E+00
    228, 0.000E+00, -7.159E+00, -7.949E-03, 0.000E+00
394 (218-116) [l=163 cm][163 def.]
    218, 0.000E+00, -7.384E+00, -4.528E-02, 0.000E+00
    i', 0.000E+00, -7.384E+00, -4.528E-02, 0.000E+00
    j', 0.000E+00, -7.310E+00, -4.529E-02, 0.000E+00
    116, 0.000E+00, -7.310E+00, -4.529E-02, 0.000E+00
395 (337-336) [l=200 cm][200 def.]
    337, 0.000E+00, -7.236E+00, -4.530E-02, 0.000E+00
    i', 0.000E+00, -7.236E+00, -4.530E-02, 0.000E+00
    j', 0.000E+00, -7.183E+00, -7.929E-03, 0.000E+00
    336, 0.000E+00, -7.183E+00, -7.929E-03, 0.000E+00
396 (116-337) [l=163 cm][163 def.]
    116, 0.000E+00, -7.310E+00, -4.529E-02, 0.000E+00
    i', 0.000E+00, -7.310E+00, -4.529E-02, 0.000E+00
    j', 0.000E+00, -7.236E+00, -4.530E-02, 0.000E+00
    337, 0.000E+00, -7.236E+00, -4.530E-02, 0.000E+00
397 (226-120) [l=153 cm][153 def.]
    226, 0.000E+00, -7.268E+00, -1.176E-02, 0.000E+00
    i', 0.000E+00, -7.268E+00, -1.176E-02, 0.000E+00
    j', 0.000E+00, -7.250E+00, -1.175E-02, 0.000E+00
    120, 0.000E+00, -7.250E+00, -1.175E-02, 0.000E+00
398 (120-338) [l=153 cm][153 def.]
    120, 0.000E+00, -7.250E+00, -1.175E-02, 0.000E+00
    i', 0.000E+00, -7.250E+00, -1.175E-02, 0.000E+00
    j', 0.000E+00, -7.232E+00, -1.176E-02, 0.000E+00
    338, 0.000E+00, -7.232E+00, -1.176E-02, 0.000E+00
399 (338-339) [l=200 cm][200 def.]

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338, 0.000E+00, -7.232E+00, -1.176E-02, 0.000E+00
i', 0.000E+00, -7.232E+00, -1.176E-02, 0.000E+00
j', 0.000E+00, -7.285E+00, 6.418E-02, 0.000E+00
339, 0.000E+00, -7.285E+00, 6.418E-02, 0.000E+00
400 (339-124) [l=163 cm][163 def.]
339, 0.000E+00, -7.285E+00, 6.418E-02, 0.000E+00
i', 0.000E+00, -7.285E+00, 6.418E-02, 0.000E+00
j', 0.000E+00, -7.390E+00, 6.416E-02, 0.000E+00
124, 0.000E+00, -7.390E+00, 6.416E-02, 0.000E+00
401 (124-220) [l=163 cm][163 def.]
124, 0.000E+00, -7.390E+00, 6.416E-02, 0.000E+00
i', 0.000E+00, -7.390E+00, 6.416E-02, 0.000E+00
j', 0.000E+00, -7.494E+00, 6.417E-02, 0.000E+00
220, 0.000E+00, -7.494E+00, 6.417E-02, 0.000E+00
402 (230-211) [l=208 cm][208 def.]
230, 0.000E+00, -7.497E+00, -3.118E-02, 0.000E+00
i', 0.000E+00, -7.497E+00, -3.118E-02, 0.000E+00
j', 0.000E+00, -7.432E+00, -3.117E-02, 0.000E+00
211, 0.000E+00, -7.432E+00, -3.117E-02, 0.000E+00
403 (211-223) [l=208 cm][208 def.]
211, 0.000E+00, -7.432E+00, -3.117E-02, 0.000E+00
i', 0.000E+00, -7.432E+00, -3.117E-02, 0.000E+00
j', 0.000E+00, -7.367E+00, -3.118E-02, 0.000E+00
223, 0.000E+00, -7.367E+00, -3.118E-02, 0.000E+00
404 (291-227) [l=165 cm][165 def.]
291, 0.000E+00, -6.326E+00, 4.763E-01, 0.000E+00
i', 0.000E+00, -6.326E+00, 4.763E-01, 0.000E+00
j', 0.000E+00, -7.116E+00, 3.957E-01, 0.000E+00
227, 0.000E+00, -7.116E+00, 3.957E-01, 0.000E+00
405 (293-291) [l=132 cm][132 def.]
293, 0.000E+00, -5.820E+00, 2.629E-01, 0.000E+00
i', 0.000E+00, -5.820E+00, 2.629E-01, 0.000E+00
j', 0.000E+00, -6.326E+00, 4.763E-01, 0.000E+00
291, 0.000E+00, -6.326E+00, 4.763E-01, 0.000E+00
406 (295-293) [l=218 cm][218 def.]
295, 0.000E+00, -5.821E+00, -2.687E-01, 0.000E+00
i', 0.000E+00, -5.821E+00, -2.687E-01, 0.000E+00
j', 0.000E+00, -5.820E+00, 2.629E-01, 0.000E+00
293, 0.000E+00, -5.820E+00, 2.629E-01, 0.000E+00
407 (219-297) [l=185 cm][185 def.]
219, 0.000E+00, -7.339E+00, -4.531E-01, 0.000E+00
i', 0.000E+00, -7.339E+00, -4.531E-01, 0.000E+00
j', 0.000E+00, -6.351E+00, -5.100E-01, 0.000E+00
297, 0.000E+00, -6.351E+00, -5.100E-01, 0.000E+00
408 (297-295) [l=132 cm][132 def.]
297, 0.000E+00, -6.351E+00, -5.100E-01, 0.000E+00
i', 0.000E+00, -6.351E+00, -5.100E-01, 0.000E+00
j', 0.000E+00, -5.821E+00, -2.687E-01, 0.000E+00
295, 0.000E+00, -5.821E+00, -2.687E-01, 0.000E+00
409 (299-239) [l=185 cm][185 def.]
299, 0.000E+00, -6.494E+00, 5.036E-01, 0.000E+00
i', 0.000E+00, -6.494E+00, 5.036E-01, 0.000E+00
j', 0.000E+00, -7.416E+00, 3.813E-01, 0.000E+00
239, 0.000E+00, -7.416E+00, 3.813E-01, 0.000E+00
410 (301-299) [l=132 cm][132 def.]
301, 0.000E+00, -5.956E+00, 2.847E-01, 0.000E+00
i', 0.000E+00, -5.956E+00, 2.847E-01, 0.000E+00
j', 0.000E+00, -6.494E+00, 5.036E-01, 0.000E+00
299, 0.000E+00, -6.494E+00, 5.036E-01, 0.000E+00
411 (303-301) [l=218 cm][218 def.]
303, 0.000E+00, -5.909E+00, -2.427E-01, 0.000E+00
i', 0.000E+00, -5.909E+00, -2.427E-01, 0.000E+00
j', 0.000E+00, -5.956E+00, 2.847E-01, 0.000E+00
301, 0.000E+00, -5.956E+00, 2.847E-01, 0.000E+00
412 (238-305) [l=165 cm][165 def.]
238, 0.000E+00, -7.192E+00, -4.142E-01, 0.000E+00
i', 0.000E+00, -7.192E+00, -4.142E-01, 0.000E+00
j', 0.000E+00, -6.395E+00, -4.682E-01, 0.000E+00
305, 0.000E+00, -6.395E+00, -4.682E-01, 0.000E+00
413 (305-303) [l=132 cm][132 def.]
305, 0.000E+00, -6.395E+00, -4.682E-01, 0.000E+00
i', 0.000E+00, -6.395E+00, -4.682E-01, 0.000E+00
j', 0.000E+00, -5.909E+00, -2.427E-01, 0.000E+00
303, 0.000E+00, -5.909E+00, -2.427E-01, 0.000E+00
414 (24-119) [l=60 cm][60 def.]
24, -1.367E-01, 4.204E-02, 5.240E-03, 3.019E-02
i', -1.367E-01, 4.204E-02, 5.240E-03, 3.019E-02
j', -1.186E-01, 3.889E-02, 5.240E-03, 3.019E-02
119, -1.186E-01, 3.889E-02, 5.240E-03, 3.019E-02
415 (31-237) [l=240 cm][240 def.]
31, -1.372E-01, 4.204E-02, 5.255E-03, 3.019E-02
i', -1.372E-01, 4.204E-02, 5.255E-03, 3.019E-02
j', -6.478E-02, 2.942E-02, 5.255E-03, 3.019E-02
237, -6.478E-02, 2.942E-02, 5.255E-03, 3.019E-02
416 (40-127) [l=60 cm][60 def.]
40, -1.389E-01, 4.204E-02, 5.299E-03, 3.019E-02

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i', -1.389E-01, 4.204E-02, 5.299E-03, 3.019E-02
j', -1.208E-01, 3.886E-02, 5.299E-03, 3.019E-02
127, -1.208E-01, 3.886E-02, 5.299E-03, 3.019E-02
417 (340-253) [l=240 cm][240 def.]
340, -1.394E-01, 4.204E-02, 5.310E-03, 3.019E-02
i', -1.394E-01, 4.204E-02, 5.310E-03, 3.019E-02
j', -6.695E-02, 2.929E-02, 5.310E-03, 3.019E-02
253, -6.695E-02, 2.929E-02, 5.310E-03, 3.019E-02
418 (341-254) [l=240 cm][240 def.]
341, -1.394E-01, 4.327E-02, 5.323E-03, 2.553E-02
i', -1.394E-01, 4.327E-02, 5.323E-03, 2.553E-02
j', -7.814E-02, 3.049E-02, 5.323E-03, 2.553E-02
254, -7.814E-02, 3.049E-02, 5.323E-03, 2.553E-02
419 (78-122) [l=60 cm][60 def.]
78, -1.389E-01, 4.327E-02, 5.315E-03, 2.552E-02
i', -1.389E-01, 4.327E-02, 5.315E-03, 2.552E-02
j', -1.236E-01, 4.008E-02, 5.315E-03, 2.552E-02
122, -1.236E-01, 4.008E-02, 5.315E-03, 2.552E-02
420 (87-233) [l=240 cm][240 def.]
87, -1.372E-01, 4.327E-02, 5.286E-03, 2.553E-02
i', -1.372E-01, 4.327E-02, 5.286E-03, 2.553E-02
j', -7.597E-02, 3.058E-02, 5.286E-03, 2.553E-02
233, -7.597E-02, 3.058E-02, 5.286E-03, 2.553E-02
421 (94-114) [l=60 cm][60 def.]
94, -1.367E-01, 4.327E-02, 5.276E-03, 2.553E-02
i', -1.367E-01, 4.327E-02, 5.276E-03, 2.553E-02
j', -1.214E-01, 4.010E-02, 5.276E-03, 2.553E-02
114, -1.214E-01, 4.010E-02, 5.276E-03, 2.553E-02
422 (342-275) [l=0 cm][0 def.]
342, -1.992E-01, -5.392E-02, 5.344E-03, -2.753E-02
i', -1.992E-01, -5.392E-02, 5.344E-03, -2.753E-02
j', -1.993E-01, -5.393E-02, 5.344E-03, -2.753E-02
275, -1.993E-01, -5.393E-02, 5.344E-03, -2.753E-02
423 (280-319) [l=0 cm][0 def.]
280, 4.567E-02, -6.963E+00, 2.756E-02, 1.527E-03
i', 4.567E-02, -6.963E+00, 2.756E-02, 1.527E-03
j', 4.568E-02, -6.963E+00, 2.756E-02, 1.527E-03
319, 4.568E-02, -6.963E+00, 2.756E-02, 1.527E-03
424 (319-281) [l=199 cm][199 def.]
319, 4.560E-02, -6.824E+00, 2.757E-02, 1.817E-03
i', 4.560E-02, -6.824E+00, 2.757E-02, 1.817E-03
j', 5.043E-02, -7.379E+00, 1.857E-01, 2.430E-03
281, 5.043E-02, -7.379E+00, 1.857E-01, 2.430E-03
425 (343-319) [l=0 cm][0 def.]
343, -1.497E-01, -4.567E-02, 5.290E-03, -2.756E-02
i', -1.497E-01, -4.567E-02, 5.290E-03, -2.756E-02
j', -1.498E-01, -4.568E-02, 5.290E-03, -2.756E-02
319, -1.498E-01, -4.568E-02, 5.290E-03, -2.756E-02
426 (290-344) [l=0 cm][0 def.]
290, 4.567E-02, -7.038E+00, 2.755E-02, 1.543E-03
i', 4.567E-02, -7.038E+00, 2.755E-02, 1.543E-03
j', 4.568E-02, -7.038E+00, 2.755E-02, 1.543E-03
344, 4.568E-02, -7.038E+00, 2.755E-02, 1.543E-03
427 (344-289) [l=199 cm][199 def.]
344, 4.560E-02, -6.897E+00, 2.755E-02, 1.835E-03
i', 4.560E-02, -6.897E+00, 2.755E-02, 1.835E-03
j', 5.106E-02, -7.729E+00, 2.836E-01, 2.743E-03
289, 5.106E-02, -7.729E+00, 2.836E-01, 2.743E-03
428 (345-344) [l=0 cm][0 def.]
345, -1.520E-01, -4.567E-02, 5.339E-03, -2.755E-02
i', -1.520E-01, -4.567E-02, 5.339E-03, -2.755E-02
j', -1.520E-01, -4.568E-02, 5.339E-03, -2.755E-02
344, -1.520E-01, -4.568E-02, 5.339E-03, -2.755E-02
429 (276-346) [l=0 cm][0 def.]
276, 4.567E-02, -6.508E+00, 2.758E-02, 2.215E-03
i', 4.567E-02, -6.508E+00, 2.758E-02, 2.215E-03
j', 4.568E-02, -6.508E+00, 2.758E-02, 2.215E-03
346, 4.568E-02, -6.508E+00, 2.758E-02, 2.215E-03
430 (346-185) [l=448 cm][448 def.]
346, 4.568E-02, -6.743E+00, 2.758E-02, 1.809E-03
i', 4.568E-02, -6.743E+00, 2.758E-02, 1.809E-03
j', 5.451E-02, -6.885E+00, 2.766E-02, 1.970E-03
185, 5.451E-02, -6.885E+00, 2.766E-02, 1.970E-03
431 (173-346) [l=0 cm][0 def.]
173, -1.472E-01, -4.567E-02, 5.259E-03, -2.758E-02
i', -1.472E-01, -4.567E-02, 5.259E-03, -2.758E-02
j', -1.472E-01, -4.568E-02, 5.259E-03, -2.758E-02
346, -1.472E-01, -4.568E-02, 5.259E-03, -2.758E-02
432 (277-347) [l=0 cm][0 def.]
277, -4.440E-02, -6.582E+00, -2.749E-02, -2.475E-03
i', -4.440E-02, -6.582E+00, -2.749E-02, -2.475E-03
j', -4.441E-02, -6.582E+00, -2.749E-02, -2.475E-03
347, -4.441E-02, -6.582E+00, -2.749E-02, -2.475E-03
433 (347-185) [l=448 cm][448 def.]
347, -4.441E-02, -6.847E+00, -2.749E-02, -2.082E-03
i', -4.441E-02, -6.847E+00, -2.749E-02, -2.082E-03

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j', -5.451E-02, -6.742E+00, -2.766E-02, -2.255E-03
185, -5.451E-02, -6.742E+00, -2.766E-02, -2.255E-03
434 (182-347) [l=0 cm][0 def.]
182, -1.472E-01, -4.440E-02, 5.226E-03, -2.749E-02
i', -1.472E-01, -4.440E-02, 5.226E-03, -2.749E-02
j', -1.472E-01, -4.441E-02, 5.226E-03, -2.749E-02
347, -1.472E-01, -4.441E-02, 5.226E-03, -2.749E-02
435 (196-240) [l=94 cm][94 def.]
196, 1.484E-01, -7.243E+00, -5.266E-03, -1.535E-04
i', 1.484E-01, -7.243E+00, -5.266E-03, -1.535E-04
j', 1.482E-01, -7.238E+00, -5.264E-03, -1.535E-04
240, 1.482E-01, -7.238E+00, -5.264E-03, -1.535E-04
436 (240-197) [l=2 cm][2 def.]
240, 1.482E-01, -7.238E+00, -5.264E-03, -1.535E-04
i', 1.482E-01, -7.238E+00, -5.264E-03, -1.535E-04
j', 1.482E-01, -7.238E+00, -5.264E-03, -1.535E-04
197, 1.482E-01, -7.238E+00, -5.264E-03, -1.535E-04
437 (137-242) [l=2 cm][2 def.]
137, -1.482E-01, -7.468E+00, 5.231E-03, -1.535E-04
i', -1.482E-01, -7.468E+00, 5.231E-03, -1.535E-04
j', -1.482E-01, -7.468E+00, 5.231E-03, -1.535E-04
242, -1.482E-01, -7.468E+00, 5.231E-03, -1.535E-04
438 (242-139) [l=94 cm][94 def.]
242, -1.482E-01, -7.468E+00, 5.231E-03, -1.535E-04
i', -1.482E-01, -7.468E+00, 5.231E-03, -1.535E-04
j', -1.484E-01, -7.473E+00, 5.233E-03, -1.535E-04
139, -1.484E-01, -7.473E+00, 5.233E-03, -1.535E-04
439 (128-243) [l=159 cm][159 def.]
128, 1.490E-01, -7.264E+00, -5.275E-03, -1.535E-04
i', 1.490E-01, -7.264E+00, -5.275E-03, -1.535E-04
j', 1.487E-01, -7.255E+00, -5.271E-03, -1.535E-04
243, 1.487E-01, -7.255E+00, -5.271E-03, -1.535E-04
440 (243-130) [l=5 cm][5 def.]
243, 1.487E-01, -7.255E+00, -5.271E-03, -1.535E-04
i', 1.487E-01, -7.255E+00, -5.271E-03, -1.535E-04
j', 1.487E-01, -7.255E+00, -5.271E-03, -1.535E-04
130, 1.487E-01, -7.255E+00, -5.271E-03, -1.535E-04
441 (203-245) [l=5 cm][5 def.]
203, -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
i', -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
j', -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
245, -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
442 (245-202) [l=159 cm][159 def.]
245, -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
i', -1.487E-01, -7.485E+00, 5.237E-03, -1.535E-04
j', -1.490E-01, -7.493E+00, 5.241E-03, -1.535E-04
202, -1.490E-01, -7.493E+00, 5.241E-03, -1.535E-04
443 (132-246) [l=165 cm][165 def.]
132, 1.495E-01, -7.281E+00, -5.284E-03, -1.535E-04
i', 1.495E-01, -7.281E+00, -5.284E-03, -1.535E-04
j', 1.492E-01, -7.272E+00, -5.279E-03, -1.535E-04
246, 1.492E-01, -7.272E+00, -5.279E-03, -1.535E-04
444 (246-129) [l=3 cm][3 def.]
246, 1.492E-01, -7.272E+00, -5.279E-03, -1.535E-04
i', 1.492E-01, -7.272E+00, -5.279E-03, -1.535E-04
j', 1.492E-01, -7.272E+00, -5.279E-03, -1.535E-04
129, 1.492E-01, -7.272E+00, -5.279E-03, -1.535E-04
445 (142-248) [l=3 cm][3 def.]
142, -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04
i', -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04
j', -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04
248, -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04
446 (248-141) [l=165 cm][165 def.]
248, -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04
i', -1.492E-01, -7.502E+00, 5.246E-03, -1.535E-04
j', -1.495E-01, -7.511E+00, 5.251E-03, -1.535E-04
141, -1.495E-01, -7.511E+00, 5.251E-03, -1.535E-04
447 (46-340) [l=52 cm][52 def.]
46, -1.393E-01, -7.594E+00, 5.308E-03, -1.477E-04
i', -1.393E-01, -7.594E+00, 5.308E-03, -1.477E-04
j', -1.394E-01, -7.597E+00, 5.310E-03, -1.477E-04
340, -1.394E-01, -7.597E+00, 5.310E-03, -1.477E-04
448 (340-45) [l=112 cm][112 def.]
340, -1.394E-01, -7.597E+00, 5.310E-03, -1.477E-04
i', -1.394E-01, -7.597E+00, 5.310E-03, -1.477E-04
j', -1.396E-01, -7.603E+00, 5.313E-03, -1.477E-04
45, -1.396E-01, -7.603E+00, 5.313E-03, -1.477E-04
449 (73-341) [l=44 cm][44 def.]
73, 1.395E-01, -7.370E+00, -5.324E-03, -1.477E-04
i', 1.395E-01, -7.370E+00, -5.324E-03, -1.477E-04
j', 1.394E-01, -7.368E+00, -5.323E-03, -1.477E-04
341, 1.394E-01, -7.368E+00, -5.323E-03, -1.477E-04
450 (341-74) [l=52 cm][52 def.]
341, 1.394E-01, -7.368E+00, -5.323E-03, -1.477E-04
i', 1.394E-01, -7.368E+00, -5.323E-03, -1.477E-04
j', 1.393E-01, -7.365E+00, -5.322E-03, -1.477E-04

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74, 1.393E-01, -7.365E+00, -5.322E-03, -1.477E-04
451 (190-255) [l=4 cm][4 def.]
190, 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
i', 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
j', 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
255, 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
452 (255-191) [l=142 cm][142 def.]
255, 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
i', 1.502E-01, -7.305E+00, -5.300E-03, -1.535E-04
j', 1.500E-01, -7.298E+00, -5.295E-03, -1.535E-04
191, 1.500E-01, -7.298E+00, -5.295E-03, -1.535E-04
453 (144-257) [l=142 cm][142 def.]
144, -1.500E-01, -7.527E+00, 5.262E-03, -1.535E-04
i', -1.500E-01, -7.527E+00, 5.262E-03, -1.535E-04
j', -1.502E-01, -7.535E+00, 5.267E-03, -1.535E-04
257, -1.502E-01, -7.535E+00, 5.267E-03, -1.535E-04
454 (257-145) [l=4 cm][4 def.]
257, -1.502E-01, -7.535E+00, 5.267E-03, -1.535E-04
i', -1.502E-01, -7.535E+00, 5.267E-03, -1.535E-04
j', -1.502E-01, -7.535E+00, 5.267E-03, -1.535E-04
145, -1.502E-01, -7.535E+00, 5.267E-03, -1.535E-04
455 (134-258) [l=252 cm][252 def.]
134, 1.510E-01, -7.334E+00, -5.320E-03, -1.535E-04
i', 1.510E-01, -7.334E+00, -5.320E-03, -1.535E-04
j', 1.506E-01, -7.320E+00, -5.310E-03, -1.535E-04
258, 1.506E-01, -7.320E+00, -5.310E-03, -1.535E-04
456 (258-136) [l=57 cm][57 def.]
258, 1.506E-01, -7.320E+00, -5.310E-03, -1.535E-04
i', 1.506E-01, -7.320E+00, -5.310E-03, -1.535E-04
j', 1.505E-01, -7.317E+00, -5.308E-03, -1.535E-04
136, 1.505E-01, -7.317E+00, -5.308E-03, -1.535E-04
457 (199-260) [l=57 cm][57 def.]
199, -1.505E-01, -7.547E+00, 5.276E-03, -1.535E-04
i', -1.505E-01, -7.547E+00, 5.276E-03, -1.535E-04
j', -1.506E-01, -7.550E+00, 5.279E-03, -1.535E-04
260, -1.506E-01, -7.550E+00, 5.279E-03, -1.535E-04
458 (260-198) [l=252 cm][252 def.]
260, -1.506E-01, -7.550E+00, 5.279E-03, -1.535E-04
i', -1.506E-01, -7.550E+00, 5.279E-03, -1.535E-04
j', -1.510E-01, -7.563E+00, 5.289E-03, -1.535E-04
198, -1.510E-01, -7.563E+00, 5.289E-03, -1.535E-04
459 (135-261) [l=273 cm][273 def.]
135, 1.515E-01, -7.350E+00, -5.330E-03, -1.535E-04
i', 1.515E-01, -7.350E+00, -5.330E-03, -1.535E-04
j', 1.511E-01, -7.336E+00, -5.321E-03, -1.535E-04
261, 1.511E-01, -7.336E+00, -5.321E-03, -1.535E-04
460 (261-134) [l=36 cm][36 def.]
261, 1.511E-01, -7.336E+00, -5.321E-03, -1.535E-04
i', 1.511E-01, -7.336E+00, -5.321E-03, -1.535E-04
j', 1.510E-01, -7.334E+00, -5.320E-03, -1.535E-04
134, 1.510E-01, -7.334E+00, -5.320E-03, -1.535E-04
461 (198-263) [l=36 cm][36 def.]
198, -1.510E-01, -7.563E+00, 5.289E-03, -1.535E-04
i', -1.510E-01, -7.563E+00, 5.289E-03, -1.535E-04
j', -1.511E-01, -7.565E+00, 5.291E-03, -1.535E-04
263, -1.511E-01, -7.565E+00, 5.291E-03, -1.535E-04
462 (263-148) [l=273 cm][273 def.]
263, -1.511E-01, -7.565E+00, 5.291E-03, -1.535E-04
i', -1.511E-01, -7.565E+00, 5.291E-03, -1.535E-04
j', -1.515E-01, -7.579E+00, 5.303E-03, -1.535E-04
148, -1.515E-01, -7.579E+00, 5.303E-03, -1.535E-04
463 (151-264) [l=223 cm][223 def.]
151, 1.518E-01, -7.363E+00, -5.336E-03, -1.535E-04
i', 1.518E-01, -7.363E+00, -5.336E-03, -1.535E-04
j', 1.515E-01, -7.351E+00, -5.330E-03, -1.535E-04
264, 1.515E-01, -7.351E+00, -5.330E-03, -1.535E-04
464 (264-135) [l=15 cm][15 def.]
264, 1.515E-01, -7.351E+00, -5.330E-03, -1.535E-04
i', 1.515E-01, -7.351E+00, -5.330E-03, -1.535E-04
j', 1.515E-01, -7.350E+00, -5.330E-03, -1.535E-04
135, 1.515E-01, -7.350E+00, -5.330E-03, -1.535E-04
465 (148-266) [l=15 cm][15 def.]
148, -1.515E-01, -7.579E+00, 5.303E-03, -1.535E-04
i', -1.515E-01, -7.579E+00, 5.303E-03, -1.535E-04
j', -1.515E-01, -7.580E+00, 5.303E-03, -1.535E-04
266, -1.515E-01, -7.580E+00, 5.303E-03, -1.535E-04
466 (266-147) [l=127 cm][127 def.]
266, -1.515E-01, -7.580E+00, 5.303E-03, -1.535E-04
i', -1.515E-01, -7.580E+00, 5.303E-03, -1.535E-04
j', -1.517E-01, -7.587E+00, 5.308E-03, -1.535E-04
147, -1.517E-01, -7.587E+00, 5.308E-03, -1.535E-04
467 (162-267) [l=30 cm][30 def.]
162, -1.524E-01, -7.612E+00, 5.326E-03, -1.535E-04
i', -1.524E-01, -7.612E+00, 5.326E-03, -1.535E-04
j', -1.525E-01, -7.614E+00, 5.327E-03, -1.535E-04
267, -1.525E-01, -7.614E+00, 5.327E-03, -1.535E-04

468 (267-161) [l=136 cm][136 def.]
 267, -1.525E-01, -7.614E+00, 5.327E-03, -1.535E-04
 i', -1.525E-01, -7.614E+00, 5.327E-03, -1.535E-04
 j', -1.527E-01, -7.621E+00, 5.331E-03, -1.535E-04
 161, -1.527E-01, -7.621E+00, 5.331E-03, -1.535E-04

469 (156-269) [l=28 cm][28 def.]
 156, 1.525E-01, -7.386E+00, -5.345E-03, -1.535E-04
 i', 1.525E-01, -7.386E+00, -5.345E-03, -1.535E-04
 j', 1.525E-01, -7.384E+00, -5.345E-03, -1.535E-04
 269, 1.525E-01, -7.384E+00, -5.345E-03, -1.535E-04

470 (269-193) [l=68 cm][68 def.]
 269, 1.525E-01, -7.384E+00, -5.345E-03, -1.535E-04
 i', 1.525E-01, -7.384E+00, -5.345E-03, -1.535E-04
 j', 1.523E-01, -7.381E+00, -5.344E-03, -1.535E-04
 193, 1.523E-01, -7.381E+00, -5.344E-03, -1.535E-04

471 (163-270) [l=3 cm][3 def.]
 163, -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04
 i', -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04
 j', -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04
 270, -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04

472 (270-208) [l=108 cm][108 def.]
 270, -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04
 i', -1.529E-01, -7.630E+00, 5.335E-03, -1.535E-04
 j', -1.531E-01, -7.636E+00, 5.337E-03, -1.535E-04
 208, -1.531E-01, -7.636E+00, 5.337E-03, -1.535E-04

473 (155-272) [l=35 cm][35 def.]
 155, 1.530E-01, -7.403E+00, -5.349E-03, -1.535E-04
 i', 1.530E-01, -7.403E+00, -5.349E-03, -1.535E-04
 j', 1.529E-01, -7.401E+00, -5.349E-03, -1.535E-04
 272, 1.529E-01, -7.401E+00, -5.349E-03, -1.535E-04

474 (272-154) [l=121 cm][121 def.]
 272, 1.529E-01, -7.401E+00, -5.349E-03, -1.535E-04
 i', 1.529E-01, -7.401E+00, -5.349E-03, -1.535E-04
 j', 1.527E-01, -7.394E+00, -5.348E-03, -1.535E-04
 154, 1.527E-01, -7.394E+00, -5.348E-03, -1.535E-04

475 (176-311) [l=416 cm][416 def.]
 176, -4.440E-02, -7.453E+00, -2.750E-02, -1.535E-04
 i', -4.440E-02, -7.453E+00, -2.750E-02, -1.535E-04
 j', -4.504E-02, -8.128E+00, -2.766E-02, -1.535E-04
 311, -4.504E-02, -8.128E+00, -2.766E-02, -1.535E-04

476 (311-167) [l=416 cm][416 def.]
 311, -4.504E-02, -8.128E+00, -2.766E-02, -1.535E-04
 i', -4.504E-02, -8.128E+00, -2.766E-02, -1.535E-04
 j', -4.567E-02, -7.223E+00, -2.758E-02, -1.535E-04
 167, -4.567E-02, -7.223E+00, -2.758E-02, -1.535E-04

477 (242-312) [l=416 cm][416 def.]
 242, -4.440E-02, -7.468E+00, -2.750E-02, -1.535E-04
 i', -4.440E-02, -7.468E+00, -2.750E-02, -1.535E-04
 j', -4.504E-02, -8.116E+00, -2.764E-02, -1.535E-04
 312, -4.504E-02, -8.116E+00, -2.764E-02, -1.535E-04

478 (312-240) [l=416 cm][416 def.]
 312, -4.504E-02, -8.116E+00, -2.764E-02, -1.535E-04
 i', -4.504E-02, -8.116E+00, -2.764E-02, -1.535E-04
 j', -4.567E-02, -7.238E+00, -2.757E-02, -1.535E-04
 240, -4.567E-02, -7.238E+00, -2.757E-02, -1.535E-04

479 (245-313) [l=416 cm][416 def.]
 245, -4.440E-02, -7.485E+00, -2.750E-02, -1.535E-04
 i', -4.440E-02, -7.485E+00, -2.750E-02, -1.535E-04
 j', -4.504E-02, -8.270E+00, -2.763E-02, -1.535E-04
 313, -4.504E-02, -8.270E+00, -2.763E-02, -1.535E-04

480 (313-243) [l=416 cm][416 def.]
 313, -4.504E-02, -8.270E+00, -2.763E-02, -1.535E-04
 i', -4.504E-02, -8.270E+00, -2.763E-02, -1.535E-04
 j', -4.567E-02, -7.255E+00, -2.757E-02, -1.535E-04
 243, -4.567E-02, -7.255E+00, -2.757E-02, -1.535E-04

481 (257-314) [l=416 cm][416 def.]
 257, -4.440E-02, -7.535E+00, -2.751E-02, -1.535E-04
 i', -4.440E-02, -7.535E+00, -2.751E-02, -1.535E-04
 j', -4.504E-02, -8.029E+00, -3.587E-02, -1.535E-04
 314, -4.504E-02, -8.029E+00, -3.587E-02, -1.535E-04

482 (314-255) [l=416 cm][416 def.]
 314, -4.504E-02, -8.029E+00, -3.587E-02, -1.535E-04
 i', -4.504E-02, -8.029E+00, -3.587E-02, -1.535E-04
 j', -4.567E-02, -7.305E+00, -2.756E-02, -1.535E-04
 255, -4.567E-02, -7.305E+00, -2.756E-02, -1.535E-04

483 (260-315) [l=416 cm][416 def.]
 260, -4.440E-02, -7.550E+00, -2.751E-02, -1.535E-04
 i', -4.440E-02, -7.550E+00, -2.751E-02, -1.535E-04
 j', -4.504E-02, -8.146E+00, -2.761E-02, -1.535E-04
 315, -4.504E-02, -8.146E+00, -2.761E-02, -1.535E-04

484 (315-258) [l=416 cm][416 def.]
 315, -4.504E-02, -8.146E+00, -2.761E-02, -1.535E-04
 i', -4.504E-02, -8.146E+00, -2.761E-02, -1.535E-04
 j', -4.567E-02, -7.320E+00, -2.756E-02, -1.535E-04
 258, -4.567E-02, -7.320E+00, -2.756E-02, -1.535E-04

485 (263-318) [l=416 cm][416 def.]

263, -4.440E-02, -7.565E+00, -2.752E-02, -1.535E-04
 i', -4.440E-02, -7.565E+00, -2.752E-02, -1.535E-04
 j', -4.504E-02, -8.248E+00, -2.757E-02, -1.535E-04
 318, -4.504E-02, -8.248E+00, -2.757E-02, -1.535E-04
 486 (318-261) [l=416 cm][416 def.]
 318, -4.504E-02, -8.248E+00, -2.757E-02, -1.535E-04
 i', -4.504E-02, -8.248E+00, -2.757E-02, -1.535E-04
 j', -4.567E-02, -7.336E+00, -2.755E-02, -1.535E-04
 261, -4.567E-02, -7.336E+00, -2.755E-02, -1.535E-04
 487 (267-316) [l=416 cm][416 def.]
 267, -4.440E-02, -7.614E+00, -2.752E-02, -1.535E-04
 i', -4.440E-02, -7.614E+00, -2.752E-02, -1.535E-04
 j', -4.504E-02, -8.347E+00, -2.754E-02, -1.535E-04
 316, -4.504E-02, -8.347E+00, -2.754E-02, -1.535E-04
 488 (316-269) [l=416 cm][416 def.]
 316, -4.504E-02, -8.347E+00, -2.754E-02, -1.535E-04
 i', -4.504E-02, -8.347E+00, -2.754E-02, -1.535E-04
 j', -4.567E-02, -7.384E+00, -2.754E-02, -1.535E-04
 269, -4.567E-02, -7.384E+00, -2.754E-02, -1.535E-04
 489 (270-317) [l=416 cm][416 def.]
 270, -4.440E-02, -7.630E+00, -2.753E-02, -1.535E-04
 i', -4.440E-02, -7.630E+00, -2.753E-02, -1.535E-04
 j', -4.504E-02, -8.287E+00, -2.754E-02, -1.535E-04
 317, -4.504E-02, -8.287E+00, -2.754E-02, -1.535E-04
 490 (317-272) [l=416 cm][416 def.]
 317, -4.504E-02, -8.287E+00, -2.754E-02, -1.535E-04
 i', -4.504E-02, -8.287E+00, -2.754E-02, -1.535E-04
 j', -4.567E-02, -7.401E+00, -2.754E-02, -1.535E-04
 272, -4.567E-02, -7.401E+00, -2.754E-02, -1.535E-04
 491 (109-342) [l=224 cm][224 def.]
 109, -4.916E-02, -6.984E+00, -2.753E-02, -2.124E-03
 i', -4.916E-02, -6.984E+00, -2.753E-02, -2.124E-03
 j', -5.392E-02, -6.923E+00, -2.753E-02, -2.125E-03
 342, -5.392E-02, -6.923E+00, -2.753E-02, -2.125E-03
 492 (110-342) [l=448 cm][448 def.]
 110, -4.440E-02, -7.046E+00, -2.753E-02, -2.124E-03
 i', -4.440E-02, -7.046E+00, -2.753E-02, -2.124E-03
 j', -5.392E-02, -6.922E+00, -2.753E-02, -2.126E-03
 342, -5.392E-02, -6.922E+00, -2.753E-02, -2.126E-03
 493 (342-111) [l=0 cm][0 def.]
 342, -5.392E-02, -6.650E+00, -2.753E-02, -2.527E-03
 i', -5.392E-02, -6.650E+00, -2.753E-02, -2.527E-03
 j', -5.393E-02, -6.650E+00, -2.753E-02, -2.527E-03
 111, -5.393E-02, -6.650E+00, -2.753E-02, -2.527E-03
 494 (149-284) [l=52 cm][52 def.]
 149, -1.519E-01, -7.595E+00, 5.314E-03, -1.535E-04
 i', -1.519E-01, -7.595E+00, 5.314E-03, -1.535E-04
 j', -1.520E-01, -7.597E+00, 5.316E-03, -1.535E-04
 284, -1.520E-01, -7.597E+00, 5.316E-03, -1.535E-04
 495 (284-206) [l=112 cm][112 def.]
 284, -1.520E-01, -7.597E+00, 5.316E-03, -1.535E-04
 i', -1.520E-01, -7.597E+00, 5.316E-03, -1.535E-04
 j', -1.522E-01, -7.603E+00, 5.320E-03, -1.535E-04
 206, -1.522E-01, -7.603E+00, 5.320E-03, -1.535E-04
 496 (325-239) [l=52 cm][52 def.]
 325, 0.000E+00, -7.402E+00, 2.781E-02, 0.000E+00
 i', 0.000E+00, -7.402E+00, 2.781E-02, 0.000E+00
 j', 0.000E+00, -7.416E+00, 2.782E-02, 0.000E+00
 239, 0.000E+00, -7.416E+00, 2.782E-02, 0.000E+00
 497 (239-44) [l=112 cm][112 def.]
 239, 0.000E+00, -7.416E+00, 2.782E-02, 0.000E+00
 i', 0.000E+00, -7.416E+00, 2.782E-02, 0.000E+00
 j', 0.000E+00, -7.447E+00, 2.777E-02, 0.000E+00
 44, 0.000E+00, -7.447E+00, 2.777E-02, 0.000E+00
 498 (72-238) [l=44 cm][44 def.]
 72, 0.000E+00, -7.205E+00, -2.954E-02, 0.000E+00
 i', 0.000E+00, -7.205E+00, -2.954E-02, 0.000E+00
 j', 0.000E+00, -7.192E+00, -2.954E-02, 0.000E+00
 238, 0.000E+00, -7.192E+00, -2.954E-02, 0.000E+00
 499 (238-328) [l=52 cm][52 def.]
 238, 0.000E+00, -7.192E+00, -2.954E-02, 0.000E+00
 i', 0.000E+00, -7.192E+00, -2.954E-02, 0.000E+00
 j', 0.000E+00, -7.176E+00, -2.954E-02, 0.000E+00
 328, 0.000E+00, -7.176E+00, -2.954E-02, 0.000E+00
 500 (133-343) [l=0 cm][0 def.]
 133, 1.497E-01, -7.290E+00, -5.290E-03, -1.535E-04
 i', 1.497E-01, -7.290E+00, -5.290E-03, -1.535E-04
 j', 1.497E-01, -7.290E+00, -5.290E-03, -1.535E-04
 343, 1.497E-01, -7.290E+00, -5.290E-03, -1.535E-04
 501 (343-132) [l=167 cm][167 def.]
 343, 1.497E-01, -7.290E+00, -5.290E-03, -1.535E-04
 i', 1.497E-01, -7.290E+00, -5.290E-03, -1.535E-04
 j', 1.495E-01, -7.281E+00, -5.284E-03, -1.535E-04
 132, 1.495E-01, -7.281E+00, -5.284E-03, -1.535E-04
 502 (152-345) [l=140 cm][140 def.]
 152, 1.522E-01, -7.376E+00, -5.342E-03, -1.535E-04


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i', 1.522E-01, -7.376E+00, -5.342E-03, -1.535E-04
j', 1.520E-01, -7.368E+00, -5.339E-03, -1.535E-04
345, 1.520E-01, -7.368E+00, -5.339E-03, -1.535E-04
503 (345-151) [l=97 cm][97 def.]
345, 1.520E-01, -7.368E+00, -5.339E-03, -1.535E-04
i', 1.520E-01, -7.368E+00, -5.339E-03, -1.535E-04
j', 1.518E-01, -7.363E+00, -5.336E-03, -1.535E-04
151, 1.518E-01, -7.363E+00, -5.336E-03, -1.535E-04
504 (292-232) [l=360 cm][360 def.]
292, -1.661E-01, 4.720E-02, 3.483E-03, 2.409E-02
i', -1.661E-01, 4.720E-02, 3.483E-03, 2.409E-02
j', -7.941E-02, 3.466E-02, 3.483E-03, 2.409E-02
232, -7.941E-02, 3.466E-02, 3.483E-03, 2.409E-02
505 (294-234) [l=410 cm][410 def.]
294, -1.804E-01, 4.821E-02, 3.169E-03, 2.541E-02
i', -1.804E-01, 4.821E-02, 3.169E-03, 2.541E-02
j', -7.624E-02, 3.522E-02, 3.169E-03, 2.541E-02
234, -7.624E-02, 3.522E-02, 3.169E-03, 2.541E-02
506 (296-235) [l=410 cm][410 def.]
296, -1.875E-01, 4.762E-02, 3.011E-03, 2.958E-02
i', -1.875E-01, 4.762E-02, 3.011E-03, 2.958E-02
j', -6.625E-02, 3.528E-02, 3.011E-03, 2.958E-02
235, -6.625E-02, 3.528E-02, 3.011E-03, 2.958E-02
507 (298-236) [l=360 cm][360 def.]
298, -1.745E-01, 4.617E-02, 3.218E-03, 3.107E-02
i', -1.745E-01, 4.617E-02, 3.218E-03, 3.107E-02
j', -6.266E-02, 3.459E-02, 3.218E-03, 3.107E-02
236, -6.266E-02, 3.459E-02, 3.218E-03, 3.107E-02
508 (300-250) [l=360 cm][360 def.]
300, -1.767E-01, 4.733E-02, 4.187E-03, 3.110E-02
i', -1.767E-01, 4.733E-02, 4.187E-03, 3.110E-02
j', -6.476E-02, 3.226E-02, 4.187E-03, 3.110E-02
250, -6.476E-02, 3.226E-02, 4.187E-03, 3.110E-02
509 (302-249) [l=410 cm][410 def.]
302, -1.899E-01, 4.940E-02, 4.058E-03, 2.968E-02
i', -1.899E-01, 4.940E-02, 4.058E-03, 2.968E-02
j', -6.818E-02, 3.277E-02, 4.058E-03, 2.968E-02
249, -6.818E-02, 3.277E-02, 4.058E-03, 2.968E-02
510 (304-251) [l=410 cm][410 def.]
304, -1.829E-01, 4.976E-02, 4.079E-03, 2.556E-02
i', -1.829E-01, 4.976E-02, 4.079E-03, 2.556E-02
j', -7.806E-02, 3.304E-02, 4.079E-03, 2.556E-02
251, -7.806E-02, 3.304E-02, 4.079E-03, 2.556E-02
511 (306-252) [l=360 cm][360 def.]
306, -1.684E-01, 4.812E-02, 4.248E-03, 2.419E-02
i', -1.684E-01, 4.812E-02, 4.248E-03, 2.419E-02
j', -8.134E-02, 3.283E-02, 4.248E-03, 2.419E-02
252, -8.134E-02, 3.283E-02, 4.248E-03, 2.419E-02

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--> Reazioni Vincolari (RX, RY, RZ, MX, MY, MZ) [kN, kN m]

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1, -2.92, 25.17, 231.72, 0.00, 0.00, 0.01
2, 2.88, -22.83, 0.00, 0.00, 0.00, -0.01
3, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
4, 0.00, -2.74, 0.00, 0.00, 0.00, 0.00
5, -0.72, -27.04, 220.58, 0.00, 0.00, 0.01
6, 0.69, 23.99, 0.00, 0.00, 0.00, -0.01
7, 0.00, 2.74, 0.00, 0.00, 0.00, 0.00
8, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
9, -8.94, -0.98, 99.17, 0.00, 0.00, 0.01
10, 8.94, 0.98, 0.00, 0.00, 0.00, -0.01
11, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
12, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
13, -13.78, -0.57, 148.63, 0.00, 0.00, 0.01
14, 13.78, 0.57, 0.00, 0.00, 0.00, -0.01
15, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
16, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
17, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
18, -5.42, -0.56, 141.55, 0.00, 0.00, 0.01
19, 5.19, -11.93, 0.00, 0.00, 0.00, 0.01
20, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
21, -11.67, -1.09, 284.29, 0.00, 0.00, 0.01
22, 11.52, -19.21, 0.00, 0.00, 0.00, 0.02
23, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
24, 0.11, -28.65, 0.00, 0.00, 0.00, 0.00
25, -0.25, -0.19, 54.57, 0.00, 0.00, 0.00
26, 0.25, 0.19, 0.00, 0.00, 0.00, 0.00
27, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
28, 0.23, -3.95, 70.38, 0.00, 0.00, 0.00
29, -0.23, 3.95, 0.00, 0.00, 0.00, 0.00
30, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
31, 0.00, -0.85, 0.00, 0.00, 0.00, 0.00
32, 32.00, -22.25, 343.38, 0.00, 0.00, 0.01
33, -31.67, 5.37, 0.00, 0.00, 0.00, 0.02
34, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
35, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

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36, -26.64, -4.07, 442.18, 0.00, 0.00, 0.02
 37, 28.41, -28.84, 0.00, 0.00, 0.00, 0.05
 38, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 39, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 40, 0.09, -25.30, 0.00, 0.00, 0.00, 0.00
 41, -0.22, -0.37, 43.77, 0.00, 0.00, 0.00
 42, 0.22, 0.37, 0.00, 0.00, 0.00, 0.00
 43, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 44, 12.30, -20.70, 368.13, 0.00, 0.00, 0.01
 45, -10.78, 4.91, 0.00, 0.00, 0.00, 0.02
 46, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 47, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 48, 26.15, -20.66, 271.24, 0.00, 0.00, 0.01
 49, -26.15, 20.66, 0.00, 0.00, 0.00, -0.01
 50, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 51, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 52, 2.71, -0.07, 75.00, 0.00, 0.00, 0.00
 53, -1.99, -5.71, 0.00, 0.00, 0.00, 0.01
 54, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 55, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 56, -1.03, 0.04, 81.95, 0.00, 0.00, 0.00
 57, 1.03, -0.04, 0.00, 0.00, 0.00, 0.00
 58, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 59, -1.01, 3.41, 60.24, 0.00, 0.00, 0.00
 60, 1.01, -3.41, 0.00, 0.00, 0.00, 0.00
 61, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 62, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 63, -0.02, 3.42, 77.07, 0.00, 0.00, 0.00
 64, 0.02, -3.42, 0.00, 0.00, 0.00, 0.00
 65, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 66, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 67, 18.00, 15.34, 213.00, 0.00, 0.00, 0.01
 68, -18.00, -15.34, 0.00, 0.00, 0.00, -0.01
 69, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 70, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 71, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 72, 4.80, 15.35, 228.28, 0.00, 0.00, 0.01
 73, -4.80, -15.35, 0.00, 0.00, 0.00, -0.01
 74, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 75, -0.24, 0.45, 42.63, 0.00, 0.00, 0.00
 76, 0.24, -0.45, 0.00, 0.00, 0.00, 0.00
 77, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 78, 0.09, 20.02, 0.00, 0.00, 0.00, 0.00
 79, -28.74, 4.87, 426.79, 0.00, 0.00, 0.02
 80, 27.23, 39.71, 0.00, 0.00, 0.00, 0.05
 81, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 82, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 83, 31.41, 22.32, 331.88, 0.00, 0.00, 0.01
 84, -32.50, -2.70, 0.00, 0.00, 0.00, 0.02
 85, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 86, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 87, -0.01, 1.14, 0.00, 0.00, 0.00, 0.00
 88, 0.23, 3.96, 68.35, 0.00, 0.00, 0.00
 89, -0.23, -3.96, 0.00, 0.00, 0.00, 0.00
 90, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 91, -0.29, 0.24, 53.22, 0.00, 0.00, 0.00
 92, 0.29, -0.24, 0.00, 0.00, 0.00, 0.00
 93, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 94, 0.11, 23.86, 0.00, 0.00, 0.00, 0.00
 95, -13.49, 1.37, 271.51, 0.00, 0.00, 0.01
 96, 11.85, 19.08, 0.00, 0.00, 0.00, 0.02
 97, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 98, 0.14, 0.29, 157.66, 0.00, 0.00, 0.01
 99, -1.21, 11.00, 0.00, 0.00, 0.00, 0.01
 100, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 101, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 102, 0.16, 0.29, 176.60, 0.00, 0.00, 0.01
 103, -0.16, -0.29, 0.00, 0.00, 0.00, -0.01
 104, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 105, -11.72, 0.91, 118.56, 0.00, 0.00, 0.00
 106, 11.72, -0.91, 0.00, 0.00, 0.00, 0.00
 107, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 108, 0.17, -0.71, 215.36, 0.00, 0.00, 0.01
 109, -35.44, 54.50, 0.00, 45.34, 29.49, 122.36
 110, -59.21, 139.25, 0.00, 0.00, 0.00, 141.46
 111, 4.39, 2.69, 0.00, 4.47, -7.31, 56.31
 112, -0.40, 17.86, 261.59, 0.00, 0.00, 0.00
 113, 0.01, -56.01, 0.00, 33.60, 0.00, 0.29
 114, 0.28, 9.00, 0.00, -5.40, 0.17, 0.30
 115, 0.00, 0.51, 0.00, -0.31, 0.00, 0.00
 116, -0.37, -15.18, 282.14, 0.00, 0.00, 0.00
 117, 0.00, 64.55, 0.00, -38.73, 0.00, -0.31
 118, 0.00, -2.27, 0.00, 1.36, 0.00, 0.00
 119, 0.26, -13.66, 0.00, 8.20, 0.16, -0.30
 120, -0.31, 32.52, 259.21, 0.00, 0.00, 0.00
 121, -0.01, -61.99, 0.00, 37.19, 0.00, 0.24

122, 0.23, -0.48, 0.00, 0.29, 0.14, 0.24
123, 0.00, 1.44, 0.00, -0.86, 0.00, 0.00
124, -0.32, -28.88, 278.92, 0.00, 0.00, 0.00
125, 0.00, 72.08, 0.00, -43.25, 0.00, -0.27
126, 0.00, -3.45, 0.00, 2.07, 0.00, 0.00
127, 0.23, -5.96, 0.00, 3.58, 0.14, -0.26
128, 1.65, -20.44, 0.00, 0.00, 0.00, -0.04
129, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
130, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
131, -0.18, 2.70, 0.00, 0.00, 0.00, 0.00
132, 0.18, -2.70, 0.00, 0.00, 0.00, 0.00
133, -9.87, 0.02, 0.00, 0.00, 0.00, -25.34
134, 1.50, -44.58, 0.00, 0.00, 0.00, -0.07
135, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
136, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
137, 0.22, 12.50, 0.00, 0.00, 0.00, -0.02
138, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
139, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
140, 0.01, -2.49, 0.00, 0.00, 0.00, 0.00
141, -0.01, 2.49, 0.00, 0.00, 0.00, 0.00
142, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
143, 0.00, 15.97, 0.00, 0.00, 0.00, 0.00
144, -0.32, 16.87, 0.00, 0.00, 0.00, -0.03
145, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
146, 1.12, -14.26, 0.00, 0.00, 0.00, 0.03
147, -1.12, 14.26, 0.00, 0.00, 0.00, -0.03
148, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
149, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
150, -0.08, 4.49, 0.00, 0.00, 0.00, 0.01
151, 0.08, -4.49, 0.00, 0.00, 0.00, -0.01
152, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
153, -0.24, 25.05, 0.00, 0.00, 0.00, 0.03
154, 0.24, -25.05, 0.00, 0.00, 0.00, -0.03
155, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
156, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
157, -0.03, 3.28, 0.00, 0.00, 0.00, 0.00
158, 0.03, -3.28, 0.00, 0.00, 0.00, 0.00
159, 59.49, -133.77, 0.00, 0.00, 0.00, 142.14
160, 1.72, -15.23, 0.00, 0.00, 0.00, 0.04
161, -1.72, 15.23, 0.00, 0.00, 0.00, -0.04
162, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
163, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
164, -0.13, 1.37, 0.00, 0.00, 0.00, 0.00
165, 0.13, -1.37, 0.00, 0.00, 0.00, 0.00
166, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
167, 0.00, -23.29, 0.00, 0.00, 0.00, 0.00
168, -0.16, 1.56, 0.00, 0.00, 0.00, 0.00
169, 0.16, -1.56, 0.00, 0.00, 0.00, 0.00
170, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
171, -0.11, 1.07, 0.00, 0.00, 0.00, 0.00
172, 0.11, -1.07, 0.00, 0.00, 0.00, 0.00
173, -0.11, -0.15, 0.00, 0.00, 0.00, -0.26
174, -0.03, -1.58, 0.00, 0.00, 0.00, 0.00
175, 0.03, 1.58, 0.00, 0.00, 0.00, 0.00
176, 0.00, 23.29, 0.00, 0.00, 0.00, 0.00
177, -0.04, -1.89, 0.00, 0.00, 0.00, 0.00
178, 0.04, 1.89, 0.00, 0.00, 0.00, 0.00
179, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
180, -0.03, -1.36, 0.00, 0.00, 0.00, 0.00
181, 0.03, 1.36, 0.00, 0.00, 0.00, 0.00
182, -0.11, -0.09, 0.00, 0.00, 0.00, 0.28
183, -0.07, -3.45, 0.00, -2.09, 0.04, -0.18
184, -0.09, -15.51, 0.00, -18.78, 0.11, -0.21
185, 0.53, -0.25, 0.00, -0.41, -0.88, 0.01
186, -0.10, 15.18, 0.00, 18.38, 0.12, 0.22
187, -0.09, 5.00, 0.00, 3.03, 0.05, 0.19
188, -0.73, 15.67, 0.00, 0.00, 0.00, 0.02
189, 0.73, -15.67, 0.00, 0.00, 0.00, -0.02
190, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
191, 1.10, -19.63, 0.00, 0.00, 0.00, -0.03
192, -0.19, 15.21, 0.00, 0.00, 0.00, 0.02
193, 0.19, -15.21, 0.00, 0.00, 0.00, -0.02
194, -1.22, 13.69, 0.00, 0.00, 0.00, 0.02
195, 1.22, -13.69, 0.00, 0.00, 0.00, -0.02
196, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
197, 1.07, -11.29, 0.00, 0.00, 0.00, -0.02
198, -1.77, 32.91, 0.00, 0.00, 0.00, -0.07
199, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
200, 0.40, -12.71, 0.00, 0.00, 0.00, 0.02
201, -0.40, 12.71, 0.00, 0.00, 0.00, -0.02
202, 0.15, 20.29, 0.00, 0.00, 0.00, -0.04
203, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
204, -0.21, -14.46, 0.00, 0.00, 0.00, 0.02
205, 0.21, 14.46, 0.00, 0.00, 0.00, -0.02
206, -1.52, 15.79, 0.00, 0.00, 0.00, -0.04
207, 1.21, -9.81, 0.00, 0.00, 0.00, 0.02

208, -1.21, 9.81, 0.00, 0.00, 0.00, -0.02
 209, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 210, -0.72, 5.78, 0.00, 0.00, 0.00, -0.01
 211, 0.16, -0.69, 240.29, 0.00, 0.00, 0.01
 212, 35.31, -59.54, 0.00, -49.54, -29.38, 123.19
 213, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 214, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 215, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 216, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 217, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
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 230, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 231, 0.24, 0.00, 0.00, 0.00, -0.40, 0.00
 232, 0.00, -1.80, 0.00, 4.33, 0.01, -0.01
 233, 0.00, -0.44, 0.00, 1.06, -0.01, -0.01
 234, 0.00, -0.78, 0.00, 1.88, 0.01, 0.00
 235, 0.00, 0.66, 0.00, -1.57, 0.01, 0.00
 236, 0.00, 1.59, 0.00, -3.80, 0.01, 0.01
 237, 0.00, 0.46, 0.00, -1.12, -0.01, 0.01
 238, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
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 243, 0.00, -26.54, 0.00, 0.00, 0.00, 0.00
 244, -0.15, 0.00, 0.00, 0.00, 0.25, 0.00
 245, 0.00, 26.54, 0.00, 0.00, 0.00, 0.00
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 247, -0.27, 0.00, 0.00, 0.00, 0.45, 0.01
 248, 0.00, 15.27, 0.00, 0.00, 0.00, 0.00
 249, 0.00, 0.69, 0.00, -1.65, 0.00, 0.00
 250, 0.00, 1.55, 0.00, -3.72, 0.00, 0.00
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 253, 0.00, 0.43, 0.00, -1.02, 0.00, 0.00
 254, 0.00, -0.47, 0.00, 1.12, 0.00, 0.00
 255, 0.00, -16.93, 0.00, 0.00, 0.00, 0.00
 256, 0.20, -1.61, 0.00, -2.69, -0.34, -0.01
 257, 0.00, 18.96, 0.00, 0.00, 0.00, 0.00
 258, 0.00, -20.96, 0.00, 0.00, 0.00, 0.00
 259, 0.15, 0.00, 0.00, 0.00, -0.24, -0.01
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 261, 0.00, -23.52, 0.00, 0.00, 0.00, 0.00
 262, -0.18, 0.00, 0.00, 0.00, 0.29, 0.00
 263, 0.00, 23.52, 0.00, 0.00, 0.00, 0.00
 264, 0.00, -14.31, 0.00, 0.00, 0.00, 0.00
 265, -0.17, 0.00, 0.00, 0.00, 0.28, 0.00
 266, 0.00, 14.31, 0.00, 0.00, 0.00, 0.00
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 269, 0.00, -25.01, 0.00, 0.00, 0.00, 0.00
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 271, -0.42, 0.00, 0.00, 0.00, 0.69, 0.00
 272, 0.00, -22.74, 0.00, 0.00, 0.00, 0.00
 273, 0.05, -4.04, 0.00, -6.72, -0.09, 0.01
 274, 0.24, -4.81, 0.00, -8.00, -0.40, 0.00
 275, -26.90, 51.39, 0.00, 85.52, 44.75, 0.20
 276, 0.00, 0.01, 0.00, 0.00, 0.00, 0.00
 277, 0.00, -0.01, 0.00, 0.00, 0.00, 0.00
 278, 0.00, -1.40, 0.00, -1.04, 0.00, 0.00
 279, 0.00, -2.85, 0.00, -3.61, 0.00, 0.00
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 282, 0.00, 1.44, 0.00, 1.83, 0.00, 0.00
 283, 0.00, 3.42, 0.00, 5.70, 0.00, 0.00
 284, 0.00, 18.65, 0.00, 0.00, 0.00, 0.00
 285, 0.00, -1.20, 0.00, -0.89, 0.00, 0.00
 286, 0.00, -2.83, 0.00, -3.58, 0.00, 0.00
 287, 0.00, 2.82, 0.00, 3.58, 0.00, 0.01
 288, 0.00, 4.81, 0.00, 8.00, 0.00, 0.00
 289, 0.00, 1.19, 0.00, 0.88, 0.00, 0.00
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 291, 0.01, 0.43, 0.00, 0.00, 0.00, 0.00
 292, -0.01, -0.21, 0.00, -0.25, 0.01, 0.00
 293, 0.01, 0.25, 0.00, 0.00, 0.00, 0.00

294, -0.01, -0.18, 0.00, -0.30, 0.01, 0.00
 295, 0.01, -0.20, 0.00, 0.00, 0.00, 0.00
 296, -0.01, 0.14, 0.00, 0.24, 0.01, 0.00
 297, 0.01, -0.41, 0.00, 0.00, 0.00, 0.00
 298, -0.01, 0.19, 0.00, 0.23, 0.01, 0.00
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 302, 0.00, 0.15, 0.00, 0.26, 0.01, 0.00
 303, 0.00, 0.24, 0.00, 0.00, 0.00, 0.00
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 305, 0.01, 0.43, 0.00, 0.00, 0.00, 0.00
 306, 0.00, -0.20, 0.00, -0.24, 0.01, 0.00
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 319, 9.94, -12.93, 0.00, -0.01, -0.01, 25.34
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 339, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 340, 0.00, -0.82, 0.00, 0.00, 0.00, 0.00
 341, 0.00, 1.12, 0.00, 0.00, 0.00, 0.00
 342, 22.21, -53.12, 0.00, -88.28, -36.92, 55.70
 343, -0.06, -0.01, 0.00, 0.00, 0.00, 0.00
 344, 0.01, -18.63, 0.00, -0.02, 0.00, 0.00
 345, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 346, -0.01, -9.92, 0.00, -0.02, 0.00, -0.02
 347, -0.01, 9.89, 0.00, 0.02, 0.00, 0.02
 348, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 349, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

Massimi Effetti Sismici

Risultati Analisi Sismica Dinamica Modale - SLU di salvaguardia della Vita (SLV)

--> Spostamenti dei Nodi (u=sX, v=sY, w=sZ, fiX, fiY, fiZ) (XYZ=assi globali) [mm, mrad]

1,	0.000E+00,	0.000E+00,	2.776E-01,	9.146E-02,	1.194E-02,	0.000E+00
2,	5.671E-02,	4.918E-01,	2.796E-01,	8.827E-02,	8.035E-03,	8.414E-04
3,	5.708E-02,	4.918E-01,	4.130E-01,	8.827E-02,	8.035E-03,	8.414E-04
4,	5.644E-02,	4.918E-01,	2.038E-01,	8.827E-02,	8.035E-03,	8.414E-04
5,	0.000E+00,	0.000E+00,	2.697E-01,	9.076E-02,	9.553E-03,	0.000E+00
6,	5.696E-02,	4.918E-01,	2.731E-01,	8.824E-02,	8.043E-03,	8.414E-04
7,	5.644E-02,	4.918E-01,	2.020E-01,	8.824E-02,	8.043E-03,	8.414E-04
8,	5.752E-02,	4.918E-01,	4.065E-01,	8.824E-02,	8.043E-03,	8.414E-04
9,	0.000E+00,	0.000E+00,	4.026E-01,	9.076E-02,	9.553E-03,	0.000E+00
10,	5.752E-02,	4.911E-01,	4.047E-01,	8.824E-02,	8.043E-03,	8.414E-04
11,	0.000E+00,	0.000E+00,	3.990E-01,	9.076E-02,	9.553E-03,	0.000E+00
12,	5.752E-02,	4.905E-01,	4.029E-01,	8.824E-02,	8.043E-03,	8.414E-04
13,	0.000E+00,	0.000E+00,	3.868E-01,	9.863E-02,	8.394E-03,	0.000E+00
14,	5.752E-02,	4.879E-01,	3.957E-01,	8.824E-02,	8.043E-03,	8.414E-04
15,	0.000E+00,	0.000E+00,	3.897E-01,	9.863E-02,	8.394E-03,	0.000E+00
16,	5.752E-02,	4.887E-01,	3.978E-01,	8.824E-02,	8.043E-03,	8.414E-04
17,	5.752E-02,	4.871E-01,	3.935E-01,	8.824E-02,	8.044E-03,	8.414E-04
18,	0.000E+00,	0.000E+00,	3.811E-01,	9.863E-02,	8.395E-03,	0.000E+00
19,	5.752E-02,	4.863E-01,	3.914E-01,	8.824E-02,	8.044E-03,	8.414E-04
20,	5.752E-02,	4.856E-01,	3.892E-01,	8.824E-02,	8.044E-03,	8.414E-04
21,	0.000E+00,	0.000E+00,	3.728E-01,	8.637E-02,	8.342E-03,	0.000E+00
22,	5.752E-02,	4.824E-01,	3.805E-01,	8.824E-02,	8.044E-03,	8.414E-04
23,	5.752E-02,	4.837E-01,	3.841E-01,	8.824E-02,	8.044E-03,	8.414E-04
24,	5.752E-02,	4.811E-01,	3.769E-01,	8.824E-02,	8.045E-03,	8.414E-04
25,	0.000E+00,	0.000E+00,	3.712E-01,	8.636E-02,	8.340E-03,	0.000E+00
26,	5.752E-02,	4.809E-01,	3.762E-01,	8.824E-02,	8.045E-03,	8.414E-04

27,	5.752E-02,	4.807E-01,	3.756E-01,	8.824E-02,	8.045E-03,	8.414E-04
28,	0.000E+00,	0.000E+00,	3.596E-01,	9.272E-02,	8.096E-03,	0.000E+00
29,	5.752E-02,	4.786E-01,	3.701E-01,	8.824E-02,	8.045E-03,	8.414E-04
30,	5.752E-02,	4.788E-01,	3.707E-01,	8.824E-02,	8.045E-03,	8.414E-04
31,	5.752E-02,	4.784E-01,	3.696E-01,	8.824E-02,	8.045E-03,	8.414E-04
32,	0.000E+00,	0.000E+00,	3.561E-01,	9.272E-02,	8.098E-03,	0.000E+00
33,	5.752E-02,	4.773E-01,	3.665E-01,	8.824E-02,	8.045E-03,	8.414E-04
34,	0.000E+00,	0.000E+00,	3.536E-01,	9.272E-02,	8.098E-03,	0.000E+00
35,	5.752E-02,	4.761E-01,	3.637E-01,	8.824E-02,	8.045E-03,	8.414E-04
36,	0.000E+00,	0.000E+00,	3.583E-01,	8.668E-02,	8.135E-03,	0.000E+00
37,	5.752E-02,	4.765E-01,	3.653E-01,	8.824E-02,	8.046E-03,	8.414E-04
38,	0.000E+00,	0.000E+00,	3.525E-01,	8.668E-02,	8.135E-03,	0.000E+00
39,	5.752E-02,	4.753E-01,	3.611E-01,	8.824E-02,	8.046E-03,	8.414E-04
40,	5.752E-02,	4.778E-01,	3.725E-01,	8.824E-02,	8.046E-03,	8.414E-04
41,	0.000E+00,	0.000E+00,	3.682E-01,	8.666E-02,	8.126E-03,	0.000E+00
42,	5.752E-02,	4.779E-01,	3.732E-01,	8.824E-02,	8.046E-03,	8.414E-04
43,	5.752E-02,	4.780E-01,	3.738E-01,	8.824E-02,	8.046E-03,	8.414E-04
44,	0.000E+00,	0.000E+00,	3.740E-01,	9.543E-02,	8.439E-03,	0.000E+00
45,	5.752E-02,	4.797E-01,	3.835E-01,	8.824E-02,	8.046E-03,	8.414E-04
46,	5.752E-02,	4.790E-01,	3.794E-01,	8.824E-02,	8.046E-03,	8.414E-04
47,	5.752E-02,	4.804E-01,	3.876E-01,	8.824E-02,	8.046E-03,	8.414E-04
48,	0.000E+00,	0.000E+00,	3.844E-01,	9.543E-02,	8.435E-03,	0.000E+00
49,	5.752E-02,	4.811E-01,	3.918E-01,	8.824E-02,	8.046E-03,	8.414E-04
50,	0.000E+00,	0.000E+00,	3.897E-01,	9.543E-02,	8.435E-03,	0.000E+00
51,	5.752E-02,	4.819E-01,	3.959E-01,	8.824E-02,	8.046E-03,	8.414E-04
52,	0.000E+00,	0.000E+00,	4.016E-01,	8.599E-02,	8.474E-03,	0.000E+00
53,	5.752E-02,	4.831E-01,	4.033E-01,	8.824E-02,	8.046E-03,	8.414E-04
54,	0.000E+00,	0.000E+00,	3.996E-01,	8.599E-02,	8.474E-03,	0.000E+00
55,	5.752E-02,	4.828E-01,	4.016E-01,	8.824E-02,	8.046E-03,	8.414E-04
56,	0.000E+00,	0.000E+00,	3.998E-01,	8.598E-02,	8.429E-03,	0.000E+00
57,	5.709E-02,	4.831E-01,	4.011E-01,	8.827E-02,	8.033E-03,	8.414E-04
58,	5.709E-02,	4.829E-01,	3.994E-01,	8.827E-02,	8.033E-03,	8.414E-04
59,	0.000E+00,	0.000E+00,	3.915E-01,	9.590E-02,	8.693E-03,	0.000E+00
60,	5.708E-02,	4.822E-01,	3.959E-01,	8.827E-02,	8.033E-03,	8.414E-04
61,	5.709E-02,	4.824E-01,	3.969E-01,	8.827E-02,	8.033E-03,	8.414E-04
62,	5.708E-02,	4.820E-01,	3.948E-01,	8.827E-02,	8.033E-03,	8.414E-04
63,	0.000E+00,	0.000E+00,	3.875E-01,	9.590E-02,	8.693E-03,	0.000E+00
64,	5.708E-02,	4.819E-01,	3.938E-01,	8.827E-02,	8.033E-03,	8.414E-04
65,	0.000E+00,	0.000E+00,	3.856E-01,	9.590E-02,	8.693E-03,	0.000E+00
66,	5.708E-02,	4.817E-01,	3.928E-01,	8.827E-02,	8.033E-03,	8.414E-04
67,	0.000E+00,	0.000E+00,	3.751E-01,	9.551E-02,	8.373E-03,	0.000E+00
68,	5.708E-02,	4.803E-01,	3.855E-01,	8.827E-02,	8.033E-03,	8.414E-04
69,	0.000E+00,	0.000E+00,	3.778E-01,	9.551E-02,	8.373E-03,	0.000E+00
70,	5.708E-02,	4.807E-01,	3.877E-01,	8.827E-02,	8.033E-03,	8.414E-04
71,	5.708E-02,	4.798E-01,	3.833E-01,	8.827E-02,	8.033E-03,	8.414E-04
72,	0.000E+00,	0.000E+00,	3.701E-01,	9.550E-02,	8.374E-03,	0.000E+00
73,	5.708E-02,	4.794E-01,	3.811E-01,	8.827E-02,	8.033E-03,	8.414E-04
74,	5.708E-02,	4.790E-01,	3.790E-01,	8.827E-02,	8.033E-03,	8.414E-04
75,	0.000E+00,	0.000E+00,	3.681E-01,	8.651E-02,	8.063E-03,	0.000E+00
76,	5.708E-02,	4.779E-01,	3.733E-01,	8.827E-02,	8.033E-03,	8.414E-04
77,	5.708E-02,	4.780E-01,	3.739E-01,	8.827E-02,	8.033E-03,	8.414E-04
78,	5.708E-02,	4.778E-01,	3.727E-01,	8.827E-02,	8.033E-03,	8.414E-04
79,	0.000E+00,	0.000E+00,	3.591E-01,	8.653E-02,	8.073E-03,	0.000E+00
80,	5.708E-02,	4.765E-01,	3.661E-01,	8.827E-02,	8.033E-03,	8.414E-04
81,	0.000E+00,	0.000E+00,	3.538E-01,	8.653E-02,	8.073E-03,	0.000E+00
82,	5.708E-02,	4.753E-01,	3.625E-01,	8.827E-02,	8.033E-03,	8.414E-04
83,	0.000E+00,	0.000E+00,	3.580E-01,	9.271E-02,	8.056E-03,	0.000E+00
84,	5.708E-02,	4.773E-01,	3.687E-01,	8.827E-02,	8.033E-03,	8.414E-04
85,	0.000E+00,	0.000E+00,	3.553E-01,	9.271E-02,	8.056E-03,	0.000E+00
86,	5.708E-02,	4.761E-01,	3.655E-01,	8.827E-02,	8.033E-03,	8.414E-04
87,	5.708E-02,	4.784E-01,	3.721E-01,	8.827E-02,	8.033E-03,	8.414E-04
88,	0.000E+00,	0.000E+00,	3.618E-01,	9.271E-02,	8.054E-03,	0.000E+00
89,	5.708E-02,	4.786E-01,	3.727E-01,	8.827E-02,	8.034E-03,	8.414E-04
90,	5.708E-02,	4.788E-01,	3.733E-01,	8.827E-02,	8.034E-03,	8.414E-04
91,	0.000E+00,	0.000E+00,	3.741E-01,	8.610E-02,	8.384E-03,	0.000E+00
92,	5.708E-02,	4.809E-01,	3.795E-01,	8.827E-02,	8.034E-03,	8.414E-04
93,	5.708E-02,	4.807E-01,	3.788E-01,	8.827E-02,	8.034E-03,	8.414E-04
94,	5.708E-02,	4.811E-01,	3.802E-01,	8.827E-02,	8.034E-03,	8.414E-04
95,	0.000E+00,	0.000E+00,	3.767E-01,	8.611E-02,	8.386E-03,	0.000E+00
96,	5.708E-02,	4.824E-01,	3.842E-01,	8.827E-02,	8.034E-03,	8.414E-04
97,	5.708E-02,	4.837E-01,	3.882E-01,	8.827E-02,	8.034E-03,	8.414E-04
98,	0.000E+00,	0.000E+00,	3.853E-01,	1.027E-01,	7.790E-03,	0.000E+00
99,	5.708E-02,	4.863E-01,	3.962E-01,	8.827E-02,	8.035E-03,	8.414E-04
100,	5.708E-02,	4.856E-01,	3.938E-01,	8.827E-02,	8.035E-03,	8.414E-04
101,	5.708E-02,	4.871E-01,	3.986E-01,	8.827E-02,	8.035E-03,	8.414E-04
102,	0.000E+00,	0.000E+00,	3.887E-01,	1.027E-01,	7.790E-03,	0.000E+00
103,	5.708E-02,	4.879E-01,	4.010E-01,	8.827E-02,	8.035E-03,	8.414E-04
104,	5.708E-02,	4.887E-01,	4.034E-01,	8.827E-02,	8.035E-03,	8.414E-04
105,	0.000E+00,	0.000E+00,	4.077E-01,	9.146E-02,	1.194E-02,	0.000E+00
106,	5.708E-02,	4.911E-01,	4.110E-01,	8.827E-02,	8.035E-03,	8.414E-04
107,	5.708E-02,	4.905E-01,	4.090E-01,	8.827E-02,	8.035E-03,	8.414E-04
108,	0.000E+00,	0.000E+00,	2.249E-01,	8.599E-02,	8.463E-03,	0.000E+00
109,	6.440E-02,	5.938E-01,	2.260E-01,	8.609E-02,	8.040E-03,	8.496E-04
110,	6.013E-02,	5.224E-01,	4.050E-01,	8.609E-02,	8.042E-03,	8.496E-04
111,	6.925E-02,	6.652E-01,	1.531E-01,	8.609E-02,	8.039E-03,	8.496E-04
112,	0.000E+00,	0.000E+00,	2.430E-01,	8.610E-02,	8.384E-03,	0.000E+00

113,	5.346E-02,	4.283E-01,	2.454E-01,	8.827E-02,	8.034E-03,	8.414E-04
114,	5.387E-02,	4.283E-01,	3.802E-01,	8.827E-02,	8.034E-03,	8.414E-04
115,	5.318E-02,	4.283E-01,	1.109E-01,	8.827E-02,	8.034E-03,	8.414E-04
116,	0.000E+00,	0.000E+00,	2.309E-01,	8.636E-02,	8.340E-03,	0.000E+00
117,	5.369E-02,	4.283E-01,	2.334E-01,	8.824E-02,	8.045E-03,	8.414E-04
118,	5.311E-02,	4.283E-01,	9.161E-02,	8.824E-02,	8.045E-03,	8.414E-04
119,	5.431E-02,	4.283E-01,	3.769E-01,	8.824E-02,	8.045E-03,	8.414E-04
120,	0.000E+00,	0.000E+00,	2.357E-01,	8.651E-02,	8.064E-03,	0.000E+00
121,	5.346E-02,	4.251E-01,	2.379E-01,	8.827E-02,	8.033E-03,	8.414E-04
122,	5.387E-02,	4.251E-01,	3.727E-01,	8.827E-02,	8.033E-03,	8.414E-04
123,	5.318E-02,	4.251E-01,	1.033E-01,	8.827E-02,	8.033E-03,	8.414E-04
124,	0.000E+00,	0.000E+00,	2.269E-01,	8.666E-02,	8.127E-03,	0.000E+00
125,	5.369E-02,	4.251E-01,	2.291E-01,	8.824E-02,	8.046E-03,	8.414E-04
126,	5.311E-02,	4.251E-01,	8.586E-02,	8.824E-02,	8.046E-03,	8.414E-04
127,	5.431E-02,	4.251E-01,	3.725E-01,	8.824E-02,	8.046E-03,	8.414E-04
128,	5.971E-02,	5.217E-01,	3.842E-01,	8.611E-02,	8.033E-03,	8.496E-04
129,	5.971E-02,	5.203E-01,	3.802E-01,	8.610E-02,	8.033E-03,	8.496E-04
130,	5.971E-02,	5.230E-01,	3.882E-01,	8.611E-02,	8.033E-03,	8.496E-04
131,	5.708E-02,	4.798E-01,	3.761E-01,	8.827E-02,	8.034E-03,	8.414E-04
132,	5.971E-02,	5.190E-01,	3.761E-01,	8.610E-02,	8.033E-03,	8.496E-04
133,	5.971E-02,	5.176E-01,	3.721E-01,	8.610E-02,	8.033E-03,	8.496E-04
134,	5.971E-02,	5.156E-01,	3.662E-01,	8.610E-02,	8.033E-03,	8.496E-04
135,	5.971E-02,	5.168E-01,	3.727E-01,	8.610E-02,	8.034E-03,	8.496E-04
136,	5.971E-02,	5.144E-01,	3.625E-01,	8.610E-02,	8.033E-03,	8.496E-04
137,	6.013E-02,	5.256E-01,	3.913E-01,	8.611E-02,	8.050E-03,	8.496E-04
138,	6.013E-02,	5.264E-01,	3.934E-01,	8.611E-02,	8.050E-03,	8.496E-04
139,	6.013E-02,	5.248E-01,	3.891E-01,	8.611E-02,	8.050E-03,	8.496E-04
140,	5.752E-02,	4.798E-01,	3.732E-01,	8.824E-02,	8.045E-03,	8.414E-04
141,	6.013E-02,	5.190E-01,	3.732E-01,	8.610E-02,	8.049E-03,	8.496E-04
142,	6.013E-02,	5.203E-01,	3.769E-01,	8.611E-02,	8.049E-03,	8.496E-04
143,	6.013E-02,	5.176E-01,	3.696E-01,	8.610E-02,	8.048E-03,	8.496E-04
144,	6.013E-02,	5.165E-01,	3.666E-01,	8.610E-02,	8.048E-03,	8.496E-04
145,	6.013E-02,	5.153E-01,	3.637E-01,	8.610E-02,	8.048E-03,	8.496E-04
146,	5.752E-02,	4.784E-01,	3.759E-01,	8.824E-02,	8.046E-03,	8.414E-04
147,	6.013E-02,	5.174E-01,	3.760E-01,	8.610E-02,	8.046E-03,	8.496E-04
148,	6.013E-02,	5.168E-01,	3.725E-01,	8.610E-02,	8.047E-03,	8.496E-04
149,	6.013E-02,	5.180E-01,	3.795E-01,	8.610E-02,	8.046E-03,	8.496E-04
150,	5.708E-02,	4.788E-01,	3.779E-01,	8.827E-02,	8.033E-03,	8.414E-04
151,	5.971E-02,	5.178E-01,	3.780E-01,	8.609E-02,	8.034E-03,	8.496E-04
152,	5.971E-02,	5.188E-01,	3.834E-01,	8.609E-02,	8.034E-03,	8.496E-04
153,	5.708E-02,	4.814E-01,	3.912E-01,	8.827E-02,	8.033E-03,	8.414E-04
154,	5.971E-02,	5.203E-01,	3.913E-01,	8.609E-02,	8.035E-03,	8.496E-04
155,	5.971E-02,	5.210E-01,	3.949E-01,	8.609E-02,	8.036E-03,	8.496E-04
156,	5.971E-02,	5.197E-01,	3.878E-01,	8.609E-02,	8.035E-03,	8.496E-04
157,	5.709E-02,	4.827E-01,	3.988E-01,	8.827E-02,	8.033E-03,	8.414E-04
158,	5.971E-02,	5.217E-01,	3.989E-01,	8.609E-02,	8.036E-03,	8.496E-04
159,	5.971E-02,	5.224E-01,	4.028E-01,	8.609E-02,	8.037E-03,	8.496E-04
160,	5.752E-02,	4.812E-01,	3.918E-01,	8.824E-02,	8.046E-03,	8.414E-04
161,	6.013E-02,	5.201E-01,	3.919E-01,	8.609E-02,	8.045E-03,	8.496E-04
162,	6.013E-02,	5.194E-01,	3.877E-01,	8.609E-02,	8.045E-03,	8.496E-04
163,	6.013E-02,	5.208E-01,	3.960E-01,	8.609E-02,	8.044E-03,	8.496E-04
164,	5.708E-02,	4.879E-01,	4.010E-01,	8.827E-02,	8.035E-03,	8.414E-04
165,	5.971E-02,	5.272E-01,	4.009E-01,	8.611E-02,	8.033E-03,	8.496E-04
166,	5.971E-02,	5.264E-01,	3.985E-01,	8.611E-02,	8.033E-03,	8.496E-04
167,	5.971E-02,	5.280E-01,	4.033E-01,	8.611E-02,	8.033E-03,	8.496E-04
168,	5.708E-02,	4.896E-01,	4.062E-01,	8.827E-02,	8.035E-03,	8.414E-04
169,	5.971E-02,	5.289E-01,	4.061E-01,	8.611E-02,	8.033E-03,	8.496E-04
170,	5.971E-02,	5.298E-01,	4.089E-01,	8.611E-02,	8.033E-03,	8.496E-04
171,	5.708E-02,	4.911E-01,	4.110E-01,	8.827E-02,	8.035E-03,	8.414E-04
172,	5.971E-02,	5.304E-01,	4.108E-01,	8.611E-02,	8.033E-03,	8.496E-04
173,	5.971E-02,	5.311E-01,	4.128E-01,	8.611E-02,	8.033E-03,	8.496E-04
174,	5.752E-02,	4.879E-01,	3.957E-01,	8.824E-02,	8.043E-03,	8.414E-04
175,	6.013E-02,	5.272E-01,	3.956E-01,	8.611E-02,	8.050E-03,	8.496E-04
176,	6.013E-02,	5.280E-01,	3.977E-01,	8.611E-02,	8.050E-03,	8.496E-04
177,	5.752E-02,	4.896E-01,	4.004E-01,	8.824E-02,	8.043E-03,	8.414E-04
178,	6.013E-02,	5.289E-01,	4.002E-01,	8.611E-02,	8.050E-03,	8.496E-04
179,	6.013E-02,	5.298E-01,	4.028E-01,	8.611E-02,	8.050E-03,	8.496E-04
180,	5.752E-02,	4.911E-01,	4.047E-01,	8.824E-02,	8.043E-03,	8.414E-04
181,	6.013E-02,	5.304E-01,	4.045E-01,	8.611E-02,	8.050E-03,	8.496E-04
182,	6.013E-02,	5.311E-01,	4.063E-01,	8.611E-02,	8.050E-03,	8.496E-04
183,	6.298E-02,	5.831E-01,	2.826E-01,	8.611E-02,	8.033E-03,	8.496E-04
184,	6.649E-02,	6.351E-01,	2.056E-01,	8.611E-02,	8.033E-03,	8.496E-04
185,	6.926E-02,	6.735E-01,	1.778E-01,	8.587E-02,	8.042E-03,	8.496E-04
186,	6.650E-02,	6.351E-01,	2.038E-01,	8.611E-02,	8.050E-03,	8.496E-04
187,	6.321E-02,	5.831E-01,	2.761E-01,	8.611E-02,	8.050E-03,	8.496E-04
188,	5.708E-02,	4.753E-01,	3.635E-01,	8.827E-02,	8.033E-03,	8.414E-04
189,	5.971E-02,	5.145E-01,	3.636E-01,	8.610E-02,	8.033E-03,	8.496E-04
190,	5.971E-02,	5.153E-01,	3.656E-01,	8.610E-02,	8.033E-03,	8.496E-04
191,	5.971E-02,	5.165E-01,	3.687E-01,	8.610E-02,	8.033E-03,	8.496E-04
192,	5.708E-02,	4.803E-01,	3.855E-01,	8.827E-02,	8.033E-03,	8.414E-04
193,	5.971E-02,	5.193E-01,	3.856E-01,	8.609E-02,	8.035E-03,	8.496E-04
194,	5.708E-02,	4.847E-01,	3.910E-01,	8.827E-02,	8.034E-03,	8.414E-04
195,	5.971E-02,	5.239E-01,	3.910E-01,	8.611E-02,	8.033E-03,	8.496E-04
196,	5.971E-02,	5.248E-01,	3.938E-01,	8.611E-02,	8.033E-03,	8.496E-04
197,	5.971E-02,	5.256E-01,	3.961E-01,	8.611E-02,	8.033E-03,	8.496E-04
198,	6.013E-02,	5.156E-01,	3.653E-01,	8.610E-02,	8.047E-03,	8.496E-04

199,	6.013E-02,	5.144E-01,	3.611E-01,	8.610E-02,	8.048E-03,	8.496E-04
200,	5.752E-02,	4.753E-01,	3.619E-01,	8.824E-02,	8.045E-03,	8.414E-04
201,	6.013E-02,	5.145E-01,	3.620E-01,	8.610E-02,	8.048E-03,	8.496E-04
202,	6.013E-02,	5.217E-01,	3.805E-01,	8.611E-02,	8.049E-03,	8.496E-04
203,	6.013E-02,	5.230E-01,	3.841E-01,	8.611E-02,	8.049E-03,	8.496E-04
204,	5.752E-02,	4.847E-01,	3.867E-01,	8.824E-02,	8.044E-03,	8.414E-04
205,	6.013E-02,	5.239E-01,	3.866E-01,	8.611E-02,	8.050E-03,	8.496E-04
206,	6.013E-02,	5.187E-01,	3.836E-01,	8.609E-02,	8.046E-03,	8.496E-04
207,	5.752E-02,	4.824E-01,	3.988E-01,	8.824E-02,	8.046E-03,	8.414E-04
208,	6.013E-02,	5.213E-01,	3.988E-01,	8.609E-02,	8.043E-03,	8.496E-04
209,	6.013E-02,	5.218E-01,	4.016E-01,	8.609E-02,	8.043E-03,	8.496E-04
210,	6.013E-02,	5.221E-01,	4.033E-01,	8.609E-02,	8.043E-03,	8.496E-04
211,	0.000E+00,	0.000E+00,	2.223E-01,	8.599E-02,	8.441E-03,	0.000E+00
212,	6.428E-02,	5.938E-01,	2.237E-01,	8.609E-02,	8.038E-03,	8.496E-04
213,	0.000E+00,	0.000E+00,	4.154E-01,	9.146E-02,	1.194E-02,	0.000E+00
214,	0.000E+00,	0.000E+00,	1.974E-01,	9.145E-02,	1.194E-02,	0.000E+00
215,	0.000E+00,	0.000E+00,	1.954E-01,	9.075E-02,	9.553E-03,	0.000E+00
216,	0.000E+00,	0.000E+00,	4.063E-01,	9.075E-02,	9.553E-03,	0.000E+00
217,	0.000E+00,	0.000E+00,	3.839E-01,	9.863E-02,	8.394E-03,	0.000E+00
218,	0.000E+00,	0.000E+00,	3.714E-01,	8.636E-02,	8.340E-03,	0.000E+00
219,	0.000E+00,	0.000E+00,	3.590E-01,	9.272E-02,	8.096E-03,	0.000E+00
220,	0.000E+00,	0.000E+00,	3.674E-01,	8.666E-02,	8.126E-03,	0.000E+00
221,	0.000E+00,	0.000E+00,	3.792E-01,	9.543E-02,	8.436E-03,	0.000E+00
222,	0.000E+00,	0.000E+00,	4.036E-01,	8.598E-02,	8.474E-03,	0.000E+00
223,	0.000E+00,	0.000E+00,	4.013E-01,	8.598E-02,	8.429E-03,	0.000E+00
224,	0.000E+00,	0.000E+00,	3.895E-01,	9.590E-02,	8.693E-03,	0.000E+00
225,	0.000E+00,	0.000E+00,	3.726E-01,	9.551E-02,	8.373E-03,	0.000E+00
226,	0.000E+00,	0.000E+00,	3.673E-01,	8.651E-02,	8.064E-03,	0.000E+00
227,	0.000E+00,	0.000E+00,	3.613E-01,	9.271E-02,	8.054E-03,	0.000E+00
228,	0.000E+00,	0.000E+00,	3.745E-01,	8.610E-02,	8.384E-03,	0.000E+00
229,	0.000E+00,	0.000E+00,	3.870E-01,	1.027E-01,	7.790E-03,	0.000E+00
230,	0.000E+00,	0.000E+00,	1.498E-01,	8.598E-02,	8.452E-03,	0.000E+00
231,	6.948E-02,	6.704E-01,	1.965E-01,	8.588E-02,	8.116E-03,	8.496E-04
232,	3.098E-02,	2.669E-01,	2.135E-01,	8.846E-02,	1.081E-02,	8.414E-04
233,	4.592E-02,	2.673E-01,	3.721E-01,	8.827E-02,	8.033E-03,	8.414E-04
234,	2.862E-02,	2.667E-01,	1.035E-01,	8.852E-02,	1.160E-02,	8.414E-04
235,	2.802E-02,	2.668E-01,	8.547E-02,	8.852E-02,	1.182E-02,	8.414E-04
236,	2.994E-02,	2.669E-01,	1.941E-01,	8.846E-02,	1.124E-02,	8.414E-04
237,	4.641E-02,	2.675E-01,	3.696E-01,	8.824E-02,	8.045E-03,	8.414E-04
238,	0.000E+00,	0.000E+00,	3.689E-01,	9.550E-02,	8.374E-03,	0.000E+00
239,	0.000E+00,	0.000E+00,	3.705E-01,	9.543E-02,	8.439E-03,	0.000E+00
240,	5.971E-02,	5.256E-01,	3.961E-01,	8.611E-02,	8.033E-03,	8.496E-04
241,	6.974E-02,	6.681E-01,	1.620E-01,	8.590E-02,	8.226E-03,	8.496E-04
242,	6.013E-02,	5.256E-01,	3.912E-01,	8.611E-02,	8.050E-03,	8.496E-04
243,	5.971E-02,	5.230E-01,	3.881E-01,	8.611E-02,	8.033E-03,	8.496E-04
244,	6.997E-02,	6.655E-01,	1.296E-01,	8.592E-02,	8.338E-03,	8.496E-04
245,	6.013E-02,	5.230E-01,	3.840E-01,	8.611E-02,	8.049E-03,	8.496E-04
246,	5.971E-02,	5.203E-01,	3.801E-01,	8.610E-02,	8.033E-03,	8.496E-04
247,	7.003E-02,	6.629E-01,	8.866E-02,	8.594E-02,	8.410E-03,	8.496E-04
248,	6.013E-02,	5.203E-01,	3.768E-01,	8.611E-02,	8.049E-03,	8.496E-04
249,	2.807E-02,	2.682E-01,	9.377E-02,	8.844E-02,	1.180E-02,	8.414E-04
250,	2.998E-02,	2.684E-01,	2.030E-01,	8.840E-02,	1.122E-02,	8.414E-04
251,	2.866E-02,	2.682E-01,	1.082E-01,	8.845E-02,	1.158E-02,	8.414E-04
252,	3.101E-02,	2.684E-01,	2.187E-01,	8.842E-02,	1.079E-02,	8.414E-04
253,	4.640E-02,	2.689E-01,	3.807E-01,	8.824E-02,	8.046E-03,	8.414E-04
254,	4.591E-02,	2.689E-01,	3.801E-01,	8.827E-02,	8.033E-03,	8.414E-04
255,	5.971E-02,	5.154E-01,	3.657E-01,	8.610E-02,	8.033E-03,	8.496E-04
256,	6.998E-02,	6.581E-01,	2.978E-02,	8.598E-02,	8.458E-03,	8.496E-04
257,	6.013E-02,	5.154E-01,	3.638E-01,	8.610E-02,	8.048E-03,	8.496E-04
258,	5.971E-02,	5.146E-01,	3.626E-01,	8.610E-02,	8.033E-03,	8.496E-04
259,	6.996E-02,	6.574E-01,	2.326E-02,	8.600E-02,	8.452E-03,	8.496E-04
260,	6.013E-02,	5.146E-01,	3.613E-01,	8.610E-02,	8.047E-03,	8.496E-04
261,	5.971E-02,	5.157E-01,	3.669E-01,	8.610E-02,	8.033E-03,	8.496E-04
262,	6.989E-02,	6.585E-01,	5.038E-02,	8.601E-02,	8.420E-03,	8.496E-04
263,	6.013E-02,	5.157E-01,	3.661E-01,	8.610E-02,	8.047E-03,	8.496E-04
264,	5.971E-02,	5.169E-01,	3.731E-01,	8.610E-02,	8.034E-03,	8.496E-04
265,	6.989E-02,	6.597E-01,	6.524E-02,	8.603E-02,	8.378E-03,	8.496E-04
266,	6.013E-02,	5.169E-01,	3.729E-01,	8.610E-02,	8.047E-03,	8.496E-04
267,	6.013E-02,	5.195E-01,	3.884E-01,	8.609E-02,	8.045E-03,	8.496E-04
268,	6.970E-02,	6.624E-01,	1.454E-01,	8.606E-02,	8.228E-03,	8.496E-04
269,	5.971E-02,	5.195E-01,	3.871E-01,	8.609E-02,	8.035E-03,	8.496E-04
270,	6.013E-02,	5.208E-01,	3.961E-01,	8.609E-02,	8.044E-03,	8.496E-04
271,	6.942E-02,	6.637E-01,	1.772E-01,	8.607E-02,	8.108E-03,	8.496E-04
272,	5.971E-02,	5.208E-01,	3.941E-01,	8.609E-02,	8.036E-03,	8.496E-04
273,	6.997E-02,	6.610E-01,	5.763E-02,	8.650E-02,	8.442E-03,	8.496E-04
274,	6.989E-02,	6.618E-01,	9.929E-02,	8.667E-02,	8.324E-03,	8.496E-04
275,	6.925E-02,	6.652E-01,	1.532E-01,	8.609E-02,	8.039E-03,	8.496E-04
276,	5.971E-02,	5.311E-01,	4.131E-01,	8.611E-02,	8.033E-03,	8.496E-04
277,	6.014E-02,	5.311E-01,	4.067E-01,	8.611E-02,	8.050E-03,	8.496E-04
278,	6.418E-02,	5.810E-01,	2.256E-01,	8.746E-02,	8.375E-03,	8.496E-04
279,	6.734E-02,	6.265E-01,	1.088E-01,	8.661E-02,	8.429E-03,	8.496E-04
280,	5.971E-02,	5.176E-01,	3.724E-01,	8.610E-02,	8.033E-03,	8.496E-04
281,	6.401E-02,	5.811E-01,	2.209E-01,	8.634E-02,	8.352E-03,	8.496E-04
282,	6.737E-02,	6.269E-01,	1.065E-01,	8.657E-02,	8.424E-03,	8.496E-04
283,	6.997E-02,	6.610E-01,	5.763E-02,	8.650E-02,	8.442E-03,	8.496E-04
284,	6.013E-02,	5.182E-01,	3.808E-01,	8.609E-02,	8.046E-03,	8.496E-04

285,	6.416E-02,	5.853E-01,	2.448E-01,	9.188E-02,	8.276E-03,	8.496E-04
286,	6.728E-02,	6.295E-01,	1.389E-01,	8.831E-02,	8.315E-03,	8.496E-04
287,	6.733E-02,	6.290E-01,	1.389E-01,	8.829E-02,	8.323E-03,	8.496E-04
288,	6.989E-02,	6.618E-01,	9.927E-02,	8.667E-02,	8.324E-03,	8.496E-04
289,	6.404E-02,	5.849E-01,	2.444E-01,	9.186E-02,	8.326E-03,	8.496E-04
290,	5.971E-02,	5.182E-01,	3.805E-01,	8.609E-02,	8.034E-03,	8.496E-04
291,	0.000E+00,	0.000E+00,	2.128E-01,	8.618E-02,	8.067E-03,	0.000E+00
292,	6.961E-02,	5.844E-01,	2.135E-01,	8.846E-02,	1.081E-02,	8.414E-04
293,	0.000E+00,	0.000E+00,	1.036E-01,	7.972E-02,	8.067E-03,	0.000E+00
294,	7.617E-02,	6.287E-01,	1.035E-01,	8.852E-02,	1.160E-02,	8.414E-04
295,	0.000E+00,	0.000E+00,	8.562E-02,	7.897E-02,	8.075E-03,	0.000E+00
296,	7.649E-02,	6.287E-01,	8.547E-02,	8.852E-02,	1.182E-02,	8.414E-04
297,	0.000E+00,	0.000E+00,	1.936E-01,	8.503E-02,	8.091E-03,	0.000E+00
298,	7.032E-02,	5.844E-01,	1.941E-01,	8.846E-02,	1.124E-02,	8.414E-04
299,	0.000E+00,	0.000E+00,	2.024E-01,	8.594E-02,	8.399E-03,	0.000E+00
300,	7.029E-02,	5.849E-01,	2.030E-01,	8.840E-02,	1.122E-02,	8.414E-04
301,	0.000E+00,	0.000E+00,	9.388E-02,	7.910E-02,	8.369E-03,	0.000E+00
302,	7.646E-02,	6.291E-01,	9.377E-02,	8.844E-02,	1.180E-02,	8.414E-04
303,	0.000E+00,	0.000E+00,	1.082E-01,	7.975E-02,	8.313E-03,	0.000E+00
304,	7.613E-02,	6.291E-01,	1.082E-01,	8.845E-02,	1.158E-02,	8.414E-04
305,	0.000E+00,	0.000E+00,	2.180E-01,	8.701E-02,	8.317E-03,	0.000E+00
306,	6.959E-02,	5.849E-01,	2.187E-01,	8.842E-02,	1.079E-02,	8.414E-04
307,	4.688E-02,	3.203E-01,	2.038E-01,	8.827E-02,	8.035E-03,	8.414E-04
308,	4.688E-02,	3.204E-01,	2.020E-01,	8.824E-02,	8.043E-03,	8.414E-04
309,	4.552E-02,	2.761E-01,	1.033E-01,	8.827E-02,	8.033E-03,	8.414E-04
310,	4.544E-02,	2.762E-01,	8.586E-02,	8.824E-02,	8.046E-03,	8.414E-04
311,	5.890E-02,	5.280E-01,	1.965E-01,	8.588E-02,	8.116E-03,	8.496E-04
312,	5.890E-02,	5.256E-01,	1.620E-01,	8.590E-02,	8.226E-03,	8.496E-04
313,	5.890E-02,	5.230E-01,	1.296E-01,	8.592E-02,	8.338E-03,	8.496E-04
314,	5.890E-02,	5.154E-01,	2.978E-02,	8.598E-02,	8.458E-03,	8.496E-04
315,	5.890E-02,	5.146E-01,	2.326E-02,	8.600E-02,	8.452E-03,	8.496E-04
316,	5.890E-02,	5.195E-01,	1.454E-01,	8.606E-02,	8.228E-03,	8.496E-04
317,	5.890E-02,	5.208E-01,	1.772E-01,	8.607E-02,	8.108E-03,	8.496E-04
318,	5.890E-02,	5.157E-01,	5.038E-02,	8.601E-02,	8.420E-03,	8.496E-04
319,	5.971E-02,	5.177E-01,	3.721E-01,	8.610E-02,	8.033E-03,	8.496E-04
320,	0.000E+00,	0.000E+00,	3.782E-01,	9.863E-02,	8.394E-03,	0.000E+00
321,	0.000E+00,	0.000E+00,	3.744E-01,	8.637E-02,	8.341E-03,	0.000E+00
322,	0.000E+00,	0.000E+00,	3.710E-01,	8.636E-02,	8.340E-03,	0.000E+00
323,	0.000E+00,	0.000E+00,	3.601E-01,	9.272E-02,	8.096E-03,	0.000E+00
324,	0.000E+00,	0.000E+00,	3.691E-01,	8.666E-02,	8.126E-03,	0.000E+00
325,	0.000E+00,	0.000E+00,	3.688E-01,	9.543E-02,	8.438E-03,	0.000E+00
326,	0.000E+00,	0.000E+00,	3.984E-01,	8.598E-02,	8.428E-03,	0.000E+00
327,	0.000E+00,	0.000E+00,	3.935E-01,	9.590E-02,	8.693E-03,	0.000E+00
328,	0.000E+00,	0.000E+00,	3.676E-01,	9.550E-02,	8.373E-03,	0.000E+00
329,	0.000E+00,	0.000E+00,	3.690E-01,	8.651E-02,	8.063E-03,	0.000E+00
330,	0.000E+00,	0.000E+00,	3.624E-01,	9.271E-02,	8.054E-03,	0.000E+00
331,	0.000E+00,	0.000E+00,	3.737E-01,	8.610E-02,	8.383E-03,	0.000E+00
332,	0.000E+00,	0.000E+00,	3.790E-01,	8.611E-02,	8.385E-03,	0.000E+00
333,	0.000E+00,	0.000E+00,	3.837E-01,	1.027E-01,	7.790E-03,	0.000E+00
334,	0.000E+00,	0.000E+00,	3.905E-01,	1.027E-01,	7.790E-03,	0.000E+00
335,	0.000E+00,	0.000E+00,	4.000E-01,	9.146E-02,	1.194E-02,	0.000E+00
336,	0.000E+00,	0.000E+00,	1.118E-01,	8.610E-02,	8.384E-03,	0.000E+00
337,	0.000E+00,	0.000E+00,	9.069E-02,	8.636E-02,	8.340E-03,	0.000E+00
338,	0.000E+00,	0.000E+00,	1.043E-01,	8.651E-02,	8.064E-03,	0.000E+00
339,	0.000E+00,	0.000E+00,	8.649E-02,	8.665E-02,	8.126E-03,	0.000E+00
340,	5.752E-02,	4.792E-01,	3.807E-01,	8.824E-02,	8.046E-03,	8.414E-04
341,	5.708E-02,	4.792E-01,	3.801E-01,	8.827E-02,	8.033E-03,	8.414E-04
342,	6.924E-02,	6.650E-01,	1.532E-01,	8.609E-02,	8.039E-03,	8.496E-04
343,	5.971E-02,	5.176E-01,	3.721E-01,	8.610E-02,	8.033E-03,	8.496E-04
344,	5.971E-02,	5.183E-01,	3.802E-01,	8.609E-02,	8.034E-03,	8.496E-04
345,	5.971E-02,	5.182E-01,	3.802E-01,	8.609E-02,	8.034E-03,	8.496E-04
346,	5.972E-02,	5.313E-01,	4.128E-01,	8.611E-02,	8.033E-03,	8.496E-04
347,	6.015E-02,	5.313E-01,	4.063E-01,	8.611E-02,	8.050E-03,	8.496E-04
348,	5.626E-02,	4.768E-01,	0.000E+00,	0.000E+00,	0.000E+00,	8.414E-04
349,	5.890E-02,	5.154E-01,	0.000E+00,	0.000E+00,	0.000E+00,	8.496E-04

--> Sollecitazioni nelle Aste (N, Ty, Tz, Mx, My, Mz) [kN, kN m]

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1 (1-j'-2) [l=480 cm] [Piano XZ: 402 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
  1, 8.55, 0.88, 25.83, 0.06, 47.65, 2.09
  j', 8.55, 0.88, 0.88, 25.83, 0.06, 56.62, 2.15
  2, 8.55, 0.88, 25.83, 0.06, 76.81, 2.15
2 (3-2) [l=151 cm] - K.
  3, 0.00, 0.00, 35.94, 0.80, 37.58, 0.00
  2, 0.00, 0.00, 35.94, 0.80, 34.09, 0.00
3 (2-4) [l=151 cm] - K.
  2, 0.00, 0.00, 11.01, 1.81, 29.79, 0.00
  4, 0.00, 0.00, 11.01, 1.81, 13.53, 0.00
4 (5-j'-6) [l=480 cm] [Piano XZ: 402 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
  5, 10.02, 0.80, 27.09, 0.06, 51.72, 1.81
  j', 10.02, 10.02, 0.80, 27.09, 0.06, 57.19, 2.03
  6, 10.02, 0.80, 27.09, 0.06, 78.42, 2.03
5 (7-6) [l=151 cm] - K.
  7, 0.00, 0.00, 11.13, 1.83, 13.17, 0.00
  6, 0.00, 0.00, 11.13, 1.83, 29.93, 0.00
6 (6-8) [l=151 cm] - K.

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6, 0.00, 0.00, 32.65, 0.35, 35.88, 0.00
 8, 0.00, 0.00, 32.65, 0.35, 33.52, 0.00
 7 (4-7) [l=227 cm] - S.
 4, 0.00, 0.00, 10.66, 0.00, 12.14, 0.00
 7, 0.00, 0.00, 10.66, 0.00, 12.00, 0.00
 8 (9-i'-j'-10) [l=480 cm] [Piano XZ: 192 rig.-267 def.-21 rig.] [in i' j': N=Nxy,Nxz] - M.
 9, 6.14, 0.83, 8.33, 0.03, 26.37, 1.94
 i', 6.14, 6.14, 0.83, 8.33, 0.03, 10.42, 1.94
 j', 6.14, 6.14, 0.83, 8.33, 0.03, 11.84, 2.03
 10, 6.14, 0.83, 8.33, 0.03, 13.59, 2.03
 9 (9-11) [l=79 cm] - K.
 9, 0.00, 0.00, 7.37, 1.77, 19.95, 0.00
 11, 0.00, 0.00, 7.37, 1.77, 15.23, 0.00
 10 (8-10) [l=79 cm] - K.
 8, 0.00, 0.00, 32.65, 33.52, 0.35, 0.00
 10, 0.00, 0.00, 32.65, 33.52, 25.64, 0.00
 11 (13-i'-j'-14) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.] [in i' j': N=Nxy,Nxz] - M.
 13, 11.10, 0.63, 11.06, 0.04, 34.16, 1.18
 i', 11.10, 11.10, 0.63, 11.06, 0.04, 14.99, 1.18
 j', 11.10, 11.10, 0.63, 11.06, 0.04, 16.76, 1.84
 14, 11.10, 0.63, 11.06, 0.04, 18.92, 1.84
 12 (15-13) [l=96 cm] - K.
 15, 0.00, 0.00, 8.25, 1.77, 9.61, 0.00
 13, 0.00, 0.00, 8.25, 1.77, 15.72, 0.00
 13 (14-17) [l=96 cm] - K.
 14, 0.00, 0.00, 22.17, 32.55, 154.50, 0.00
 17, 0.00, 0.00, 22.17, 32.55, 174.86, 0.00
 14 (11-15) [l=227 cm] - F.
 11, 0.00, 0.00, 6.97, 1.39, 11.81, 0.00
 15, 0.00, 0.00, 6.97, 1.39, 6.82, 0.00
 15 (12-16) [l=227 cm] - S.
 12, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 16, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 16 (18-j'-19) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
 18, 11.71, 0.61, 5.95, 0.03, 11.30, 1.13
 j', 11.71, 11.71, 0.61, 5.95, 0.03, 12.57, 1.79
 19, 11.71, 0.61, 5.95, 0.03, 17.26, 1.79
 17 (17-19) [l=96 cm] - K.
 17, 0.00, 0.00, 22.17, 32.55, 174.86, 0.00
 19, 0.00, 0.00, 22.17, 32.55, 195.26, 0.00
 18 (19-20) [l=96 cm] - K.
 19, 0.00, 0.00, 10.25, 35.57, 198.06, 0.00
 20, 0.00, 0.00, 10.25, 35.57, 201.26, 0.00
 19 (21-j'-22) [l=480 cm] [Piano XZ: 425 def.-55 rig.] [in j': N=Nxy,Nxz] - M.
 21, 13.84, 1.70, 15.39, 0.06, 30.83, 4.15
 j', 13.84, 13.84, 1.70, 15.39, 0.06, 34.71, 4.00
 22, 13.84, 1.70, 15.39, 0.06, 43.09, 4.00
 20 (23-22) [l=163 cm] - K.
 23, 0.00, 0.00, 11.74, 40.82, 201.28, 0.00
 22, 0.00, 0.00, 11.74, 40.82, 197.35, 0.00
 21 (22-24) [l=163 cm] - K.
 22, 0.00, 0.00, 16.39, 45.28, 205.18, 0.00
 24, 0.00, 0.00, 16.39, 45.28, 180.26, 0.00
 22 (20-23) [l=227 cm] - S.
 20, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 23, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 23 (25-j'-26) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
 25, 2.12, 0.29, 0.36, 0.01, 0.63, 0.71
 j', 2.12, 2.12, 0.29, 0.36, 0.01, 0.65, 0.68
 26, 2.12, 0.29, 0.36, 0.01, 1.11, 0.68
 24 (24-26) [l=28 cm] - K.
 24, 0.00, 0.00, 15.77, 23.72, 180.66, 0.00
 26, 0.00, 0.00, 15.77, 23.72, 178.35, 0.00
 25 (26-27) [l=28 cm] - K.
 26, 0.00, 0.00, 16.95, 24.39, 178.64, 0.00
 27, 0.00, 0.00, 16.95, 24.39, 176.06, 0.00
 26 (28-j'-29) [l=480 cm] [Piano XZ: 352 def.-128 rig.] [in j': N=Nxy,Nxz] - M.
 28, 3.66, 0.21, 0.28, 0.00, 0.47, 0.49
 j', 3.66, 3.66, 0.21, 0.28, 0.00, 0.50, 0.53
 29, 3.66, 0.21, 0.28, 0.00, 0.85, 0.53
 27 (30-29) [l=26 cm] - K.
 30, 0.00, 0.00, 17.34, 23.25, 162.42, 0.00
 29, 0.00, 0.00, 17.34, 23.25, 162.50, 0.00
 28 (29-31) [l=26 cm] - K.
 29, 0.00, 0.00, 16.29, 23.76, 162.23, 0.00
 31, 0.00, 0.00, 16.29, 23.76, 161.59, 0.00
 29 (27-30) [l=227 cm] - S.
 27, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 30, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 30 (32-i'-j'-33) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.] [in i' j': N=Nxy,Nxz] - M.
 32, 18.76, 1.17, 17.37, 0.06, 48.49, 2.68
 i', 18.76, 18.76, 1.17, 17.37, 0.06, 26.14, 2.68
 j', 18.76, 18.76, 1.17, 17.37, 0.06, 32.05, 2.93
 33, 18.76, 1.17, 17.37, 0.06, 34.88, 2.93
 31 (32-34) [l=146 cm] - K.
 32, 0.00, 0.00, 10.96, 1.24, 31.25, 0.00

34, 0.00, 0.00, 10.96, 1.24, 15.83, 0.00
 32 (31-33) [l=146 cm] - K.
 31, 0.00, 0.00, 16.28, 24.06, 161.58, 0.00
 33, 0.00, 0.00, 16.28, 24.06, 158.42, 0.00
 33 (33-35) [l=146 cm] - K.
 33, 0.00, 0.00, 20.16, 19.04, 146.39, 0.00
 35, 0.00, 0.00, 20.16, 19.04, 126.54, 0.00
 34 (36-i'-j'-37) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.] [in i' j': N=Nxy,Nxz] - M.
 36, 23.58, 3.00, 39.17, 0.13, 89.68, 7.36
 i', 23.58, 23.58, 3.00, 39.17, 0.13, 70.79, 7.36
 j', 23.58, 23.58, 3.00, 39.17, 0.13, 97.68, 7.05
 37, 23.58, 3.00, 39.17, 0.13, 101.12, 7.05
 35 (38-36) [l=308 cm] - K.
 38, 0.00, 0.00, 13.24, 1.24, 11.55, 0.00
 36, 0.00, 0.00, 13.24, 1.24, 50.83, 0.00
 36 (39-37) [l=308 cm] - K.
 39, 0.00, 0.00, 14.90, 14.66, 102.75, 0.00
 37, 0.00, 0.00, 14.90, 14.66, 97.41, 0.00
 37 (37-40) [l=308 cm] - K.
 37, 0.00, 0.00, 14.67, 23.89, 54.04, 0.00
 40, 0.00, 0.00, 14.67, 23.89, 29.89, 0.00
 38 (34-38) [l=227 cm] - F.
 34, 0.00, 0.00, 8.05, 0.98, 11.78, 0.00
 38, 0.00, 0.00, 8.05, 0.98, 7.70, 0.00
 39 (35-39) [l=227 cm] - S.
 35, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 39, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 40 (41-j'-42) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
 41, 2.10, 0.28, 0.37, 0.01, 0.64, 0.70
 j', 2.10, 2.10, 0.28, 0.37, 0.01, 0.66, 0.67
 42, 2.10, 0.28, 0.37, 0.01, 1.12, 0.67
 41 (40-42) [l=28 cm] - K.
 40, 0.00, 0.00, 15.18, 34.26, 29.72, 0.00
 42, 0.00, 0.00, 15.18, 34.26, 30.53, 0.00
 42 (42-43) [l=28 cm] - K.
 42, 0.00, 0.00, 16.68, 34.82, 30.18, 0.00
 43, 0.00, 0.00, 16.68, 34.82, 31.26, 0.00
 43 (44-j'-45) [l=480 cm] [Piano XZ: 425 def.-55 rig.] [in j': N=Nxy,Nxz] - M.
 44, 18.64, 1.25, 15.16, 0.06, 29.78, 2.73
 j', 18.64, 18.64, 1.25, 15.16, 0.06, 34.79, 3.27
 45, 18.64, 1.25, 15.16, 0.06, 43.01, 3.27
 44 (45-47) [l=164 cm] - K.
 45, 0.00, 0.00, 5.16, 18.73, 36.88, 0.00
 47, 0.00, 0.00, 5.16, 18.73, 42.27, 0.00
 45 (43-46) [l=227 cm] - S.
 43, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 46, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 46 (48-i'-j'-49) [l=480 cm] [Piano XZ: 116 rig.-349 def.-15 rig.] [in i' j': N=Nxy,Nxz] - M.
 48, 15.15, 1.29, 20.33, 0.07, 56.01, 2.82
 i', 15.15, 15.15, 1.29, 20.33, 0.07, 32.43, 2.82
 j', 15.15, 15.15, 1.29, 20.33, 0.07, 38.45, 3.36
 49, 15.15, 1.29, 20.33, 0.07, 41.57, 3.36
 47 (48-50) [l=164 cm] - K.
 48, 0.00, 0.00, 10.19, 1.86, 27.62, 0.00
 50, 0.00, 0.00, 10.19, 1.86, 12.13, 0.00
 48 (47-49) [l=164 cm] - K.
 47, 0.00, 0.00, 5.16, 18.73, 42.27, 0.00
 49, 0.00, 0.00, 5.16, 18.73, 47.97, 0.00
 49 (52-i'-j'-53) [l=480 cm] [Piano XZ: 206 rig.-252 def.-22 rig.] [in i' j': N=Nxy,Nxz] - M.
 52, 5.21, 0.74, 7.05, 0.03, 23.09, 1.82
 i', 5.21, 5.21, 0.74, 7.05, 0.03, 8.53, 1.82
 j', 5.21, 5.21, 0.74, 7.05, 0.03, 9.22, 1.75
 53, 5.21, 0.74, 7.05, 0.03, 10.77, 1.75
 50 (54-52) [l=67 cm] - K.
 54, 0.00, 0.00, 7.25, 1.86, 15.21, 0.00
 52, 0.00, 0.00, 7.25, 1.86, 20.05, 0.00
 51 (55-53) [l=67 cm] - K.
 55, 0.00, 0.00, 0.81, 3.28, 10.75, 0.00
 53, 0.00, 0.00, 0.81, 3.28, 11.13, 0.00
 52 (50-54) [l=227 cm] - F.
 50, 0.00, 0.00, 8.04, 1.46, 8.25, 0.00
 54, 0.00, 0.00, 8.04, 1.46, 9.96, 0.00
 53 (51-55) [l=227 cm] - S.
 51, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 55, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 54 (56-j'-57) [l=480 cm] [Piano XZ: 261 def.-219 rig.] [in j': N=Nxy,Nxz] - M.
 56, 4.68, 0.73, 6.93, 0.02, 8.73, 1.79
 j', 4.68, 4.68, 0.73, 6.93, 0.02, 9.37, 1.72
 57, 4.68, 0.73, 6.93, 0.02, 24.53, 1.72
 55 (57-58) [l=67 cm] - K.
 57, 0.00, 0.00, 2.95, 1.72, 24.53, 0.00
 58, 0.00, 0.00, 2.95, 1.72, 24.45, 0.00
 56 (59-j'-60) [l=480 cm] [Piano XZ: 231 def.-249 rig.] [in j': N=Nxy,Nxz] - M.
 59, 3.46, 0.32, 3.65, 0.01, 4.23, 0.67
 j', 3.46, 3.46, 0.32, 3.65, 0.01, 4.20, 0.87
 60, 3.46, 0.32, 3.65, 0.01, 13.28, 0.87

57 (61-60) [l=43 cm] - K.
61, 0.00, 0.00, 3.44, 0.50, 23.72, 0.00
60, 0.00, 0.00, 3.44, 0.50, 23.15, 0.00

58 (60-62) [l=43 cm] - K.
60, 0.00, 0.00, 3.07, 1.35, 36.14, 0.00
62, 0.00, 0.00, 3.07, 1.35, 35.16, 0.00

59 (58-61) [l=100 cm] - S.
58, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
61, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

60 (63-i'-j'-64) [l=480 cm] [Piano XZ: 238 rig.-213 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
63, 4.34, 0.32, 4.47, 0.01, 15.44, 0.67
i', 4.34, 4.34, 0.32, 4.47, 0.01, 4.78, 0.67
j', 4.34, 4.34, 0.32, 4.47, 0.01, 4.75, 0.86
64, 4.34, 0.32, 4.47, 0.01, 6.02, 0.86

61 (63-65) [l=43 cm] - K.
63, 0.00, 0.00, 3.05, 0.63, 6.84, 0.00
65, 0.00, 0.00, 3.05, 0.63, 5.96, 0.00

62 (62-64) [l=43 cm] - K.
62, 0.00, 0.00, 3.07, 1.38, 35.16, 0.00
64, 0.00, 0.00, 3.07, 1.38, 34.19, 0.00

63 (64-66) [l=43 cm] - K.
64, 0.00, 0.00, 4.38, 2.23, 39.68, 0.00
66, 0.00, 0.00, 4.38, 2.23, 38.08, 0.00

64 (67-i'-j'-68) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.] [in i' j': N=Nxy,Nxz] - M.
67, 12.57, 0.77, 10.87, 0.04, 33.59, 1.72
i', 12.57, 12.57, 0.77, 10.87, 0.04, 14.75, 1.72
j', 12.57, 12.57, 0.77, 10.87, 0.04, 16.44, 1.99
68, 12.57, 0.77, 10.87, 0.04, 18.57, 1.99

65 (69-67) [l=96 cm] - K.
69, 0.00, 0.00, 6.67, 0.63, 14.15, 0.00
67, 0.00, 0.00, 6.67, 0.63, 18.86, 0.00

66 (68-71) [l=96 cm] - K.
68, 0.00, 0.00, 8.13, 14.57, 48.66, 0.00
71, 0.00, 0.00, 8.13, 14.57, 44.42, 0.00

67 (65-69) [l=227 cm] - F.
65, 0.00, 0.00, 5.24, 0.50, 6.46, 0.00
69, 0.00, 0.00, 5.24, 0.50, 11.45, 0.00

68 (66-70) [l=227 cm] - S.
66, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
70, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

69 (72-j'-73) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
72, 12.34, 0.76, 5.84, 0.03, 11.10, 1.69
j', 12.34, 12.34, 0.76, 5.84, 0.03, 12.35, 1.96
73, 12.34, 0.76, 5.84, 0.03, 16.94, 1.96

70 (71-73) [l=96 cm] - K.
71, 0.00, 0.00, 8.13, 14.57, 44.42, 0.00
73, 0.00, 0.00, 8.13, 14.57, 41.48, 0.00

71 (75-j'-76) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
75, 2.16, 0.29, 0.36, 0.01, 0.62, 0.70
j', 2.16, 2.16, 0.29, 0.36, 0.01, 0.65, 0.67
76, 2.16, 0.29, 0.36, 0.01, 1.10, 0.67

72 (77-76) [l=28 cm] - K.
77, 0.00, 0.00, 12.58, 14.90, 33.00, 0.00
76, 0.00, 0.00, 12.58, 14.90, 32.48, 0.00

73 (76-78) [l=28 cm] - K.
76, 0.00, 0.00, 11.25, 14.33, 32.84, 0.00
78, 0.00, 0.00, 11.25, 14.33, 32.22, 0.00

74 (74-77) [l=227 cm] - S.
74, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
77, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00

75 (79-i'-j'-80) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.] [in i' j': N=Nxy,Nxz] - M.
79, 23.98, 3.03, 38.32, 0.13, 86.84, 7.47
i', 23.98, 23.98, 3.03, 38.32, 0.13, 68.36, 7.47
j', 23.98, 23.98, 3.03, 38.32, 0.13, 96.81, 7.08
80, 23.98, 3.03, 38.32, 0.13, 100.19, 7.08

76 (79-81) [l=308 cm] - K.
79, 0.00, 0.00, 13.14, 1.30, 50.88, 0.00
81, 0.00, 0.00, 13.14, 1.30, 11.81, 0.00

77 (78-80) [l=308 cm] - K.
78, 0.00, 0.00, 9.99, 34.76, 32.35, 0.00
80, 0.00, 0.00, 9.99, 34.76, 53.24, 0.00

78 (80-82) [l=308 cm] - K.
80, 0.00, 0.00, 12.99, 24.97, 101.33, 0.00
82, 0.00, 0.00, 12.99, 24.97, 108.24, 0.00

79 (83-i'-j'-84) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.] [in i' j': N=Nxy,Nxz] - M.
83, 19.06, 1.17, 17.18, 0.06, 48.02, 2.68
i', 19.06, 19.06, 1.17, 17.18, 0.06, 25.90, 2.68
j', 19.06, 19.06, 1.17, 17.18, 0.06, 31.66, 2.92
84, 19.06, 1.17, 17.18, 0.06, 34.46, 2.92

80 (85-83) [l=146 cm] - K.
85, 0.00, 0.00, 10.93, 1.30, 15.30, 0.00
83, 0.00, 0.00, 10.93, 1.30, 30.82, 0.00

81 (86-84) [l=146 cm] - K.
86, 0.00, 0.00, 18.95, 19.14, 132.69, 0.00
84, 0.00, 0.00, 18.95, 19.14, 152.82, 0.00

82 (84-87) [l=146 cm] - K.

84, 0.00, 0.00, 14.44, 14.58, 166.38, 0.00
 87, 0.00, 0.00, 14.44, 14.58, 171.15, 0.00
 83 (81-85) [l=227 cm] - F.
 81, 0.00, 0.00, 7.99, 1.02, 7.96, 0.00
 85, 0.00, 0.00, 7.99, 1.02, 11.29, 0.00
 84 (82-86) [l=227 cm] - S.
 82, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 86, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 85 (88-j'-89) [l=480 cm] [Piano XZ: 352 def.-128 rig.] [in j': N=Nxy,Nxz] - M.
 88, 3.74, 0.21, 0.27, 0.00, 0.46, 0.49
 j', 3.74, 3.74, 0.21, 0.27, 0.00, 0.49, 0.53
 89, 3.74, 0.21, 0.27, 0.00, 0.84, 0.53
 86 (87-89) [l=26 cm] - K.
 87, 0.00, 0.00, 14.44, 14.86, 171.18, 0.00
 89, 0.00, 0.00, 14.44, 14.86, 172.03, 0.00
 87 (89-90) [l=26 cm] - K.
 89, 0.00, 0.00, 15.40, 15.31, 172.34, 0.00
 90, 0.00, 0.00, 15.40, 15.31, 172.39, 0.00
 88 (91-j'-92) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
 91, 2.21, 0.29, 0.35, 0.01, 0.60, 0.72
 j', 2.21, 2.21, 0.29, 0.35, 0.01, 0.64, 0.68
 92, 2.21, 0.29, 0.35, 0.01, 1.08, 0.68
 89 (93-92) [l=28 cm] - K.
 93, 0.00, 0.00, 15.07, 14.29, 175.88, 0.00
 92, 0.00, 0.00, 15.07, 14.29, 177.59, 0.00
 90 (92-94) [l=28 cm] - K.
 92, 0.00, 0.00, 13.87, 14.86, 177.47, 0.00
 94, 0.00, 0.00, 13.87, 14.86, 179.45, 0.00
 91 (90-93) [l=227 cm] - S.
 90, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 93, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 92 (95-j'-96) [l=480 cm] [Piano XZ: 425 def.-55 rig.] [in j': N=Nxy,Nxz] - M.
 95, 13.78, 1.72, 14.75, 0.06, 28.72, 4.25
 j', 13.78, 13.78, 1.72, 14.75, 0.06, 34.21, 4.03
 96, 13.78, 1.72, 14.75, 0.06, 42.10, 4.03
 93 (94-96) [l=163 cm] - K.
 94, 0.00, 0.00, 16.52, 49.89, 179.23, 0.00
 96, 0.00, 0.00, 16.52, 49.89, 204.41, 0.00
 94 (96-97) [l=163 cm] - K.
 96, 0.00, 0.00, 12.03, 45.31, 209.40, 0.00
 97, 0.00, 0.00, 12.03, 45.31, 206.91, 0.00
 95 (98-j'-99) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
 98, 11.50, 0.44, 6.03, 0.03, 11.72, 0.61
 j', 11.50, 11.50, 0.44, 6.03, 0.03, 12.52, 1.53
 99, 11.50, 0.44, 6.03, 0.03, 17.25, 1.53
 96 (100-99) [l=96 cm] - K.
 100, 0.00, 0.00, 9.97, 40.01, 206.28, 0.00
 99, 0.00, 0.00, 9.97, 40.01, 203.66, 0.00
 97 (99-101) [l=96 cm] - K.
 99, 0.00, 0.00, 23.13, 36.78, 201.15, 0.00
 101, 0.00, 0.00, 23.13, 36.78, 180.98, 0.00
 98 (97-100) [l=227 cm] - S.
 97, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 100, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 99 (102-j'-103) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
 102, 12.96, 0.47, 6.03, 0.03, 11.72, 0.66
 j', 12.96, 12.96, 0.47, 6.03, 0.03, 12.52, 1.58
 103, 12.96, 0.47, 6.03, 0.03, 17.25, 1.58
 100 (101-103) [l=96 cm] - K.
 101, 0.00, 0.00, 23.13, 36.78, 180.98, 0.00
 103, 0.00, 0.00, 23.13, 36.78, 161.05, 0.00
 101 (105-j'-106) [l=480 cm] [Piano XZ: 391 def.-90 rig.] [in j': N=Nxy,Nxz] - M.
 105, 5.29, 0.78, 4.29, 0.03, 8.24, 1.81
 j', 5.29, 5.29, 0.78, 4.29, 0.03, 8.53, 1.96
 106, 5.29, 0.78, 4.29, 0.03, 12.37, 1.96
 102 (106-3) [l=79 cm] - K.
 106, 0.00, 0.00, 35.94, 37.58, 27.76, 0.00
 3, 0.00, 0.00, 35.94, 37.58, 0.80, 0.00
 103 (104-107) [l=227 cm] - S.
 104, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 107, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 104 (108-109) [l=608 cm] - M.
 108, 9.64, 0.55, 25.44, 0.06, 76.37, 1.58
 109, 9.64, 0.55, 25.44, 0.06, 78.43, 1.76
 105 (110-109) [l=224 cm] - K.
 110, 12.45, 204.86, 43.65, 537.52, 145.35, 742.03
 109, 12.45, 204.86, 43.65, 537.52, 47.87, 282.91
 106 (112-j'-113) [l=420 cm] [Piano XZ: 361 def.-59 rig.] [in j': N=Nxy,Nxz] - M.
 112, 5.62, 0.44, 26.47, 0.02, 50.69, 0.89
 j', 5.62, 5.62, 0.44, 26.47, 0.02, 44.90, 0.95
 113, 5.62, 0.44, 26.47, 0.02, 60.53, 0.95
 107 (114-113) [l=153 cm] - K.
 114, 21.45, 0.50, 9.49, 0.91, 30.10, 0.39
 113, 21.45, 0.50, 9.49, 0.91, 41.96, 0.39
 108 (113-115) [l=153 cm] - K.
 113, 6.71, 0.00, 8.55, 0.00, 17.71, 0.00

115, 6.71, 0.00, 8.55, 0.00, 4.66, 0.00
 109 (116-j'-117) [l=420 cm] [Piano XZ: 363 def.-57 rig.] [in j': N=Nxy,Nxz] - M.
 116, 5.73, 0.48, 28.81, 0.03, 54.86, 0.99
 j', 5.73, 5.73, 0.48, 28.81, 0.03, 49.79, 1.03
 117, 5.73, 0.48, 28.81, 0.03, 66.31, 1.03
 110 (118-117) [l=163 cm] - K.
 118, 6.83, 0.00, 8.61, 0.00, 4.40, 0.00
 117, 6.83, 0.00, 8.61, 0.00, 18.39, 0.00
 111 (117-119) [l=163 cm] - K.
 117, 24.16, 0.55, 9.30, 1.00, 46.82, 0.45
 119, 24.16, 0.55, 9.30, 1.00, 34.62, 0.45
 112 (115-118) [l=200 cm] - S.
 115, 0.23, 0.00, 8.56, 0.00, 8.61, 0.00
 118, 0.23, 0.00, 8.56, 0.00, 8.52, 0.00
 113 (120-j'-121) [l=420 cm] [Piano XZ: 361 def.-59 rig.] [in j': N=Nxy,Nxz] - M.
 120, 5.28, 0.45, 25.70, 0.02, 49.13, 0.92
 j', 5.28, 5.28, 0.45, 25.70, 0.02, 44.10, 0.96
 121, 5.28, 0.45, 25.70, 0.02, 59.12, 0.96
 114 (122-121) [l=153 cm] - K.
 122, 21.92, 0.16, 9.15, 0.29, 31.98, 0.12
 121, 21.92, 0.16, 9.15, 0.29, 41.84, 0.12
 115 (121-123) [l=153 cm] - K.
 121, 6.89, 0.36, 8.39, 0.65, 17.89, 0.28
 123, 6.89, 0.36, 8.39, 0.65, 5.08, 0.28
 116 (124-j'-125) [l=420 cm] [Piano XZ: 363 def.-57 rig.] [in j': N=Nxy,Nxz] - M.
 124, 5.54, 0.48, 28.15, 0.03, 53.71, 1.00
 j', 5.54, 5.54, 0.48, 28.15, 0.03, 48.62, 1.04
 125, 5.54, 0.48, 28.15, 0.03, 64.66, 1.04
 117 (126-125) [l=163 cm] - K.
 126, 6.85, 0.36, 8.30, 0.66, 4.68, 0.30
 125, 6.85, 0.36, 8.30, 0.66, 18.16, 0.30
 118 (125-127) [l=163 cm] - K.
 125, 25.03, 0.19, 8.88, 0.34, 46.37, 0.15
 127, 25.03, 0.19, 8.88, 0.34, 37.40, 0.15
 119 (123-126) [l=200 cm] - S.
 123, 0.23, 0.00, 8.26, 0.00, 8.31, 0.00
 126, 0.23, 0.00, 8.26, 0.00, 8.22, 0.00
 120 (96-128) [l=45 cm] - C.
 96, 4.82, 5.14, 4.34, 0.05, 2.17, 9.03
 128, 4.82, 5.14, 4.34, 0.05, 1.73, 11.13
 121 (129-128) [l=163 cm] - K.
 129, 0.00, 0.00, 5.42, 73.96, 138.69, 0.00
 128, 0.00, 0.00, 5.42, 73.96, 145.44, 0.00
 122 (131-132) [l=45 cm] - M.
 131, 0.45, 0.52, 0.55, 0.01, 0.24, 1.23
 132, 0.45, 0.52, 0.55, 0.01, 0.18, 1.44
 123 (80-134) [l=45 cm] - C.
 80, 21.00, 2.44, 8.15, 0.11, 3.79, 18.98
 134, 21.00, 2.44, 8.15, 0.11, 3.61, 19.20
 124 (19-137) [l=45 cm] - C.
 19, 8.94, 4.28, 2.49, 0.03, 0.70, 4.83
 137, 8.94, 4.28, 2.49, 0.03, 0.66, 6.62
 125 (138-137) [l=96 cm] - K.
 138, 0.00, 0.00, 16.92, 46.97, 112.44, 0.00
 137, 0.00, 0.00, 16.92, 46.97, 128.64, 0.00
 126 (140-141) [l=45 cm] - M.
 140, 0.39, 0.58, 0.54, 0.01, 0.22, 1.17
 141, 0.39, 0.58, 0.54, 0.01, 0.17, 1.41
 127 (141-143) [l=168 cm] - K.
 141, 0.00, 0.00, 4.55, 73.42, 136.45, 0.00
 143, 0.00, 0.00, 4.55, 73.42, 136.23, 0.00
 128 (33-144) [l=45 cm] - C.
 33, 5.12, 3.16, 3.83, 0.05, 1.02, 8.10
 144, 5.12, 3.16, 3.83, 0.05, 0.96, 9.33
 129 (143-144) [l=146 cm] - K.
 143, 0.00, 0.00, 4.67, 73.40, 136.23, 0.00
 144, 0.00, 0.00, 4.67, 73.40, 136.03, 0.00
 130 (146-147) [l=45 cm] - C.
 146, 8.06, 1.31, 3.71, 0.04, 0.76, 8.60
 147, 8.06, 1.31, 3.71, 0.04, 0.95, 8.37
 131 (147-149) [l=142 cm] - K.
 147, 0.00, 0.00, 33.91, 116.80, 296.61, 0.00
 149, 0.00, 0.00, 33.91, 116.80, 344.25, 0.00
 132 (150-151) [l=45 cm] - M.
 150, 2.38, 0.43, 0.77, 0.01, 0.18, 1.96
 151, 2.38, 0.43, 0.77, 0.01, 0.26, 1.84
 133 (153-154) [l=45 cm] - C.
 153, 10.30, 4.08, 4.09, 0.05, 1.18, 10.41
 154, 10.30, 4.08, 4.09, 0.05, 1.67, 8.93
 134 (154-156) [l=156 cm] - K.
 154, 0.00, 0.00, 38.17, 118.84, 566.17, 0.00
 156, 0.00, 0.00, 38.17, 118.84, 507.17, 0.00
 135 (157-158) [l=45 cm] - M.
 157, 0.92, 0.64, 0.52, 0.01, 0.32, 1.40
 158, 0.92, 0.64, 0.52, 0.01, 0.38, 1.16
 136 (159-158) [l=160 cm] - K.

159, 0.00, 0.00, 44.22, 127.67, 775.49, 0.00
 158, 0.00, 0.00, 44.22, 127.67, 705.83, 0.00
 137 (158-155) [l=160 cm] - K.
 158, 0.00, 0.00, 44.44, 126.51, 705.51, 0.00
 155, 0.00, 0.00, 44.44, 126.51, 635.60, 0.00
 138 (160-161) [l=45 cm] - C.
 160, 7.14, 3.55, 4.36, 0.05, 1.20, 10.54
 161, 7.14, 3.55, 4.36, 0.05, 1.76, 9.34
 139 (161-163) [l=166 cm] - K.
 161, 0.00, 0.00, 45.76, 135.56, 537.75, 0.00
 163, 0.00, 0.00, 45.76, 135.56, 613.03, 0.00
 140 (164-165) [l=45 cm] - M.
 164, 1.64, 0.54, 0.31, 0.00, 0.10, 0.65
 165, 1.64, 0.54, 0.31, 0.00, 0.08, 0.88
 141 (166-165) [l=96 cm] - K.
 166, 0.00, 0.00, 17.13, 48.32, 114.79, 0.00
 165, 0.00, 0.00, 17.13, 48.32, 98.36, 0.00
 142 (165-167) [l=96 cm] - K.
 165, 0.00, 0.00, 18.74, 47.44, 98.43, 0.00
 167, 0.00, 0.00, 18.74, 47.44, 80.44, 0.00
 143 (168-169) [l=45 cm] - M.
 168, 2.50, 0.69, 0.37, 0.00, 0.16, 0.75
 169, 2.50, 0.69, 0.37, 0.00, 0.12, 1.04
 144 (167-169) [l=113 cm] - K.
 167, 0.00, 0.00, 18.78, 47.45, 80.44, 0.00
 169, 0.00, 0.00, 18.78, 47.45, 59.28, 0.00
 145 (169-170) [l=113 cm] - K.
 169, 0.00, 0.00, 21.24, 46.41, 59.39, 0.00
 170, 0.00, 0.00, 21.24, 46.41, 35.45, 0.00
 146 (171-172) [l=45 cm] - M.
 171, 2.16, 0.52, 0.26, 0.00, 0.07, 0.52
 172, 2.16, 0.52, 0.26, 0.00, 0.06, 0.75
 147 (170-172) [l=80 cm] - K.
 170, 0.00, 0.00, 21.24, 46.41, 35.45, 0.00
 172, 0.00, 0.00, 21.24, 46.41, 18.54, 0.00
 148 (172-173) [l=80 cm] - K.
 172, 0.00, 0.00, 23.38, 45.67, 18.58, 0.00
 173, 0.00, 0.00, 23.38, 45.67, 0.07, 0.00
 149 (174-175) [l=45 cm] - M.
 174, 1.55, 0.58, 0.31, 0.00, 0.09, 0.62
 175, 1.55, 0.58, 0.31, 0.00, 0.09, 0.86
 150 (138-175) [l=96 cm] - K.
 138, 0.00, 0.00, 16.92, 46.97, 112.44, 0.00
 175, 0.00, 0.00, 16.92, 46.97, 96.22, 0.00
 151 (175-176) [l=96 cm] - K.
 175, 0.00, 0.00, 18.44, 46.12, 96.29, 0.00
 176, 0.00, 0.00, 18.44, 46.12, 78.60, 0.00
 152 (177-178) [l=45 cm] - M.
 177, 2.35, 0.74, 0.36, 0.00, 0.14, 0.71
 178, 2.35, 0.74, 0.36, 0.00, 0.12, 1.02
 153 (176-178) [l=113 cm] - K.
 176, 0.00, 0.00, 18.44, 46.13, 78.60, 0.00
 178, 0.00, 0.00, 18.44, 46.13, 57.83, 0.00
 154 (178-179) [l=113 cm] - K.
 178, 0.00, 0.00, 20.75, 45.11, 57.94, 0.00
 179, 0.00, 0.00, 20.75, 45.11, 34.55, 0.00
 155 (180-181) [l=45 cm] - M.
 180, 2.03, 0.56, 0.25, 0.00, 0.07, 0.49
 181, 2.03, 0.56, 0.25, 0.00, 0.07, 0.73
 156 (179-181) [l=80 cm] - K.
 179, 0.00, 0.00, 20.75, 45.11, 34.55, 0.00
 181, 0.00, 0.00, 20.75, 45.11, 18.04, 0.00
 157 (181-182) [l=80 cm] - K.
 181, 0.00, 0.00, 22.75, 44.39, 18.08, 0.00
 182, 0.00, 0.00, 22.75, 44.39, 0.06, 0.00
 158 (2-183) [l=106 cm] - M.
 2, 23.98, 0.10, 1.18, 0.00, 13.64, 0.06
 183, 23.98, 0.10, 1.18, 0.00, 12.40, 0.05
 159 (173-183) [l=163 cm] - K.
 173, 11.79, 0.01, 20.39, 0.05, 45.68, 0.06
 183, 11.79, 0.01, 20.39, 0.05, 12.47, 0.03
 160 (183-184) [l=163 cm] - K.
 183, 0.98, 0.03, 2.47, 0.03, 4.33, 0.05
 184, 0.98, 0.03, 2.47, 0.03, 0.82, 0.01
 161 (184-185) [l=122 cm] - S.
 184, 1.37, 0.04, 1.78, 0.01, 1.41, 0.02
 185, 1.37, 0.04, 1.78, 0.01, 0.77, 0.02
 162 (186-185) [l=122 cm] - S.
 186, 1.37, 0.04, 1.80, 0.01, 1.43, 0.02
 185, 1.37, 0.04, 1.80, 0.01, 0.79, 0.02
 163 (6-187) [l=106 cm] - M.
 6, 23.29, 0.10, 1.11, 0.00, 13.17, 0.05
 187, 23.29, 0.10, 1.11, 0.00, 12.01, 0.05
 164 (182-187) [l=163 cm] - K.
 182, 11.45, 0.01, 19.81, 0.05, 44.40, 0.05
 187, 11.45, 0.01, 19.81, 0.05, 12.13, 0.03

165 (187-186) [l=163 cm] - K.
 187, 0.96, 0.02, 2.60, 0.03, 4.35, 0.05
 186, 0.96, 0.02, 2.60, 0.03, 0.81, 0.01
 166 (188-189) [l=45 cm] - C.
 188, 6.02, 1.54, 2.97, 0.03, 0.72, 6.74
 189, 6.02, 1.54, 2.97, 0.03, 0.66, 7.26
 167 (136-189) [l=113 cm] - K.
 136, 0.00, 0.00, 11.48, 92.15, 164.22, 0.00
 189, 0.00, 0.00, 11.48, 92.15, 151.89, 0.00
 168 (189-190) [l=113 cm] - K.
 189, 0.00, 0.00, 6.15, 84.91, 152.14, 0.00
 190, 0.00, 0.00, 6.15, 84.91, 145.91, 0.00
 169 (84-191) [l=45 cm] - C.
 84, 5.95, 2.73, 3.85, 0.05, 1.14, 8.51
 191, 5.95, 2.73, 3.85, 0.05, 1.01, 9.52
 170 (191-133) [l=146 cm] - K.
 191, 0.00, 0.00, 5.82, 75.41, 138.64, 0.00
 133, 0.00, 0.00, 5.82, 75.41, 138.13, 0.00
 171 (192-193) [l=45 cm] - C.
 192, 7.21, 2.05, 2.51, 0.03, 0.54, 6.35
 193, 7.21, 2.05, 2.51, 0.03, 0.63, 5.65
 172 (193-152) [l=97 cm] - K.
 193, 0.00, 0.00, 32.89, 113.19, 470.33, 0.00
 152, 0.00, 0.00, 32.89, 113.19, 438.76, 0.00
 173 (194-195) [l=45 cm] - C.
 194, 7.46, 4.18, 2.99, 0.03, 1.03, 6.11
 195, 7.46, 4.18, 2.99, 0.03, 0.83, 7.85
 174 (130-195) [l=113 cm] - K.
 130, 0.00, 0.00, 3.08, 62.86, 146.54, 0.00
 195, 0.00, 0.00, 3.08, 62.86, 146.17, 0.00
 175 (195-196) [l=113 cm] - K.
 195, 0.00, 0.00, 8.19, 55.03, 146.83, 0.00
 196, 0.00, 0.00, 8.19, 55.03, 138.10, 0.00
 176 (99-197) [l=45 cm] - C.
 99, 9.45, 3.94, 2.52, 0.03, 0.76, 5.08
 197, 9.45, 3.94, 2.52, 0.03, 0.66, 6.74
 177 (197-166) [l=96 cm] - K.
 197, 0.00, 0.00, 17.13, 48.32, 131.19, 0.00
 166, 0.00, 0.00, 17.13, 48.32, 114.79, 0.00
 178 (37-198) [l=45 cm] - C.
 37, 17.04, 2.47, 8.12, 0.11, 2.53, 18.09
 198, 17.04, 2.47, 8.12, 0.11, 3.04, 18.82
 179 (200-201) [l=45 cm] - C.
 200, 5.14, 1.86, 2.95, 0.03, 0.71, 6.42
 201, 5.14, 1.86, 2.95, 0.03, 0.66, 7.12
 180 (145-201) [l=113 cm] - K.
 145, 0.00, 0.00, 5.36, 82.67, 141.31, 0.00
 201, 0.00, 0.00, 5.36, 82.67, 145.91, 0.00
 181 (201-199) [l=113 cm] - K.
 201, 0.00, 0.00, 10.02, 89.75, 145.70, 0.00
 199, 0.00, 0.00, 10.02, 89.75, 155.40, 0.00
 182 (22-202) [l=45 cm] - C.
 22, 4.84, 5.67, 4.30, 0.05, 1.98, 8.60
 202, 4.84, 5.67, 4.30, 0.05, 1.63, 10.93
 183 (202-142) [l=163 cm] - K.
 202, 0.00, 0.00, 4.32, 72.01, 145.36, 0.00
 142, 0.00, 0.00, 4.32, 72.01, 139.26, 0.00
 184 (204-205) [l=45 cm] - C.
 204, 7.13, 4.57, 2.96, 0.03, 0.94, 5.81
 205, 7.13, 4.57, 2.96, 0.03, 0.83, 7.71
 185 (139-205) [l=113 cm] - K.
 139, 0.00, 0.00, 8.24, 53.53, 135.86, 0.00
 205, 0.00, 0.00, 8.24, 53.53, 144.92, 0.00
 186 (205-203) [l=113 cm] - K.
 205, 0.00, 0.00, 2.94, 61.18, 144.28, 0.00
 203, 0.00, 0.00, 2.94, 61.18, 145.34, 0.00
 187 (45-206) [l=45 cm] - C.
 45, 8.74, 2.47, 4.30, 0.05, 0.85, 10.17
 206, 8.74, 2.47, 4.30, 0.05, 1.36, 9.46
 188 (206-162) [l=164 cm] - K.
 206, 0.00, 0.00, 41.45, 126.25, 400.43, 0.00
 162, 0.00, 0.00, 41.45, 126.25, 467.80, 0.00
 189 (207-208) [l=45 cm] - C.
 207, 3.19, 2.98, 2.92, 0.03, 0.65, 7.22
 208, 3.19, 2.98, 2.92, 0.03, 0.94, 6.15
 190 (208-209) [l=111 cm] - K.
 208, 0.00, 0.00, 45.72, 141.69, 664.45, 0.00
 209, 0.00, 0.00, 45.72, 141.69, 714.64, 0.00
 191 (53-210) [l=45 cm] - C.
 53, 2.29, 2.04, 1.73, 0.02, 0.36, 4.43
 210, 2.29, 2.04, 1.73, 0.02, 0.46, 3.67
 192 (209-210) [l=67 cm] - K.
 209, 0.00, 0.00, 45.72, 141.69, 714.64, 0.00
 210, 0.00, 0.00, 45.72, 141.69, 745.04, 0.00
 193 (210-110) [l=67 cm] - K.
 210, 0.00, 0.00, 44.44, 145.35, 745.39, 0.00

110, 0.00, 0.00, 44.44, 145.35, 774.58, 0.00
 194 (211-212) [l=608 cm] - M.
 211, 8.81, 0.55, 25.44, 0.06, 76.36, 1.59
 212, 8.81, 0.55, 25.44, 0.06, 78.43, 1.76
 195 (159-212) [l=224 cm] - K.
 159, 16.12, 205.03, 41.71, 538.06, 129.27, 742.58
 212, 16.12, 205.03, 41.71, 538.06, 35.96, 282.89
 196 (212-111) [l=224 cm] - K.
 212, 10.19, 326.99, 41.23, 285.99, 74.06, 639.07
 111, 10.19, 326.99, 41.23, 285.99, 19.09, 93.76
 197 (214-215) [l=227 cm] - Z.
 214, 0.00, 0.00, 13.96, 0.40, 16.01, 0.00
 215, 0.00, 0.00, 13.96, 0.40, 15.60, 0.00
 198 (176-231) [l=448 cm] - T.
 176, 3.33, 0.00, 0.02, 0.00, 0.05, 0.00
 231, 3.33, 0.00, 0.02, 0.00, 0.05, 0.00
 199 (232-i'-233) [l=165 cm][8 rig.-157 def.] [in i' : N=Nxy,Nxz] - T.
 232, 0.12, 0.03, 0.04, 0.00, 0.04, 0.03
 i', 0.12, 0.12, 0.03, 0.04, 0.00, 0.03, 0.03
 233, 0.12, 0.03, 0.04, 0.00, 0.03, 0.03
 200 (232-i'-j'-234) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 232, 0.05, 0.01, 0.07, 0.00, 0.05, 0.01
 i', 0.05, 0.05, 0.01, 0.07, 0.00, 0.04, 0.01
 j', 0.05, 0.05, 0.01, 0.07, 0.00, 0.04, 0.01
 234, 0.05, 0.01, 0.07, 0.00, 0.05, 0.01
 201 (234-i'-j'-235) [l=218 cm][8 rig.-202 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 234, 0.02, 0.00, 0.04, 0.00, 0.04, 0.00
 i', 0.02, 0.02, 0.00, 0.04, 0.00, 0.04, 0.00
 j', 0.02, 0.02, 0.00, 0.04, 0.00, 0.04, 0.00
 235, 0.02, 0.00, 0.04, 0.00, 0.04, 0.00
 202 (235-i'-j'-236) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 235, 0.06, 0.01, 0.08, 0.00, 0.05, 0.01
 i', 0.06, 0.06, 0.01, 0.08, 0.00, 0.05, 0.01
 j', 0.06, 0.06, 0.01, 0.08, 0.00, 0.05, 0.01
 236, 0.06, 0.01, 0.08, 0.00, 0.05, 0.01
 203 (236-i'-237) [l=185 cm][8 rig.-177 def.] [in i' : N=Nxy,Nxz] - T.
 236, 0.12, 0.03, 0.03, 0.00, 0.03, 0.03
 i', 0.12, 0.12, 0.03, 0.03, 0.00, 0.02, 0.02
 237, 0.12, 0.03, 0.03, 0.00, 0.03, 0.02
 204 (167-231) [l=448 cm] - T.
 167, 3.33, 0.00, 0.02, 0.00, 0.05, 0.00
 231, 3.33, 0.00, 0.02, 0.00, 0.05, 0.00
 205 (240-241) [l=448 cm] - T.
 240, 2.61, 0.00, 0.02, 0.00, 0.04, 0.00
 241, 2.61, 0.00, 0.02, 0.00, 0.04, 0.00
 206 (242-241) [l=448 cm] - T.
 242, 2.61, 0.00, 0.02, 0.00, 0.04, 0.00
 241, 2.61, 0.00, 0.02, 0.00, 0.04, 0.00
 207 (243-244) [l=448 cm] - T.
 243, 1.97, 0.00, 0.01, 0.00, 0.03, 0.00
 244, 1.97, 0.00, 0.01, 0.00, 0.03, 0.00
 208 (245-244) [l=448 cm] - T.
 245, 1.97, 0.00, 0.01, 0.00, 0.03, 0.00
 244, 1.97, 0.00, 0.01, 0.00, 0.03, 0.00
 209 (246-247) [l=448 cm] - T.
 246, 1.06, 0.00, 0.01, 0.00, 0.02, 0.00
 247, 1.06, 0.00, 0.01, 0.00, 0.02, 0.00
 210 (248-247) [l=448 cm] - T.
 248, 1.06, 0.00, 0.01, 0.00, 0.02, 0.00
 247, 1.06, 0.00, 0.01, 0.00, 0.02, 0.00
 211 (249-i'-j'-250) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 249, 0.06, 0.01, 0.08, 0.00, 0.05, 0.01
 i', 0.06, 0.06, 0.01, 0.08, 0.00, 0.05, 0.01
 j', 0.06, 0.06, 0.01, 0.08, 0.00, 0.05, 0.01
 250, 0.06, 0.01, 0.08, 0.00, 0.05, 0.01
 212 (251-i'-j'-249) [l=218 cm][8 rig.-202 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 251, 0.02, 0.00, 0.04, 0.00, 0.04, 0.00
 i', 0.02, 0.02, 0.00, 0.04, 0.00, 0.04, 0.00
 j', 0.02, 0.02, 0.00, 0.04, 0.00, 0.04, 0.00
 249, 0.02, 0.00, 0.04, 0.00, 0.04, 0.00
 213 (252-i'-j'-251) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 252, 0.05, 0.01, 0.08, 0.00, 0.05, 0.01
 i', 0.05, 0.05, 0.01, 0.08, 0.00, 0.04, 0.01
 j', 0.05, 0.05, 0.01, 0.08, 0.00, 0.04, 0.01
 251, 0.05, 0.01, 0.08, 0.00, 0.05, 0.01
 214 (250-i'-253) [l=185 cm][8 rig.-177 def.] [in i' : N=Nxy,Nxz] - T.
 250, 0.13, 0.03, 0.04, 0.00, 0.04, 0.03
 i', 0.13, 0.13, 0.03, 0.04, 0.00, 0.04, 0.02
 253, 0.13, 0.03, 0.04, 0.00, 0.04, 0.02
 215 (252-i'-254) [l=165 cm][8 rig.-157 def.] [in i' : N=Nxy,Nxz] - T.
 252, 0.13, 0.03, 0.06, 0.00, 0.05, 0.03
 i', 0.13, 0.13, 0.03, 0.06, 0.00, 0.04, 0.03
 254, 0.13, 0.03, 0.06, 0.00, 0.04, 0.03
 216 (255-256) [l=448 cm] - T.
 255, 0.24, 0.00, 0.00, 0.00, 0.00, 0.00
 256, 0.24, 0.00, 0.00, 0.00, 0.00, 0.00

217 (257-256) [l=448 cm] - T.
 257, 0.24, 0.00, 0.00, 0.00, 0.00, 0.00
 256, 0.24, 0.00, 0.00, 0.00, 0.00, 0.00
 218 (258-259) [l=448 cm] - T.
 258, 0.49, 0.00, 0.00, 0.00, 0.01, 0.00
 259, 0.49, 0.00, 0.00, 0.00, 0.01, 0.00
 219 (260-259) [l=448 cm] - T.
 260, 0.49, 0.00, 0.00, 0.00, 0.01, 0.00
 259, 0.49, 0.00, 0.00, 0.00, 0.01, 0.00
 220 (261-262) [l=448 cm] - T.
 261, 1.22, 0.00, 0.01, 0.00, 0.02, 0.00
 262, 1.22, 0.00, 0.01, 0.00, 0.02, 0.00
 221 (263-262) [l=448 cm] - T.
 263, 1.22, 0.00, 0.01, 0.00, 0.02, 0.00
 262, 1.22, 0.00, 0.01, 0.00, 0.02, 0.00
 222 (264-265) [l=448 cm] - T.
 264, 0.79, 0.00, 0.01, 0.00, 0.01, 0.00
 265, 0.79, 0.00, 0.01, 0.00, 0.01, 0.00
 223 (266-265) [l=448 cm] - T.
 266, 0.79, 0.00, 0.01, 0.00, 0.01, 0.00
 265, 0.79, 0.00, 0.01, 0.00, 0.01, 0.00
 224 (267-268) [l=448 cm] - T.
 267, 2.88, 0.00, 0.02, 0.00, 0.05, 0.00
 268, 2.88, 0.00, 0.02, 0.00, 0.05, 0.00
 225 (269-268) [l=448 cm] - T.
 269, 2.88, 0.00, 0.02, 0.00, 0.05, 0.00
 268, 2.88, 0.00, 0.02, 0.00, 0.05, 0.00
 226 (270-271) [l=448 cm] - T.
 270, 3.49, 0.00, 0.02, 0.00, 0.06, 0.00
 271, 3.49, 0.00, 0.02, 0.00, 0.06, 0.00
 227 (272-271) [l=448 cm] - T.
 272, 3.49, 0.00, 0.02, 0.00, 0.06, 0.00
 271, 3.49, 0.00, 0.02, 0.00, 0.06, 0.00
 228 (185-231) [l=385 cm] - T.
 185, 0.07, 0.00, 0.04, 0.00, 0.08, 0.00
 231, 0.07, 0.00, 0.04, 0.00, 0.08, 0.00
 229 (231-241) [l=290 cm] - T.
 231, 0.10, 0.00, 0.03, 0.00, 0.04, 0.00
 241, 0.10, 0.00, 0.03, 0.00, 0.04, 0.00
 230 (241-244) [l=325 cm] - T.
 241, 0.07, 0.00, 0.04, 0.00, 0.06, 0.00
 244, 0.07, 0.00, 0.04, 0.00, 0.06, 0.00
 231 (244-247) [l=325 cm] - T.
 244, 0.03, 0.00, 0.05, 0.00, 0.08, 0.00
 247, 0.03, 0.00, 0.05, 0.00, 0.08, 0.00
 232 (247-273) [l=332 cm] - T.
 247, 0.03, 0.00, 0.02, 0.00, 0.04, 0.00
 273, 0.03, 0.00, 0.02, 0.00, 0.04, 0.00
 233 (273-256) [l=288 cm] - T.
 273, 0.02, 0.00, 0.02, 0.00, 0.03, 0.00
 256, 0.02, 0.00, 0.02, 0.00, 0.03, 0.00
 234 (256-259) [l=288 cm] - T.
 256, 0.01, 0.00, 0.02, 0.00, 0.02, 0.00
 259, 0.01, 0.00, 0.02, 0.00, 0.02, 0.00
 235 (259-262) [l=288 cm] - T.
 259, 0.03, 0.00, 0.02, 0.00, 0.03, 0.00
 262, 0.03, 0.00, 0.02, 0.00, 0.03, 0.00
 236 (262-265) [l=288 cm] - T.
 262, 0.02, 0.00, 0.05, 0.00, 0.07, 0.00
 265, 0.02, 0.00, 0.05, 0.00, 0.07, 0.00
 237 (265-274) [l=320 cm] - T.
 265, 0.03, 0.00, 0.04, 0.00, 0.06, 0.00
 274, 0.03, 0.00, 0.04, 0.00, 0.06, 0.00
 238 (274-268) [l=305 cm] - T.
 274, 0.06, 0.00, 0.05, 0.00, 0.08, 0.00
 268, 0.06, 0.00, 0.05, 0.00, 0.08, 0.00
 239 (268-271) [l=305 cm] - T.
 268, 0.10, 0.00, 0.05, 0.00, 0.07, 0.00
 271, 0.10, 0.00, 0.05, 0.00, 0.07, 0.00
 240 (271-275) [l=354 cm] - T.
 271, 0.06, 0.00, 0.05, 0.00, 0.10, 0.00
 275, 0.06, 0.00, 0.05, 0.00, 0.10, 0.00
 241 (159-111) [l=448 cm] - T.
 159, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 111, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 242 (143-278) [l=199 cm] - T.
 143, 1.01, 0.00, 0.08, 0.00, 0.09, 0.00
 278, 1.01, 0.00, 0.08, 0.00, 0.06, 0.00
 243 (278-279) [l=142 cm] - T.
 278, 0.80, 0.00, 0.18, 0.00, 0.14, 0.00
 279, 0.80, 0.00, 0.18, 0.00, 0.11, 0.00
 244 (279-273) [l=107 cm] - T.
 279, 0.55, 0.00, 0.27, 0.00, 0.15, 0.00
 273, 0.55, 0.00, 0.27, 0.00, 0.14, 0.00
 245 (281-282) [l=142 cm] - T.
 281, 0.66, 0.00, 0.09, 0.00, 0.07, 0.00

282, 0.66, 0.00, 0.09, 0.00, 0.06, 0.00
 246 (282-283) [l=107 cm] - T.
 282, 0.56, 0.00, 0.14, 0.00, 0.08, 0.00
 283, 0.56, 0.00, 0.14, 0.00, 0.07, 0.00
 247 (284-285) [l=199 cm] - T.
 284, 2.16, 0.00, 0.16, 0.00, 0.19, 0.00
 285, 2.16, 0.00, 0.16, 0.00, 0.13, 0.00
 248 (285-286) [l=142 cm] - T.
 285, 1.79, 0.00, 0.31, 0.00, 0.25, 0.00
 286, 1.79, 0.00, 0.31, 0.00, 0.19, 0.00
 249 (286-274) [l=107 cm] - T.
 286, 1.33, 0.00, 0.49, 0.00, 0.28, 0.00
 274, 1.33, 0.00, 0.49, 0.00, 0.24, 0.00
 250 (287-288) [l=107 cm] - T.
 287, 1.33, 0.00, 0.49, 0.00, 0.28, 0.00
 288, 1.33, 0.00, 0.49, 0.00, 0.24, 0.00
 251 (289-287) [l=142 cm] - T.
 289, 1.79, 0.00, 0.31, 0.00, 0.25, 0.00
 287, 1.79, 0.00, 0.31, 0.00, 0.19, 0.00
 252 (291-j'-292) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 291, 0.11, 0.05, 0.01, 0.00, 0.02, 0.06
 j', 0.11, 0.11, 0.05, 0.01, 0.00, 0.01, 0.05
 292, 0.11, 0.05, 0.01, 0.00, 0.07, 0.24
 253 (293-j'-294) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 293, 0.03, 0.05, 0.01, 0.00, 0.01, 0.06
 j', 0.03, 0.03, 0.05, 0.01, 0.00, 0.01, 0.06
 294, 0.03, 0.05, 0.01, 0.00, 0.05, 0.29
 254 (295-j'-296) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 295, 0.04, 0.05, 0.01, 0.00, 0.01, 0.06
 j', 0.04, 0.04, 0.05, 0.01, 0.00, 0.01, 0.06
 296, 0.04, 0.05, 0.01, 0.00, 0.04, 0.29
 255 (297-j'-298) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 297, 0.10, 0.05, 0.01, 0.00, 0.02, 0.06
 j', 0.10, 0.10, 0.05, 0.01, 0.00, 0.01, 0.05
 298, 0.10, 0.05, 0.01, 0.00, 0.06, 0.24
 256 (299-j'-300) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 299, 0.10, 0.05, 0.01, 0.00, 0.02, 0.06
 j', 0.10, 0.10, 0.05, 0.01, 0.00, 0.01, 0.06
 300, 0.10, 0.05, 0.01, 0.00, 0.06, 0.25
 257 (301-j'-302) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 301, 0.06, 0.06, 0.01, 0.00, 0.01, 0.07
 j', 0.06, 0.06, 0.06, 0.01, 0.00, 0.01, 0.06
 302, 0.06, 0.06, 0.01, 0.00, 0.04, 0.30
 258 (303-j'-304) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 303, 0.05, 0.06, 0.01, 0.00, 0.01, 0.07
 j', 0.05, 0.05, 0.06, 0.01, 0.00, 0.01, 0.06
 304, 0.05, 0.06, 0.01, 0.00, 0.05, 0.30
 259 (305-j'-306) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 305, 0.11, 0.05, 0.01, 0.00, 0.02, 0.06
 j', 0.11, 0.11, 0.05, 0.01, 0.00, 0.01, 0.06
 306, 0.11, 0.05, 0.01, 0.00, 0.07, 0.25
 260 (307-4) [l=195 cm] - K.
 307, 0.86, 0.73, 0.93, 0.00, 0.00, 0.06
 4, 0.86, 0.73, 0.93, 0.00, 1.82, 1.47
 261 (308-7) [l=195 cm] - K.
 308, 0.85, 0.64, 0.94, 0.00, 0.00, 0.06
 7, 0.85, 0.64, 0.94, 0.00, 1.83, 1.30
 262 (307-308) [l=227 cm] - W_23957_24_-1_-1.
 307, 0.13, 0.00, 0.05, 0.00, 0.06, 0.00
 308, 0.13, 0.00, 0.05, 0.00, 0.06, 0.00
 263 (309-123) [l=170 cm] - K.
 309, 0.16, 0.37, 0.38, 0.00, 0.00, 0.07
 123, 0.16, 0.37, 0.38, 0.00, 0.64, 0.69
 264 (310-126) [l=170 cm] - K.
 310, 0.15, 0.30, 0.38, 0.00, 0.00, 0.07
 126, 0.15, 0.30, 0.38, 0.00, 0.65, 0.57
 265 (309-310) [l=200 cm] - W_23976_24_-1_-1.
 309, 0.18, 0.00, 0.07, 0.00, 0.07, 0.00
 310, 0.18, 0.00, 0.07, 0.00, 0.07, 0.00
 266 (129-246) [l=3 cm] - K.
 129, 0.00, 0.00, 2.71, 36.98, 69.35, 0.00
 246, 0.00, 0.00, 2.71, 36.98, 69.34, 0.00
 267 (130-243) [l=5 cm] - K.
 130, 0.00, 0.00, 1.54, 31.43, 73.27, 0.00
 243, 0.00, 0.00, 1.54, 31.43, 73.28, 0.00
 268 (203-245) [l=5 cm] - K.
 203, 0.00, 0.00, 1.47, 30.59, 72.67, 0.00
 245, 0.00, 0.00, 1.47, 30.59, 72.69, 0.00
 269 (142-248) [l=3 cm] - K.
 142, 0.00, 0.00, 2.16, 36.01, 69.63, 0.00
 248, 0.00, 0.00, 2.16, 36.01, 69.58, 0.00
 270 (190-255) [l=4 cm] - K.
 190, 0.00, 0.00, 3.08, 42.45, 72.95, 0.00
 255, 0.00, 0.00, 3.08, 42.45, 72.83, 0.00
 271 (145-257) [l=4 cm] - K.
 145, 0.00, 0.00, 2.68, 41.34, 70.65, 0.00

257, 0.00, 0.00, 2.68, 41.34, 70.57, 0.00
 272 (163-270) [l=3 cm] - K.
 163, 0.00, 0.00, 22.88, 67.78, 306.51, 0.00
 270, 0.00, 0.00, 22.88, 67.78, 307.24, 0.00
 273 (283-273) [l=0 cm] - K.
 283, 0.39, 0.00, 0.12, 0.00, 0.23, 0.00
 273, 0.39, 0.00, 0.12, 0.00, 0.23, 0.00
 274 (288-274) [l=0 cm] - K.
 288, 0.92, 0.00, 0.25, 0.00, 0.56, 0.00
 274, 0.92, 0.00, 0.25, 0.00, 0.56, 0.00
 275 (111-275) [l=0 cm] - K.
 111, 4.47, 342.10, 41.38, 205.59, 2.61, 0.68
 275, 4.47, 342.10, 41.38, 205.59, 2.77, 0.68
 276 (231-311) [l=166 cm] - K.
 231, 1.20, 0.00, 0.00, 0.00, 0.00, 0.00
 311, 1.20, 0.00, 0.00, 0.00, 0.00, 0.00
 277 (241-312) [l=166 cm] - K.
 241, 0.92, 0.00, 0.00, 0.00, 0.00, 0.00
 312, 0.92, 0.00, 0.00, 0.00, 0.00, 0.00
 278 (244-313) [l=166 cm] - K.
 244, 0.72, 0.00, 0.00, 0.00, 0.00, 0.00
 313, 0.72, 0.00, 0.00, 0.00, 0.00, 0.00
 279 (256-314) [l=166 cm] - K.
 256, 0.09, 0.00, 0.00, 0.00, 0.00, 0.00
 314, 0.09, 0.00, 0.00, 0.00, 0.00, 0.00
 280 (259-315) [l=166 cm] - K.
 259, 0.17, 0.00, 0.00, 0.00, 0.00, 0.00
 315, 0.17, 0.00, 0.00, 0.00, 0.00, 0.00
 281 (268-316) [l=166 cm] - K.
 268, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 316, 1.04, 0.00, 0.00, 0.00, 0.00, 0.00
 282 (271-317) [l=166 cm] - K.
 271, 1.27, 0.00, 0.00, 0.00, 0.00, 0.00
 317, 1.27, 0.00, 0.00, 0.00, 0.00, 0.00
 283 (262-318) [l=166 cm] - K.
 262, 0.46, 0.00, 0.00, 0.00, 0.00, 0.00
 318, 0.46, 0.00, 0.00, 0.00, 0.00, 0.00
 284 (133-319) [l=0 cm] - K.
 133, 2.59, 0.01, 1.08, 13.97, 40.46, 33.32
 319, 2.59, 0.01, 1.08, 13.97, 40.46, 33.32
 285 (131-90) [l=116 cm] - K.
 131, 0.00, 0.00, 15.24, 15.31, 173.45, 0.00
 90, 0.00, 0.00, 15.24, 15.31, 172.39, 0.00
 286 (131-93) [l=111 cm] - K.
 131, 0.00, 0.00, 15.20, 14.29, 173.68, 0.00
 93, 0.00, 0.00, 15.20, 14.29, 175.88, 0.00
 287 (140-27) [l=111 cm] - K.
 140, 0.00, 0.00, 17.09, 24.39, 166.86, 0.00
 27, 0.00, 0.00, 17.09, 24.39, 176.06, 0.00
 288 (140-30) [l=116 cm] - K.
 140, 0.00, 0.00, 17.18, 23.25, 166.70, 0.00
 30, 0.00, 0.00, 17.18, 23.25, 162.41, 0.00
 289 (146-43) [l=85 cm] - K.
 146, 0.00, 0.00, 15.98, 34.82, 40.75, 0.00
 43, 0.00, 0.00, 15.98, 34.82, 31.26, 0.00
 290 (146-46) [l=142 cm] - K.
 146, 0.00, 0.00, 15.69, 26.24, 40.04, 0.00
 46, 0.00, 0.00, 15.69, 26.24, 58.13, 0.00
 291 (150-74) [l=46 cm] - K.
 150, 0.00, 0.00, 12.02, 12.94, 41.14, 0.00
 74, 0.00, 0.00, 12.02, 12.94, 46.36, 0.00
 292 (150-77) [l=181 cm] - K.
 150, 0.00, 0.00, 11.95, 14.90, 41.30, 0.00
 77, 0.00, 0.00, 11.95, 14.90, 33.00, 0.00
 293 (153-66) [l=69 cm] - K.
 153, 0.00, 0.00, 4.43, 2.23, 36.04, 0.00
 66, 0.00, 0.00, 4.43, 2.23, 38.08, 0.00
 294 (153-70) [l=157 cm] - K.
 153, 0.00, 0.00, 9.12, 9.60, 36.48, 0.00
 70, 0.00, 0.00, 9.12, 9.60, 32.35, 0.00
 295 (157-58) [l=27 cm] - K.
 157, 0.00, 0.00, 2.75, 1.74, 24.30, 0.00
 58, 0.00, 0.00, 2.75, 1.74, 24.45, 0.00
 296 (157-61) [l=73 cm] - K.
 157, 0.00, 0.00, 2.79, 0.49, 24.35, 0.00
 61, 0.00, 0.00, 2.79, 0.49, 23.72, 0.00
 297 (49-160) [l=2 cm] - K.
 49, 0.00, 0.00, 12.09, 21.04, 12.00, 0.00
 160, 0.00, 0.00, 12.09, 21.04, 11.80, 0.00
 298 (160-51) [l=162 cm] - K.
 160, 0.00, 0.00, 4.85, 10.50, 11.94, 0.00
 51, 0.00, 0.00, 4.85, 10.50, 8.80, 0.00
 299 (103-164) [l=0 cm] - K.
 103, 0.00, 0.00, 32.63, 37.90, 158.93, 0.00
 164, 0.00, 0.00, 32.63, 37.90, 158.87, 0.00
 300 (164-104) [l=96 cm] - K.

164, 0.00, 0.00, 33.92, 37.34, 158.97, 0.00
 104, 0.00, 0.00, 33.92, 37.34, 127.83, 0.00
 301 (168-104) [l=113 cm] - K.
 168, 0.00, 0.00, 33.27, 37.34, 91.82, 0.00
 104, 0.00, 0.00, 33.27, 37.34, 127.82, 0.00
 302 (168-107) [l=113 cm] - K.
 168, 0.00, 0.00, 35.41, 36.70, 91.94, 0.00
 107, 0.00, 0.00, 35.41, 36.70, 53.51, 0.00
 303 (107-171) [l=79 cm] - K.
 107, 0.00, 0.00, 34.96, 36.70, 53.51, 0.00
 171, 0.00, 0.00, 34.96, 36.70, 26.89, 0.00
 304 (171-106) [l=0 cm] - K.
 171, 0.00, 0.00, 36.96, 36.26, 26.93, 0.00
 106, 0.00, 0.00, 36.96, 36.26, 26.82, 0.00
 305 (16-174) [l=96 cm] - K.
 16, 0.00, 0.00, 30.40, 33.29, 122.56, 0.00
 174, 0.00, 0.00, 30.40, 33.29, 151.52, 0.00
 306 (174-14) [l=0 cm] - K.
 174, 0.00, 0.00, 29.00, 33.84, 151.46, 0.00
 14, 0.00, 0.00, 29.00, 33.84, 151.51, 0.00
 307 (177-12) [l=113 cm] - K.
 177, 0.00, 0.00, 32.56, 32.65, 88.44, 0.00
 12, 0.00, 0.00, 32.56, 32.65, 51.71, 0.00
 308 (177-16) [l=113 cm] - K.
 177, 0.00, 0.00, 30.28, 33.29, 88.33, 0.00
 16, 0.00, 0.00, 30.28, 33.29, 122.56, 0.00
 309 (10-180) [l=0 cm] - K.
 10, 0.00, 0.00, 34.54, 32.21, 26.10, 0.00
 180, 0.00, 0.00, 34.54, 32.21, 26.18, 0.00
 310 (180-12) [l=79 cm] - K.
 180, 0.00, 0.00, 32.53, 32.65, 26.15, 0.00
 12, 0.00, 0.00, 32.53, 32.65, 51.71, 0.00
 311 (188-82) [l=113 cm] - K.
 188, 0.00, 0.00, 13.18, 24.97, 116.93, 0.00
 82, 0.00, 0.00, 13.18, 24.97, 108.24, 0.00
 312 (188-86) [l=113 cm] - K.
 188, 0.00, 0.00, 18.71, 19.14, 117.52, 0.00
 86, 0.00, 0.00, 18.71, 19.14, 132.69, 0.00
 313 (70-192) [l=95 cm] - K.
 70, 0.00, 0.00, 9.65, 9.60, 32.35, 0.00
 192, 0.00, 0.00, 9.65, 9.60, 29.84, 0.00
 314 (192-68) [l=1 cm] - K.
 192, 0.00, 0.00, 16.89, 15.95, 30.33, 0.00
 68, 0.00, 0.00, 16.89, 15.95, 30.32, 0.00
 315 (194-97) [l=113 cm] - K.
 194, 0.00, 0.00, 11.32, 45.31, 209.30, 0.00
 97, 0.00, 0.00, 11.32, 45.31, 206.91, 0.00
 316 (194-100) [l=113 cm] - K.
 194, 0.00, 0.00, 10.56, 40.01, 210.07, 0.00
 100, 0.00, 0.00, 10.56, 40.01, 206.28, 0.00
 317 (200-35) [l=113 cm] - K.
 200, 0.00, 0.00, 19.95, 19.04, 112.13, 0.00
 35, 0.00, 0.00, 19.95, 19.04, 126.54, 0.00
 318 (200-39) [l=113 cm] - K.
 200, 0.00, 0.00, 15.06, 14.66, 111.62, 0.00
 39, 0.00, 0.00, 15.06, 14.66, 102.75, 0.00
 319 (204-20) [l=113 cm] - K.
 204, 0.00, 0.00, 10.77, 35.57, 205.36, 0.00
 20, 0.00, 0.00, 10.77, 35.57, 201.26, 0.00
 320 (204-23) [l=113 cm] - K.
 204, 0.00, 0.00, 11.02, 40.82, 204.74, 0.00
 23, 0.00, 0.00, 11.02, 40.82, 201.28, 0.00
 321 (207-51) [l=115 cm] - K.
 207, 0.00, 0.00, 4.15, 10.50, 10.33, 0.00
 51, 0.00, 0.00, 4.15, 10.50, 8.80, 0.00
 322 (207-55) [l=111 cm] - K.
 207, 0.00, 0.00, 1.07, 3.28, 9.86, 0.00
 55, 0.00, 0.00, 1.07, 3.28, 10.75, 0.00
 323 (213-1) [l=151 cm] - Z.
 213, 0.00, 0.00, 7.87, 2.25, 2.34, 0.00
 1, 0.00, 0.00, 12.22, 2.25, 13.03, 0.00
 324 (1-214) [l=151 cm] - Z.
 1, 0.00, 0.00, 12.70, 0.40, 36.22, 0.00
 214, 0.00, 0.00, 13.96, 0.40, 16.01, 0.00
 325 (215-5) [l=151 cm] - Z.
 215, 0.00, 0.00, 13.96, 0.40, 15.60, 0.00
 5, 0.00, 0.00, 12.80, 0.40, 35.84, 0.00
 326 (5-216) [l=151 cm] - Z.
 5, 0.00, 0.00, 15.75, 1.93, 17.22, 0.00
 216, 0.00, 0.00, 11.66, 1.93, 3.72, 0.00
 327 (216-9) [l=79 cm] - Z.
 216, 0.00, 0.00, 11.66, 3.72, 1.93, 0.00
 9, 0.00, 0.00, 9.30, 3.72, 6.94, 0.00
 328 (9-11) [l=79 cm] - Z.
 9, 0.00, 0.00, 4.46, 0.01, 1.77, 0.00
 11, 0.00, 0.00, 3.36, 0.01, 1.26, 0.00

329 (11-15) [l=227 cm] - Z.
 11, 0.00, 0.00, 4.95, 0.39, 3.43, 0.00
 15, 0.00, 0.00, 4.70, 0.39, 3.11, 0.00
 330 (15-13) [l=96 cm] - Z.
 15, 0.00, 0.00, 2.56, 0.01, 1.19, 0.00
 13, 0.00, 0.00, 3.86, 0.01, 1.65, 0.00
 331 (13-217) [l=96 cm] - Z.
 13, 0.00, 0.00, 10.12, 0.60, 18.09, 0.00
 217, 0.00, 0.00, 9.22, 0.60, 8.93, 0.00
 332 (217-18) [l=96 cm] - Z.
 217, 0.00, 0.00, 9.22, 0.60, 8.93, 0.00
 18, 0.00, 0.00, 10.21, 0.60, 5.74, 0.00
 333 (18-320) [l=96 cm] - Z.
 18, 0.00, 0.00, 8.39, 0.55, 11.93, 0.00
 320, 0.00, 0.00, 5.94, 0.55, 5.73, 0.00
 334 (320-321) [l=226 cm] - Z.
 320, 0.00, 0.00, 5.94, 0.55, 5.73, 0.00
 321, 0.00, 0.00, 6.15, 0.55, 5.77, 0.00
 335 (321-21) [l=163 cm] - Z.
 321, 0.00, 0.00, 6.15, 0.55, 5.77, 0.00
 21, 0.00, 0.00, 11.25, 0.55, 17.43, 0.00
 336 (21-218) [l=163 cm] - Z.
 21, 0.00, 0.00, 7.28, 4.70, 19.16, 0.00
 218, 0.00, 0.00, 7.12, 4.70, 11.43, 0.00
 337 (218-25) [l=28 cm] - Z.
 218, 0.00, 0.00, 8.88, 0.96, 11.14, 0.00
 25, 0.00, 0.00, 7.95, 0.96, 8.75, 0.00
 338 (25-322) [l=28 cm] - Z.
 25, 0.00, 0.00, 9.07, 0.28, 8.91, 0.00
 322, 0.00, 0.00, 8.11, 0.28, 6.58, 0.00
 339 (322-323) [l=227 cm] - Z.
 322, 0.00, 0.00, 8.11, 0.28, 6.58, 0.00
 323, 0.00, 0.00, 5.11, 0.28, 5.81, 0.00
 340 (323-28) [l=26 cm] - Z.
 323, 0.00, 0.00, 5.11, 0.28, 5.81, 0.00
 28, 0.00, 0.00, 5.39, 0.28, 6.96, 0.00
 341 (28-219) [l=26 cm] - Z.
 28, 0.00, 0.00, 6.81, 0.32, 6.49, 0.00
 219, 0.00, 0.00, 6.62, 0.32, 8.22, 0.00
 342 (219-32) [l=146 cm] - Z.
 219, 0.00, 0.00, 8.13, 1.92, 8.21, 0.00
 32, 0.00, 0.00, 11.30, 1.92, 20.41, 0.00
 343 (32-34) [l=146 cm] - Z.
 32, 0.00, 0.00, 3.77, 0.01, 1.72, 0.00
 34, 0.00, 0.00, 2.11, 0.01, 0.87, 0.00
 344 (34-38) [l=227 cm] - Z.
 34, 0.00, 0.00, 4.71, 0.27, 3.82, 0.00
 38, 0.00, 0.00, 4.83, 0.27, 3.67, 0.00
 345 (38-36) [l=308 cm] - Z.
 38, 0.00, 0.00, 4.92, 0.01, 2.31, 0.00
 36, 0.00, 0.00, 5.76, 0.01, 3.74, 0.00
 346 (36-220) [l=308 cm] - Z.
 36, 0.00, 0.00, 13.44, 8.46, 46.92, 0.00
 220, 0.00, 0.00, 12.02, 8.46, 11.17, 0.00
 347 (220-41) [l=28 cm] - Z.
 220, 0.00, 0.00, 9.16, 1.08, 11.41, 0.00
 41, 0.00, 0.00, 8.68, 1.08, 8.90, 0.00
 348 (41-324) [l=28 cm] - Z.
 41, 0.00, 0.00, 9.19, 0.40, 9.52, 0.00
 324, 0.00, 0.00, 8.22, 0.40, 7.38, 0.00
 349 (324-325) [l=227 cm] - Z.
 324, 0.00, 0.00, 8.22, 0.40, 7.38, 0.00
 325, 0.00, 0.00, 5.83, 0.40, 6.68, 0.00
 350 (44-221) [l=164 cm] - Z.
 44, 0.00, 0.00, 14.24, 1.95, 16.72, 0.00
 221, 0.00, 0.00, 12.93, 1.95, 9.98, 0.00
 351 (221-48) [l=164 cm] - Z.
 221, 0.00, 0.00, 12.93, 1.95, 9.98, 0.00
 48, 0.00, 0.00, 14.74, 1.95, 31.42, 0.00
 352 (48-50) [l=164 cm] - Z.
 48, 0.00, 0.00, 3.81, 0.01, 1.62, 0.00
 50, 0.00, 0.00, 2.84, 0.01, 0.86, 0.00
 353 (50-54) [l=227 cm] - Z.
 50, 0.00, 0.00, 4.27, 0.41, 3.28, 0.00
 54, 0.00, 0.00, 5.83, 0.41, 3.81, 0.00
 354 (54-52) [l=67 cm] - Z.
 54, 0.00, 0.00, 4.82, 0.01, 1.51, 0.00
 52, 0.00, 0.00, 6.22, 0.01, 2.00, 0.00
 355 (52-222) [l=67 cm] - Z.
 52, 0.00, 0.00, 13.72, 3.65, 12.55, 0.00
 222, 0.00, 0.00, 15.65, 3.65, 19.75, 0.00
 356 (223-56) [l=67 cm] - Z.
 223, 0.00, 0.00, 15.64, 2.75, 20.38, 0.00
 56, 0.00, 0.00, 13.78, 2.75, 10.98, 0.00
 357 (56-326) [l=67 cm] - Z.
 56, 0.00, 0.00, 12.64, 0.99, 13.48, 0.00

326, 0.00, 0.00, 10.47, 0.99, 5.81, 0.00
 358 (326-327) [l=100 cm] - Z.
 326, 0.00, 0.00, 10.47, 1.00, 5.81, 0.00
 327, 0.00, 0.00, 8.42, 1.00, 3.54, 0.00
 359 (327-59) [l=43 cm] - Z.
 327, 0.00, 0.00, 8.42, 1.00, 3.54, 0.00
 59, 0.00, 0.00, 8.19, 1.00, 7.11, 0.00
 360 (59-224) [l=43 cm] - Z.
 59, 0.00, 0.00, 8.47, 0.48, 4.35, 0.00
 224, 0.00, 0.00, 8.05, 0.48, 7.07, 0.00
 361 (224-63) [l=43 cm] - Z.
 224, 0.00, 0.00, 8.05, 0.48, 7.07, 0.00
 63, 0.00, 0.00, 7.70, 0.48, 9.81, 0.00
 362 (63-65) [l=43 cm] - Z.
 63, 0.00, 0.00, 5.52, 0.00, 1.20, 0.00
 65, 0.00, 0.00, 5.00, 0.00, 1.07, 0.00
 363 (65-69) [l=227 cm] - Z.
 65, 0.00, 0.00, 4.41, 0.14, 2.26, 0.00
 69, 0.00, 0.00, 4.70, 0.14, 2.83, 0.00
 364 (69-67) [l=96 cm] - Z.
 69, 0.00, 0.00, 1.87, 0.00, 0.88, 0.00
 67, 0.00, 0.00, 3.88, 0.00, 1.41, 0.00
 365 (67-225) [l=96 cm] - Z.
 67, 0.00, 0.00, 9.16, 2.24, 15.68, 0.00
 225, 0.00, 0.00, 8.10, 2.24, 7.55, 0.00
 366 (225-72) [l=96 cm] - Z.
 225, 0.00, 0.00, 8.10, 2.24, 7.55, 0.00
 72, 0.00, 0.00, 8.65, 2.24, 3.56, 0.00
 367 (328-329) [l=226 cm] - Z.
 328, 0.00, 0.00, 5.15, 0.40, 5.99, 0.00
 329, 0.00, 0.00, 8.14, 0.40, 6.73, 0.00
 368 (329-75) [l=28 cm] - Z.
 329, 0.00, 0.00, 8.14, 0.40, 6.73, 0.00
 75, 0.00, 0.00, 9.11, 0.40, 8.77, 0.00
 369 (75-226) [l=28 cm] - Z.
 75, 0.00, 0.00, 8.21, 1.09, 8.57, 0.00
 226, 0.00, 0.00, 9.06, 1.09, 11.00, 0.00
 370 (226-79) [l=308 cm] - Z.
 226, 0.00, 0.00, 11.35, 8.63, 11.03, 0.00
 79, 0.00, 0.00, 13.00, 8.63, 44.65, 0.00
 371 (79-81) [l=308 cm] - Z.
 79, 0.00, 0.00, 5.78, 0.01, 3.75, 0.00
 81, 0.00, 0.00, 4.94, 0.01, 2.33, 0.00
 372 (81-85) [l=227 cm] - Z.
 81, 0.00, 0.00, 4.85, 0.29, 3.67, 0.00
 85, 0.00, 0.00, 4.77, 0.29, 3.79, 0.00
 373 (85-83) [l=146 cm] - Z.
 85, 0.00, 0.00, 2.12, 0.01, 0.86, 0.00
 83, 0.00, 0.00, 3.81, 0.01, 1.72, 0.00
 374 (83-227) [l=146 cm] - Z.
 83, 0.00, 0.00, 11.54, 1.86, 20.58, 0.00
 227, 0.00, 0.00, 8.19, 1.86, 8.20, 0.00
 375 (227-88) [l=26 cm] - Z.
 227, 0.00, 0.00, 6.62, 0.31, 8.23, 0.00
 88, 0.00, 0.00, 6.81, 0.31, 6.49, 0.00
 376 (88-330) [l=26 cm] - Z.
 88, 0.00, 0.00, 5.51, 0.29, 6.95, 0.00
 330, 0.00, 0.00, 5.22, 0.29, 5.79, 0.00
 377 (330-331) [l=227 cm] - Z.
 330, 0.00, 0.00, 5.22, 0.29, 5.79, 0.00
 331, 0.00, 0.00, 8.07, 0.29, 6.68, 0.00
 378 (331-91) [l=28 cm] - Z.
 331, 0.00, 0.00, 8.07, 0.29, 6.68, 0.00
 91, 0.00, 0.00, 9.03, 0.29, 8.81, 0.00
 379 (91-228) [l=28 cm] - Z.
 91, 0.00, 0.00, 7.79, 0.99, 8.63, 0.00
 228, 0.00, 0.00, 8.74, 0.99, 10.97, 0.00
 380 (228-95) [l=163 cm] - Z.
 228, 0.00, 0.00, 7.36, 5.00, 11.29, 0.00
 95, 0.00, 0.00, 7.59, 5.00, 20.06, 0.00
 381 (95-332) [l=163 cm] - Z.
 95, 0.00, 0.00, 10.60, 0.75, 15.20, 0.00
 332, 0.00, 0.00, 4.94, 0.75, 4.64, 0.00
 382 (332-333) [l=226 cm] - Z.
 332, 0.00, 0.00, 4.94, 0.75, 4.64, 0.00
 333, 0.00, 0.00, 5.41, 0.75, 4.61, 0.00
 383 (333-98) [l=96 cm] - Z.
 333, 0.00, 0.00, 5.41, 0.75, 4.61, 0.00
 98, 0.00, 0.00, 8.77, 0.75, 10.05, 0.00
 384 (98-229) [l=96 cm] - Z.
 98, 0.00, 0.00, 5.82, 0.15, 9.04, 0.00
 229, 0.00, 0.00, 4.76, 0.15, 6.69, 0.00
 385 (229-102) [l=96 cm] - Z.
 229, 0.00, 0.00, 4.76, 0.15, 6.69, 0.00
 102, 0.00, 0.00, 5.83, 0.15, 9.60, 0.00
 386 (102-334) [l=96 cm] - Z.

102, 0.00, 0.00, 9.62, 0.53, 10.42, 0.00
 334, 0.00, 0.00, 6.16, 0.53, 4.01, 0.00
 387 (334-335) [l=226 cm] - Z.
 334, 0.00, 0.00, 6.16, 0.53, 4.01, 0.00
 335, 0.00, 0.00, 4.21, 0.53, 4.14, 0.00
 388 (335-105) [l=79 cm] - Z.
 335, 0.00, 0.00, 4.21, 0.53, 4.14, 0.00
 105, 0.00, 0.00, 6.71, 0.53, 7.21, 0.00
 389 (105-213) [l=79 cm] - Z.
 105, 0.00, 0.00, 5.57, 2.34, 3.23, 0.00
 213, 0.00, 0.00, 7.87, 2.34, 2.25, 0.00
 390 (222-108) [l=208 cm] - Z.
 222, 0.00, 0.00, 15.65, 19.75, 3.65, 0.00
 108, 0.00, 0.00, 20.68, 19.75, 34.69, 0.00
 391 (108-230) [l=208 cm] - Z.
 108, 0.00, 0.00, 20.79, 19.97, 48.19, 0.00
 230, 0.00, 0.00, 21.90, 19.97, 12.54, 0.00
 392 (336-112) [l=153 cm] - Z.
 336, 0.00, 0.00, 15.48, 0.56, 15.50, 0.00
 112, 0.00, 0.00, 13.78, 0.56, 38.00, 0.00
 393 (112-228) [l=153 cm] - Z.
 112, 0.00, 0.00, 14.69, 0.96, 13.59, 0.00
 228, 0.00, 0.00, 10.50, 0.96, 5.96, 0.00
 394 (218-116) [l=163 cm] - Z.
 218, 0.00, 0.00, 10.89, 1.22, 5.65, 0.00
 116, 0.00, 0.00, 15.27, 1.22, 15.96, 0.00
 395 (337-336) [l=200 cm] - Z.
 337, 0.00, 0.00, 15.63, 0.56, 15.95, 0.00
 336, 0.00, 0.00, 15.48, 0.56, 15.50, 0.00
 396 (116-337) [l=163 cm] - Z.
 116, 0.00, 0.00, 14.04, 0.56, 40.25, 0.00
 337, 0.00, 0.00, 15.63, 0.56, 15.95, 0.00
 397 (226-120) [l=153 cm] - Z.
 226, 0.00, 0.00, 11.95, 1.00, 9.65, 0.00
 120, 0.00, 0.00, 15.87, 1.00, 11.90, 0.00
 398 (120-338) [l=153 cm] - Z.
 120, 0.00, 0.00, 13.77, 0.31, 38.25, 0.00
 338, 0.00, 0.00, 15.50, 0.31, 15.84, 0.00
 399 (338-339) [l=200 cm] - Z.
 338, 0.00, 0.00, 15.50, 0.31, 15.84, 0.00
 339, 0.00, 0.00, 15.66, 0.31, 16.13, 0.00
 400 (339-124) [l=163 cm] - Z.
 339, 0.00, 0.00, 15.66, 0.31, 16.13, 0.00
 124, 0.00, 0.00, 13.99, 0.31, 40.38, 0.00
 401 (124-220) [l=163 cm] - Z.
 124, 0.00, 0.00, 16.54, 1.09, 14.42, 0.00
 220, 0.00, 0.00, 12.42, 1.09, 9.49, 0.00
 402 (230-211) [l=208 cm] - Z.
 230, 0.00, 0.00, 21.90, 19.97, 12.54, 0.00
 211, 0.00, 0.00, 20.94, 19.97, 47.02, 0.00
 403 (211-223) [l=208 cm] - Z.
 211, 0.00, 0.00, 20.57, 20.37, 35.32, 0.00
 223, 0.00, 0.00, 15.64, 20.37, 2.81, 0.00
 404 (291-227) [l=165 cm] - Z.
 291, 0.00, 0.00, 0.92, 0.04, 4.36, 0.00
 227, 0.00, 0.00, 4.64, 0.04, 2.17, 0.00
 405 (293-291) [l=132 cm] - Z.
 293, 0.00, 0.00, 2.06, 0.03, 3.12, 0.00
 291, 0.00, 0.00, 0.91, 0.03, 4.41, 0.00
 406 (295-293) [l=218 cm] - Z.
 295, 0.00, 0.00, 2.25, 0.03, 2.74, 0.00
 293, 0.00, 0.00, 2.09, 0.03, 3.17, 0.00
 407 (219-297) [l=185 cm] - Z.
 219, 0.00, 0.00, 4.58, 0.04, 2.24, 0.00
 297, 0.00, 0.00, 0.94, 0.04, 4.33, 0.00
 408 (297-295) [l=132 cm] - Z.
 297, 0.00, 0.00, 0.91, 0.03, 4.38, 0.00
 295, 0.00, 0.00, 2.21, 0.03, 2.68, 0.00
 409 (299-239) [l=185 cm] - Z.
 299, 0.00, 0.00, 1.61, 0.07, 5.12, 0.00
 239, 0.00, 0.00, 4.85, 0.07, 3.98, 0.00
 410 (301-299) [l=132 cm] - Z.
 301, 0.00, 0.00, 2.57, 0.07, 3.27, 0.00
 299, 0.00, 0.00, 1.57, 0.07, 5.17, 0.00
 411 (303-301) [l=218 cm] - Z.
 303, 0.00, 0.00, 2.45, 0.07, 3.71, 0.00
 301, 0.00, 0.00, 2.61, 0.07, 3.33, 0.00
 412 (238-305) [l=165 cm] - Z.
 238, 0.00, 0.00, 4.72, 0.07, 3.69, 0.00
 305, 0.00, 0.00, 1.48, 0.07, 5.21, 0.00
 413 (305-303) [l=132 cm] - Z.
 305, 0.00, 0.00, 1.46, 0.07, 5.26, 0.00
 303, 0.00, 0.00, 2.41, 0.07, 3.65, 0.00
 414 (24-119) [l=60 cm] - K.
 24, 9.30, 5.88, 0.16, 0.00, 1.32, 49.08
 119, 9.30, 5.88, 0.16, 0.00, 1.23, 45.55

415 (31-237) [l=240 cm] - K.
 31, 0.03, 0.09, 0.02, 0.00, 0.07, 0.31
 237, 0.03, 0.09, 0.02, 0.00, 0.02, 0.10
 416 (40-127) [l=60 cm] - K.
 40, 8.88, 6.28, 0.05, 0.00, 0.46, 52.40
 127, 8.88, 6.28, 0.05, 0.00, 0.42, 48.63
 417 (340-253) [l=240 cm] - K.
 340, 0.04, 0.09, 0.02, 0.00, 0.07, 0.33
 253, 0.04, 0.09, 0.02, 0.00, 0.02, 0.11
 418 (341-254) [l=240 cm] - K.
 341, 0.06, 0.10, 0.02, 0.00, 0.09, 0.34
 254, 0.06, 0.10, 0.02, 0.00, 0.03, 0.11
 419 (78-122) [l=60 cm] - K.
 78, 9.15, 5.40, 0.05, 0.00, 0.39, 45.11
 122, 9.15, 5.40, 0.05, 0.00, 0.36, 41.86
 420 (87-233) [l=240 cm] - K.
 87, 0.04, 0.09, 0.02, 0.00, 0.08, 0.31
 233, 0.04, 0.09, 0.02, 0.00, 0.03, 0.10
 421 (94-114) [l=60 cm] - K.
 94, 9.49, 5.14, 0.14, 0.00, 1.21, 42.92
 114, 9.49, 5.14, 0.14, 0.00, 1.12, 39.83
 422 (342-275) [l=0 cm] - K.
 342, 41.38, 3.30, 250.20, 0.00, 359.02, 4.73
 275, 41.38, 3.30, 250.20, 0.00, 358.51, 4.73
 423 (280-319) [l=0 cm] - T.
 280, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 319, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 424 (319-281) [l=199 cm] - T.
 319, 0.74, 0.00, 0.05, 0.00, 0.06, 0.00
 281, 0.74, 0.00, 0.05, 0.00, 0.04, 0.00
 425 (343-319) [l=0 cm] - K.
 343, 2.52, 0.01, 0.01, 0.00, 40.46, 33.43
 319, 2.52, 0.01, 0.01, 0.00, 40.46, 33.43
 426 (290-344) [l=0 cm] - T.
 290, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 344, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 427 (344-289) [l=199 cm] - T.
 344, 2.15, 0.00, 0.16, 0.00, 0.19, 0.00
 289, 2.15, 0.00, 0.16, 0.00, 0.13, 0.00
 428 (345-344) [l=0 cm] - K.
 345, 0.97, 0.00, 0.00, 0.00, 0.00, 0.19
 344, 0.97, 0.00, 0.00, 0.00, 0.00, 0.19
 429 (276-346) [l=0 cm] - T.
 276, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 346, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 430 (346-185) [l=448 cm] - T.
 346, 0.58, 0.00, 0.01, 0.00, 0.03, 0.00
 185, 0.58, 0.00, 0.01, 0.00, 0.02, 0.00
 431 (173-346) [l=0 cm] - K.
 173, 1.21, 0.00, 0.00, 0.00, 0.00, 0.03
 346, 1.21, 0.00, 0.00, 0.00, 0.00, 0.03
 432 (277-347) [l=0 cm] - T.
 277, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 347, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 433 (347-185) [l=448 cm] - T.
 347, 0.58, 0.00, 0.01, 0.00, 0.03, 0.00
 185, 0.58, 0.00, 0.01, 0.00, 0.02, 0.00
 434 (182-347) [l=0 cm] - K.
 182, 1.21, 0.00, 0.00, 0.00, 0.00, 0.03
 347, 1.21, 0.00, 0.00, 0.00, 0.00, 0.03
 435 (196-240) [l=94 cm] - K.
 196, 0.00, 0.00, 8.19, 55.03, 138.10, 0.00
 240, 0.00, 0.00, 8.19, 55.03, 130.90, 0.00
 436 (240-197) [l=2 cm] - K.
 240, 0.00, 0.00, 8.12, 55.04, 130.90, 0.00
 197, 0.00, 0.00, 8.12, 55.04, 130.74, 0.00
 437 (137-242) [l=2 cm] - K.
 137, 0.00, 0.00, 8.15, 53.54, 128.20, 0.00
 242, 0.00, 0.00, 8.15, 53.54, 128.36, 0.00
 438 (242-139) [l=94 cm] - K.
 242, 0.00, 0.00, 8.24, 53.53, 128.36, 0.00
 139, 0.00, 0.00, 8.24, 53.53, 135.86, 0.00
 439 (128-243) [l=159 cm] - K.
 128, 0.00, 0.00, 3.43, 62.86, 147.13, 0.00
 243, 0.00, 0.00, 3.43, 62.86, 146.56, 0.00
 440 (243-130) [l=5 cm] - K.
 243, 0.00, 0.00, 1.54, 31.43, 73.28, 0.00
 130, 0.00, 0.00, 1.54, 31.43, 73.27, 0.00
 441 (203-245) [l=5 cm] - K.
 203, 0.00, 0.00, 1.47, 30.59, 72.67, 0.00
 245, 0.00, 0.00, 1.47, 30.59, 72.69, 0.00
 442 (245-202) [l=159 cm] - K.
 245, 0.00, 0.00, 3.22, 61.17, 145.39, 0.00
 202, 0.00, 0.00, 3.22, 61.17, 146.93, 0.00
 443 (132-246) [l=165 cm] - K.
 132, 0.00, 0.00, 5.62, 73.96, 138.14, 0.00

246, 0.00, 0.00, 5.62, 73.96, 138.68, 0.00
 444 (246-129) [l=3 cm] - K.
 246, 0.00, 0.00, 2.71, 36.98, 69.34, 0.00
 129, 0.00, 0.00, 2.71, 36.98, 69.35, 0.00
 445 (142-248) [l=3 cm] - K.
 142, 0.00, 0.00, 2.16, 36.01, 69.63, 0.00
 248, 0.00, 0.00, 2.16, 36.01, 69.58, 0.00
 446 (248-141) [l=165 cm] - K.
 248, 0.00, 0.00, 4.38, 72.02, 139.15, 0.00
 141, 0.00, 0.00, 4.38, 72.02, 136.60, 0.00
 447 (46-340) [l=52 cm] - K.
 46, 0.00, 0.00, 15.29, 26.24, 58.13, 0.00
 340, 0.00, 0.00, 15.29, 26.24, 64.74, 0.00
 448 (340-45) [l=112 cm] - K.
 340, 0.00, 0.00, 15.27, 26.46, 64.68, 0.00
 45, 0.00, 0.00, 15.27, 26.46, 79.71, 0.00
 449 (73-341) [l=44 cm] - K.
 73, 0.00, 0.00, 11.64, 13.16, 57.08, 0.00
 341, 0.00, 0.00, 11.64, 13.16, 52.11, 0.00
 450 (341-74) [l=52 cm] - K.
 341, 0.00, 0.00, 11.67, 12.94, 52.19, 0.00
 74, 0.00, 0.00, 11.67, 12.94, 46.36, 0.00
 451 (190-255) [l=4 cm] - K.
 190, 0.00, 0.00, 3.08, 42.45, 72.95, 0.00
 255, 0.00, 0.00, 3.08, 42.45, 72.83, 0.00
 452 (255-191) [l=142 cm] - K.
 255, 0.00, 0.00, 6.11, 84.91, 145.67, 0.00
 191, 0.00, 0.00, 6.11, 84.91, 137.99, 0.00
 453 (144-257) [l=142 cm] - K.
 144, 0.00, 0.00, 5.31, 82.67, 135.45, 0.00
 257, 0.00, 0.00, 5.31, 82.67, 141.14, 0.00
 454 (257-145) [l=4 cm] - K.
 257, 0.00, 0.00, 2.68, 41.34, 70.57, 0.00
 145, 0.00, 0.00, 2.68, 41.34, 70.65, 0.00
 455 (134-258) [l=252 cm] - K.
 134, 0.00, 0.00, 11.46, 92.16, 198.04, 0.00
 258, 0.00, 0.00, 11.46, 92.16, 170.41, 0.00
 456 (258-136) [l=57 cm] - K.
 258, 0.00, 0.00, 11.48, 92.15, 170.41, 0.00
 136, 0.00, 0.00, 11.48, 92.15, 164.22, 0.00
 457 (199-260) [l=57 cm] - K.
 199, 0.00, 0.00, 10.02, 89.75, 155.40, 0.00
 260, 0.00, 0.00, 10.02, 89.75, 160.30, 0.00
 458 (260-198) [l=252 cm] - K.
 260, 0.00, 0.00, 10.00, 89.75, 160.30, 0.00
 198, 0.00, 0.00, 10.00, 89.75, 182.33, 0.00
 459 (135-261) [l=273 cm] - K.
 135, 0.00, 0.00, 30.99, 111.33, 289.06, 0.00
 261, 0.00, 0.00, 30.99, 111.33, 206.55, 0.00
 460 (261-134) [l=36 cm] - K.
 261, 0.00, 0.00, 31.13, 111.32, 206.55, 0.00
 134, 0.00, 0.00, 31.13, 111.32, 195.80, 0.00
 461 (198-263) [l=36 cm] - K.
 198, 0.00, 0.00, 26.35, 108.47, 180.81, 0.00
 263, 0.00, 0.00, 26.35, 108.47, 189.64, 0.00
 462 (263-148) [l=273 cm] - K.
 263, 0.00, 0.00, 26.25, 108.47, 189.64, 0.00
 148, 0.00, 0.00, 26.25, 108.47, 259.31, 0.00
 463 (151-264) [l=223 cm] - K.
 151, 0.00, 0.00, 30.89, 111.32, 361.37, 0.00
 264, 0.00, 0.00, 30.89, 111.32, 293.63, 0.00
 464 (264-135) [l=15 cm] - K.
 264, 0.00, 0.00, 30.99, 111.33, 293.63, 0.00
 135, 0.00, 0.00, 30.99, 111.33, 289.06, 0.00
 465 (148-266) [l=15 cm] - K.
 148, 0.00, 0.00, 26.25, 108.47, 259.31, 0.00
 266, 0.00, 0.00, 26.25, 108.47, 263.19, 0.00
 466 (266-147) [l=127 cm] - K.
 266, 0.00, 0.00, 26.31, 108.47, 263.19, 0.00
 147, 0.00, 0.00, 26.31, 108.47, 296.15, 0.00
 467 (162-267) [l=30 cm] - K.
 162, 0.00, 0.00, 41.45, 126.25, 467.80, 0.00
 267, 0.00, 0.00, 41.45, 126.25, 479.97, 0.00
 468 (267-161) [l=136 cm] - K.
 267, 0.00, 0.00, 41.35, 126.25, 479.97, 0.00
 161, 0.00, 0.00, 41.35, 126.25, 536.03, 0.00
 469 (156-269) [l=28 cm] - K.
 156, 0.00, 0.00, 38.17, 118.84, 507.17, 0.00
 269, 0.00, 0.00, 38.17, 118.84, 496.41, 0.00
 470 (269-193) [l=68 cm] - K.
 269, 0.00, 0.00, 38.28, 118.83, 496.41, 0.00
 193, 0.00, 0.00, 38.28, 118.83, 470.50, 0.00
 471 (163-270) [l=3 cm] - K.
 163, 0.00, 0.00, 22.88, 67.78, 306.51, 0.00
 270, 0.00, 0.00, 22.88, 67.78, 307.24, 0.00
 472 (270-208) [l=108 cm] - K.

270, 0.00, 0.00, 45.71, 135.57, 614.48, 0.00
 208, 0.00, 0.00, 45.71, 135.57, 663.56, 0.00
 473 (155-272) [l=35 cm] - K.
 155, 0.00, 0.00, 44.44, 127.77, 635.32, 0.00
 272, 0.00, 0.00, 44.44, 127.77, 620.20, 0.00
 474 (272-154) [l=121 cm] - K.
 272, 0.00, 0.00, 44.58, 127.76, 620.20, 0.00
 154, 0.00, 0.00, 44.58, 127.76, 567.34, 0.00
 475 (176-311) [l=416 cm] - T.
 176, 0.00, 0.00, 0.03, 0.00, 0.07, 0.00
 311, 0.00, 0.00, 0.03, 0.00, 0.07, 0.00
 476 (311-167) [l=416 cm] - T.
 311, 0.00, 0.00, 0.03, 0.00, 0.07, 0.00
 167, 0.00, 0.00, 0.03, 0.00, 0.07, 0.00
 477 (242-312) [l=416 cm] - T.
 242, 0.00, 0.00, 0.02, 0.00, 0.05, 0.00
 312, 0.00, 0.00, 0.02, 0.00, 0.05, 0.00
 478 (312-240) [l=416 cm] - T.
 312, 0.00, 0.00, 0.02, 0.00, 0.05, 0.00
 240, 0.00, 0.00, 0.02, 0.00, 0.05, 0.00
 479 (245-313) [l=416 cm] - T.
 245, 0.00, 0.00, 0.02, 0.00, 0.04, 0.00
 313, 0.00, 0.00, 0.02, 0.00, 0.04, 0.00
 480 (313-243) [l=416 cm] - T.
 313, 0.00, 0.00, 0.02, 0.00, 0.04, 0.00
 243, 0.00, 0.00, 0.02, 0.00, 0.04, 0.00
 481 (257-314) [l=416 cm] - T.
 257, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 314, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 482 (314-255) [l=416 cm] - T.
 314, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 255, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 483 (260-315) [l=416 cm] - T.
 260, 0.00, 0.00, 0.00, 0.00, 0.01, 0.00
 315, 0.00, 0.00, 0.00, 0.00, 0.01, 0.00
 484 (315-258) [l=416 cm] - T.
 315, 0.00, 0.00, 0.00, 0.00, 0.01, 0.00
 258, 0.00, 0.00, 0.00, 0.00, 0.01, 0.00
 485 (263-318) [l=416 cm] - T.
 263, 0.00, 0.00, 0.01, 0.00, 0.02, 0.00
 318, 0.00, 0.00, 0.01, 0.00, 0.02, 0.00
 486 (318-261) [l=416 cm] - T.
 318, 0.00, 0.00, 0.01, 0.00, 0.02, 0.00
 261, 0.00, 0.00, 0.01, 0.00, 0.02, 0.00
 487 (267-316) [l=416 cm] - T.
 267, 0.00, 0.00, 0.03, 0.00, 0.06, 0.00
 316, 0.00, 0.00, 0.03, 0.00, 0.06, 0.00
 488 (316-269) [l=416 cm] - T.
 316, 0.00, 0.00, 0.03, 0.00, 0.06, 0.00
 269, 0.00, 0.00, 0.03, 0.00, 0.06, 0.00
 489 (270-317) [l=416 cm] - T.
 270, 0.00, 0.00, 0.03, 0.00, 0.07, 0.00
 317, 0.00, 0.00, 0.03, 0.00, 0.07, 0.00
 490 (317-272) [l=416 cm] - T.
 317, 0.00, 0.00, 0.03, 0.00, 0.07, 0.00
 272, 0.00, 0.00, 0.03, 0.00, 0.07, 0.00
 491 (109-342) [l=224 cm] - K.
 109, 3.71, 327.12, 43.88, 286.23, 84.24, 638.61
 342, 3.71, 327.12, 43.88, 286.23, 14.82, 93.35
 492 (110-342) [l=448 cm] - T.
 110, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 342, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 493 (342-111) [l=0 cm] - T.
 342, 0.00, 0.01, 0.00, 0.00, 0.00, 0.00
 111, 0.00, 0.01, 0.00, 0.00, 0.00, 0.00
 494 (149-284) [l=52 cm] - K.
 149, 0.00, 0.00, 33.91, 116.80, 344.25, 0.00
 284, 0.00, 0.00, 33.91, 116.80, 361.66, 0.00
 495 (284-206) [l=112 cm] - K.
 284, 0.00, 0.00, 33.91, 116.83, 361.66, 0.00
 206, 0.00, 0.00, 33.91, 116.83, 399.39, 0.00
 496 (325-239) [l=52 cm] - Z.
 325, 0.00, 0.00, 5.83, 0.40, 6.68, 0.00
 239, 0.00, 0.00, 6.39, 0.40, 9.36, 0.00
 497 (239-44) [l=112 cm] - Z.
 239, 0.00, 0.00, 8.93, 4.24, 9.34, 0.00
 44, 0.00, 0.00, 12.78, 4.24, 18.66, 0.00
 498 (72-238) [l=44 cm] - Z.
 72, 0.00, 0.00, 10.10, 3.93, 11.04, 0.00
 238, 0.00, 0.00, 8.59, 3.93, 8.27, 0.00
 499 (238-328) [l=52 cm] - Z.
 238, 0.00, 0.00, 5.70, 0.40, 8.28, 0.00
 328, 0.00, 0.00, 5.15, 0.40, 5.99, 0.00
 500 (133-343) [l=0 cm] - K.
 133, 0.00, 0.00, 3.22, 41.97, 97.67, 0.00
 343, 0.00, 0.00, 3.22, 41.97, 97.67, 0.00

501 (343-132) [l=167 cm] - K.
 343, 0.00, 0.00, 5.74, 75.40, 138.13, 0.00
 132, 0.00, 0.00, 5.74, 75.40, 137.97, 0.00
 502 (152-345) [l=140 cm] - K.
 152, 0.00, 0.00, 32.89, 113.19, 438.76, 0.00
 345, 0.00, 0.00, 32.89, 113.19, 393.08, 0.00
 503 (345-151) [l=97 cm] - K.
 345, 0.00, 0.00, 32.82, 113.16, 393.08, 0.00
 151, 0.00, 0.00, 32.82, 113.16, 361.48, 0.00
 504 (292-232) [l=360 cm] - K.
 292, 0.10, 0.03, 0.01, 0.00, 0.06, 0.22
 232, 0.10, 0.03, 0.01, 0.00, 0.03, 0.11
 505 (294-234) [l=410 cm] - K.
 294, 0.03, 0.02, 0.00, 0.00, 0.04, 0.22
 234, 0.03, 0.02, 0.00, 0.00, 0.02, 0.15
 506 (296-235) [l=410 cm] - K.
 296, 0.04, 0.02, 0.00, 0.00, 0.03, 0.23
 235, 0.04, 0.02, 0.00, 0.00, 0.02, 0.15
 507 (298-236) [l=360 cm] - K.
 298, 0.10, 0.03, 0.01, 0.00, 0.05, 0.22
 236, 0.10, 0.03, 0.01, 0.00, 0.03, 0.11
 508 (300-250) [l=360 cm] - K.
 300, 0.10, 0.03, 0.01, 0.00, 0.05, 0.23
 250, 0.10, 0.03, 0.01, 0.00, 0.03, 0.12
 509 (302-249) [l=410 cm] - K.
 302, 0.05, 0.02, 0.00, 0.00, 0.03, 0.24
 249, 0.05, 0.02, 0.00, 0.00, 0.02, 0.16
 510 (304-251) [l=410 cm] - K.
 304, 0.05, 0.02, 0.00, 0.00, 0.04, 0.24
 251, 0.05, 0.02, 0.00, 0.00, 0.02, 0.16
 511 (306-252) [l=360 cm] - K.
 306, 0.10, 0.03, 0.01, 0.00, 0.06, 0.22
 252, 0.10, 0.03, 0.01, 0.00, 0.03, 0.12

--> Deformazioni nelle Aste (v=sy, w=sz, fiy, fiz) (yz=assi locali) [mm, mrad]

1 (1-j'-2) [l=480 cm] [Piano XZ: 402 def.-79 rig.] - M.
 1, 0.000E+00, 0.000E+00, 9.146E-02, 1.194E-02
 i', 0.000E+00, 0.000E+00, 9.146E-02, 1.194E-02
 j', 5.671E-02, 4.227E-01, 8.827E-02, 8.035E-03
 2, 5.671E-02, 4.918E-01, 8.827E-02, 8.035E-03 - K.
 2 (3-2) [l=151 cm][151 def.]
 3, 5.708E-02, 4.130E-01, 8.827E-02, 8.414E-04
 i', 5.708E-02, 4.130E-01, 8.827E-02, 8.414E-04 - K.
 j', 5.671E-02, 2.796E-01, 8.827E-02, 8.414E-04
 2, 5.671E-02, 2.796E-01, 8.827E-02, 8.414E-04
 3 (2-4) [l=151 cm][151 def.]
 2, 5.671E-02, 2.796E-01, 8.827E-02, 8.414E-04 - M.
 i', 5.671E-02, 2.796E-01, 8.827E-02, 8.414E-04
 j', 5.644E-02, 2.038E-01, 8.827E-02, 8.414E-04
 4, 5.644E-02, 2.038E-01, 8.827E-02, 8.414E-04 - K.
 4 (5-j'-6) [l=480 cm] [Piano XZ: 402 def.-79 rig.]
 5, 0.000E+00, 0.000E+00, 9.076E-02, 9.553E-03
 i', 0.000E+00, 0.000E+00, 9.076E-02, 9.553E-03 - K.
 j', 5.696E-02, 4.227E-01, 8.824E-02, 8.043E-03
 6, 5.696E-02, 4.918E-01, 8.824E-02, 8.043E-03
 5 (7-6) [l=151 cm][151 def.]
 7, 5.644E-02, 2.020E-01, 8.824E-02, 8.414E-04 - S.
 i', 5.644E-02, 2.020E-01, 8.824E-02, 8.414E-04
 j', 5.696E-02, 2.731E-01, 8.824E-02, 8.414E-04
 6, 5.696E-02, 2.731E-01, 8.824E-02, 8.414E-04 - M.
 6 (6-8) [l=151 cm][151 def.]
 6, 5.696E-02, 2.731E-01, 8.824E-02, 8.414E-04
 i', 5.696E-02, 2.731E-01, 8.824E-02, 8.414E-04 - K.
 j', 5.752E-02, 4.065E-01, 8.824E-02, 8.414E-04
 8, 5.752E-02, 4.065E-01, 8.824E-02, 8.414E-04
 7 (4-7) [l=227 cm][227 def.]
 4, 5.644E-02, 2.038E-01, 8.827E-02, 8.414E-04 - K.
 i', 5.644E-02, 2.038E-01, 8.827E-02, 8.414E-04
 j', 5.644E-02, 2.020E-01, 8.824E-02, 8.414E-04
 7, 5.644E-02, 2.020E-01, 8.824E-02, 8.414E-04 - M.
 8 (9-i'-j'-10) [l=480 cm] [Piano XZ: 192 rig.-267 def.-21 rig.]
 9, 0.000E+00, 0.000E+00, 9.553E-03, 9.076E-02
 i', 0.000E+00, 1.830E-02, 9.553E-03, 9.076E-02 - K.
 j', 4.911E-01, 5.637E-02, 8.043E-03, 8.824E-02
 10, 4.911E-01, 5.752E-02, 8.043E-03, 8.824E-02
 9 (9-11) [l=79 cm][79 def.]
 9, 0.000E+00, 4.026E-01, 9.553E-03, 0.000E+00 - K.
 i', 0.000E+00, 4.026E-01, 9.553E-03, 0.000E+00
 j', 0.000E+00, 3.990E-01, 9.553E-03, 0.000E+00
 11, 0.000E+00, 3.990E-01, 9.553E-03, 0.000E+00 - F.
 10 (8-10) [l=79 cm][79 def.]
 8, 4.918E-01, 4.065E-01, 8.043E-03, 8.414E-04
 i', 4.918E-01, 4.065E-01, 8.043E-03, 8.414E-04 - S.
 j', 4.911E-01, 4.047E-01, 8.043E-03, 8.414E-04
 10, 4.911E-01, 4.047E-01, 8.043E-03, 8.414E-04

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11 (13-i'-j'-14) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.]
13, 0.000E+00, 0.000E+00, 8.394E-03, 9.863E-02 - M.
i', 0.000E+00, 1.456E-02, 8.394E-03, 9.863E-02
j', 4.879E-01, 5.644E-02, 8.043E-03, 8.824E-02
14, 4.879E-01, 5.752E-02, 8.043E-03, 8.824E-02 - K.
12 (15-13) [l=96 cm][96 def.]
15, 0.000E+00, 3.897E-01, 8.394E-03, 0.000E+00
i', 0.000E+00, 3.897E-01, 8.394E-03, 0.000E+00 - K.
j', 0.000E+00, 3.868E-01, 8.394E-03, 0.000E+00
13, 0.000E+00, 3.868E-01, 8.394E-03, 0.000E+00
13 (14-17) [l=96 cm][96 def.]
14, 4.879E-01, 3.957E-01, 8.043E-03, 8.414E-04 - M.
i', 4.879E-01, 3.957E-01, 8.043E-03, 8.414E-04
j', 4.871E-01, 3.935E-01, 8.044E-03, 8.414E-04
17, 4.871E-01, 3.935E-01, 8.044E-03, 8.414E-04 - K.
14 (11-15) [l=227 cm][227 def.]
11, 0.000E+00, 3.990E-01, 9.553E-03, 0.000E+00
i', 0.000E+00, 3.990E-01, 9.553E-03, 0.000E+00 - K.
j', 0.000E+00, 3.897E-01, 8.394E-03, 0.000E+00
15, 0.000E+00, 3.897E-01, 8.394E-03, 0.000E+00
15 (12-16) [l=227 cm][227 def.]
12, 4.905E-01, 4.029E-01, 8.043E-03, 8.414E-04 - S.
i', 4.905E-01, 4.029E-01, 8.043E-03, 8.414E-04
j', 4.887E-01, 3.978E-01, 8.043E-03, 8.414E-04
16, 4.887E-01, 3.978E-01, 8.043E-03, 8.414E-04 - M.
16 (18-j'-19) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
18, 0.000E+00, 0.000E+00, 8.395E-03, 9.863E-02
i', 0.000E+00, 0.000E+00, 8.395E-03, 9.863E-02 - K.
j', 4.863E-01, 5.335E-02, 8.044E-03, 8.824E-02
19, 4.863E-01, 5.752E-02, 8.044E-03, 8.824E-02
17 (17-19) [l=96 cm][96 def.]
17, 4.871E-01, 3.935E-01, 8.044E-03, 8.414E-04 - K.
i', 4.871E-01, 3.935E-01, 8.044E-03, 8.414E-04
j', 4.863E-01, 3.914E-01, 8.044E-03, 8.414E-04
19, 4.863E-01, 3.914E-01, 8.044E-03, 8.414E-04 - M.
18 (19-20) [l=96 cm][96 def.]
19, 4.863E-01, 3.914E-01, 8.044E-03, 8.414E-04
i', 4.863E-01, 3.914E-01, 8.044E-03, 8.414E-04 - K.
j', 4.856E-01, 3.892E-01, 8.044E-03, 8.414E-04
20, 4.856E-01, 3.892E-01, 8.044E-03, 8.414E-04
19 (21-j'-22) [l=480 cm] [Piano XZ: 425 def.-55 rig.]
21, 0.000E+00, 0.000E+00, 8.342E-03, 8.637E-02 - K.
i', 0.000E+00, 0.000E+00, 8.342E-03, 8.637E-02
j', 4.824E-01, 5.458E-02, 8.044E-03, 8.824E-02
22, 4.824E-01, 5.752E-02, 8.044E-03, 8.824E-02 - S.
20 (23-22) [l=163 cm][163 def.]
23, 4.837E-01, 3.841E-01, 8.044E-03, 8.414E-04
i', 4.837E-01, 3.841E-01, 8.044E-03, 8.414E-04 - M.
j', 4.824E-01, 3.805E-01, 8.044E-03, 8.414E-04
22, 4.824E-01, 3.805E-01, 8.044E-03, 8.414E-04
21 (22-24) [l=163 cm][163 def.]
22, 4.824E-01, 3.805E-01, 8.044E-03, 8.414E-04 - K.
i', 4.824E-01, 3.805E-01, 8.044E-03, 8.414E-04
j', 4.811E-01, 3.769E-01, 8.045E-03, 8.414E-04
24, 4.811E-01, 3.769E-01, 8.045E-03, 8.414E-04 - K.
22 (20-23) [l=227 cm][227 def.]
20, 4.856E-01, 3.892E-01, 8.044E-03, 8.414E-04
i', 4.856E-01, 3.892E-01, 8.044E-03, 8.414E-04 - K.
j', 4.837E-01, 3.841E-01, 8.044E-03, 8.414E-04
23, 4.837E-01, 3.841E-01, 8.044E-03, 8.414E-04
23 (25-j'-26) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
25, 0.000E+00, 0.000E+00, 8.340E-03, 8.636E-02 - M.
i', 0.000E+00, 0.000E+00, 8.340E-03, 8.636E-02
j', 4.809E-01, 5.106E-02, 8.045E-03, 8.824E-02
26, 4.809E-01, 5.752E-02, 8.045E-03, 8.824E-02 - K.
24 (24-26) [l=28 cm][28 def.]
24, 4.811E-01, 3.769E-01, 8.045E-03, 8.414E-04
i', 4.811E-01, 3.769E-01, 8.045E-03, 8.414E-04 - K.
j', 4.809E-01, 3.762E-01, 8.045E-03, 8.414E-04
26, 4.809E-01, 3.762E-01, 8.045E-03, 8.414E-04
25 (26-27) [l=28 cm][28 def.]
26, 4.809E-01, 3.762E-01, 8.045E-03, 8.414E-04 - K.
i', 4.809E-01, 3.762E-01, 8.045E-03, 8.414E-04
j', 4.807E-01, 3.756E-01, 8.045E-03, 8.414E-04
27, 4.807E-01, 3.756E-01, 8.045E-03, 8.414E-04 - F.
26 (28-j'-29) [l=480 cm] [Piano XZ: 352 def.-128 rig.]
28, 0.000E+00, 0.000E+00, 8.096E-03, 9.272E-02
i', 0.000E+00, 0.000E+00, 8.096E-03, 9.272E-02 - S.
j', 4.786E-01, 5.097E-02, 8.045E-03, 8.824E-02
29, 4.786E-01, 5.752E-02, 8.045E-03, 8.824E-02
27 (30-29) [l=26 cm][26 def.]
30, 4.788E-01, 3.707E-01, 8.045E-03, 8.414E-04 - M.
i', 4.788E-01, 3.707E-01, 8.045E-03, 8.414E-04
j', 4.786E-01, 3.701E-01, 8.045E-03, 8.414E-04
29, 4.786E-01, 3.701E-01, 8.045E-03, 8.414E-04 - K.
28 (29-31) [l=26 cm][26 def.]

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29, 4.786E-01, 3.701E-01, 8.045E-03, 8.414E-04
 i', 4.786E-01, 3.701E-01, 8.045E-03, 8.414E-04 - K.
 j', 4.784E-01, 3.696E-01, 8.045E-03, 8.414E-04
 31, 4.784E-01, 3.696E-01, 8.045E-03, 8.414E-04
 29 (27-30) [l=227 cm][227 def.]
 27, 4.807E-01, 3.756E-01, 8.045E-03, 8.414E-04 - M.
 i', 4.807E-01, 3.756E-01, 8.045E-03, 8.414E-04
 j', 4.788E-01, 3.707E-01, 8.045E-03, 8.414E-04
 30, 4.788E-01, 3.707E-01, 8.045E-03, 8.414E-04 - K.
 30 (32-i'-j'-33) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.]
 32, 0.000E+00, 0.000E+00, 8.098E-03, 9.272E-02
 i', 0.000E+00, 1.043E-02, 8.098E-03, 9.272E-02 - S.
 j', 4.773E-01, 5.662E-02, 8.045E-03, 8.824E-02
 33, 4.773E-01, 5.752E-02, 8.045E-03, 8.824E-02
 31 (32-34) [l=146 cm][146 def.]
 32, 0.000E+00, 3.561E-01, 8.098E-03, 0.000E+00 - M.
 i', 0.000E+00, 3.561E-01, 8.098E-03, 0.000E+00
 j', 0.000E+00, 3.536E-01, 8.098E-03, 0.000E+00
 34, 0.000E+00, 3.536E-01, 8.098E-03, 0.000E+00 - K.
 32 (31-33) [l=146 cm][146 def.]
 31, 4.784E-01, 3.696E-01, 8.045E-03, 8.414E-04
 i', 4.784E-01, 3.696E-01, 8.045E-03, 8.414E-04 - K.
 j', 4.773E-01, 3.665E-01, 8.045E-03, 8.414E-04
 33, 4.773E-01, 3.665E-01, 8.045E-03, 8.414E-04
 33 (33-35) [l=146 cm][146 def.]
 33, 4.773E-01, 3.665E-01, 8.045E-03, 8.414E-04 - M.
 i', 4.773E-01, 3.665E-01, 8.045E-03, 8.414E-04
 j', 4.761E-01, 3.637E-01, 8.045E-03, 8.414E-04
 35, 4.761E-01, 3.637E-01, 8.045E-03, 8.414E-04 - K.
 34 (36-i'-j'-37) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.]
 36, 0.000E+00, 0.000E+00, 8.135E-03, 8.668E-02
 i', 0.000E+00, 3.929E-03, 8.135E-03, 8.668E-02 - K.
 j', 4.765E-01, 5.702E-02, 8.046E-03, 8.824E-02
 37, 4.765E-01, 5.752E-02, 8.046E-03, 8.824E-02
 35 (38-36) [l=308 cm][308 def.]
 38, 0.000E+00, 3.525E-01, 8.135E-03, 0.000E+00 - F.
 i', 0.000E+00, 3.525E-01, 8.135E-03, 0.000E+00
 j', 0.000E+00, 3.583E-01, 8.135E-03, 0.000E+00
 36, 0.000E+00, 3.583E-01, 8.135E-03, 0.000E+00 - S.
 36 (39-37) [l=308 cm][308 def.]
 39, 4.753E-01, 3.611E-01, 8.046E-03, 8.414E-04
 i', 4.753E-01, 3.611E-01, 8.046E-03, 8.414E-04 - M.
 j', 4.765E-01, 3.653E-01, 8.046E-03, 8.414E-04
 37, 4.765E-01, 3.653E-01, 8.046E-03, 8.414E-04
 37 (37-40) [l=308 cm][308 def.]
 37, 4.765E-01, 3.653E-01, 8.046E-03, 8.414E-04 - K.
 i', 4.765E-01, 3.653E-01, 8.046E-03, 8.414E-04
 j', 4.778E-01, 3.725E-01, 8.046E-03, 8.414E-04
 40, 4.778E-01, 3.725E-01, 8.046E-03, 8.414E-04 - M.
 38 (34-38) [l=227 cm][227 def.]
 34, 0.000E+00, 3.536E-01, 8.098E-03, 0.000E+00
 i', 0.000E+00, 3.536E-01, 8.098E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.525E-01, 8.135E-03, 0.000E+00
 38, 0.000E+00, 3.525E-01, 8.135E-03, 0.000E+00
 39 (35-39) [l=227 cm][227 def.]
 35, 4.761E-01, 3.637E-01, 8.045E-03, 8.414E-04 - K.
 i', 4.761E-01, 3.637E-01, 8.045E-03, 8.414E-04
 j', 4.753E-01, 3.611E-01, 8.046E-03, 8.414E-04
 39, 4.753E-01, 3.611E-01, 8.046E-03, 8.414E-04 - S.
 40 (41-j'-42) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
 41, 0.000E+00, 0.000E+00, 8.126E-03, 8.666E-02
 i', 0.000E+00, 0.000E+00, 8.126E-03, 8.666E-02 - M.
 j', 4.779E-01, 5.106E-02, 8.046E-03, 8.824E-02
 42, 4.779E-01, 5.752E-02, 8.046E-03, 8.824E-02
 41 (40-42) [l=28 cm][28 def.]
 40, 4.778E-01, 3.725E-01, 8.046E-03, 8.414E-04 - K.
 i', 4.778E-01, 3.725E-01, 8.046E-03, 8.414E-04
 j', 4.779E-01, 3.732E-01, 8.046E-03, 8.414E-04
 42, 4.779E-01, 3.732E-01, 8.046E-03, 8.414E-04 - K.
 42 (42-43) [l=28 cm][28 def.]
 42, 4.779E-01, 3.732E-01, 8.046E-03, 8.414E-04
 i', 4.779E-01, 3.732E-01, 8.046E-03, 8.414E-04 - K.
 j', 4.780E-01, 3.738E-01, 8.046E-03, 8.414E-04
 43, 4.780E-01, 3.738E-01, 8.046E-03, 8.414E-04
 43 (44-j'-45) [l=480 cm] [Piano XZ: 425 def.-55 rig.]
 44, 0.000E+00, 0.000E+00, 8.439E-03, 9.543E-02 - M.
 i', 0.000E+00, 0.000E+00, 8.439E-03, 9.543E-02
 j', 4.797E-01, 5.457E-02, 8.046E-03, 8.824E-02
 45, 4.797E-01, 5.752E-02, 8.046E-03, 8.824E-02 - K.
 44 (45-47) [l=164 cm][164 def.]
 45, 4.797E-01, 3.835E-01, 8.046E-03, 8.414E-04
 i', 4.797E-01, 3.835E-01, 8.046E-03, 8.414E-04 - K.
 j', 4.804E-01, 3.876E-01, 8.046E-03, 8.414E-04
 47, 4.804E-01, 3.876E-01, 8.046E-03, 8.414E-04
 45 (43-46) [l=227 cm][227 def.]
 43, 4.780E-01, 3.738E-01, 8.046E-03, 8.414E-04 - F.

i', 4.780E-01, 3.738E-01, 8.046E-03, 8.414E-04
 j', 4.790E-01, 3.794E-01, 8.046E-03, 8.414E-04
 46, 4.790E-01, 3.794E-01, 8.046E-03, 8.414E-04 - S.
 46 (48-i'-j'-49) [l=480 cm] [Piano XZ: 116 rig.-349 def.-15 rig.]
 48, 0.000E+00, 0.000E+00, 8.435E-03, 9.543E-02
 i', 0.000E+00, 9.785E-03, 8.435E-03, 9.543E-02 - M.
 j', 4.811E-01, 5.667E-02, 8.046E-03, 8.824E-02
 49, 4.811E-01, 5.752E-02, 8.046E-03, 8.824E-02
 47 (48-50) [l=164 cm][164 def.]
 48, 0.000E+00, 3.844E-01, 8.435E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.844E-01, 8.435E-03, 0.000E+00
 j', 0.000E+00, 3.897E-01, 8.435E-03, 0.000E+00
 50, 0.000E+00, 3.897E-01, 8.435E-03, 0.000E+00 - M.
 48 (47-49) [l=164 cm][164 def.]
 47, 4.804E-01, 3.876E-01, 8.046E-03, 8.414E-04
 i', 4.804E-01, 3.876E-01, 8.046E-03, 8.414E-04 - K.
 j', 4.811E-01, 3.918E-01, 8.046E-03, 8.414E-04
 49, 4.811E-01, 3.918E-01, 8.046E-03, 8.414E-04
 49 (52-i'-j'-53) [l=480 cm] [Piano XZ: 206 rig.-252 def.-22 rig.]
 52, 0.000E+00, 0.000E+00, 8.474E-03, 8.599E-02 - K.
 i', 0.000E+00, 1.749E-02, 8.474E-03, 8.599E-02
 j', 4.831E-01, 5.631E-02, 8.046E-03, 8.824E-02
 53, 4.831E-01, 5.752E-02, 8.046E-03, 8.824E-02 - S.
 50 (54-52) [l=67 cm][67 def.]
 54, 0.000E+00, 3.996E-01, 8.474E-03, 0.000E+00
 i', 0.000E+00, 3.996E-01, 8.474E-03, 0.000E+00 - M.
 j', 0.000E+00, 4.016E-01, 8.474E-03, 0.000E+00
 52, 0.000E+00, 4.016E-01, 8.474E-03, 0.000E+00
 51 (55-53) [l=67 cm][67 def.]
 55, 4.828E-01, 4.016E-01, 8.046E-03, 8.414E-04 - K.
 i', 4.828E-01, 4.016E-01, 8.046E-03, 8.414E-04
 j', 4.831E-01, 4.033E-01, 8.046E-03, 8.414E-04
 53, 4.831E-01, 4.033E-01, 8.046E-03, 8.414E-04 - K.
 52 (50-54) [l=227 cm][227 def.]
 50, 0.000E+00, 3.897E-01, 8.435E-03, 0.000E+00
 i', 0.000E+00, 3.897E-01, 8.435E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.996E-01, 8.474E-03, 0.000E+00
 54, 0.000E+00, 3.996E-01, 8.474E-03, 0.000E+00
 53 (51-55) [l=227 cm][227 def.]
 51, 4.819E-01, 3.959E-01, 8.046E-03, 8.414E-04 - M.
 i', 4.819E-01, 3.959E-01, 8.046E-03, 8.414E-04
 j', 4.828E-01, 4.016E-01, 8.046E-03, 8.414E-04
 55, 4.828E-01, 4.016E-01, 8.046E-03, 8.414E-04 - K.
 54 (56-j'-57) [l=480 cm] [Piano XZ: 261 def.-219 rig.]
 56, 0.000E+00, 0.000E+00, 8.381E-03, 8.598E-02
 i', 0.000E+00, 0.000E+00, 8.381E-03, 8.598E-02 - K.
 j', 4.831E-01, 4.684E-02, 8.030E-03, 8.827E-02
 57, 4.831E-01, 5.734E-02, 8.030E-03, 8.827E-02
 55 (57-58) [l=67 cm][67 def.]
 57, 4.831E-01, 4.011E-01, 8.051E-03, 8.414E-04 - K.
 i', 4.831E-01, 4.011E-01, 8.051E-03, 8.414E-04
 j', 4.828E-01, 3.994E-01, 8.051E-03, 8.414E-04
 58, 4.828E-01, 3.994E-01, 8.051E-03, 8.414E-04 - F.
 56 (59-j'-60) [l=480 cm] [Piano XZ: 231 def.-249 rig.]
 59, 0.000E+00, 0.000E+00, 8.753E-03, 9.589E-02
 i', 0.000E+00, 0.000E+00, 8.753E-03, 9.589E-02 - S.
 j', 4.822E-01, 4.573E-02, 8.030E-03, 8.827E-02
 60, 4.822E-01, 5.734E-02, 8.030E-03, 8.827E-02
 57 (61-60) [l=43 cm][43 def.]
 61, 4.824E-01, 3.969E-01, 8.036E-03, 8.414E-04 - M.
 i', 4.824E-01, 3.969E-01, 8.036E-03, 8.414E-04
 j', 4.822E-01, 3.959E-01, 8.036E-03, 8.414E-04
 60, 4.822E-01, 3.959E-01, 8.036E-03, 8.414E-04 - K.
 58 (60-62) [l=43 cm][43 def.]
 60, 4.822E-01, 3.959E-01, 8.036E-03, 8.414E-04
 i', 4.822E-01, 3.959E-01, 8.036E-03, 8.414E-04 - K.
 j', 4.820E-01, 3.948E-01, 8.036E-03, 8.414E-04
 62, 4.820E-01, 3.948E-01, 8.036E-03, 8.414E-04
 59 (58-61) [l=100 cm][100 def.]
 58, 4.828E-01, 3.994E-01, 8.030E-03, 8.414E-04 - M.
 i', 4.828E-01, 3.994E-01, 8.030E-03, 8.414E-04
 j', 4.824E-01, 3.969E-01, 8.030E-03, 8.414E-04
 61, 4.824E-01, 3.969E-01, 8.030E-03, 8.414E-04 - K.
 60 (63-i'-j'-64) [l=480 cm] [Piano XZ: 238 rig.-213 def.-28 rig.]
 63, 0.000E+00, 0.000E+00, 8.693E-03, 9.590E-02
 i', 0.000E+00, 2.072E-02, 8.693E-03, 9.590E-02 - K.
 j', 4.819E-01, 5.554E-02, 8.033E-03, 8.827E-02
 64, 4.819E-01, 5.708E-02, 8.033E-03, 8.827E-02
 61 (63-65) [l=43 cm][43 def.]
 63, 0.000E+00, 3.875E-01, 8.693E-03, 0.000E+00 - S.
 i', 0.000E+00, 3.875E-01, 8.693E-03, 0.000E+00
 j', 0.000E+00, 3.856E-01, 8.693E-03, 0.000E+00
 65, 0.000E+00, 3.856E-01, 8.693E-03, 0.000E+00 - M.
 62 (62-64) [l=43 cm][43 def.]
 62, 4.820E-01, 3.948E-01, 8.033E-03, 8.414E-04
 i', 4.820E-01, 3.948E-01, 8.033E-03, 8.414E-04 - K.

j', 4.819E-01, 3.938E-01, 8.033E-03, 8.414E-04
 64, 4.819E-01, 3.938E-01, 8.033E-03, 8.414E-04
 63 (64-66) [l=43 cm][43 def.]
 64, 4.819E-01, 3.938E-01, 8.033E-03, 8.414E-04 - K.
 i', 4.819E-01, 3.938E-01, 8.033E-03, 8.414E-04
 j', 4.817E-01, 3.928E-01, 8.033E-03, 8.414E-04
 66, 4.817E-01, 3.928E-01, 8.033E-03, 8.414E-04 - M.
 64 (67-i'-j'-68) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.]
 67, 0.000E+00, 0.000E+00, 8.373E-03, 9.551E-02
 i', 0.000E+00, 1.452E-02, 8.373E-03, 9.551E-02 - K.
 j', 4.803E-01, 5.601E-02, 8.033E-03, 8.827E-02
 68, 4.803E-01, 5.708E-02, 8.033E-03, 8.827E-02
 65 (69-67) [l=96 cm][96 def.]
 69, 0.000E+00, 3.778E-01, 8.373E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.778E-01, 8.373E-03, 0.000E+00
 j', 0.000E+00, 3.751E-01, 8.373E-03, 0.000E+00
 67, 0.000E+00, 3.751E-01, 8.373E-03, 0.000E+00 - S.
 66 (68-71) [l=96 cm][96 def.]
 68, 4.803E-01, 3.855E-01, 8.033E-03, 8.414E-04
 i', 4.803E-01, 3.855E-01, 8.033E-03, 8.414E-04 - M.
 j', 4.798E-01, 3.833E-01, 8.033E-03, 8.414E-04
 71, 4.798E-01, 3.833E-01, 8.033E-03, 8.414E-04
 67 (65-69) [l=227 cm][227 def.]
 65, 0.000E+00, 3.856E-01, 8.693E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.856E-01, 8.693E-03, 0.000E+00
 j', 0.000E+00, 3.778E-01, 8.373E-03, 0.000E+00
 69, 0.000E+00, 3.778E-01, 8.373E-03, 0.000E+00 - M.
 68 (66-70) [l=227 cm][227 def.]
 66, 4.817E-01, 3.928E-01, 8.033E-03, 8.414E-04
 i', 4.817E-01, 3.928E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.807E-01, 3.877E-01, 8.033E-03, 8.414E-04
 70, 4.807E-01, 3.877E-01, 8.033E-03, 8.414E-04
 69 (72-j'-73) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
 72, 0.000E+00, 0.000E+00, 8.374E-03, 9.550E-02 - S.
 i', 0.000E+00, 0.000E+00, 8.374E-03, 9.550E-02
 j', 4.794E-01, 5.290E-02, 8.033E-03, 8.827E-02
 73, 4.794E-01, 5.708E-02, 8.033E-03, 8.827E-02 - M.
 70 (71-73) [l=96 cm][96 def.]
 71, 4.798E-01, 3.833E-01, 8.033E-03, 8.414E-04
 i', 4.798E-01, 3.833E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.794E-01, 3.811E-01, 8.033E-03, 8.414E-04
 73, 4.794E-01, 3.811E-01, 8.033E-03, 8.414E-04
 71 (75-j'-76) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
 75, 0.000E+00, 0.000E+00, 8.063E-03, 8.651E-02 - M.
 i', 0.000E+00, 0.000E+00, 8.063E-03, 8.651E-02
 j', 4.779E-01, 5.060E-02, 8.033E-03, 8.827E-02
 76, 4.779E-01, 5.708E-02, 8.033E-03, 8.827E-02 - K.
 72 (77-76) [l=28 cm][28 def.]
 77, 4.780E-01, 3.739E-01, 8.033E-03, 8.414E-04
 i', 4.780E-01, 3.739E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.779E-01, 3.733E-01, 8.033E-03, 8.414E-04
 76, 4.779E-01, 3.733E-01, 8.033E-03, 8.414E-04
 73 (76-78) [l=28 cm][28 def.]
 76, 4.779E-01, 3.733E-01, 8.033E-03, 8.414E-04 - M.
 i', 4.779E-01, 3.733E-01, 8.033E-03, 8.414E-04
 j', 4.778E-01, 3.727E-01, 8.033E-03, 8.414E-04
 78, 4.778E-01, 3.727E-01, 8.033E-03, 8.414E-04 - K.
 74 (74-77) [l=227 cm][227 def.]
 74, 4.790E-01, 3.790E-01, 8.033E-03, 8.414E-04
 i', 4.790E-01, 3.790E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.780E-01, 3.739E-01, 8.033E-03, 8.414E-04
 77, 4.780E-01, 3.739E-01, 8.033E-03, 8.414E-04
 75 (79-i'-j'-80) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.]
 79, 0.000E+00, 0.000E+00, 8.073E-03, 8.653E-02 - S.
 i', 0.000E+00, 3.899E-03, 8.073E-03, 8.653E-02
 j', 4.765E-01, 5.659E-02, 8.033E-03, 8.827E-02
 80, 4.765E-01, 5.708E-02, 8.033E-03, 8.827E-02 - M.
 76 (79-81) [l=308 cm][308 def.]
 79, 0.000E+00, 3.591E-01, 8.073E-03, 0.000E+00
 i', 0.000E+00, 3.591E-01, 8.073E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.538E-01, 8.073E-03, 0.000E+00
 81, 0.000E+00, 3.538E-01, 8.073E-03, 0.000E+00
 77 (78-80) [l=308 cm][308 def.]
 78, 4.778E-01, 3.727E-01, 8.033E-03, 8.414E-04 - K.
 i', 4.778E-01, 3.727E-01, 8.033E-03, 8.414E-04
 j', 4.765E-01, 3.661E-01, 8.033E-03, 8.414E-04
 80, 4.765E-01, 3.661E-01, 8.033E-03, 8.414E-04 - M.
 78 (80-82) [l=308 cm][308 def.]
 80, 4.765E-01, 3.661E-01, 8.033E-03, 8.414E-04
 i', 4.765E-01, 3.661E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.753E-01, 3.625E-01, 8.033E-03, 8.414E-04
 82, 4.753E-01, 3.625E-01, 8.033E-03, 8.414E-04
 79 (83-i'-j'-84) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.]
 83, 0.000E+00, 0.000E+00, 8.056E-03, 9.271E-02 - K.
 i', 0.000E+00, 1.038E-02, 8.056E-03, 9.271E-02
 j', 4.773E-01, 5.619E-02, 8.033E-03, 8.827E-02

84, 4.773E-01, 5.708E-02, 8.033E-03, 8.827E-02 - S.
 80 (85-83) [l=146 cm][146 def.]
 85, 0.000E+00, 3.553E-01, 8.056E-03, 0.000E+00
 i', 0.000E+00, 3.553E-01, 8.056E-03, 0.000E+00 - C.
 j', 0.000E+00, 3.580E-01, 8.056E-03, 0.000E+00
 83, 0.000E+00, 3.580E-01, 8.056E-03, 0.000E+00
 81 (86-84) [l=146 cm][146 def.]
 86, 4.761E-01, 3.655E-01, 8.033E-03, 8.414E-04 - K.
 i', 4.761E-01, 3.655E-01, 8.033E-03, 8.414E-04
 j', 4.773E-01, 3.687E-01, 8.033E-03, 8.414E-04
 84, 4.773E-01, 3.687E-01, 8.033E-03, 8.414E-04 - M.
 82 (84-87) [l=146 cm][146 def.]
 84, 4.773E-01, 3.687E-01, 8.033E-03, 8.414E-04
 i', 4.773E-01, 3.687E-01, 8.033E-03, 8.414E-04 - C.
 j', 4.784E-01, 3.721E-01, 8.033E-03, 8.414E-04
 87, 4.784E-01, 3.721E-01, 8.033E-03, 8.414E-04
 83 (81-85) [l=227 cm][227 def.]
 81, 0.000E+00, 3.538E-01, 8.073E-03, 0.000E+00 - C.
 i', 0.000E+00, 3.538E-01, 8.073E-03, 0.000E+00
 j', 0.000E+00, 3.553E-01, 8.056E-03, 0.000E+00
 85, 0.000E+00, 3.553E-01, 8.056E-03, 0.000E+00 - K.
 84 (82-86) [l=227 cm][227 def.]
 82, 4.753E-01, 3.625E-01, 8.033E-03, 8.414E-04
 i', 4.753E-01, 3.625E-01, 8.033E-03, 8.414E-04 - M.
 j', 4.761E-01, 3.655E-01, 8.033E-03, 8.414E-04
 86, 4.761E-01, 3.655E-01, 8.033E-03, 8.414E-04
 85 (88-j'-89) [l=480 cm] [Piano XZ: 352 def.-128 rig.]
 88, 0.000E+00, 0.000E+00, 8.054E-03, 9.271E-02 - K.
 i', 0.000E+00, 0.000E+00, 8.054E-03, 9.271E-02
 j', 4.786E-01, 5.051E-02, 8.034E-03, 8.827E-02
 89, 4.786E-01, 5.708E-02, 8.034E-03, 8.827E-02 - C.
 86 (87-89) [l=26 cm][26 def.]
 87, 4.784E-01, 3.721E-01, 8.033E-03, 8.414E-04
 i', 4.784E-01, 3.721E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.786E-01, 3.727E-01, 8.034E-03, 8.414E-04
 89, 4.786E-01, 3.727E-01, 8.034E-03, 8.414E-04
 87 (89-90) [l=26 cm][26 def.]
 89, 4.786E-01, 3.727E-01, 8.034E-03, 8.414E-04 - C.
 i', 4.786E-01, 3.727E-01, 8.034E-03, 8.414E-04
 j', 4.788E-01, 3.733E-01, 8.034E-03, 8.414E-04
 90, 4.788E-01, 3.733E-01, 8.034E-03, 8.414E-04 - K.
 88 (91-j'-92) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
 91, 0.000E+00, 0.000E+00, 8.384E-03, 8.610E-02
 i', 0.000E+00, 0.000E+00, 8.384E-03, 8.610E-02 - M.
 j', 4.809E-01, 5.061E-02, 8.034E-03, 8.827E-02
 92, 4.809E-01, 5.708E-02, 8.034E-03, 8.827E-02
 89 (93-92) [l=28 cm][28 def.]
 93, 4.807E-01, 3.788E-01, 8.034E-03, 8.414E-04 - C.
 i', 4.807E-01, 3.788E-01, 8.034E-03, 8.414E-04
 j', 4.809E-01, 3.795E-01, 8.034E-03, 8.414E-04
 92, 4.809E-01, 3.795E-01, 8.034E-03, 8.414E-04 - K.
 90 (92-94) [l=28 cm][28 def.]
 92, 4.809E-01, 3.795E-01, 8.034E-03, 8.414E-04
 i', 4.809E-01, 3.795E-01, 8.034E-03, 8.414E-04 - M.
 j', 4.811E-01, 3.802E-01, 8.034E-03, 8.414E-04
 94, 4.811E-01, 3.802E-01, 8.034E-03, 8.414E-04
 91 (90-93) [l=227 cm][227 def.]
 90, 4.788E-01, 3.733E-01, 8.034E-03, 8.414E-04 - K.
 i', 4.788E-01, 3.733E-01, 8.034E-03, 8.414E-04
 j', 4.807E-01, 3.788E-01, 8.034E-03, 8.414E-04
 93, 4.807E-01, 3.788E-01, 8.034E-03, 8.414E-04 - K.
 92 (95-j'-96) [l=480 cm] [Piano XZ: 425 def.-55 rig.]
 95, 0.000E+00, 0.000E+00, 8.386E-03, 8.611E-02
 i', 0.000E+00, 0.000E+00, 8.386E-03, 8.611E-02 - C.
 j', 4.824E-01, 5.414E-02, 8.034E-03, 8.827E-02
 96, 4.824E-01, 5.708E-02, 8.034E-03, 8.827E-02
 93 (94-96) [l=163 cm][163 def.]
 94, 4.811E-01, 3.802E-01, 8.034E-03, 8.414E-04 - K.
 i', 4.811E-01, 3.802E-01, 8.034E-03, 8.414E-04
 j', 4.824E-01, 3.842E-01, 8.034E-03, 8.414E-04
 96, 4.824E-01, 3.842E-01, 8.034E-03, 8.414E-04 - M.
 94 (96-97) [l=163 cm][163 def.]
 96, 4.824E-01, 3.842E-01, 8.034E-03, 8.414E-04
 i', 4.824E-01, 3.842E-01, 8.034E-03, 8.414E-04 - K.
 j', 4.837E-01, 3.882E-01, 8.034E-03, 8.414E-04
 97, 4.837E-01, 3.882E-01, 8.034E-03, 8.414E-04
 95 (98-j'-99) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
 98, 0.000E+00, 0.000E+00, 7.790E-03, 1.027E-01 - K.
 i', 0.000E+00, 0.000E+00, 7.790E-03, 1.027E-01
 j', 4.863E-01, 5.290E-02, 8.035E-03, 8.827E-02
 99, 4.863E-01, 5.708E-02, 8.035E-03, 8.827E-02 - M.
 96 (100-99) [l=96 cm][96 def.]
 100, 4.856E-01, 3.938E-01, 8.035E-03, 8.414E-04
 i', 4.856E-01, 3.938E-01, 8.035E-03, 8.414E-04 - K.
 j', 4.863E-01, 3.962E-01, 8.035E-03, 8.414E-04
 99, 4.863E-01, 3.962E-01, 8.035E-03, 8.414E-04

97 (99-101) [l=96 cm][96 def.]
 99, 4.863E-01, 3.962E-01, 8.035E-03, 8.414E-04 - K.
 i', 4.863E-01, 3.962E-01, 8.035E-03, 8.414E-04
 j', 4.871E-01, 3.986E-01, 8.035E-03, 8.414E-04
 101, 4.871E-01, 3.986E-01, 8.035E-03, 8.414E-04 - M.
 98 (97-100) [l=227 cm][227 def.]
 97, 4.837E-01, 3.882E-01, 8.034E-03, 8.414E-04
 i', 4.837E-01, 3.882E-01, 8.034E-03, 8.414E-04 - K.
 j', 4.856E-01, 3.938E-01, 8.035E-03, 8.414E-04
 100, 4.856E-01, 3.938E-01, 8.035E-03, 8.414E-04
 99 (102-j'-103) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
 102, 0.000E+00, 0.000E+00, 7.790E-03, 1.027E-01 - K.
 i', 0.000E+00, 0.000E+00, 7.790E-03, 1.027E-01
 j', 4.879E-01, 5.290E-02, 8.035E-03, 8.827E-02
 103, 4.879E-01, 5.708E-02, 8.035E-03, 8.827E-02 - M.
 100 (101-103) [l=96 cm][96 def.]
 101, 4.871E-01, 3.986E-01, 8.035E-03, 8.414E-04
 i', 4.871E-01, 3.986E-01, 8.035E-03, 8.414E-04 - K.
 j', 4.879E-01, 4.010E-01, 8.035E-03, 8.414E-04
 103, 4.879E-01, 4.010E-01, 8.035E-03, 8.414E-04
 101 (105-j'-106) [l=480 cm] [Piano XZ: 391 def.-90 rig.]
 105, 0.000E+00, 0.000E+00, 1.194E-02, 9.146E-02 - K.
 i', 0.000E+00, 0.000E+00, 1.194E-02, 9.146E-02
 j', 4.911E-01, 5.238E-02, 8.035E-03, 8.827E-02
 106, 4.911E-01, 5.708E-02, 8.035E-03, 8.827E-02 - M.
 102 (106-3) [l=79 cm][79 def.]
 106, 4.911E-01, 4.110E-01, 8.035E-03, 8.414E-04
 i', 4.911E-01, 4.110E-01, 8.035E-03, 8.414E-04 - K.
 j', 4.918E-01, 4.130E-01, 8.035E-03, 8.414E-04
 3, 4.918E-01, 4.130E-01, 8.035E-03, 8.414E-04
 103 (104-107) [l=227 cm][227 def.]
 104, 4.887E-01, 4.034E-01, 8.035E-03, 8.414E-04 - K.
 i', 4.887E-01, 4.034E-01, 8.035E-03, 8.414E-04
 j', 4.905E-01, 4.090E-01, 8.035E-03, 8.414E-04
 107, 4.905E-01, 4.090E-01, 8.035E-03, 8.414E-04 - M.
 104 (108-109) [l=608 cm][608 def.]
 108, 0.000E+00, 0.000E+00, 8.599E-02, 8.463E-03
 i', 0.000E+00, 0.000E+00, 8.599E-02, 8.463E-03 - K.
 j', 6.440E-02, 5.938E-01, 8.609E-02, 8.040E-03
 109, 6.440E-02, 5.938E-01, 8.609E-02, 8.040E-03
 105 (110-109) [l=224 cm][224 def.]
 110, 6.013E-02, 1.913E-01, 8.609E-02, 3.215E-03 - K.
 i', 6.013E-02, 1.913E-01, 8.609E-02, 3.215E-03
 j', 6.440E-02, 1.576E-01, 8.609E-02, 3.216E-03
 109, 6.440E-02, 1.576E-01, 8.609E-02, 3.216E-03 - M.
 106 (112-j'-113) [l=420 cm] [Piano XZ: 361 def.-59 rig.]
 112, 0.000E+00, 0.000E+00, 8.610E-02, 8.384E-03
 i', 0.000E+00, 0.000E+00, 8.610E-02, 8.384E-03 - K.
 j', 5.346E-02, 3.763E-01, 8.827E-02, 8.034E-03
 113, 5.346E-02, 4.283E-01, 8.827E-02, 8.034E-03
 107 (114-113) [l=153 cm][153 def.]
 114, 5.387E-02, 3.802E-01, 8.827E-02, 8.414E-04 - K.
 i', 5.387E-02, 3.802E-01, 8.827E-02, 8.414E-04
 j', 5.346E-02, 2.454E-01, 8.827E-02, 8.414E-04
 113, 5.346E-02, 2.454E-01, 8.827E-02, 8.414E-04 - S.
 108 (113-115) [l=153 cm][153 def.]
 113, 5.346E-02, 2.454E-01, 8.827E-02, 8.414E-04
 i', 5.346E-02, 2.454E-01, 8.827E-02, 8.414E-04 - S.
 j', 5.318E-02, 1.109E-01, 8.827E-02, 8.414E-04
 115, 5.318E-02, 1.109E-01, 8.827E-02, 8.414E-04
 109 (116-j'-117) [l=420 cm] [Piano XZ: 363 def.-57 rig.]
 116, 0.000E+00, 0.000E+00, 8.636E-02, 8.340E-03 - M.
 i', 0.000E+00, 0.000E+00, 8.636E-02, 8.340E-03
 j', 5.369E-02, 3.779E-01, 8.824E-02, 8.045E-03
 117, 5.369E-02, 4.283E-01, 8.824E-02, 8.045E-03 - K.
 110 (118-117) [l=163 cm][163 def.]
 118, 5.311E-02, 9.161E-02, 8.824E-02, 8.414E-04
 i', 5.311E-02, 9.161E-02, 8.824E-02, 8.414E-04 - K.
 j', 5.369E-02, 2.334E-01, 8.824E-02, 8.414E-04
 117, 5.369E-02, 2.334E-01, 8.824E-02, 8.414E-04
 111 (117-119) [l=163 cm][163 def.]
 117, 5.369E-02, 2.334E-01, 8.824E-02, 8.414E-04 - C.
 i', 5.369E-02, 2.334E-01, 8.824E-02, 8.414E-04
 j', 5.431E-02, 3.769E-01, 8.824E-02, 8.414E-04
 119, 5.431E-02, 3.769E-01, 8.824E-02, 8.414E-04 - K.
 112 (115-118) [l=200 cm][200 def.]
 115, 5.318E-02, 1.109E-01, 8.827E-02, 8.414E-04
 i', 5.318E-02, 1.109E-01, 8.827E-02, 8.414E-04 - K.
 j', 5.311E-02, 9.161E-02, 8.824E-02, 8.414E-04
 118, 5.311E-02, 9.161E-02, 8.824E-02, 8.414E-04
 113 (120-j'-121) [l=420 cm] [Piano XZ: 361 def.-59 rig.]
 120, 0.000E+00, 0.000E+00, 8.651E-02, 8.064E-03 - C.
 i', 0.000E+00, 0.000E+00, 8.651E-02, 8.064E-03
 j', 5.346E-02, 3.733E-01, 8.827E-02, 8.033E-03
 121, 5.346E-02, 4.251E-01, 8.827E-02, 8.033E-03 - K.
 114 (122-121) [l=153 cm][153 def.]

122, 5.387E-02, 3.727E-01, 8.827E-02, 8.414E-04
 i', 5.387E-02, 3.727E-01, 8.827E-02, 8.414E-04 - C.
 j', 5.346E-02, 2.379E-01, 8.827E-02, 8.414E-04
 121, 5.346E-02, 2.379E-01, 8.827E-02, 8.414E-04
 115 (121-123) [l=153 cm][153 def.]
 121, 5.346E-02, 2.379E-01, 8.827E-02, 8.414E-04 - K.
 i', 5.346E-02, 2.379E-01, 8.827E-02, 8.414E-04
 j', 5.318E-02, 1.033E-01, 8.827E-02, 8.414E-04
 123, 5.318E-02, 1.033E-01, 8.827E-02, 8.414E-04 - C.
 116 (124-j'-125) [l=420 cm] [Piano XZ: 363 def.-57 rig.]
 124, 0.000E+00, 0.000E+00, 8.666E-02, 8.127E-03
 i', 0.000E+00, 0.000E+00, 8.666E-02, 8.127E-03 - K.
 j', 5.369E-02, 3.748E-01, 8.824E-02, 8.046E-03
 125, 5.369E-02, 4.251E-01, 8.824E-02, 8.046E-03
 117 (126-125) [l=163 cm][163 def.]
 126, 5.311E-02, 8.586E-02, 8.824E-02, 8.414E-04 - K.
 i', 5.311E-02, 8.586E-02, 8.824E-02, 8.414E-04
 j', 5.369E-02, 2.291E-01, 8.824E-02, 8.414E-04
 125, 5.369E-02, 2.291E-01, 8.824E-02, 8.414E-04 - C.
 118 (125-127) [l=163 cm][163 def.]
 125, 5.369E-02, 2.291E-01, 8.824E-02, 8.414E-04
 i', 5.369E-02, 2.291E-01, 8.824E-02, 8.414E-04 - K.
 j', 5.431E-02, 3.725E-01, 8.824E-02, 8.414E-04
 127, 5.431E-02, 3.725E-01, 8.824E-02, 8.414E-04
 119 (123-126) [l=200 cm][200 def.]
 123, 5.318E-02, 1.033E-01, 8.827E-02, 8.414E-04 - C.
 i', 5.318E-02, 1.033E-01, 8.827E-02, 8.414E-04
 j', 5.311E-02, 8.586E-02, 8.824E-02, 8.414E-04
 126, 5.311E-02, 8.586E-02, 8.824E-02, 8.414E-04 - C.
 120 (96-128) [l=45 cm][45 def.]
 96, 4.824E-01, 5.708E-02, 8.034E-03, 8.827E-02
 i', 4.824E-01, 5.708E-02, 8.034E-03, 8.827E-02 - K.
 j', 5.217E-01, 5.971E-02, 8.033E-03, 8.611E-02
 128, 5.217E-01, 5.971E-02, 8.033E-03, 8.611E-02
 121 (129-128) [l=163 cm][163 def.]
 129, 5.203E-01, 3.802E-01, 8.033E-03, 8.496E-04 - K.
 i', 5.203E-01, 3.802E-01, 8.033E-03, 8.496E-04
 j', 5.217E-01, 3.842E-01, 8.033E-03, 8.496E-04
 128, 5.217E-01, 3.842E-01, 8.033E-03, 8.496E-04 - C.
 122 (131-132) [l=45 cm][45 def.]
 131, 4.798E-01, 5.708E-02, 8.034E-03, 8.827E-02
 i', 4.798E-01, 5.708E-02, 8.034E-03, 8.827E-02 - K.
 j', 5.190E-01, 5.971E-02, 8.033E-03, 8.610E-02
 132, 5.190E-01, 5.971E-02, 8.033E-03, 8.610E-02
 123 (80-134) [l=45 cm][45 def.]
 80, 4.765E-01, 5.708E-02, 8.033E-03, 8.827E-02 - C.
 i', 4.765E-01, 5.708E-02, 8.033E-03, 8.827E-02
 j', 5.156E-01, 5.971E-02, 8.033E-03, 8.610E-02
 134, 5.156E-01, 5.971E-02, 8.033E-03, 8.610E-02 - K.
 124 (19-137) [l=45 cm][45 def.]
 19, 4.863E-01, 5.752E-02, 8.044E-03, 8.824E-02
 i', 4.863E-01, 5.752E-02, 8.044E-03, 8.824E-02 - K.
 j', 5.256E-01, 6.013E-02, 8.050E-03, 8.611E-02
 137, 5.256E-01, 6.013E-02, 8.050E-03, 8.611E-02
 125 (138-137) [l=96 cm][96 def.]
 138, 5.264E-01, 3.934E-01, 8.050E-03, 8.496E-04 - C.
 i', 5.264E-01, 3.934E-01, 8.050E-03, 8.496E-04
 j', 5.256E-01, 3.913E-01, 8.050E-03, 8.496E-04
 137, 5.256E-01, 3.913E-01, 8.050E-03, 8.496E-04 - K.
 126 (140-141) [l=45 cm][45 def.]
 140, 4.798E-01, 5.752E-02, 8.045E-03, 8.824E-02
 i', 4.798E-01, 5.752E-02, 8.045E-03, 8.824E-02 - C.
 j', 5.190E-01, 6.013E-02, 8.049E-03, 8.610E-02
 141, 5.190E-01, 6.013E-02, 8.049E-03, 8.610E-02
 127 (141-143) [l=168 cm][168 def.]
 141, 5.190E-01, 3.732E-01, 8.049E-03, 8.496E-04 - K.
 i', 5.190E-01, 3.732E-01, 8.049E-03, 8.496E-04
 j', 5.176E-01, 3.696E-01, 8.048E-03, 8.496E-04
 143, 5.176E-01, 3.696E-01, 8.048E-03, 8.496E-04 - C.
 128 (33-144) [l=45 cm][45 def.]
 33, 4.773E-01, 5.752E-02, 8.045E-03, 8.824E-02
 i', 4.773E-01, 5.752E-02, 8.045E-03, 8.824E-02 - K.
 j', 5.165E-01, 6.013E-02, 8.048E-03, 8.610E-02
 144, 5.165E-01, 6.013E-02, 8.048E-03, 8.610E-02
 129 (143-144) [l=146 cm][146 def.]
 143, 5.176E-01, 3.696E-01, 8.048E-03, 8.496E-04 - K.
 i', 5.176E-01, 3.696E-01, 8.048E-03, 8.496E-04
 j', 5.165E-01, 3.666E-01, 8.048E-03, 8.496E-04
 144, 5.165E-01, 3.666E-01, 8.048E-03, 8.496E-04 - M.
 130 (146-147) [l=45 cm][45 def.]
 146, 4.784E-01, 5.752E-02, 8.046E-03, 8.824E-02
 i', 4.784E-01, 5.752E-02, 8.046E-03, 8.824E-02 - K.
 j', 5.174E-01, 6.013E-02, 8.046E-03, 8.610E-02
 147, 5.174E-01, 6.013E-02, 8.046E-03, 8.610E-02
 131 (147-149) [l=142 cm][142 def.]
 147, 5.174E-01, 3.760E-01, 8.046E-03, 8.496E-04 - K.

i', 5.174E-01, 3.760E-01, 8.046E-03, 8.496E-04
 j', 5.180E-01, 3.795E-01, 8.046E-03, 8.496E-04
 149, 5.180E-01, 3.795E-01, 8.046E-03, 8.496E-04 - Z.
 132 (150-151) [l=45 cm][45 def.]
 150, 4.788E-01, 5.708E-02, 8.033E-03, 8.827E-02
 i', 4.788E-01, 5.708E-02, 8.033E-03, 8.827E-02 - T.
 j', 5.178E-01, 5.971E-02, 8.034E-03, 8.609E-02
 151, 5.178E-01, 5.971E-02, 8.034E-03, 8.609E-02
 133 (153-154) [l=45 cm][45 def.]
 153, 4.814E-01, 5.708E-02, 8.033E-03, 8.827E-02 - T.
 i', 4.814E-01, 5.708E-02, 8.033E-03, 8.827E-02
 j', 5.203E-01, 5.971E-02, 8.035E-03, 8.609E-02
 154, 5.203E-01, 5.971E-02, 8.035E-03, 8.609E-02 - T.
 134 (154-156) [l=156 cm][156 def.]
 154, 5.203E-01, 3.913E-01, 8.035E-03, 8.496E-04
 i', 5.203E-01, 3.913E-01, 8.035E-03, 8.496E-04 - T.
 j', 5.197E-01, 3.878E-01, 8.035E-03, 8.496E-04
 156, 5.197E-01, 3.878E-01, 8.035E-03, 8.496E-04
 135 (157-158) [l=45 cm][45 def.]
 157, 4.827E-01, 5.734E-02, 8.030E-03, 8.827E-02 - T.
 i', 4.827E-01, 5.734E-02, 8.030E-03, 8.827E-02
 j', 5.217E-01, 5.998E-02, 8.029E-03, 8.609E-02
 158, 5.217E-01, 5.998E-02, 8.029E-03, 8.609E-02 - T.
 136 (159-158) [l=160 cm][160 def.]
 159, 5.223E-01, 4.028E-01, 8.037E-03, 8.496E-04
 i', 5.223E-01, 4.028E-01, 8.037E-03, 8.496E-04 - T.
 j', 5.217E-01, 3.989E-01, 8.038E-03, 8.496E-04
 158, 5.217E-01, 3.989E-01, 8.038E-03, 8.496E-04
 137 (158-155) [l=160 cm][160 def.]
 158, 5.217E-01, 3.989E-01, 8.038E-03, 8.496E-04 - T.
 i', 5.217E-01, 3.989E-01, 8.038E-03, 8.496E-04
 j', 5.210E-01, 3.949E-01, 8.038E-03, 8.496E-04
 155, 5.210E-01, 3.949E-01, 8.038E-03, 8.496E-04 - T.
 138 (160-161) [l=45 cm][45 def.]
 160, 4.812E-01, 5.752E-02, 8.046E-03, 8.824E-02
 i', 4.812E-01, 5.752E-02, 8.046E-03, 8.824E-02 - T.
 j', 5.201E-01, 6.013E-02, 8.045E-03, 8.609E-02
 161, 5.201E-01, 6.013E-02, 8.045E-03, 8.609E-02
 139 (161-163) [l=166 cm][166 def.]
 161, 5.201E-01, 3.919E-01, 8.045E-03, 8.496E-04 - T.
 i', 5.201E-01, 3.919E-01, 8.045E-03, 8.496E-04
 j', 5.208E-01, 3.960E-01, 8.044E-03, 8.496E-04
 163, 5.208E-01, 3.960E-01, 8.044E-03, 8.496E-04 - T.
 140 (164-165) [l=45 cm][45 def.]
 164, 4.879E-01, 5.708E-02, 8.035E-03, 8.827E-02
 i', 4.879E-01, 5.708E-02, 8.035E-03, 8.827E-02 - T.
 j', 5.272E-01, 5.971E-02, 8.033E-03, 8.611E-02
 165, 5.272E-01, 5.971E-02, 8.033E-03, 8.611E-02
 141 (166-165) [l=96 cm][96 def.]
 166, 5.264E-01, 3.985E-01, 8.033E-03, 8.496E-04 - T.
 i', 5.264E-01, 3.985E-01, 8.033E-03, 8.496E-04
 j', 5.272E-01, 4.009E-01, 8.033E-03, 8.496E-04
 165, 5.272E-01, 4.009E-01, 8.033E-03, 8.496E-04 - T.
 142 (165-167) [l=96 cm][96 def.]
 165, 5.272E-01, 4.009E-01, 8.033E-03, 8.496E-04
 i', 5.272E-01, 4.009E-01, 8.033E-03, 8.496E-04 - T.
 j', 5.280E-01, 4.033E-01, 8.033E-03, 8.496E-04
 167, 5.280E-01, 4.033E-01, 8.033E-03, 8.496E-04
 143 (168-169) [l=45 cm][45 def.]
 168, 4.896E-01, 5.708E-02, 8.035E-03, 8.827E-02 - T.
 i', 4.896E-01, 5.708E-02, 8.035E-03, 8.827E-02
 j', 5.289E-01, 5.971E-02, 8.033E-03, 8.611E-02
 169, 5.289E-01, 5.971E-02, 8.033E-03, 8.611E-02 - T.
 144 (167-169) [l=113 cm][113 def.]
 167, 5.280E-01, 4.033E-01, 8.033E-03, 8.496E-04
 i', 5.280E-01, 4.033E-01, 8.033E-03, 8.496E-04 - T.
 j', 5.289E-01, 4.061E-01, 8.033E-03, 8.496E-04
 169, 5.289E-01, 4.061E-01, 8.033E-03, 8.496E-04
 145 (169-170) [l=113 cm][113 def.]
 169, 5.289E-01, 4.061E-01, 8.033E-03, 8.496E-04 - T.
 i', 5.289E-01, 4.061E-01, 8.033E-03, 8.496E-04
 j', 5.298E-01, 4.089E-01, 8.033E-03, 8.496E-04
 170, 5.298E-01, 4.089E-01, 8.033E-03, 8.496E-04 - T.
 146 (171-172) [l=45 cm][45 def.]
 171, 4.911E-01, 5.708E-02, 8.035E-03, 8.827E-02
 i', 4.911E-01, 5.708E-02, 8.035E-03, 8.827E-02 - T.
 j', 5.304E-01, 5.971E-02, 8.033E-03, 8.611E-02
 172, 5.304E-01, 5.971E-02, 8.033E-03, 8.611E-02
 147 (170-172) [l=80 cm][80 def.]
 170, 5.298E-01, 4.089E-01, 8.033E-03, 8.496E-04 - T.
 i', 5.298E-01, 4.089E-01, 8.033E-03, 8.496E-04
 j', 5.304E-01, 4.108E-01, 8.033E-03, 8.496E-04
 172, 5.304E-01, 4.108E-01, 8.033E-03, 8.496E-04 - T.
 148 (172-173) [l=80 cm][80 def.]
 172, 5.304E-01, 4.108E-01, 8.033E-03, 8.496E-04
 i', 5.304E-01, 4.108E-01, 8.033E-03, 8.496E-04 - T.

j', 5.311E-01, 4.128E-01, 8.033E-03, 8.496E-04
 173, 5.311E-01, 4.128E-01, 8.033E-03, 8.496E-04
 149 (174-175) [l=45 cm][45 def.]
 174, 4.879E-01, 5.752E-02, 8.043E-03, 8.824E-02 - T.
 i', 4.879E-01, 5.752E-02, 8.043E-03, 8.824E-02
 j', 5.272E-01, 6.013E-02, 8.050E-03, 8.611E-02
 175, 5.272E-01, 6.013E-02, 8.050E-03, 8.611E-02 - T.
 150 (138-175) [l=96 cm][96 def.]
 138, 5.264E-01, 3.934E-01, 8.050E-03, 8.496E-04
 i', 5.264E-01, 3.934E-01, 8.050E-03, 8.496E-04 - T.
 j', 5.272E-01, 3.956E-01, 8.050E-03, 8.496E-04
 175, 5.272E-01, 3.956E-01, 8.050E-03, 8.496E-04
 151 (175-176) [l=96 cm][96 def.]
 175, 5.272E-01, 3.956E-01, 8.050E-03, 8.496E-04 - T.
 i', 5.272E-01, 3.956E-01, 8.050E-03, 8.496E-04
 j', 5.280E-01, 3.977E-01, 8.050E-03, 8.496E-04
 176, 5.280E-01, 3.977E-01, 8.050E-03, 8.496E-04 - T.
 152 (177-178) [l=45 cm][45 def.]
 177, 4.896E-01, 5.752E-02, 8.043E-03, 8.824E-02
 i', 4.896E-01, 5.752E-02, 8.043E-03, 8.824E-02 - T.
 j', 5.289E-01, 6.013E-02, 8.050E-03, 8.611E-02
 178, 5.289E-01, 6.013E-02, 8.050E-03, 8.611E-02
 153 (176-178) [l=113 cm][113 def.]
 176, 5.280E-01, 3.977E-01, 8.050E-03, 8.496E-04 - T.
 i', 5.280E-01, 3.977E-01, 8.050E-03, 8.496E-04
 j', 5.289E-01, 4.002E-01, 8.050E-03, 8.496E-04
 178, 5.289E-01, 4.002E-01, 8.050E-03, 8.496E-04 - T.
 154 (178-179) [l=113 cm][113 def.]
 178, 5.289E-01, 4.002E-01, 8.050E-03, 8.496E-04
 i', 5.289E-01, 4.002E-01, 8.050E-03, 8.496E-04 - T.
 j', 5.298E-01, 4.028E-01, 8.050E-03, 8.496E-04
 179, 5.298E-01, 4.028E-01, 8.050E-03, 8.496E-04
 155 (180-181) [l=45 cm][45 def.]
 180, 4.911E-01, 5.752E-02, 8.043E-03, 8.824E-02 - T.
 i', 4.911E-01, 5.752E-02, 8.043E-03, 8.824E-02
 j', 5.304E-01, 6.013E-02, 8.050E-03, 8.611E-02
 181, 5.304E-01, 6.013E-02, 8.050E-03, 8.611E-02 - T.
 156 (179-181) [l=80 cm][80 def.]
 179, 5.298E-01, 4.028E-01, 8.050E-03, 8.496E-04
 i', 5.298E-01, 4.028E-01, 8.050E-03, 8.496E-04 - T.
 j', 5.304E-01, 4.045E-01, 8.050E-03, 8.496E-04
 181, 5.304E-01, 4.045E-01, 8.050E-03, 8.496E-04
 157 (181-182) [l=80 cm][80 def.]
 181, 5.304E-01, 4.045E-01, 8.050E-03, 8.496E-04 - T.
 i', 5.304E-01, 4.045E-01, 8.050E-03, 8.496E-04
 j', 5.311E-01, 4.063E-01, 8.050E-03, 8.496E-04
 182, 5.311E-01, 4.063E-01, 8.050E-03, 8.496E-04 - T.
 158 (2-183) [l=106 cm][106 def.]
 2, 5.671E-02, 4.918E-01, 8.827E-02, 8.035E-03
 i', 5.671E-02, 4.918E-01, 8.827E-02, 8.035E-03 - T.
 j', 6.298E-02, 5.831E-01, 8.611E-02, 8.033E-03
 183, 6.298E-02, 5.831E-01, 8.611E-02, 8.033E-03
 159 (173-183) [l=163 cm][163 def.]
 173, 5.971E-02, 2.073E-01, 8.611E-02, 3.170E-03 - T.
 i', 5.971E-02, 2.073E-01, 8.611E-02, 3.170E-03
 j', 6.298E-02, 1.681E-01, 8.611E-02, 3.170E-03
 183, 6.298E-02, 1.681E-01, 8.611E-02, 3.170E-03 - T.
 160 (183-184) [l=163 cm][163 def.]
 183, 6.298E-02, 1.682E-01, 8.611E-02, 3.164E-03
 i', 6.298E-02, 1.682E-01, 8.611E-02, 3.164E-03 - T.
 j', 6.649E-02, 2.066E-01, 8.611E-02, 3.164E-03
 184, 6.649E-02, 2.066E-01, 8.611E-02, 3.164E-03
 161 (184-185) [l=122 cm][122 def.]
 184, 6.649E-02, 2.067E-01, 8.611E-02, 3.168E-03
 i', 6.649E-02, 2.067E-01, 8.611E-02, 3.168E-03
 j', 6.926E-02, 2.956E-01, 8.587E-02, 3.172E-03
 185, 6.926E-02, 2.956E-01, 8.587E-02, 3.172E-03 - T.
 162 (186-185) [l=122 cm][122 def.]
 186, 6.650E-02, 2.074E-01, 8.611E-02, 3.213E-03
 i', 6.650E-02, 2.074E-01, 8.611E-02, 3.213E-03 - T.
 j', 6.926E-02, 3.013E-01, 8.587E-02, 3.218E-03
 185, 6.926E-02, 3.013E-01, 8.587E-02, 3.218E-03
 163 (6-187) [l=106 cm][106 def.]
 6, 5.696E-02, 4.918E-01, 8.824E-02, 8.043E-03 - T.
 i', 5.696E-02, 4.918E-01, 8.824E-02, 8.043E-03
 j', 6.321E-02, 5.831E-01, 8.611E-02, 8.050E-03
 187, 6.321E-02, 5.831E-01, 8.611E-02, 8.050E-03 - T.
 164 (182-187) [l=163 cm][163 def.]
 182, 6.013E-02, 2.050E-01, 8.611E-02, 3.218E-03
 i', 6.013E-02, 2.050E-01, 8.611E-02, 3.218E-03 - T.
 j', 6.321E-02, 1.683E-01, 8.611E-02, 3.218E-03
 187, 6.321E-02, 1.683E-01, 8.611E-02, 3.218E-03
 165 (187-186) [l=163 cm][163 def.]
 187, 6.321E-02, 1.683E-01, 8.611E-02, 3.214E-03 - T.
 i', 6.321E-02, 1.683E-01, 8.611E-02, 3.214E-03
 j', 6.650E-02, 2.074E-01, 8.611E-02, 3.214E-03

186, 6.650E-02, 2.074E-01, 8.611E-02, 3.214E-03 - T.
 166 (188-189) [l=45 cm][45 def.]
 188, 4.753E-01, 5.708E-02, 8.033E-03, 8.827E-02
 i', 4.753E-01, 5.708E-02, 8.033E-03, 8.827E-02 - T.
 j', 5.145E-01, 5.971E-02, 8.033E-03, 8.610E-02
 189, 5.145E-01, 5.971E-02, 8.033E-03, 8.610E-02
 167 (136-189) [l=113 cm][113 def.]
 136, 5.144E-01, 3.625E-01, 8.033E-03, 8.496E-04 - T.
 i', 5.144E-01, 3.625E-01, 8.033E-03, 8.496E-04
 j', 5.145E-01, 3.636E-01, 8.033E-03, 8.496E-04
 189, 5.145E-01, 3.636E-01, 8.033E-03, 8.496E-04 - T.
 168 (189-190) [l=113 cm][113 def.]
 189, 5.145E-01, 3.636E-01, 8.033E-03, 8.496E-04
 i', 5.145E-01, 3.636E-01, 8.033E-03, 8.496E-04 -
 j', 5.153E-01, 3.656E-01, 8.033E-03, 8.496E-04
 190, 5.153E-01, 3.656E-01, 8.033E-03, 8.496E-04
 169 (84-191) [l=45 cm][45 def.]
 84, 4.773E-01, 5.708E-02, 8.033E-03, 8.827E-02 -
 i', 4.773E-01, 5.708E-02, 8.033E-03, 8.827E-02
 j', 5.165E-01, 5.971E-02, 8.033E-03, 8.610E-02
 191, 5.165E-01, 5.971E-02, 8.033E-03, 8.610E-02 -
 170 (191-133) [l=146 cm][146 def.]
 191, 5.165E-01, 3.687E-01, 8.033E-03, 8.496E-04
 i', 5.165E-01, 3.687E-01, 8.033E-03, 8.496E-04 -
 j', 5.176E-01, 3.721E-01, 8.033E-03, 8.496E-04
 133, 5.176E-01, 3.721E-01, 8.033E-03, 8.496E-04
 171 (192-193) [l=45 cm][45 def.]
 192, 4.803E-01, 5.708E-02, 8.033E-03, 8.827E-02 -
 i', 4.803E-01, 5.708E-02, 8.033E-03, 8.827E-02
 j', 5.193E-01, 5.971E-02, 8.035E-03, 8.609E-02
 193, 5.193E-01, 5.971E-02, 8.035E-03, 8.609E-02 -
 172 (193-152) [l=97 cm][97 def.]
 193, 5.193E-01, 3.856E-01, 8.035E-03, 8.496E-04
 i', 5.193E-01, 3.856E-01, 8.035E-03, 8.496E-04 -
 j', 5.188E-01, 3.834E-01, 8.034E-03, 8.496E-04
 152, 5.188E-01, 3.834E-01, 8.034E-03, 8.496E-04
 173 (194-195) [l=45 cm][45 def.]
 194, 4.847E-01, 5.708E-02, 8.034E-03, 8.827E-02 -
 i', 4.847E-01, 5.708E-02, 8.034E-03, 8.827E-02
 j', 5.239E-01, 5.971E-02, 8.033E-03, 8.611E-02
 195, 5.239E-01, 5.971E-02, 8.033E-03, 8.611E-02 - K.
 174 (130-195) [l=113 cm][113 def.]
 130, 5.230E-01, 3.882E-01, 8.033E-03, 8.496E-04
 i', 5.230E-01, 3.882E-01, 8.033E-03, 8.496E-04 - K.
 j', 5.239E-01, 3.910E-01, 8.033E-03, 8.496E-04
 195, 5.239E-01, 3.910E-01, 8.033E-03, 8.496E-04
 175 (195-196) [l=113 cm][113 def.]
 195, 5.239E-01, 3.910E-01, 8.033E-03, 8.496E-04 - W_23957_24_-1_-1.
 i', 5.239E-01, 3.910E-01, 8.033E-03, 8.496E-04
 j', 5.248E-01, 3.938E-01, 8.033E-03, 8.496E-04
 196, 5.248E-01, 3.938E-01, 8.033E-03, 8.496E-04 - K.
 176 (99-197) [l=45 cm][45 def.]
 99, 4.863E-01, 5.708E-02, 8.035E-03, 8.827E-02
 i', 4.863E-01, 5.708E-02, 8.035E-03, 8.827E-02 - K.
 j', 5.256E-01, 5.971E-02, 8.033E-03, 8.611E-02
 197, 5.256E-01, 5.971E-02, 8.033E-03, 8.611E-02
 177 (197-166) [l=96 cm][96 def.]
 197, 5.256E-01, 3.961E-01, 8.033E-03, 8.496E-04 - W_23976_24_-1_-1.
 i', 5.256E-01, 3.961E-01, 8.033E-03, 8.496E-04
 j', 5.264E-01, 3.985E-01, 8.033E-03, 8.496E-04
 166, 5.264E-01, 3.985E-01, 8.033E-03, 8.496E-04 - K.
 178 (37-198) [l=45 cm][45 def.]
 37, 4.765E-01, 5.752E-02, 8.046E-03, 8.824E-02
 i', 4.765E-01, 5.752E-02, 8.046E-03, 8.824E-02 - K.
 j', 5.156E-01, 6.013E-02, 8.047E-03, 8.610E-02
 198, 5.156E-01, 6.013E-02, 8.047E-03, 8.610E-02
 179 (200-201) [l=45 cm][45 def.]
 200, 4.753E-01, 5.752E-02, 8.045E-03, 8.824E-02 - K.
 i', 4.753E-01, 5.752E-02, 8.045E-03, 8.824E-02
 j', 5.145E-01, 6.013E-02, 8.048E-03, 8.610E-02
 201, 5.145E-01, 6.013E-02, 8.048E-03, 8.610E-02 - K.
 180 (145-201) [l=113 cm][113 def.]
 145, 5.153E-01, 3.637E-01, 8.048E-03, 8.496E-04
 i', 5.153E-01, 3.637E-01, 8.048E-03, 8.496E-04 - K.
 j', 5.145E-01, 3.620E-01, 8.048E-03, 8.496E-04
 201, 5.145E-01, 3.620E-01, 8.048E-03, 8.496E-04
 181 (201-199) [l=113 cm][113 def.]
 201, 5.145E-01, 3.620E-01, 8.048E-03, 8.496E-04 - K.
 i', 5.145E-01, 3.620E-01, 8.048E-03, 8.496E-04
 j', 5.144E-01, 3.611E-01, 8.048E-03, 8.496E-04
 199, 5.144E-01, 3.611E-01, 8.048E-03, 8.496E-04 - K.
 182 (22-202) [l=45 cm][45 def.]
 22, 4.824E-01, 5.752E-02, 8.044E-03, 8.824E-02
 i', 4.824E-01, 5.752E-02, 8.044E-03, 8.824E-02 - K.
 j', 5.217E-01, 6.013E-02, 8.049E-03, 8.611E-02
 202, 5.217E-01, 6.013E-02, 8.049E-03, 8.611E-02

183 (202-142) [l=163 cm][163 def.]
202, 5.217E-01, 3.805E-01, 8.049E-03, 8.496E-04 - K.
i', 5.217E-01, 3.805E-01, 8.049E-03, 8.496E-04
j', 5.203E-01, 3.769E-01, 8.049E-03, 8.496E-04
142, 5.203E-01, 3.769E-01, 8.049E-03, 8.496E-04 - K.
184 (204-205) [l=45 cm][45 def.]
204, 4.847E-01, 5.752E-02, 8.044E-03, 8.824E-02
i', 4.847E-01, 5.752E-02, 8.044E-03, 8.824E-02 - K.
j', 5.239E-01, 6.013E-02, 8.050E-03, 8.611E-02
205, 5.239E-01, 6.013E-02, 8.050E-03, 8.611E-02
185 (139-205) [l=113 cm][113 def.]
139, 5.248E-01, 3.891E-01, 8.050E-03, 8.496E-04 - K.
i', 5.248E-01, 3.891E-01, 8.050E-03, 8.496E-04
j', 5.239E-01, 3.866E-01, 8.050E-03, 8.496E-04
205, 5.239E-01, 3.866E-01, 8.050E-03, 8.496E-04 - K.
186 (205-203) [l=113 cm][113 def.]
205, 5.239E-01, 3.866E-01, 8.050E-03, 8.496E-04
i', 5.239E-01, 3.866E-01, 8.050E-03, 8.496E-04 - K.
j', 5.230E-01, 3.841E-01, 8.049E-03, 8.496E-04
203, 5.230E-01, 3.841E-01, 8.049E-03, 8.496E-04
187 (45-206) [l=45 cm][45 def.]
45, 4.797E-01, 5.752E-02, 8.046E-03, 8.824E-02 - K.
i', 4.797E-01, 5.752E-02, 8.046E-03, 8.824E-02
j', 5.187E-01, 6.013E-02, 8.046E-03, 8.609E-02
206, 5.187E-01, 6.013E-02, 8.046E-03, 8.609E-02 - K.
188 (206-162) [l=164 cm][164 def.]
206, 5.187E-01, 3.836E-01, 8.046E-03, 8.496E-04
i', 5.187E-01, 3.836E-01, 8.046E-03, 8.496E-04 - K.
j', 5.194E-01, 3.877E-01, 8.045E-03, 8.496E-04
162, 5.194E-01, 3.877E-01, 8.045E-03, 8.496E-04
189 (207-208) [l=45 cm][45 def.]
207, 4.824E-01, 5.752E-02, 8.046E-03, 8.824E-02 - K.
i', 4.824E-01, 5.752E-02, 8.046E-03, 8.824E-02
j', 5.213E-01, 6.013E-02, 8.043E-03, 8.609E-02
208, 5.213E-01, 6.013E-02, 8.043E-03, 8.609E-02 - K.
190 (208-209) [l=111 cm][111 def.]
208, 5.213E-01, 3.988E-01, 8.043E-03, 8.496E-04
i', 5.213E-01, 3.988E-01, 8.043E-03, 8.496E-04 - K.
j', 5.218E-01, 4.016E-01, 8.043E-03, 8.496E-04
209, 5.218E-01, 4.016E-01, 8.043E-03, 8.496E-04
191 (53-210) [l=45 cm][45 def.]
53, 4.831E-01, 5.752E-02, 8.046E-03, 8.824E-02 - K.
i', 4.831E-01, 5.752E-02, 8.046E-03, 8.824E-02
j', 5.221E-01, 6.013E-02, 8.043E-03, 8.609E-02
210, 5.221E-01, 6.013E-02, 8.043E-03, 8.609E-02 - K.
192 (209-210) [l=67 cm][67 def.]
209, 5.218E-01, 4.016E-01, 8.043E-03, 8.496E-04
i', 5.218E-01, 4.016E-01, 8.043E-03, 8.496E-04 - K.
j', 5.221E-01, 4.033E-01, 8.043E-03, 8.496E-04
210, 5.221E-01, 4.033E-01, 8.043E-03, 8.496E-04
193 (210-110) [l=67 cm][67 def.]
210, 5.221E-01, 4.033E-01, 8.043E-03, 8.496E-04 - K.
i', 5.221E-01, 4.033E-01, 8.043E-03, 8.496E-04
j', 5.224E-01, 4.050E-01, 8.042E-03, 8.496E-04
110, 5.224E-01, 4.050E-01, 8.042E-03, 8.496E-04 - K.
194 (211-212) [l=608 cm][608 def.]
211, 0.000E+00, 0.000E+00, 8.599E-02, 8.441E-03
i', 0.000E+00, 0.000E+00, 8.599E-02, 8.441E-03 - K.
j', 6.428E-02, 5.938E-01, 8.609E-02, 8.038E-03
212, 6.428E-02, 5.938E-01, 8.609E-02, 8.038E-03
195 (159-212) [l=224 cm][224 def.]
159, 5.971E-02, 1.894E-01, 8.609E-02, 3.166E-03 - K.
i', 5.971E-02, 1.894E-01, 8.609E-02, 3.166E-03
j', 6.428E-02, 1.587E-01, 8.609E-02, 3.167E-03
212, 6.428E-02, 1.587E-01, 8.609E-02, 3.167E-03 - K.
196 (212-111) [l=224 cm][224 def.]
212, 6.428E-02, 1.587E-01, 8.609E-02, 3.168E-03
i', 6.428E-02, 1.587E-01, 8.609E-02, 3.168E-03 - K.
j', 6.925E-02, 2.897E-01, 8.609E-02, 3.169E-03
111, 6.925E-02, 2.897E-01, 8.609E-02, 3.169E-03
197 (214-215) [l=227 cm][227 def.]
214, 0.000E+00, 1.974E-01, 9.145E-02, 0.000E+00 - K.
i', 0.000E+00, 1.974E-01, 9.145E-02, 0.000E+00
j', 0.000E+00, 1.954E-01, 9.075E-02, 0.000E+00
215, 0.000E+00, 1.954E-01, 9.075E-02, 0.000E+00 - K.
198 (176-231) [l=448 cm][448 def.]
176, 6.013E-02, 1.809E-01, 8.611E-02, 3.215E-03
i', 6.013E-02, 1.809E-01, 8.611E-02, 3.215E-03 - K.
j', 6.948E-02, 3.054E-01, 8.588E-02, 3.244E-03
231, 6.948E-02, 3.054E-01, 8.588E-02, 3.244E-03
199 (232-i'-233) [l=165 cm][8 rig.-157 def.]
232, 3.098E-02, 2.135E-01, 8.846E-02, 8.414E-04 - K.
i', 3.100E-02, 2.205E-01, 8.846E-02, 8.414E-04
j', 4.592E-02, 3.721E-01, 8.827E-02, 8.414E-04
233, 4.592E-02, 3.721E-01, 8.827E-02, 8.414E-04 - K.
200 (232-i'-j'-234) [l=132 cm][8 rig.-116 def.-8 rig.]

232, 3.098E-02, 2.135E-01, 8.846E-02, 8.414E-04
 i', 3.096E-02, 2.064E-01, 8.846E-02, 8.414E-04 - K.
 j', 2.863E-02, 1.105E-01, 8.852E-02, 8.414E-04
 234, 2.862E-02, 1.035E-01, 8.852E-02, 8.414E-04
 201 (234-i'-j'-235) [l=218 cm][8 rig.-202 def.-8 rig.]
 234, 2.862E-02, 1.035E-01, 8.852E-02, 8.414E-04 - K.
 i', 2.860E-02, 9.642E-02, 8.852E-02, 8.414E-04
 j', 2.800E-02, 7.841E-02, 8.852E-02, 8.414E-04
 235, 2.802E-02, 8.547E-02, 8.852E-02, 8.414E-04 - K.
 202 (235-i'-j'-236) [l=132 cm][8 rig.-116 def.-8 rig.]
 235, 2.802E-02, 8.547E-02, 8.852E-02, 8.414E-04
 i', 2.805E-02, 9.253E-02, 8.852E-02, 8.414E-04 - K.
 j', 2.991E-02, 1.871E-01, 8.846E-02, 8.414E-04
 236, 2.994E-02, 1.941E-01, 8.846E-02, 8.414E-04
 203 (236-i'-237) [l=185 cm][8 rig.-177 def.]
 236, 2.994E-02, 1.941E-01, 8.846E-02, 8.414E-04 - K.
 i', 2.997E-02, 2.012E-01, 8.846E-02, 8.414E-04
 j', 4.641E-02, 3.696E-01, 8.824E-02, 8.414E-04
 237, 4.641E-02, 3.696E-01, 8.824E-02, 8.414E-04 - K.
 204 (167-231) [l=448 cm][448 def.]
 167, 5.971E-02, 1.862E-01, 8.611E-02, 3.167E-03
 i', 5.971E-02, 1.862E-01, 8.611E-02, 3.167E-03 - K.
 j', 6.948E-02, 3.002E-01, 8.588E-02, 3.204E-03
 231, 6.948E-02, 3.002E-01, 8.588E-02, 3.204E-03
 205 (240-241) [l=448 cm][448 def.]
 240, 5.971E-02, 1.792E-01, 8.611E-02, 3.167E-03 - K.
 i', 5.971E-02, 1.792E-01, 8.611E-02, 3.167E-03
 j', 6.974E-02, 2.902E-01, 8.590E-02, 3.251E-03
 241, 6.974E-02, 2.902E-01, 8.590E-02, 3.251E-03 - K.
 206 (242-241) [l=448 cm][448 def.]
 242, 6.013E-02, 1.746E-01, 8.611E-02, 3.215E-03
 i', 6.013E-02, 1.746E-01, 8.611E-02, 3.215E-03 - K.
 j', 6.974E-02, 2.947E-01, 8.590E-02, 3.284E-03
 241, 6.974E-02, 2.947E-01, 8.590E-02, 3.284E-03
 207 (243-244) [l=448 cm][448 def.]
 243, 5.971E-02, 1.715E-01, 8.611E-02, 3.167E-03 - K.
 i', 5.971E-02, 1.715E-01, 8.611E-02, 3.167E-03
 j', 6.997E-02, 2.807E-01, 8.592E-02, 3.298E-03
 244, 6.997E-02, 2.807E-01, 8.592E-02, 3.298E-03 - K.
 208 (245-244) [l=448 cm][448 def.]
 245, 6.013E-02, 1.676E-01, 8.611E-02, 3.215E-03
 i', 6.013E-02, 1.676E-01, 8.611E-02, 3.215E-03 - K.
 j', 6.997E-02, 2.846E-01, 8.592E-02, 3.323E-03
 244, 6.997E-02, 2.846E-01, 8.592E-02, 3.323E-03
 209 (246-247) [l=448 cm][448 def.]
 246, 5.971E-02, 1.638E-01, 8.610E-02, 3.167E-03 - K.
 i', 5.971E-02, 1.638E-01, 8.610E-02, 3.167E-03
 j', 7.003E-02, 2.688E-01, 8.594E-02, 3.324E-03
 247, 7.003E-02, 2.688E-01, 8.594E-02, 3.324E-03 - K.
 210 (248-247) [l=448 cm][448 def.]
 248, 6.013E-02, 1.606E-01, 8.611E-02, 3.215E-03
 i', 6.013E-02, 1.606E-01, 8.611E-02, 3.215E-03 - K.
 j', 7.003E-02, 2.717E-01, 8.594E-02, 3.349E-03
 247, 7.003E-02, 2.717E-01, 8.594E-02, 3.349E-03
 211 (249-i'-j'-250) [l=132 cm][8 rig.-116 def.-8 rig.]
 249, 2.807E-02, 9.377E-02, 8.844E-02, 8.414E-04 - K.
 i', 2.809E-02, 1.008E-01, 8.844E-02, 8.414E-04
 j', 2.995E-02, 1.959E-01, 8.840E-02, 8.414E-04
 250, 2.998E-02, 2.030E-01, 8.840E-02, 8.414E-04 - K.
 212 (251-i'-j'-249) [l=218 cm][8 rig.-202 def.-8 rig.]
 251, 2.866E-02, 1.082E-01, 8.845E-02, 8.414E-04
 i', 2.865E-02, 1.011E-01, 8.845E-02, 8.414E-04 - K.
 j', 2.804E-02, 8.670E-02, 8.844E-02, 8.414E-04
 249, 2.807E-02, 9.377E-02, 8.844E-02, 8.414E-04
 213 (252-i'-j'-251) [l=132 cm][8 rig.-116 def.-8 rig.]
 252, 3.101E-02, 2.187E-01, 8.842E-02, 8.414E-04 - K.
 i', 3.099E-02, 2.116E-01, 8.842E-02, 8.414E-04
 j', 2.867E-02, 1.153E-01, 8.845E-02, 8.414E-04
 251, 2.866E-02, 1.082E-01, 8.845E-02, 8.414E-04 - K.
 214 (250-i'-253) [l=185 cm][8 rig.-177 def.]
 250, 2.998E-02, 2.030E-01, 8.840E-02, 8.414E-04
 i', 3.001E-02, 2.101E-01, 8.840E-02, 8.414E-04 - K.
 j', 4.640E-02, 3.807E-01, 8.824E-02, 8.414E-04
 253, 4.640E-02, 3.807E-01, 8.824E-02, 8.414E-04
 215 (252-i'-254) [l=165 cm][8 rig.-157 def.]
 252, 3.101E-02, 2.187E-01, 8.842E-02, 8.414E-04 - K.
 i', 3.104E-02, 2.258E-01, 8.842E-02, 8.414E-04
 j', 4.591E-02, 3.801E-01, 8.827E-02, 8.414E-04
 254, 4.591E-02, 3.801E-01, 8.827E-02, 8.414E-04 - Z.
 216 (255-256) [l=448 cm][448 def.]
 255, 5.971E-02, 1.498E-01, 8.610E-02, 3.167E-03
 i', 5.971E-02, 1.498E-01, 8.610E-02, 3.167E-03 - Z.
 j', 6.998E-02, 2.515E-01, 8.598E-02, 3.334E-03
 256, 6.998E-02, 2.515E-01, 8.598E-02, 3.334E-03
 217 (257-256) [l=448 cm][448 def.]
 257, 6.013E-02, 1.480E-01, 8.610E-02, 3.215E-03 - Z.

i', 6.013E-02, 1.480E-01, 8.610E-02, 3.215E-03
 j', 6.998E-02, 2.532E-01, 8.598E-02, 3.366E-03
 256, 6.998E-02, 2.532E-01, 8.598E-02, 3.366E-03 - Z.
 218 (258-259) [l=448 cm][448 def.]
 258, 5.971E-02, 1.471E-01, 8.610E-02, 3.167E-03
 i', 5.971E-02, 1.471E-01, 8.610E-02, 3.167E-03 - Z.
 j', 6.996E-02, 2.498E-01, 8.600E-02, 3.332E-03
 259, 6.996E-02, 2.498E-01, 8.600E-02, 3.332E-03
 219 (260-259) [l=448 cm][448 def.]
 260, 6.013E-02, 1.459E-01, 8.610E-02, 3.215E-03 - Z.
 i', 6.013E-02, 1.459E-01, 8.610E-02, 3.215E-03
 j', 6.996E-02, 2.511E-01, 8.600E-02, 3.364E-03
 259, 6.996E-02, 2.511E-01, 8.600E-02, 3.364E-03 - Z.
 220 (261-262) [l=448 cm][448 def.]
 261, 5.971E-02, 1.518E-01, 8.610E-02, 3.167E-03
 i', 5.971E-02, 1.518E-01, 8.610E-02, 3.167E-03 - Z.
 j', 6.989E-02, 2.580E-01, 8.601E-02, 3.320E-03
 262, 6.989E-02, 2.580E-01, 8.601E-02, 3.320E-03
 221 (263-262) [l=448 cm][448 def.]
 263, 6.013E-02, 1.512E-01, 8.610E-02, 3.215E-03 - Z.
 i', 6.013E-02, 1.512E-01, 8.610E-02, 3.215E-03
 j', 6.989E-02, 2.587E-01, 8.601E-02, 3.353E-03
 262, 6.989E-02, 2.587E-01, 8.601E-02, 3.353E-03 - Z.
 222 (264-265) [l=448 cm][448 def.]
 264, 5.971E-02, 1.583E-01, 8.610E-02, 3.168E-03
 i', 5.971E-02, 1.583E-01, 8.610E-02, 3.168E-03 - Z.
 j', 6.989E-02, 2.629E-01, 8.603E-02, 3.307E-03
 265, 6.989E-02, 2.629E-01, 8.603E-02, 3.307E-03
 223 (266-265) [l=448 cm][448 def.]
 266, 6.013E-02, 1.582E-01, 8.610E-02, 3.216E-03 - Z.
 i', 6.013E-02, 1.582E-01, 8.610E-02, 3.216E-03
 j', 6.989E-02, 2.629E-01, 8.603E-02, 3.338E-03
 265, 6.989E-02, 2.629E-01, 8.603E-02, 3.338E-03 - Z.
 224 (267-268) [l=448 cm][448 def.]
 267, 6.013E-02, 1.741E-01, 8.609E-02, 3.216E-03
 i', 6.013E-02, 1.741E-01, 8.609E-02, 3.216E-03 - Z.
 j', 6.970E-02, 2.853E-01, 8.606E-02, 3.284E-03
 268, 6.970E-02, 2.853E-01, 8.606E-02, 3.284E-03
 225 (269-268) [l=448 cm][448 def.]
 269, 5.971E-02, 1.729E-01, 8.609E-02, 3.168E-03 - Z.
 i', 5.971E-02, 1.729E-01, 8.609E-02, 3.168E-03
 j', 6.970E-02, 2.865E-01, 8.606E-02, 3.250E-03
 268, 6.970E-02, 2.865E-01, 8.606E-02, 3.250E-03 - Z.
 226 (270-271) [l=448 cm][448 def.]
 270, 6.013E-02, 1.820E-01, 8.609E-02, 3.217E-03
 i', 6.013E-02, 1.820E-01, 8.609E-02, 3.217E-03 - Z.
 j', 6.942E-02, 2.941E-01, 8.607E-02, 3.242E-03
 271, 6.942E-02, 2.941E-01, 8.607E-02, 3.242E-03
 227 (272-271) [l=448 cm][448 def.]
 272, 5.971E-02, 1.801E-01, 8.609E-02, 3.169E-03 - Z.
 i', 5.971E-02, 1.801E-01, 8.609E-02, 3.169E-03
 j', 6.942E-02, 2.961E-01, 8.607E-02, 3.199E-03
 271, 6.942E-02, 2.961E-01, 8.607E-02, 3.199E-03 - Z.
 228 (185-231) [l=385 cm][385 def.]
 185, 6.735E-01, 1.778E-01, 8.042E-03, 8.496E-04
 i', 6.735E-01, 1.778E-01, 8.042E-03, 8.496E-04 - Z.
 j', 6.704E-01, 1.965E-01, 8.116E-03, 8.496E-04
 231, 6.704E-01, 1.965E-01, 8.116E-03, 8.496E-04
 229 (231-241) [l=290 cm][290 def.]
 231, 6.704E-01, 1.965E-01, 8.116E-03, 8.496E-04 - Z.
 i', 6.704E-01, 1.965E-01, 8.116E-03, 8.496E-04
 j', 6.681E-01, 1.620E-01, 8.226E-03, 8.496E-04
 241, 6.681E-01, 1.620E-01, 8.226E-03, 8.496E-04 - Z.
 230 (241-244) [l=325 cm][325 def.]
 241, 6.681E-01, 1.620E-01, 8.226E-03, 8.496E-04
 i', 6.681E-01, 1.620E-01, 8.226E-03, 8.496E-04 - Z.
 j', 6.655E-01, 1.296E-01, 8.338E-03, 8.496E-04
 244, 6.655E-01, 1.296E-01, 8.338E-03, 8.496E-04
 231 (244-247) [l=325 cm][325 def.]
 244, 6.655E-01, 1.296E-01, 8.338E-03, 8.496E-04 - Z.
 i', 6.655E-01, 1.296E-01, 8.338E-03, 8.496E-04
 j', 6.629E-01, 8.866E-02, 8.410E-03, 8.496E-04
 247, 6.629E-01, 8.866E-02, 8.410E-03, 8.496E-04 - Z.
 232 (247-273) [l=332 cm][332 def.]
 247, 6.629E-01, 8.866E-02, 8.410E-03, 8.496E-04
 i', 6.629E-01, 8.866E-02, 8.410E-03, 8.496E-04 - Z.
 j', 6.610E-01, 5.763E-02, 8.442E-03, 8.496E-04
 273, 6.610E-01, 5.763E-02, 8.442E-03, 8.496E-04
 233 (273-256) [l=288 cm][288 def.]
 273, 6.610E-01, 5.763E-02, 8.442E-03, 8.496E-04 - Z.
 i', 6.610E-01, 5.763E-02, 8.442E-03, 8.496E-04
 j', 6.581E-01, 2.978E-02, 8.458E-03, 8.496E-04
 256, 6.581E-01, 2.978E-02, 8.458E-03, 8.496E-04 - Z.
 234 (256-259) [l=288 cm][288 def.]
 256, 6.581E-01, 2.978E-02, 8.458E-03, 8.496E-04
 i', 6.581E-01, 2.978E-02, 8.458E-03, 8.496E-04 - Z.

j', 6.574E-01, 2.326E-02, 8.452E-03, 8.496E-04
 259, 6.574E-01, 2.326E-02, 8.452E-03, 8.496E-04
 235 (259-262) [l=288 cm][288 def.]
 259, 6.574E-01, 2.326E-02, 8.452E-03, 8.496E-04 - Z.
 i', 6.574E-01, 2.326E-02, 8.452E-03, 8.496E-04
 j', 6.585E-01, 5.038E-02, 8.420E-03, 8.496E-04
 262, 6.585E-01, 5.038E-02, 8.420E-03, 8.496E-04 - Z.
 236 (262-265) [l=288 cm][288 def.]
 262, 6.585E-01, 5.038E-02, 8.420E-03, 8.496E-04
 i', 6.585E-01, 5.038E-02, 8.420E-03, 8.496E-04 - Z.
 j', 6.597E-01, 6.524E-02, 8.378E-03, 8.496E-04
 265, 6.597E-01, 6.524E-02, 8.378E-03, 8.496E-04
 237 (265-274) [l=320 cm][320 def.]
 265, 6.597E-01, 6.524E-02, 8.378E-03, 8.496E-04 - Z.
 i', 6.597E-01, 6.524E-02, 8.378E-03, 8.496E-04
 j', 6.618E-01, 9.929E-02, 8.324E-03, 8.496E-04
 274, 6.618E-01, 9.929E-02, 8.324E-03, 8.496E-04 - Z.
 238 (274-268) [l=305 cm][305 def.]
 274, 6.618E-01, 9.929E-02, 8.324E-03, 8.496E-04
 i', 6.618E-01, 9.929E-02, 8.324E-03, 8.496E-04 - Z.
 j', 6.624E-01, 1.454E-01, 8.228E-03, 8.496E-04
 268, 6.624E-01, 1.454E-01, 8.228E-03, 8.496E-04
 239 (268-271) [l=305 cm][305 def.]
 268, 6.624E-01, 1.454E-01, 8.228E-03, 8.496E-04 - Z.
 i', 6.624E-01, 1.454E-01, 8.228E-03, 8.496E-04
 j', 6.637E-01, 1.772E-01, 8.108E-03, 8.496E-04
 271, 6.637E-01, 1.772E-01, 8.108E-03, 8.496E-04 - Z.
 240 (271-275) [l=354 cm][354 def.]
 271, 6.637E-01, 1.772E-01, 8.108E-03, 8.496E-04
 i', 6.637E-01, 1.772E-01, 8.108E-03, 8.496E-04 - Z.
 j', 6.652E-01, 1.532E-01, 8.039E-03, 8.496E-04
 275, 6.652E-01, 1.532E-01, 8.039E-03, 8.496E-04
 241 (159-111) [l=448 cm][448 def.]
 159, 5.971E-02, 1.894E-01, 8.609E-02, 3.167E-03 - Z.
 i', 5.971E-02, 1.894E-01, 8.609E-02, 3.167E-03
 j', 6.925E-02, 2.897E-01, 8.609E-02, 3.168E-03
 111, 6.925E-02, 2.897E-01, 8.609E-02, 3.168E-03 - Z.
 242 (143-278) [l=199 cm][199 def.]
 143, 6.013E-02, 1.537E-01, 8.610E-02, 3.215E-03
 i', 6.013E-02, 1.537E-01, 8.610E-02, 3.215E-03 - Z.
 j', 6.418E-02, 7.279E-02, 8.746E-02, 3.335E-03
 278, 6.418E-02, 7.279E-02, 8.746E-02, 3.335E-03
 243 (278-279) [l=142 cm][142 def.]
 278, 6.418E-02, 7.279E-02, 8.746E-02, 3.335E-03 - Z.
 i', 6.418E-02, 7.279E-02, 8.746E-02, 3.335E-03
 j', 6.734E-02, 1.693E-01, 8.661E-02, 3.355E-03
 279, 6.734E-02, 1.693E-01, 8.661E-02, 3.355E-03 - Z.
 244 (279-273) [l=107 cm][107 def.]
 279, 6.734E-02, 1.696E-01, 8.661E-02, 3.358E-03
 i', 6.734E-02, 1.696E-01, 8.661E-02, 3.358E-03 - Z.
 j', 6.997E-02, 2.605E-01, 8.650E-02, 3.363E-03
 273, 6.997E-02, 2.605E-01, 8.650E-02, 3.363E-03
 245 (281-282) [l=142 cm][142 def.]
 281, 6.401E-02, 6.322E-02, 8.634E-02, 3.297E-03 - Z.
 i', 6.401E-02, 6.322E-02, 8.634E-02, 3.297E-03
 j', 6.737E-02, 1.688E-01, 8.657E-02, 3.323E-03
 282, 6.737E-02, 1.688E-01, 8.657E-02, 3.323E-03 - Z.
 246 (282-283) [l=107 cm][107 def.]
 282, 6.737E-02, 1.691E-01, 8.657E-02, 3.326E-03
 i', 6.737E-02, 1.691E-01, 8.657E-02, 3.326E-03 - Z.
 j', 6.997E-02, 2.604E-01, 8.650E-02, 3.332E-03
 283, 6.997E-02, 2.604E-01, 8.650E-02, 3.332E-03
 247 (284-285) [l=199 cm][199 def.]
 284, 6.013E-02, 1.663E-01, 8.609E-02, 3.215E-03 - Z.
 i', 6.013E-02, 1.663E-01, 8.609E-02, 3.215E-03
 j', 6.416E-02, 1.295E-01, 9.188E-02, 3.300E-03
 285, 6.416E-02, 1.295E-01, 9.188E-02, 3.300E-03 - Z.
 248 (285-286) [l=142 cm][142 def.]
 285, 6.416E-02, 1.295E-01, 9.188E-02, 3.300E-03
 i', 6.416E-02, 1.295E-01, 9.188E-02, 3.300E-03 - Z.
 j', 6.728E-02, 1.838E-01, 8.831E-02, 3.314E-03
 286, 6.728E-02, 1.838E-01, 8.831E-02, 3.314E-03
 249 (286-274) [l=107 cm][107 def.]
 286, 6.728E-02, 1.840E-01, 8.831E-02, 3.317E-03 - Z.
 i', 6.728E-02, 1.840E-01, 8.831E-02, 3.317E-03
 j', 6.989E-02, 2.729E-01, 8.667E-02, 3.320E-03
 274, 6.989E-02, 2.729E-01, 8.667E-02, 3.320E-03 - Z.
 250 (287-288) [l=107 cm][107 def.]
 287, 6.733E-02, 1.845E-01, 8.829E-02, 3.291E-03
 i', 6.733E-02, 1.845E-01, 8.829E-02, 3.291E-03 - Z.
 j', 6.989E-02, 2.733E-01, 8.667E-02, 3.291E-03
 288, 6.989E-02, 2.733E-01, 8.667E-02, 3.291E-03
 251 (289-287) [l=142 cm][142 def.]
 289, 6.404E-02, 1.294E-01, 9.186E-02, 3.290E-03 - Z.
 i', 6.404E-02, 1.294E-01, 9.186E-02, 3.290E-03
 j', 6.733E-02, 1.842E-01, 8.829E-02, 3.289E-03

287, 6.733E-02, 1.842E-01, 8.829E-02, 3.289E-03 - Z.
 252 (291-j'-292) [l=600 cm][220 def.-380 rig.]
 291, 0.000E+00, 0.000E+00, 8.067E-03, 8.618E-02
 i', 0.000E+00, 0.000E+00, 8.067E-03, 8.618E-02 - Z.
 j', 2.493E-01, 2.886E-02, 1.081E-02, 8.846E-02
 292, 5.844E-01, 6.961E-02, 1.081E-02, 8.846E-02
 253 (293-j'-294) [l=650 cm][220 def.-430 rig.]
 293, 0.000E+00, 0.000E+00, 8.067E-03, 7.972E-02 - Z.
 i', 0.000E+00, 0.000E+00, 8.067E-03, 7.972E-02
 j', 2.491E-01, 2.630E-02, 1.160E-02, 8.852E-02
 294, 6.287E-01, 7.617E-02, 1.160E-02, 8.852E-02 - Z.
 254 (295-j'-296) [l=650 cm][220 def.-430 rig.]
 295, 0.000E+00, 0.000E+00, 8.075E-03, 7.897E-02
 i', 0.000E+00, 0.000E+00, 8.075E-03, 7.897E-02 - Z.
 j', 2.492E-01, 2.566E-02, 1.182E-02, 8.852E-02
 296, 6.287E-01, 7.649E-02, 1.182E-02, 8.852E-02
 255 (297-j'-298) [l=600 cm][220 def.-380 rig.]
 297, 0.000E+00, 0.000E+00, 8.091E-03, 8.503E-02 - Z.
 i', 0.000E+00, 0.000E+00, 8.091E-03, 8.503E-02
 j', 2.494E-01, 2.771E-02, 1.124E-02, 8.846E-02
 298, 5.844E-01, 7.032E-02, 1.124E-02, 8.846E-02 - Z.
 256 (299-j'-300) [l=600 cm][220 def.-380 rig.]
 299, 0.000E+00, 0.000E+00, 8.399E-03, 8.594E-02
 i', 0.000E+00, 0.000E+00, 8.399E-03, 8.594E-02 - Z.
 j', 2.508E-01, 2.775E-02, 1.122E-02, 8.840E-02
 300, 5.849E-01, 7.029E-02, 1.122E-02, 8.840E-02
 257 (301-j'-302) [l=650 cm][220 def.-430 rig.]
 301, 0.000E+00, 0.000E+00, 8.369E-03, 7.910E-02 - Z.
 i', 0.000E+00, 0.000E+00, 8.369E-03, 7.910E-02
 j', 2.507E-01, 2.571E-02, 1.180E-02, 8.844E-02
 302, 6.291E-01, 7.646E-02, 1.180E-02, 8.844E-02 - Z.
 258 (303-j'-304) [l=650 cm][220 def.-430 rig.]
 303, 0.000E+00, 0.000E+00, 8.313E-03, 7.975E-02
 i', 0.000E+00, 0.000E+00, 8.313E-03, 7.975E-02 - Z.
 j', 2.507E-01, 2.634E-02, 1.158E-02, 8.845E-02
 304, 6.291E-01, 7.613E-02, 1.158E-02, 8.845E-02
 259 (305-j'-306) [l=600 cm][220 def.-380 rig.]
 305, 0.000E+00, 0.000E+00, 8.317E-03, 8.701E-02 - Z.
 i', 0.000E+00, 0.000E+00, 8.317E-03, 8.701E-02
 j', 2.508E-01, 2.889E-02, 1.079E-02, 8.842E-02
 306, 5.849E-01, 6.959E-02, 1.079E-02, 8.842E-02 - Z.
 260 (307-4) [l=195 cm][195 def.]
 307, 3.203E-01, 4.688E-02, 8.035E-03, 8.827E-02
 i', 3.203E-01, 4.688E-02, 8.035E-03, 8.827E-02 - Z.
 j', 4.918E-01, 5.644E-02, 8.035E-03, 8.827E-02
 4, 4.918E-01, 5.644E-02, 8.035E-03, 8.827E-02
 261 (308-7) [l=195 cm][195 def.]
 308, 3.204E-01, 4.688E-02, 8.043E-03, 8.824E-02 - Z.
 i', 3.204E-01, 4.688E-02, 8.043E-03, 8.824E-02
 j', 4.918E-01, 5.644E-02, 8.043E-03, 8.824E-02
 7, 4.918E-01, 5.644E-02, 8.043E-03, 8.824E-02 - Z.
 262 (307-308) [l=227 cm][227 def.]
 307, 4.688E-02, 2.038E-01, 8.827E-02, 8.414E-04
 i', 4.688E-02, 2.038E-01, 8.827E-02, 8.414E-04 - Z.
 j', 4.688E-02, 2.020E-01, 8.824E-02, 8.414E-04
 308, 4.688E-02, 2.020E-01, 8.824E-02, 8.414E-04
 263 (309-123) [l=170 cm][170 def.]
 309, 2.761E-01, 4.552E-02, 8.033E-03, 8.827E-02 - Z.
 i', 2.761E-01, 4.552E-02, 8.033E-03, 8.827E-02
 j', 4.251E-01, 5.318E-02, 8.033E-03, 8.827E-02
 123, 4.251E-01, 5.318E-02, 8.033E-03, 8.827E-02 - Z.
 264 (310-126) [l=170 cm][170 def.]
 310, 2.762E-01, 4.544E-02, 8.046E-03, 8.824E-02
 i', 2.762E-01, 4.544E-02, 8.046E-03, 8.824E-02 - Z.
 j', 4.251E-01, 5.311E-02, 8.046E-03, 8.824E-02
 126, 4.251E-01, 5.311E-02, 8.046E-03, 8.824E-02
 265 (309-310) [l=200 cm][200 def.]
 309, 4.552E-02, 1.033E-01, 8.827E-02, 8.414E-04 - Z.
 i', 4.552E-02, 1.033E-01, 8.827E-02, 8.414E-04
 j', 4.544E-02, 8.586E-02, 8.824E-02, 8.414E-04
 310, 4.544E-02, 8.586E-02, 8.824E-02, 8.414E-04 - Z.
 266 (129-246) [l=3 cm][3 def.]
 129, 5.203E-01, 3.802E-01, 8.033E-03, 8.496E-04
 i', 5.203E-01, 3.802E-01, 8.033E-03, 8.496E-04 - Z.
 j', 5.203E-01, 3.801E-01, 8.033E-03, 8.496E-04
 246, 5.203E-01, 3.801E-01, 8.033E-03, 8.496E-04
 267 (130-243) [l=5 cm][5 def.]
 130, 5.230E-01, 3.882E-01, 8.033E-03, 8.496E-04 - Z.
 i', 5.230E-01, 3.882E-01, 8.033E-03, 8.496E-04
 j', 5.230E-01, 3.881E-01, 8.033E-03, 8.496E-04
 243, 5.230E-01, 3.881E-01, 8.033E-03, 8.496E-04 - Z.
 268 (203-245) [l=5 cm][5 def.]
 203, 5.230E-01, 3.841E-01, 8.049E-03, 8.496E-04
 i', 5.230E-01, 3.841E-01, 8.049E-03, 8.496E-04 - Z.
 j', 5.230E-01, 3.840E-01, 8.049E-03, 8.496E-04
 245, 5.230E-01, 3.840E-01, 8.049E-03, 8.496E-04

269 (142-248) [l=3 cm][3 def.]
 142, 5.203E-01, 3.769E-01, 8.049E-03, 8.496E-04 - Z.
 i', 5.203E-01, 3.769E-01, 8.049E-03, 8.496E-04
 j', 5.203E-01, 3.768E-01, 8.049E-03, 8.496E-04
 248, 5.203E-01, 3.768E-01, 8.049E-03, 8.496E-04 - Z.
 270 (190-255) [l=4 cm][4 def.]
 190, 5.153E-01, 3.656E-01, 8.033E-03, 8.496E-04
 i', 5.153E-01, 3.656E-01, 8.033E-03, 8.496E-04 - Z.
 j', 5.154E-01, 3.657E-01, 8.033E-03, 8.496E-04
 255, 5.154E-01, 3.657E-01, 8.033E-03, 8.496E-04
 271 (145-257) [l=4 cm][4 def.]
 145, 5.153E-01, 3.637E-01, 8.048E-03, 8.496E-04 - Z.
 i', 5.153E-01, 3.637E-01, 8.048E-03, 8.496E-04
 j', 5.154E-01, 3.638E-01, 8.048E-03, 8.496E-04
 257, 5.154E-01, 3.638E-01, 8.048E-03, 8.496E-04 - Z.
 272 (163-270) [l=3 cm][3 def.]
 163, 5.208E-01, 3.960E-01, 8.044E-03, 8.496E-04
 i', 5.208E-01, 3.960E-01, 8.044E-03, 8.496E-04 - Z.
 j', 5.208E-01, 3.961E-01, 8.044E-03, 8.496E-04
 270, 5.208E-01, 3.961E-01, 8.044E-03, 8.496E-04
 273 (283-273) [l=0 cm][0 def.]
 283, 6.997E-02, 5.763E-02, 8.650E-02, 8.496E-04 - Z.
 i', 6.997E-02, 5.763E-02, 8.650E-02, 8.496E-04
 j', 6.997E-02, 5.763E-02, 8.650E-02, 8.496E-04
 273, 6.997E-02, 5.763E-02, 8.650E-02, 8.496E-04 - Z.
 274 (288-274) [l=0 cm][0 def.]
 288, 6.989E-02, 9.927E-02, 8.667E-02, 8.496E-04
 i', 6.989E-02, 9.927E-02, 8.667E-02, 8.496E-04 - Z.
 j', 6.989E-02, 9.929E-02, 8.667E-02, 8.496E-04
 274, 6.989E-02, 9.929E-02, 8.667E-02, 8.496E-04
 275 (111-275) [l=0 cm][0 def.]
 111, 6.925E-02, 1.531E-01, 8.609E-02, 8.496E-04 - Z.
 i', 6.925E-02, 1.531E-01, 8.609E-02, 8.496E-04
 j', 6.925E-02, 1.532E-01, 8.609E-02, 8.496E-04
 275, 6.925E-02, 1.532E-01, 8.609E-02, 8.496E-04 - Z.
 276 (231-311) [l=166 cm][166 def.]
 231, 6.704E-01, 6.948E-02, 8.116E-03, 8.588E-02
 i', 6.704E-01, 6.948E-02, 8.116E-03, 8.588E-02 - K.
 j', 5.280E-01, 5.890E-02, 8.116E-03, 8.588E-02
 311, 5.280E-01, 5.890E-02, 8.116E-03, 8.588E-02
 277 (241-312) [l=166 cm][166 def.]
 241, 6.681E-01, 6.974E-02, 8.226E-03, 8.590E-02 - K.
 i', 6.681E-01, 6.974E-02, 8.226E-03, 8.590E-02
 j', 5.256E-01, 5.890E-02, 8.226E-03, 8.590E-02
 312, 5.256E-01, 5.890E-02, 8.226E-03, 8.590E-02 - K.
 278 (244-313) [l=166 cm][166 def.]
 244, 6.655E-01, 6.997E-02, 8.338E-03, 8.592E-02
 i', 6.655E-01, 6.997E-02, 8.338E-03, 8.592E-02 - K.
 j', 5.230E-01, 5.890E-02, 8.338E-03, 8.592E-02
 313, 5.230E-01, 5.890E-02, 8.338E-03, 8.592E-02
 279 (256-314) [l=166 cm][166 def.]
 256, 6.581E-01, 6.998E-02, 8.458E-03, 8.598E-02 - K.
 i', 6.581E-01, 6.998E-02, 8.458E-03, 8.598E-02
 j', 5.154E-01, 5.890E-02, 8.458E-03, 8.598E-02
 314, 5.154E-01, 5.890E-02, 8.458E-03, 8.598E-02 - K.
 280 (259-315) [l=166 cm][166 def.]
 259, 6.574E-01, 6.996E-02, 8.452E-03, 8.600E-02
 i', 6.574E-01, 6.996E-02, 8.452E-03, 8.600E-02 - K.
 j', 5.146E-01, 5.890E-02, 8.452E-03, 8.600E-02
 315, 5.146E-01, 5.890E-02, 8.452E-03, 8.600E-02
 281 (268-316) [l=166 cm][166 def.]
 268, 6.624E-01, 6.970E-02, 8.228E-03, 8.606E-02 - K.
 i', 6.624E-01, 6.970E-02, 8.228E-03, 8.606E-02
 j', 5.195E-01, 5.890E-02, 8.228E-03, 8.606E-02
 316, 5.195E-01, 5.890E-02, 8.228E-03, 8.606E-02 - K.
 282 (271-317) [l=166 cm][166 def.]
 271, 6.637E-01, 6.942E-02, 8.108E-03, 8.607E-02
 i', 6.637E-01, 6.942E-02, 8.108E-03, 8.607E-02 - T.
 j', 5.208E-01, 5.890E-02, 8.108E-03, 8.607E-02
 317, 5.208E-01, 5.890E-02, 8.108E-03, 8.607E-02
 283 (262-318) [l=166 cm][166 def.]
 262, 6.585E-01, 6.989E-02, 8.420E-03, 8.601E-02 - T.
 i', 6.585E-01, 6.989E-02, 8.420E-03, 8.601E-02
 j', 5.157E-01, 5.890E-02, 8.420E-03, 8.601E-02
 318, 5.157E-01, 5.890E-02, 8.420E-03, 8.601E-02 - K.
 284 (133-319) [l=0 cm][0 def.]
 133, 5.176E-01, 2.752E-01, 8.033E-03, 6.141E-02
 i', 5.176E-01, 2.752E-01, 8.033E-03, 6.141E-02 - T.
 j', 5.177E-01, 2.752E-01, 8.033E-03, 6.141E-02
 319, 5.177E-01, 2.752E-01, 8.033E-03, 6.141E-02
 285 (131-90) [l=116 cm][116 def.]
 131, 4.798E-01, 3.761E-01, 8.034E-03, 8.414E-04 - T.
 i', 4.798E-01, 3.761E-01, 8.034E-03, 8.414E-04
 j', 4.788E-01, 3.733E-01, 8.034E-03, 8.414E-04
 90, 4.788E-01, 3.733E-01, 8.034E-03, 8.414E-04 - K.
 286 (131-93) [l=111 cm][111 def.]

131, 4.798E-01, 3.761E-01, 8.034E-03, 8.414E-04
 i', 4.798E-01, 3.761E-01, 8.034E-03, 8.414E-04 - T.
 j', 4.807E-01, 3.788E-01, 8.034E-03, 8.414E-04
 93, 4.807E-01, 3.788E-01, 8.034E-03, 8.414E-04
 287 (140-27) [l=111 cm][111 def.]
 140, 4.798E-01, 3.732E-01, 8.045E-03, 8.414E-04 - T.
 i', 4.798E-01, 3.732E-01, 8.045E-03, 8.414E-04
 j', 4.807E-01, 3.756E-01, 8.045E-03, 8.414E-04
 27, 4.807E-01, 3.756E-01, 8.045E-03, 8.414E-04 - K.
 288 (140-30) [l=116 cm][116 def.]
 140, 4.798E-01, 3.732E-01, 8.045E-03, 8.414E-04
 i', 4.798E-01, 3.732E-01, 8.045E-03, 8.414E-04 - T.
 j', 4.788E-01, 3.707E-01, 8.045E-03, 8.414E-04
 30, 4.788E-01, 3.707E-01, 8.045E-03, 8.414E-04
 289 (146-43) [l=85 cm][85 def.]
 146, 4.784E-01, 3.759E-01, 8.046E-03, 8.414E-04 - T.
 i', 4.784E-01, 3.759E-01, 8.046E-03, 8.414E-04
 j', 4.780E-01, 3.738E-01, 8.046E-03, 8.414E-04
 43, 4.780E-01, 3.738E-01, 8.046E-03, 8.414E-04 - K.
 290 (146-46) [l=142 cm][142 def.]
 146, 4.784E-01, 3.759E-01, 8.046E-03, 8.414E-04
 i', 4.784E-01, 3.759E-01, 8.046E-03, 8.414E-04 - K.
 j', 4.790E-01, 3.794E-01, 8.046E-03, 8.414E-04
 46, 4.790E-01, 3.794E-01, 8.046E-03, 8.414E-04
 291 (150-74) [l=46 cm][46 def.]
 150, 4.788E-01, 3.779E-01, 8.033E-03, 8.414E-04 - K.
 i', 4.788E-01, 3.779E-01, 8.033E-03, 8.414E-04
 j', 4.790E-01, 3.790E-01, 8.033E-03, 8.414E-04
 74, 4.790E-01, 3.790E-01, 8.033E-03, 8.414E-04 - K.
 292 (150-77) [l=181 cm][181 def.]
 150, 4.788E-01, 3.779E-01, 8.033E-03, 8.414E-04
 i', 4.788E-01, 3.779E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.780E-01, 3.739E-01, 8.033E-03, 8.414E-04
 77, 4.780E-01, 3.739E-01, 8.033E-03, 8.414E-04
 293 (153-66) [l=69 cm][69 def.]
 153, 4.814E-01, 3.912E-01, 8.033E-03, 8.414E-04 - K.
 i', 4.814E-01, 3.912E-01, 8.033E-03, 8.414E-04
 j', 4.817E-01, 3.928E-01, 8.033E-03, 8.414E-04
 66, 4.817E-01, 3.928E-01, 8.033E-03, 8.414E-04 - K.
 294 (153-70) [l=157 cm][157 def.]
 153, 4.814E-01, 3.912E-01, 8.033E-03, 8.414E-04
 i', 4.814E-01, 3.912E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.807E-01, 3.877E-01, 8.033E-03, 8.414E-04
 70, 4.807E-01, 3.877E-01, 8.033E-03, 8.414E-04
 295 (157-58) [l=27 cm][27 def.]
 157, 4.827E-01, 3.988E-01, 8.033E-03, 8.414E-04 - K.
 i', 4.827E-01, 3.988E-01, 8.033E-03, 8.414E-04
 j', 4.829E-01, 3.994E-01, 8.033E-03, 8.414E-04
 58, 4.829E-01, 3.994E-01, 8.033E-03, 8.414E-04 - K.
 296 (157-61) [l=73 cm][73 def.]
 157, 4.827E-01, 3.988E-01, 8.045E-03, 8.414E-04
 i', 4.827E-01, 3.988E-01, 8.045E-03, 8.414E-04 - K.
 j', 4.824E-01, 3.969E-01, 8.045E-03, 8.414E-04
 61, 4.824E-01, 3.969E-01, 8.045E-03, 8.414E-04
 297 (49-160) [l=2 cm][2 def.]
 49, 4.811E-01, 3.918E-01, 8.046E-03, 8.414E-04 - K.
 i', 4.811E-01, 3.918E-01, 8.046E-03, 8.414E-04
 j', 4.812E-01, 3.918E-01, 8.046E-03, 8.414E-04
 160, 4.812E-01, 3.918E-01, 8.046E-03, 8.414E-04 - K.
 298 (160-51) [l=162 cm][162 def.]
 160, 4.812E-01, 3.918E-01, 8.046E-03, 8.414E-04
 i', 4.812E-01, 3.918E-01, 8.046E-03, 8.414E-04 - K.
 j', 4.819E-01, 3.959E-01, 8.046E-03, 8.414E-04
 51, 4.819E-01, 3.959E-01, 8.046E-03, 8.414E-04
 299 (103-164) [l=0 cm][0 def.]
 103, 4.879E-01, 4.010E-01, 8.035E-03, 8.414E-04 - K.
 i', 4.879E-01, 4.010E-01, 8.035E-03, 8.414E-04
 j', 4.879E-01, 4.010E-01, 8.035E-03, 8.414E-04
 164, 4.879E-01, 4.010E-01, 8.035E-03, 8.414E-04 - K.
 300 (164-104) [l=96 cm][96 def.]
 164, 4.879E-01, 4.010E-01, 8.035E-03, 8.414E-04
 i', 4.879E-01, 4.010E-01, 8.035E-03, 8.414E-04 - K.
 j', 4.887E-01, 4.034E-01, 8.035E-03, 8.414E-04
 104, 4.887E-01, 4.034E-01, 8.035E-03, 8.414E-04
 301 (168-104) [l=113 cm][113 def.]
 168, 4.896E-01, 4.062E-01, 8.035E-03, 8.414E-04 - K.
 i', 4.896E-01, 4.062E-01, 8.035E-03, 8.414E-04
 j', 4.887E-01, 4.034E-01, 8.035E-03, 8.414E-04
 104, 4.887E-01, 4.034E-01, 8.035E-03, 8.414E-04 - K.
 302 (168-107) [l=113 cm][113 def.]
 168, 4.896E-01, 4.062E-01, 8.035E-03, 8.414E-04
 i', 4.896E-01, 4.062E-01, 8.035E-03, 8.414E-04 - K.
 j', 4.905E-01, 4.090E-01, 8.035E-03, 8.414E-04
 107, 4.905E-01, 4.090E-01, 8.035E-03, 8.414E-04
 303 (107-171) [l=79 cm][79 def.]
 107, 4.905E-01, 4.090E-01, 8.035E-03, 8.414E-04 - K.

i', 4.905E-01, 4.090E-01, 8.035E-03, 8.414E-04
 j', 4.911E-01, 4.110E-01, 8.035E-03, 8.414E-04
 171, 4.911E-01, 4.110E-01, 8.035E-03, 8.414E-04 - K.
 304 (171-106) [l=0 cm][0 def.]
 171, 4.911E-01, 4.110E-01, 8.035E-03, 8.414E-04
 i', 4.911E-01, 4.110E-01, 8.035E-03, 8.414E-04 - K.
 j', 4.911E-01, 4.110E-01, 8.035E-03, 8.414E-04
 106, 4.911E-01, 4.110E-01, 8.035E-03, 8.414E-04
 305 (16-174) [l=96 cm][96 def.]
 16, 4.887E-01, 3.978E-01, 8.043E-03, 8.414E-04 - K.
 i', 4.887E-01, 3.978E-01, 8.043E-03, 8.414E-04
 j', 4.879E-01, 3.957E-01, 8.043E-03, 8.414E-04
 174, 4.879E-01, 3.957E-01, 8.043E-03, 8.414E-04 - K.
 306 (174-14) [l=0 cm][0 def.]
 174, 4.879E-01, 3.957E-01, 8.043E-03, 8.414E-04
 i', 4.879E-01, 3.957E-01, 8.043E-03, 8.414E-04 - K.
 j', 4.879E-01, 3.957E-01, 8.043E-03, 8.414E-04
 14, 4.879E-01, 3.957E-01, 8.043E-03, 8.414E-04
 307 (177-12) [l=113 cm][113 def.]
 177, 4.896E-01, 4.004E-01, 8.043E-03, 8.414E-04 - K.
 i', 4.896E-01, 4.004E-01, 8.043E-03, 8.414E-04
 j', 4.905E-01, 4.029E-01, 8.043E-03, 8.414E-04
 12, 4.905E-01, 4.029E-01, 8.043E-03, 8.414E-04 - K.
 308 (177-16) [l=113 cm][113 def.]
 177, 4.896E-01, 4.004E-01, 8.043E-03, 8.414E-04
 i', 4.896E-01, 4.004E-01, 8.043E-03, 8.414E-04 - K.
 j', 4.887E-01, 3.978E-01, 8.043E-03, 8.414E-04
 16, 4.887E-01, 3.978E-01, 8.043E-03, 8.414E-04
 309 (10-180) [l=0 cm][0 def.]
 10, 4.911E-01, 4.047E-01, 8.043E-03, 8.414E-04 - K.
 i', 4.911E-01, 4.047E-01, 8.043E-03, 8.414E-04
 j', 4.911E-01, 4.047E-01, 8.043E-03, 8.414E-04
 180, 4.911E-01, 4.047E-01, 8.043E-03, 8.414E-04 - K.
 310 (180-12) [l=79 cm][79 def.]
 180, 4.911E-01, 4.047E-01, 8.043E-03, 8.414E-04
 i', 4.911E-01, 4.047E-01, 8.043E-03, 8.414E-04 - K.
 j', 4.905E-01, 4.029E-01, 8.043E-03, 8.414E-04
 12, 4.905E-01, 4.029E-01, 8.043E-03, 8.414E-04
 311 (188-82) [l=113 cm][113 def.]
 188, 4.753E-01, 3.635E-01, 8.033E-03, 8.414E-04 - K.
 i', 4.753E-01, 3.635E-01, 8.033E-03, 8.414E-04
 j', 4.753E-01, 3.625E-01, 8.033E-03, 8.414E-04
 82, 4.753E-01, 3.625E-01, 8.033E-03, 8.414E-04 - K.
 312 (188-86) [l=113 cm][113 def.]
 188, 4.753E-01, 3.635E-01, 8.033E-03, 8.414E-04
 i', 4.753E-01, 3.635E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.761E-01, 3.655E-01, 8.033E-03, 8.414E-04
 86, 4.761E-01, 3.655E-01, 8.033E-03, 8.414E-04
 313 (70-192) [l=95 cm][95 def.]
 70, 4.807E-01, 3.877E-01, 8.033E-03, 8.414E-04 - K.
 i', 4.807E-01, 3.877E-01, 8.033E-03, 8.414E-04
 j', 4.803E-01, 3.855E-01, 8.033E-03, 8.414E-04
 192, 4.803E-01, 3.855E-01, 8.033E-03, 8.414E-04 - K.
 314 (192-68) [l=1 cm][1 def.]
 192, 4.803E-01, 3.855E-01, 8.033E-03, 8.414E-04
 i', 4.803E-01, 3.855E-01, 8.033E-03, 8.414E-04 - K.
 j', 4.803E-01, 3.855E-01, 8.033E-03, 8.414E-04
 68, 4.803E-01, 3.855E-01, 8.033E-03, 8.414E-04
 315 (194-97) [l=113 cm][113 def.]
 194, 4.847E-01, 3.910E-01, 8.034E-03, 8.414E-04 - K.
 i', 4.847E-01, 3.910E-01, 8.034E-03, 8.414E-04
 j', 4.837E-01, 3.882E-01, 8.034E-03, 8.414E-04
 97, 4.837E-01, 3.882E-01, 8.034E-03, 8.414E-04 - K.
 316 (194-100) [l=113 cm][113 def.]
 194, 4.847E-01, 3.910E-01, 8.034E-03, 8.414E-04
 i', 4.847E-01, 3.910E-01, 8.034E-03, 8.414E-04 - K.
 j', 4.856E-01, 3.938E-01, 8.035E-03, 8.414E-04
 100, 4.856E-01, 3.938E-01, 8.035E-03, 8.414E-04
 317 (200-35) [l=113 cm][113 def.]
 200, 4.753E-01, 3.619E-01, 8.045E-03, 8.414E-04 - T.
 i', 4.753E-01, 3.619E-01, 8.045E-03, 8.414E-04
 j', 4.761E-01, 3.637E-01, 8.045E-03, 8.414E-04
 35, 4.761E-01, 3.637E-01, 8.045E-03, 8.414E-04 - T.
 318 (200-39) [l=113 cm][113 def.]
 200, 4.753E-01, 3.619E-01, 8.045E-03, 8.414E-04
 i', 4.753E-01, 3.619E-01, 8.045E-03, 8.414E-04 - T.
 j', 4.753E-01, 3.611E-01, 8.046E-03, 8.414E-04
 39, 4.753E-01, 3.611E-01, 8.046E-03, 8.414E-04
 319 (204-20) [l=113 cm][113 def.]
 204, 4.847E-01, 3.867E-01, 8.044E-03, 8.414E-04 - T.
 i', 4.847E-01, 3.867E-01, 8.044E-03, 8.414E-04
 j', 4.856E-01, 3.892E-01, 8.044E-03, 8.414E-04
 20, 4.856E-01, 3.892E-01, 8.044E-03, 8.414E-04 - T.
 320 (204-23) [l=113 cm][113 def.]
 204, 4.847E-01, 3.867E-01, 8.044E-03, 8.414E-04
 i', 4.847E-01, 3.867E-01, 8.044E-03, 8.414E-04 - T.

j', 4.837E-01, 3.841E-01, 8.044E-03, 8.414E-04
 23, 4.837E-01, 3.841E-01, 8.044E-03, 8.414E-04
 321 (207-51) [l=115 cm][115 def.]
 207, 4.824E-01, 3.988E-01, 8.046E-03, 8.414E-04 - T.
 i', 4.824E-01, 3.988E-01, 8.046E-03, 8.414E-04
 j', 4.819E-01, 3.959E-01, 8.046E-03, 8.414E-04
 51, 4.819E-01, 3.959E-01, 8.046E-03, 8.414E-04 - T.
 322 (207-55) [l=111 cm][111 def.]
 207, 4.824E-01, 3.988E-01, 8.046E-03, 8.414E-04
 i', 4.824E-01, 3.988E-01, 8.046E-03, 8.414E-04 - T.
 j', 4.828E-01, 4.016E-01, 8.046E-03, 8.414E-04
 55, 4.828E-01, 4.016E-01, 8.046E-03, 8.414E-04
 323 (213-1) [l=151 cm][151 def.]
 213, 0.000E+00, 4.154E-01, 9.146E-02, 0.000E+00 - T.
 i', 0.000E+00, 4.154E-01, 9.146E-02, 0.000E+00
 j', 0.000E+00, 2.776E-01, 9.146E-02, 0.000E+00
 1, 0.000E+00, 2.776E-01, 9.146E-02, 0.000E+00 - T.
 324 (1-214) [l=151 cm][151 def.]
 1, 0.000E+00, 2.776E-01, 9.146E-02, 0.000E+00
 i', 0.000E+00, 2.776E-01, 9.146E-02, 0.000E+00 - T.
 j', 0.000E+00, 1.974E-01, 9.145E-02, 0.000E+00
 214, 0.000E+00, 1.974E-01, 9.145E-02, 0.000E+00
 325 (215-5) [l=151 cm][151 def.]
 215, 0.000E+00, 1.954E-01, 9.075E-02, 0.000E+00 - T.
 i', 0.000E+00, 1.954E-01, 9.075E-02, 0.000E+00
 j', 0.000E+00, 2.697E-01, 9.076E-02, 0.000E+00
 5, 0.000E+00, 2.697E-01, 9.076E-02, 0.000E+00 - T.
 326 (5-216) [l=151 cm][151 def.]
 5, 0.000E+00, 2.697E-01, 9.076E-02, 0.000E+00
 i', 0.000E+00, 2.697E-01, 9.076E-02, 0.000E+00 - T.
 j', 0.000E+00, 4.063E-01, 9.075E-02, 0.000E+00
 216, 0.000E+00, 4.063E-01, 9.075E-02, 0.000E+00
 327 (216-9) [l=79 cm][79 def.]
 216, 0.000E+00, 4.063E-01, 9.553E-03, 0.000E+00 - T.
 i', 0.000E+00, 4.063E-01, 9.553E-03, 0.000E+00
 j', 0.000E+00, 4.026E-01, 9.553E-03, 0.000E+00
 9, 0.000E+00, 4.026E-01, 9.553E-03, 0.000E+00 - K.
 328 (9-11) [l=79 cm][79 def.]
 9, 0.000E+00, 4.026E-01, 9.553E-03, 0.000E+00
 i', 0.000E+00, 4.026E-01, 9.553E-03, 0.000E+00 - T.
 j', 0.000E+00, 3.990E-01, 9.553E-03, 0.000E+00
 11, 0.000E+00, 3.990E-01, 9.553E-03, 0.000E+00
 329 (11-15) [l=227 cm][227 def.]
 11, 0.000E+00, 3.990E-01, 9.553E-03, 0.000E+00 - T.
 i', 0.000E+00, 3.990E-01, 9.553E-03, 0.000E+00
 j', 0.000E+00, 3.897E-01, 8.394E-03, 0.000E+00
 15, 0.000E+00, 3.897E-01, 8.394E-03, 0.000E+00 - K.
 330 (15-13) [l=96 cm][96 def.]
 15, 0.000E+00, 3.897E-01, 8.394E-03, 0.000E+00
 i', 0.000E+00, 3.897E-01, 8.394E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.868E-01, 8.394E-03, 0.000E+00
 13, 0.000E+00, 3.868E-01, 8.394E-03, 0.000E+00
 331 (13-217) [l=96 cm][96 def.]
 13, 0.000E+00, 3.868E-01, 8.394E-03, 0.000E+00 - Z.
 i', 0.000E+00, 3.868E-01, 8.394E-03, 0.000E+00
 j', 0.000E+00, 3.839E-01, 8.394E-03, 0.000E+00
 217, 0.000E+00, 3.839E-01, 8.394E-03, 0.000E+00 - Z.
 332 (217-18) [l=96 cm][96 def.]
 217, 0.000E+00, 3.839E-01, 8.394E-03, 0.000E+00
 i', 0.000E+00, 3.839E-01, 8.394E-03, 0.000E+00 - Z.
 j', 0.000E+00, 3.811E-01, 8.395E-03, 0.000E+00
 18, 0.000E+00, 3.811E-01, 8.395E-03, 0.000E+00
 333 (18-320) [l=96 cm][96 def.]
 18, 0.000E+00, 3.811E-01, 8.395E-03, 0.000E+00 - Z.
 i', 0.000E+00, 3.811E-01, 8.395E-03, 0.000E+00
 j', 0.000E+00, 3.782E-01, 8.394E-03, 0.000E+00
 320, 0.000E+00, 3.782E-01, 8.394E-03, 0.000E+00 - K.
 334 (320-321) [l=226 cm][226 def.]
 320, 0.000E+00, 3.782E-01, 8.394E-03, 0.000E+00
 i', 0.000E+00, 3.782E-01, 8.394E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.744E-01, 8.341E-03, 0.000E+00
 321, 0.000E+00, 3.744E-01, 8.341E-03, 0.000E+00
 335 (321-21) [l=163 cm][163 def.]
 321, 0.000E+00, 3.744E-01, 8.341E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.744E-01, 8.341E-03, 0.000E+00
 j', 0.000E+00, 3.728E-01, 8.342E-03, 0.000E+00
 21, 0.000E+00, 3.728E-01, 8.342E-03, 0.000E+00 - K.
 336 (21-218) [l=163 cm][163 def.]
 21, 0.000E+00, 3.728E-01, 8.342E-03, 0.000E+00
 i', 0.000E+00, 3.728E-01, 8.342E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.714E-01, 8.340E-03, 0.000E+00
 218, 0.000E+00, 3.714E-01, 8.340E-03, 0.000E+00
 337 (218-25) [l=28 cm][28 def.]
 218, 0.000E+00, 3.714E-01, 8.340E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.714E-01, 8.340E-03, 0.000E+00
 j', 0.000E+00, 3.712E-01, 8.340E-03, 0.000E+00

25, 0.000E+00, 3.712E-01, 8.340E-03, 0.000E+00 - K.
 338 (25-322) [l=28 cm][28 def.]
 25, 0.000E+00, 3.712E-01, 8.340E-03, 0.000E+00
 i', 0.000E+00, 3.712E-01, 8.340E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.710E-01, 8.340E-03, 0.000E+00
 322, 0.000E+00, 3.710E-01, 8.340E-03, 0.000E+00
 339 (322-323) [l=227 cm][227 def.]
 322, 0.000E+00, 3.710E-01, 8.340E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.710E-01, 8.340E-03, 0.000E+00
 j', 0.000E+00, 3.601E-01, 8.096E-03, 0.000E+00
 323, 0.000E+00, 3.601E-01, 8.096E-03, 0.000E+00 - K.
 340 (323-28) [l=26 cm][26 def.]
 323, 0.000E+00, 3.601E-01, 8.096E-03, 0.000E+00
 i', 0.000E+00, 3.601E-01, 8.096E-03, 0.000E+00 - K.
 j', 0.000E+00, 3.596E-01, 8.096E-03, 0.000E+00
 28, 0.000E+00, 3.596E-01, 8.096E-03, 0.000E+00
 341 (28-219) [l=26 cm][26 def.]
 28, 0.000E+00, 3.596E-01, 8.096E-03, 0.000E+00 - K.
 i', 0.000E+00, 3.596E-01, 8.096E-03, 0.000E+00
 j', 0.000E+00, 3.590E-01, 8.096E-03, 0.000E+00
 219, 0.000E+00, 3.590E-01, 8.096E-03, 0.000E+00
 342 (219-32) [l=146 cm][146 def.]
 219, 0.000E+00, 3.590E-01, 8.096E-03, 0.000E+00
 i', 0.000E+00, 3.590E-01, 8.096E-03, 0.000E+00
 j', 0.000E+00, 3.561E-01, 8.098E-03, 0.000E+00
 32, 0.000E+00, 3.561E-01, 8.098E-03, 0.000E+00
 343 (32-34) [l=146 cm][146 def.]
 32, 0.000E+00, 3.561E-01, 8.098E-03, 0.000E+00
 i', 0.000E+00, 3.561E-01, 8.098E-03, 0.000E+00
 j', 0.000E+00, 3.536E-01, 8.098E-03, 0.000E+00
 34, 0.000E+00, 3.536E-01, 8.098E-03, 0.000E+00
 344 (34-38) [l=227 cm][227 def.]
 34, 0.000E+00, 3.536E-01, 8.098E-03, 0.000E+00
 i', 0.000E+00, 3.536E-01, 8.098E-03, 0.000E+00
 j', 0.000E+00, 3.525E-01, 8.135E-03, 0.000E+00
 38, 0.000E+00, 3.525E-01, 8.135E-03, 0.000E+00
 345 (38-36) [l=308 cm][308 def.]
 38, 0.000E+00, 3.525E-01, 8.135E-03, 0.000E+00
 i', 0.000E+00, 3.525E-01, 8.135E-03, 0.000E+00
 j', 0.000E+00, 3.583E-01, 8.135E-03, 0.000E+00
 36, 0.000E+00, 3.583E-01, 8.135E-03, 0.000E+00
 346 (36-220) [l=308 cm][308 def.]
 36, 0.000E+00, 3.583E-01, 8.135E-03, 0.000E+00
 i', 0.000E+00, 3.583E-01, 8.135E-03, 0.000E+00
 j', 0.000E+00, 3.674E-01, 8.126E-03, 0.000E+00
 220, 0.000E+00, 3.674E-01, 8.126E-03, 0.000E+00
 347 (220-41) [l=28 cm][28 def.]
 220, 0.000E+00, 3.674E-01, 8.126E-03, 0.000E+00
 i', 0.000E+00, 3.674E-01, 8.126E-03, 0.000E+00
 j', 0.000E+00, 3.682E-01, 8.126E-03, 0.000E+00
 41, 0.000E+00, 3.682E-01, 8.126E-03, 0.000E+00
 348 (41-324) [l=28 cm][28 def.]
 41, 0.000E+00, 3.682E-01, 8.126E-03, 0.000E+00
 i', 0.000E+00, 3.682E-01, 8.126E-03, 0.000E+00
 j', 0.000E+00, 3.691E-01, 8.126E-03, 0.000E+00
 324, 0.000E+00, 3.691E-01, 8.126E-03, 0.000E+00
 349 (324-325) [l=227 cm][227 def.]
 324, 0.000E+00, 3.691E-01, 8.126E-03, 0.000E+00
 i', 0.000E+00, 3.691E-01, 8.126E-03, 0.000E+00
 j', 0.000E+00, 3.688E-01, 8.438E-03, 0.000E+00
 325, 0.000E+00, 3.688E-01, 8.438E-03, 0.000E+00
 350 (44-221) [l=164 cm][164 def.]
 44, 0.000E+00, 3.740E-01, 8.439E-03, 0.000E+00
 i', 0.000E+00, 3.740E-01, 8.439E-03, 0.000E+00
 j', 0.000E+00, 3.792E-01, 8.436E-03, 0.000E+00
 221, 0.000E+00, 3.792E-01, 8.436E-03, 0.000E+00
 351 (221-48) [l=164 cm][164 def.]
 221, 0.000E+00, 3.792E-01, 8.436E-03, 0.000E+00
 i', 0.000E+00, 3.792E-01, 8.436E-03, 0.000E+00
 j', 0.000E+00, 3.844E-01, 8.435E-03, 0.000E+00
 48, 0.000E+00, 3.844E-01, 8.435E-03, 0.000E+00
 352 (48-50) [l=164 cm][164 def.]
 48, 0.000E+00, 3.844E-01, 8.435E-03, 0.000E+00
 i', 0.000E+00, 3.844E-01, 8.435E-03, 0.000E+00
 j', 0.000E+00, 3.897E-01, 8.435E-03, 0.000E+00
 50, 0.000E+00, 3.897E-01, 8.435E-03, 0.000E+00
 353 (50-54) [l=227 cm][227 def.]
 50, 0.000E+00, 3.897E-01, 8.435E-03, 0.000E+00
 i', 0.000E+00, 3.897E-01, 8.435E-03, 0.000E+00
 j', 0.000E+00, 3.996E-01, 8.474E-03, 0.000E+00
 54, 0.000E+00, 3.996E-01, 8.474E-03, 0.000E+00
 354 (54-52) [l=67 cm][67 def.]
 54, 0.000E+00, 3.996E-01, 8.474E-03, 0.000E+00
 i', 0.000E+00, 3.996E-01, 8.474E-03, 0.000E+00
 j', 0.000E+00, 4.016E-01, 8.474E-03, 0.000E+00
 52, 0.000E+00, 4.016E-01, 8.474E-03, 0.000E+00

355 (52-222) [l=67 cm][67 def.]
52, 0.000E+00, 4.016E-01, 8.474E-03, 0.000E+00
i', 0.000E+00, 4.016E-01, 8.474E-03, 0.000E+00
j', 0.000E+00, 4.036E-01, 8.474E-03, 0.000E+00
222, 0.000E+00, 4.036E-01, 8.474E-03, 0.000E+00

356 (223-56) [l=67 cm][67 def.]
223, 0.000E+00, 4.013E-01, 8.359E-03, 0.000E+00
i', 0.000E+00, 4.013E-01, 8.359E-03, 0.000E+00
j', 0.000E+00, 3.998E-01, 8.358E-03, 0.000E+00
56, 0.000E+00, 3.998E-01, 8.358E-03, 0.000E+00

357 (56-326) [l=67 cm][67 def.]
56, 0.000E+00, 3.998E-01, 8.358E-03, 0.000E+00
i', 0.000E+00, 3.998E-01, 8.358E-03, 0.000E+00
j', 0.000E+00, 3.984E-01, 8.357E-03, 0.000E+00
326, 0.000E+00, 3.984E-01, 8.357E-03, 0.000E+00

358 (326-327) [l=100 cm][100 def.]
326, 0.000E+00, 3.984E-01, 8.380E-03, 0.000E+00
i', 0.000E+00, 3.984E-01, 8.380E-03, 0.000E+00
j', 0.000E+00, 3.935E-01, 8.753E-03, 0.000E+00
327, 0.000E+00, 3.935E-01, 8.753E-03, 0.000E+00

359 (327-59) [l=43 cm][43 def.]
327, 0.000E+00, 3.935E-01, 8.762E-03, 0.000E+00
i', 0.000E+00, 3.935E-01, 8.762E-03, 0.000E+00
j', 0.000E+00, 3.915E-01, 8.762E-03, 0.000E+00
59, 0.000E+00, 3.915E-01, 8.762E-03, 0.000E+00

360 (59-224) [l=43 cm][43 def.]
59, 0.000E+00, 3.915E-01, 8.762E-03, 0.000E+00
i', 0.000E+00, 3.915E-01, 8.762E-03, 0.000E+00
j', 0.000E+00, 3.895E-01, 8.762E-03, 0.000E+00
224, 0.000E+00, 3.895E-01, 8.762E-03, 0.000E+00

361 (224-63) [l=43 cm][43 def.]
224, 0.000E+00, 3.895E-01, 8.693E-03, 0.000E+00
i', 0.000E+00, 3.895E-01, 8.693E-03, 0.000E+00
j', 0.000E+00, 3.875E-01, 8.693E-03, 0.000E+00
63, 0.000E+00, 3.875E-01, 8.693E-03, 0.000E+00

362 (63-65) [l=43 cm][43 def.]
63, 0.000E+00, 3.875E-01, 8.693E-03, 0.000E+00
i', 0.000E+00, 3.875E-01, 8.693E-03, 0.000E+00
j', 0.000E+00, 3.856E-01, 8.693E-03, 0.000E+00
65, 0.000E+00, 3.856E-01, 8.693E-03, 0.000E+00

363 (65-69) [l=227 cm][227 def.]
65, 0.000E+00, 3.856E-01, 8.693E-03, 0.000E+00
i', 0.000E+00, 3.856E-01, 8.693E-03, 0.000E+00
j', 0.000E+00, 3.778E-01, 8.373E-03, 0.000E+00
69, 0.000E+00, 3.778E-01, 8.373E-03, 0.000E+00

364 (69-67) [l=96 cm][96 def.]
69, 0.000E+00, 3.778E-01, 8.373E-03, 0.000E+00
i', 0.000E+00, 3.778E-01, 8.373E-03, 0.000E+00
j', 0.000E+00, 3.751E-01, 8.373E-03, 0.000E+00
67, 0.000E+00, 3.751E-01, 8.373E-03, 0.000E+00

365 (67-225) [l=96 cm][96 def.]
67, 0.000E+00, 3.751E-01, 8.373E-03, 0.000E+00
i', 0.000E+00, 3.751E-01, 8.373E-03, 0.000E+00
j', 0.000E+00, 3.726E-01, 8.373E-03, 0.000E+00
225, 0.000E+00, 3.726E-01, 8.373E-03, 0.000E+00

366 (225-72) [l=96 cm][96 def.]
225, 0.000E+00, 3.726E-01, 8.373E-03, 0.000E+00
i', 0.000E+00, 3.726E-01, 8.373E-03, 0.000E+00
j', 0.000E+00, 3.701E-01, 8.374E-03, 0.000E+00
72, 0.000E+00, 3.701E-01, 8.374E-03, 0.000E+00

367 (328-329) [l=226 cm][226 def.]
328, 0.000E+00, 3.676E-01, 8.373E-03, 0.000E+00
i', 0.000E+00, 3.676E-01, 8.373E-03, 0.000E+00
j', 0.000E+00, 3.690E-01, 8.063E-03, 0.000E+00
329, 0.000E+00, 3.690E-01, 8.063E-03, 0.000E+00

368 (329-75) [l=28 cm][28 def.]
329, 0.000E+00, 3.690E-01, 8.063E-03, 0.000E+00
i', 0.000E+00, 3.690E-01, 8.063E-03, 0.000E+00
j', 0.000E+00, 3.681E-01, 8.063E-03, 0.000E+00
75, 0.000E+00, 3.681E-01, 8.063E-03, 0.000E+00

369 (75-226) [l=28 cm][28 def.]
75, 0.000E+00, 3.681E-01, 8.063E-03, 0.000E+00
i', 0.000E+00, 3.681E-01, 8.063E-03, 0.000E+00
j', 0.000E+00, 3.673E-01, 8.064E-03, 0.000E+00
226, 0.000E+00, 3.673E-01, 8.064E-03, 0.000E+00

370 (226-79) [l=308 cm][308 def.]
226, 0.000E+00, 3.673E-01, 8.064E-03, 0.000E+00
i', 0.000E+00, 3.673E-01, 8.064E-03, 0.000E+00
j', 0.000E+00, 3.591E-01, 8.073E-03, 0.000E+00
79, 0.000E+00, 3.591E-01, 8.073E-03, 0.000E+00

371 (79-81) [l=308 cm][308 def.]
79, 0.000E+00, 3.591E-01, 8.073E-03, 0.000E+00
i', 0.000E+00, 3.591E-01, 8.073E-03, 0.000E+00
j', 0.000E+00, 3.538E-01, 8.073E-03, 0.000E+00
81, 0.000E+00, 3.538E-01, 8.073E-03, 0.000E+00

372 (81-85) [l=227 cm][227 def.]

81, 0.000E+00, 3.538E-01, 8.073E-03, 0.000E+00
 i', 0.000E+00, 3.538E-01, 8.073E-03, 0.000E+00
 j', 0.000E+00, 3.553E-01, 8.056E-03, 0.000E+00
 85, 0.000E+00, 3.553E-01, 8.056E-03, 0.000E+00
 373 (85-83) [l=146 cm][146 def.]
 85, 0.000E+00, 3.553E-01, 8.056E-03, 0.000E+00
 i', 0.000E+00, 3.553E-01, 8.056E-03, 0.000E+00
 j', 0.000E+00, 3.580E-01, 8.056E-03, 0.000E+00
 83, 0.000E+00, 3.580E-01, 8.056E-03, 0.000E+00
 374 (83-227) [l=146 cm][146 def.]
 83, 0.000E+00, 3.580E-01, 8.056E-03, 0.000E+00
 i', 0.000E+00, 3.580E-01, 8.056E-03, 0.000E+00
 j', 0.000E+00, 3.613E-01, 8.054E-03, 0.000E+00
 227, 0.000E+00, 3.613E-01, 8.054E-03, 0.000E+00
 375 (227-88) [l=26 cm][26 def.]
 227, 0.000E+00, 3.613E-01, 8.054E-03, 0.000E+00
 i', 0.000E+00, 3.613E-01, 8.054E-03, 0.000E+00
 j', 0.000E+00, 3.618E-01, 8.054E-03, 0.000E+00
 88, 0.000E+00, 3.618E-01, 8.054E-03, 0.000E+00
 376 (88-330) [l=26 cm][26 def.]
 88, 0.000E+00, 3.618E-01, 8.054E-03, 0.000E+00
 i', 0.000E+00, 3.618E-01, 8.054E-03, 0.000E+00
 j', 0.000E+00, 3.624E-01, 8.054E-03, 0.000E+00
 330, 0.000E+00, 3.624E-01, 8.054E-03, 0.000E+00
 377 (330-331) [l=227 cm][227 def.]
 330, 0.000E+00, 3.624E-01, 8.054E-03, 0.000E+00
 i', 0.000E+00, 3.624E-01, 8.054E-03, 0.000E+00
 j', 0.000E+00, 3.737E-01, 8.383E-03, 0.000E+00
 331, 0.000E+00, 3.737E-01, 8.383E-03, 0.000E+00
 378 (331-91) [l=28 cm][28 def.]
 331, 0.000E+00, 3.737E-01, 8.383E-03, 0.000E+00
 i', 0.000E+00, 3.737E-01, 8.383E-03, 0.000E+00
 j', 0.000E+00, 3.741E-01, 8.384E-03, 0.000E+00
 91, 0.000E+00, 3.741E-01, 8.384E-03, 0.000E+00
 379 (91-228) [l=28 cm][28 def.]
 91, 0.000E+00, 3.741E-01, 8.384E-03, 0.000E+00
 i', 0.000E+00, 3.741E-01, 8.384E-03, 0.000E+00
 j', 0.000E+00, 3.745E-01, 8.384E-03, 0.000E+00
 228, 0.000E+00, 3.745E-01, 8.384E-03, 0.000E+00
 380 (228-95) [l=163 cm][163 def.]
 228, 0.000E+00, 3.745E-01, 8.384E-03, 0.000E+00
 i', 0.000E+00, 3.745E-01, 8.384E-03, 0.000E+00
 j', 0.000E+00, 3.767E-01, 8.386E-03, 0.000E+00
 95, 0.000E+00, 3.767E-01, 8.386E-03, 0.000E+00
 381 (95-332) [l=163 cm][163 def.]
 95, 0.000E+00, 3.767E-01, 8.386E-03, 0.000E+00
 i', 0.000E+00, 3.767E-01, 8.386E-03, 0.000E+00
 j', 0.000E+00, 3.790E-01, 8.385E-03, 0.000E+00
 332, 0.000E+00, 3.790E-01, 8.385E-03, 0.000E+00
 382 (332-333) [l=226 cm][226 def.]
 332, 0.000E+00, 3.790E-01, 8.385E-03, 0.000E+00
 i', 0.000E+00, 3.790E-01, 8.385E-03, 0.000E+00
 j', 0.000E+00, 3.837E-01, 7.790E-03, 0.000E+00
 333, 0.000E+00, 3.837E-01, 7.790E-03, 0.000E+00
 383 (333-98) [l=96 cm][96 def.]
 333, 0.000E+00, 3.837E-01, 7.790E-03, 0.000E+00
 i', 0.000E+00, 3.837E-01, 7.790E-03, 0.000E+00
 j', 0.000E+00, 3.853E-01, 7.790E-03, 0.000E+00
 98, 0.000E+00, 3.853E-01, 7.790E-03, 0.000E+00
 384 (98-229) [l=96 cm][96 def.]
 98, 0.000E+00, 3.853E-01, 7.790E-03, 0.000E+00
 i', 0.000E+00, 3.853E-01, 7.790E-03, 0.000E+00
 j', 0.000E+00, 3.870E-01, 7.790E-03, 0.000E+00
 229, 0.000E+00, 3.870E-01, 7.790E-03, 0.000E+00
 385 (229-102) [l=96 cm][96 def.]
 229, 0.000E+00, 3.870E-01, 7.790E-03, 0.000E+00
 i', 0.000E+00, 3.870E-01, 7.790E-03, 0.000E+00
 j', 0.000E+00, 3.887E-01, 7.790E-03, 0.000E+00
 102, 0.000E+00, 3.887E-01, 7.790E-03, 0.000E+00
 386 (102-334) [l=96 cm][96 def.]
 102, 0.000E+00, 3.887E-01, 7.790E-03, 0.000E+00
 i', 0.000E+00, 3.887E-01, 7.790E-03, 0.000E+00
 j', 0.000E+00, 3.905E-01, 7.790E-03, 0.000E+00
 334, 0.000E+00, 3.905E-01, 7.790E-03, 0.000E+00
 387 (334-335) [l=226 cm][226 def.]
 334, 0.000E+00, 3.905E-01, 7.790E-03, 0.000E+00
 i', 0.000E+00, 3.905E-01, 7.790E-03, 0.000E+00
 j', 0.000E+00, 4.000E-01, 1.194E-02, 0.000E+00
 335, 0.000E+00, 4.000E-01, 1.194E-02, 0.000E+00
 388 (335-105) [l=79 cm][79 def.]
 335, 0.000E+00, 4.000E-01, 1.194E-02, 0.000E+00
 i', 0.000E+00, 4.000E-01, 1.194E-02, 0.000E+00
 j', 0.000E+00, 4.077E-01, 1.194E-02, 0.000E+00
 105, 0.000E+00, 4.077E-01, 1.194E-02, 0.000E+00
 389 (105-213) [l=79 cm][79 def.]
 105, 0.000E+00, 4.077E-01, 1.194E-02, 0.000E+00

i', 0.000E+00, 4.077E-01, 1.194E-02, 0.000E+00
 j', 0.000E+00, 4.154E-01, 1.194E-02, 0.000E+00
 213, 0.000E+00, 4.154E-01, 1.194E-02, 0.000E+00
 390 (222-108) [l=208 cm][208 def.]
 222, 0.000E+00, 4.036E-01, 8.598E-02, 0.000E+00
 i', 0.000E+00, 4.036E-01, 8.598E-02, 0.000E+00
 j', 0.000E+00, 2.249E-01, 8.599E-02, 0.000E+00
 108, 0.000E+00, 2.249E-01, 8.599E-02, 0.000E+00
 391 (108-230) [l=208 cm][208 def.]
 108, 0.000E+00, 2.249E-01, 8.599E-02, 0.000E+00
 i', 0.000E+00, 2.249E-01, 8.599E-02, 0.000E+00
 j', 0.000E+00, 1.498E-01, 8.598E-02, 0.000E+00
 230, 0.000E+00, 1.498E-01, 8.598E-02, 0.000E+00
 392 (336-112) [l=153 cm][153 def.]
 336, 0.000E+00, 1.118E-01, 8.610E-02, 0.000E+00
 i', 0.000E+00, 1.118E-01, 8.610E-02, 0.000E+00
 j', 0.000E+00, 2.430E-01, 8.610E-02, 0.000E+00
 112, 0.000E+00, 2.430E-01, 8.610E-02, 0.000E+00
 393 (112-228) [l=153 cm][153 def.]
 112, 0.000E+00, 2.430E-01, 8.610E-02, 0.000E+00
 i', 0.000E+00, 2.430E-01, 8.610E-02, 0.000E+00
 j', 0.000E+00, 3.745E-01, 8.610E-02, 0.000E+00
 228, 0.000E+00, 3.745E-01, 8.610E-02, 0.000E+00
 394 (218-116) [l=163 cm][163 def.]
 218, 0.000E+00, 3.714E-01, 8.636E-02, 0.000E+00
 i', 0.000E+00, 3.714E-01, 8.636E-02, 0.000E+00
 j', 0.000E+00, 2.309E-01, 8.636E-02, 0.000E+00
 116, 0.000E+00, 2.309E-01, 8.636E-02, 0.000E+00
 395 (337-336) [l=200 cm][200 def.]
 337, 0.000E+00, 9.069E-02, 8.636E-02, 0.000E+00
 i', 0.000E+00, 9.069E-02, 8.636E-02, 0.000E+00
 j', 0.000E+00, 1.118E-01, 8.610E-02, 0.000E+00
 336, 0.000E+00, 1.118E-01, 8.610E-02, 0.000E+00
 396 (116-337) [l=163 cm][163 def.]
 116, 0.000E+00, 2.309E-01, 8.636E-02, 0.000E+00
 i', 0.000E+00, 2.309E-01, 8.636E-02, 0.000E+00
 j', 0.000E+00, 9.069E-02, 8.636E-02, 0.000E+00
 337, 0.000E+00, 9.069E-02, 8.636E-02, 0.000E+00
 397 (226-120) [l=153 cm][153 def.]
 226, 0.000E+00, 3.673E-01, 8.651E-02, 0.000E+00
 i', 0.000E+00, 3.673E-01, 8.651E-02, 0.000E+00
 j', 0.000E+00, 2.357E-01, 8.651E-02, 0.000E+00
 120, 0.000E+00, 2.357E-01, 8.651E-02, 0.000E+00
 398 (120-338) [l=153 cm][153 def.]
 120, 0.000E+00, 2.357E-01, 8.651E-02, 0.000E+00
 i', 0.000E+00, 2.357E-01, 8.651E-02, 0.000E+00
 j', 0.000E+00, 1.043E-01, 8.651E-02, 0.000E+00
 338, 0.000E+00, 1.043E-01, 8.651E-02, 0.000E+00
 399 (338-339) [l=200 cm][200 def.]
 338, 0.000E+00, 1.043E-01, 8.651E-02, 0.000E+00
 i', 0.000E+00, 1.043E-01, 8.651E-02, 0.000E+00
 j', 0.000E+00, 8.649E-02, 8.665E-02, 0.000E+00
 339, 0.000E+00, 8.649E-02, 8.665E-02, 0.000E+00
 400 (339-124) [l=163 cm][163 def.]
 339, 0.000E+00, 8.649E-02, 8.665E-02, 0.000E+00
 i', 0.000E+00, 8.649E-02, 8.665E-02, 0.000E+00
 j', 0.000E+00, 2.269E-01, 8.666E-02, 0.000E+00
 124, 0.000E+00, 2.269E-01, 8.666E-02, 0.000E+00
 401 (124-220) [l=163 cm][163 def.]
 124, 0.000E+00, 2.269E-01, 8.666E-02, 0.000E+00
 i', 0.000E+00, 2.269E-01, 8.666E-02, 0.000E+00
 j', 0.000E+00, 3.674E-01, 8.666E-02, 0.000E+00
 220, 0.000E+00, 3.674E-01, 8.666E-02, 0.000E+00
 402 (230-211) [l=208 cm][208 def.]
 230, 0.000E+00, 1.498E-01, 8.598E-02, 0.000E+00
 i', 0.000E+00, 1.498E-01, 8.598E-02, 0.000E+00
 j', 0.000E+00, 2.223E-01, 8.599E-02, 0.000E+00
 211, 0.000E+00, 2.223E-01, 8.599E-02, 0.000E+00
 403 (211-223) [l=208 cm][208 def.]
 211, 0.000E+00, 2.223E-01, 8.599E-02, 0.000E+00
 i', 0.000E+00, 2.223E-01, 8.599E-02, 0.000E+00
 j', 0.000E+00, 4.013E-01, 8.598E-02, 0.000E+00
 223, 0.000E+00, 4.013E-01, 8.598E-02, 0.000E+00
 404 (291-227) [l=165 cm][165 def.]
 291, 0.000E+00, 2.128E-01, 8.618E-02, 0.000E+00
 i', 0.000E+00, 2.128E-01, 8.618E-02, 0.000E+00
 j', 0.000E+00, 3.613E-01, 9.271E-02, 0.000E+00
 227, 0.000E+00, 3.613E-01, 9.271E-02, 0.000E+00
 405 (293-291) [l=132 cm][132 def.]
 293, 0.000E+00, 1.036E-01, 7.972E-02, 0.000E+00
 i', 0.000E+00, 1.036E-01, 7.972E-02, 0.000E+00
 j', 0.000E+00, 2.128E-01, 8.618E-02, 0.000E+00
 291, 0.000E+00, 2.128E-01, 8.618E-02, 0.000E+00
 406 (295-293) [l=218 cm][218 def.]
 295, 0.000E+00, 8.562E-02, 7.897E-02, 0.000E+00
 i', 0.000E+00, 8.562E-02, 7.897E-02, 0.000E+00

j', 0.000E+00, 1.036E-01, 7.972E-02, 0.000E+00
 293, 0.000E+00, 1.036E-01, 7.972E-02, 0.000E+00
 407 (219-297) [l=185 cm][185 def.]
 219, 0.000E+00, 3.590E-01, 9.272E-02, 0.000E+00
 i', 0.000E+00, 3.590E-01, 9.272E-02, 0.000E+00
 j', 0.000E+00, 1.936E-01, 8.503E-02, 0.000E+00
 297, 0.000E+00, 1.936E-01, 8.503E-02, 0.000E+00
 408 (297-295) [l=132 cm][132 def.]
 297, 0.000E+00, 1.936E-01, 8.503E-02, 0.000E+00
 i', 0.000E+00, 1.936E-01, 8.503E-02, 0.000E+00
 j', 0.000E+00, 8.562E-02, 7.897E-02, 0.000E+00
 295, 0.000E+00, 8.562E-02, 7.897E-02, 0.000E+00
 409 (299-239) [l=185 cm][185 def.]
 299, 0.000E+00, 2.024E-01, 8.594E-02, 0.000E+00
 i', 0.000E+00, 2.024E-01, 8.594E-02, 0.000E+00
 j', 0.000E+00, 3.705E-01, 9.543E-02, 0.000E+00
 239, 0.000E+00, 3.705E-01, 9.543E-02, 0.000E+00
 410 (301-299) [l=132 cm][132 def.]
 301, 0.000E+00, 9.388E-02, 7.910E-02, 0.000E+00
 i', 0.000E+00, 9.388E-02, 7.910E-02, 0.000E+00
 j', 0.000E+00, 2.024E-01, 8.594E-02, 0.000E+00
 299, 0.000E+00, 2.024E-01, 8.594E-02, 0.000E+00
 411 (303-301) [l=218 cm][218 def.]
 303, 0.000E+00, 1.082E-01, 7.975E-02, 0.000E+00
 i', 0.000E+00, 1.082E-01, 7.975E-02, 0.000E+00
 j', 0.000E+00, 9.388E-02, 7.910E-02, 0.000E+00
 301, 0.000E+00, 9.388E-02, 7.910E-02, 0.000E+00
 412 (238-305) [l=165 cm][165 def.]
 238, 0.000E+00, 3.689E-01, 9.550E-02, 0.000E+00
 i', 0.000E+00, 3.689E-01, 9.550E-02, 0.000E+00
 j', 0.000E+00, 2.180E-01, 8.701E-02, 0.000E+00
 305, 0.000E+00, 2.180E-01, 8.701E-02, 0.000E+00
 413 (305-303) [l=132 cm][132 def.]
 305, 0.000E+00, 2.180E-01, 8.701E-02, 0.000E+00
 i', 0.000E+00, 2.180E-01, 8.701E-02, 0.000E+00
 j', 0.000E+00, 1.082E-01, 7.975E-02, 0.000E+00
 303, 0.000E+00, 1.082E-01, 7.975E-02, 0.000E+00
 414 (24-119) [l=60 cm][60 def.]
 24, 4.811E-01, 5.752E-02, 8.045E-03, 8.824E-02
 i', 4.811E-01, 5.752E-02, 8.045E-03, 8.824E-02
 j', 4.283E-01, 5.431E-02, 8.045E-03, 8.824E-02
 119, 4.283E-01, 5.431E-02, 8.045E-03, 8.824E-02
 415 (31-237) [l=240 cm][240 def.]
 31, 4.784E-01, 5.752E-02, 8.045E-03, 8.824E-02
 i', 4.784E-01, 5.752E-02, 8.045E-03, 8.824E-02
 j', 2.675E-01, 4.641E-02, 8.045E-03, 8.824E-02
 237, 2.675E-01, 4.641E-02, 8.045E-03, 8.824E-02
 416 (40-127) [l=60 cm][60 def.]
 40, 4.778E-01, 5.752E-02, 8.046E-03, 8.824E-02
 i', 4.778E-01, 5.752E-02, 8.046E-03, 8.824E-02
 j', 4.251E-01, 5.431E-02, 8.046E-03, 8.824E-02
 127, 4.251E-01, 5.431E-02, 8.046E-03, 8.824E-02
 417 (340-253) [l=240 cm][240 def.]
 340, 4.792E-01, 5.752E-02, 8.046E-03, 8.824E-02
 i', 4.792E-01, 5.752E-02, 8.046E-03, 8.824E-02
 j', 2.689E-01, 4.640E-02, 8.046E-03, 8.824E-02
 253, 2.689E-01, 4.640E-02, 8.046E-03, 8.824E-02
 418 (341-254) [l=240 cm][240 def.]
 341, 4.792E-01, 5.708E-02, 8.033E-03, 8.827E-02
 i', 4.792E-01, 5.708E-02, 8.033E-03, 8.827E-02
 j', 2.689E-01, 4.591E-02, 8.033E-03, 8.827E-02
 254, 2.689E-01, 4.591E-02, 8.033E-03, 8.827E-02
 419 (78-122) [l=60 cm][60 def.]
 78, 4.778E-01, 5.708E-02, 8.033E-03, 8.827E-02
 i', 4.778E-01, 5.708E-02, 8.033E-03, 8.827E-02
 j', 4.251E-01, 5.387E-02, 8.033E-03, 8.827E-02
 122, 4.251E-01, 5.387E-02, 8.033E-03, 8.827E-02
 420 (87-233) [l=240 cm][240 def.]
 87, 4.784E-01, 5.708E-02, 8.033E-03, 8.827E-02
 i', 4.784E-01, 5.708E-02, 8.033E-03, 8.827E-02
 j', 2.673E-01, 4.592E-02, 8.033E-03, 8.827E-02
 233, 2.673E-01, 4.592E-02, 8.033E-03, 8.827E-02
 421 (94-114) [l=60 cm][60 def.]
 94, 4.811E-01, 5.708E-02, 8.034E-03, 8.827E-02
 i', 4.811E-01, 5.708E-02, 8.034E-03, 8.827E-02
 j', 4.283E-01, 5.387E-02, 8.034E-03, 8.827E-02
 114, 4.283E-01, 5.387E-02, 8.034E-03, 8.827E-02
 422 (342-275) [l=0 cm][0 def.]
 342, 6.650E-01, 6.924E-02, 8.039E-03, 8.609E-02
 i', 6.650E-01, 6.924E-02, 8.039E-03, 8.609E-02
 j', 6.652E-01, 6.925E-02, 8.039E-03, 8.609E-02
 275, 6.652E-01, 6.925E-02, 8.039E-03, 8.609E-02
 423 (280-319) [l=0 cm][0 def.]
 280, 5.971E-02, 1.918E-01, 8.610E-02, 2.732E-03
 i', 5.971E-02, 1.918E-01, 8.610E-02, 2.732E-03
 j', 5.971E-02, 1.915E-01, 8.610E-02, 2.732E-03

319, 5.971E-02, 1.915E-01, 8.610E-02, 2.732E-03
 424 (319-281) [l=199 cm][199 def.]
 319, 5.979E-02, 1.560E-01, 8.610E-02, 3.162E-03
 i', 5.979E-02, 1.560E-01, 8.610E-02, 3.162E-03
 j', 6.397E-02, 6.322E-02, 8.634E-02, 3.293E-03
 281, 6.397E-02, 6.322E-02, 8.634E-02, 3.293E-03
 425 (343-319) [l=0 cm][0 def.]
 343, 5.176E-01, 5.971E-02, 8.033E-03, 8.610E-02
 i', 5.176E-01, 5.971E-02, 8.033E-03, 8.610E-02
 j', 5.177E-01, 5.971E-02, 8.033E-03, 8.610E-02
 319, 5.177E-01, 5.971E-02, 8.033E-03, 8.610E-02
 426 (290-344) [l=0 cm][0 def.]
 290, 5.971E-02, 2.014E-01, 8.609E-02, 2.733E-03
 i', 5.971E-02, 2.014E-01, 8.609E-02, 2.733E-03
 j', 5.971E-02, 2.011E-01, 8.609E-02, 2.733E-03
 344, 5.971E-02, 2.011E-01, 8.609E-02, 2.733E-03
 427 (344-289) [l=199 cm][199 def.]
 344, 5.979E-02, 1.657E-01, 8.609E-02, 3.163E-03
 i', 5.979E-02, 1.657E-01, 8.609E-02, 3.163E-03
 j', 6.400E-02, 1.294E-01, 9.186E-02, 3.285E-03
 289, 6.400E-02, 1.294E-01, 9.186E-02, 3.285E-03
 428 (345-344) [l=0 cm][0 def.]
 345, 5.182E-01, 5.971E-02, 8.034E-03, 8.609E-02
 i', 5.182E-01, 5.971E-02, 8.034E-03, 8.609E-02
 j', 5.183E-01, 5.971E-02, 8.034E-03, 8.609E-02
 344, 5.183E-01, 5.971E-02, 8.034E-03, 8.609E-02
 429 (276-346) [l=0 cm][0 def.]
 276, 5.971E-02, 1.867E-01, 8.611E-02, 3.764E-03
 i', 5.971E-02, 1.867E-01, 8.611E-02, 3.764E-03
 j', 5.972E-02, 1.865E-01, 8.611E-02, 3.764E-03
 346, 5.972E-02, 1.865E-01, 8.611E-02, 3.764E-03
 430 (346-185) [l=448 cm][448 def.]
 346, 5.972E-02, 2.075E-01, 8.611E-02, 3.164E-03
 i', 5.972E-02, 2.075E-01, 8.611E-02, 3.164E-03
 j', 6.926E-02, 2.953E-01, 8.587E-02, 3.168E-03
 185, 6.926E-02, 2.953E-01, 8.587E-02, 3.168E-03
 431 (173-346) [l=0 cm][0 def.]
 173, 5.311E-01, 5.971E-02, 8.033E-03, 8.611E-02
 i', 5.311E-01, 5.971E-02, 8.033E-03, 8.611E-02
 j', 5.313E-01, 5.972E-02, 8.033E-03, 8.611E-02
 346, 5.313E-01, 5.972E-02, 8.033E-03, 8.611E-02
 432 (277-347) [l=0 cm][0 def.]
 277, 6.014E-02, 1.842E-01, 8.611E-02, 3.804E-03
 i', 6.014E-02, 1.842E-01, 8.611E-02, 3.804E-03
 j', 6.015E-02, 1.841E-01, 8.611E-02, 3.804E-03
 347, 6.015E-02, 1.841E-01, 8.611E-02, 3.804E-03
 433 (347-185) [l=448 cm][448 def.]
 347, 6.015E-02, 2.052E-01, 8.611E-02, 3.212E-03
 i', 6.015E-02, 2.052E-01, 8.611E-02, 3.212E-03
 j', 6.926E-02, 3.012E-01, 8.587E-02, 3.216E-03
 185, 6.926E-02, 3.012E-01, 8.587E-02, 3.216E-03
 434 (182-347) [l=0 cm][0 def.]
 182, 5.311E-01, 6.013E-02, 8.050E-03, 8.611E-02
 i', 5.311E-01, 6.013E-02, 8.050E-03, 8.611E-02
 j', 5.313E-01, 6.015E-02, 8.050E-03, 8.611E-02
 347, 5.313E-01, 6.015E-02, 8.050E-03, 8.611E-02
 435 (196-240) [l=94 cm][94 def.]
 196, 5.248E-01, 3.938E-01, 8.033E-03, 8.496E-04
 i', 5.248E-01, 3.938E-01, 8.033E-03, 8.496E-04
 j', 5.256E-01, 3.961E-01, 8.033E-03, 8.496E-04
 240, 5.256E-01, 3.961E-01, 8.033E-03, 8.496E-04
 436 (240-197) [l=2 cm][2 def.]
 240, 5.256E-01, 3.961E-01, 8.033E-03, 8.496E-04
 i', 5.256E-01, 3.961E-01, 8.033E-03, 8.496E-04
 j', 5.256E-01, 3.961E-01, 8.033E-03, 8.496E-04
 197, 5.256E-01, 3.961E-01, 8.033E-03, 8.496E-04
 437 (137-242) [l=2 cm][2 def.]
 137, 5.256E-01, 3.913E-01, 8.050E-03, 8.496E-04
 i', 5.256E-01, 3.913E-01, 8.050E-03, 8.496E-04
 j', 5.256E-01, 3.912E-01, 8.050E-03, 8.496E-04
 242, 5.256E-01, 3.912E-01, 8.050E-03, 8.496E-04
 438 (242-139) [l=94 cm][94 def.]
 242, 5.256E-01, 3.912E-01, 8.050E-03, 8.496E-04
 i', 5.256E-01, 3.912E-01, 8.050E-03, 8.496E-04
 j', 5.248E-01, 3.891E-01, 8.050E-03, 8.496E-04
 139, 5.248E-01, 3.891E-01, 8.050E-03, 8.496E-04
 439 (128-243) [l=159 cm][159 def.]
 128, 5.217E-01, 3.842E-01, 8.033E-03, 8.496E-04
 i', 5.217E-01, 3.842E-01, 8.033E-03, 8.496E-04
 j', 5.230E-01, 3.881E-01, 8.033E-03, 8.496E-04
 243, 5.230E-01, 3.881E-01, 8.033E-03, 8.496E-04
 440 (243-130) [l=5 cm][5 def.]
 243, 5.230E-01, 3.881E-01, 8.033E-03, 8.496E-04
 i', 5.230E-01, 3.881E-01, 8.033E-03, 8.496E-04
 j', 5.230E-01, 3.882E-01, 8.033E-03, 8.496E-04
 130, 5.230E-01, 3.882E-01, 8.033E-03, 8.496E-04

441 (203-245) [l=5 cm][5 def.]
 203, 5.230E-01, 3.841E-01, 8.049E-03, 8.496E-04
 i', 5.230E-01, 3.841E-01, 8.049E-03, 8.496E-04
 j', 5.230E-01, 3.840E-01, 8.049E-03, 8.496E-04
 245, 5.230E-01, 3.840E-01, 8.049E-03, 8.496E-04
 442 (245-202) [l=159 cm][159 def.]
 245, 5.230E-01, 3.840E-01, 8.049E-03, 8.496E-04
 i', 5.230E-01, 3.840E-01, 8.049E-03, 8.496E-04
 j', 5.217E-01, 3.805E-01, 8.049E-03, 8.496E-04
 202, 5.217E-01, 3.805E-01, 8.049E-03, 8.496E-04
 443 (132-246) [l=165 cm][165 def.]
 132, 5.190E-01, 3.761E-01, 8.033E-03, 8.496E-04
 i', 5.190E-01, 3.761E-01, 8.033E-03, 8.496E-04
 j', 5.203E-01, 3.801E-01, 8.033E-03, 8.496E-04
 246, 5.203E-01, 3.801E-01, 8.033E-03, 8.496E-04
 444 (246-129) [l=3 cm][3 def.]
 246, 5.203E-01, 3.801E-01, 8.033E-03, 8.496E-04
 i', 5.203E-01, 3.801E-01, 8.033E-03, 8.496E-04
 j', 5.203E-01, 3.802E-01, 8.033E-03, 8.496E-04
 129, 5.203E-01, 3.802E-01, 8.033E-03, 8.496E-04
 445 (142-248) [l=3 cm][3 def.]
 142, 5.203E-01, 3.769E-01, 8.049E-03, 8.496E-04
 i', 5.203E-01, 3.769E-01, 8.049E-03, 8.496E-04
 j', 5.203E-01, 3.768E-01, 8.049E-03, 8.496E-04
 248, 5.203E-01, 3.768E-01, 8.049E-03, 8.496E-04
 446 (248-141) [l=165 cm][165 def.]
 248, 5.203E-01, 3.768E-01, 8.049E-03, 8.496E-04
 i', 5.203E-01, 3.768E-01, 8.049E-03, 8.496E-04
 j', 5.190E-01, 3.732E-01, 8.049E-03, 8.496E-04
 141, 5.190E-01, 3.732E-01, 8.049E-03, 8.496E-04
 447 (46-340) [l=52 cm][52 def.]
 46, 4.790E-01, 3.794E-01, 8.046E-03, 8.414E-04
 i', 4.790E-01, 3.794E-01, 8.046E-03, 8.414E-04
 j', 4.792E-01, 3.807E-01, 8.046E-03, 8.414E-04
 340, 4.792E-01, 3.807E-01, 8.046E-03, 8.414E-04
 448 (340-45) [l=112 cm][112 def.]
 340, 4.792E-01, 3.807E-01, 8.046E-03, 8.414E-04
 i', 4.792E-01, 3.807E-01, 8.046E-03, 8.414E-04
 j', 4.797E-01, 3.835E-01, 8.046E-03, 8.414E-04
 45, 4.797E-01, 3.835E-01, 8.046E-03, 8.414E-04
 449 (73-341) [l=44 cm][44 def.]
 73, 4.794E-01, 3.811E-01, 8.033E-03, 8.414E-04
 i', 4.794E-01, 3.811E-01, 8.033E-03, 8.414E-04
 j', 4.792E-01, 3.801E-01, 8.033E-03, 8.414E-04
 341, 4.792E-01, 3.801E-01, 8.033E-03, 8.414E-04
 450 (341-74) [l=52 cm][52 def.]
 341, 4.792E-01, 3.801E-01, 8.033E-03, 8.414E-04
 i', 4.792E-01, 3.801E-01, 8.033E-03, 8.414E-04
 j', 4.790E-01, 3.790E-01, 8.033E-03, 8.414E-04
 74, 4.790E-01, 3.790E-01, 8.033E-03, 8.414E-04
 451 (190-255) [l=4 cm][4 def.]
 190, 5.153E-01, 3.656E-01, 8.033E-03, 8.496E-04
 i', 5.153E-01, 3.656E-01, 8.033E-03, 8.496E-04
 j', 5.154E-01, 3.657E-01, 8.033E-03, 8.496E-04
 255, 5.154E-01, 3.657E-01, 8.033E-03, 8.496E-04
 452 (255-191) [l=142 cm][142 def.]
 255, 5.154E-01, 3.657E-01, 8.033E-03, 8.496E-04
 i', 5.154E-01, 3.657E-01, 8.033E-03, 8.496E-04
 j', 5.165E-01, 3.687E-01, 8.033E-03, 8.496E-04
 191, 5.165E-01, 3.687E-01, 8.033E-03, 8.496E-04
 453 (144-257) [l=142 cm][142 def.]
 144, 5.165E-01, 3.666E-01, 8.048E-03, 8.496E-04
 i', 5.165E-01, 3.666E-01, 8.048E-03, 8.496E-04
 j', 5.154E-01, 3.638E-01, 8.048E-03, 8.496E-04
 257, 5.154E-01, 3.638E-01, 8.048E-03, 8.496E-04
 454 (257-145) [l=4 cm][4 def.]
 257, 5.154E-01, 3.638E-01, 8.048E-03, 8.496E-04
 i', 5.154E-01, 3.638E-01, 8.048E-03, 8.496E-04
 j', 5.153E-01, 3.637E-01, 8.048E-03, 8.496E-04
 145, 5.153E-01, 3.637E-01, 8.048E-03, 8.496E-04
 455 (134-258) [l=252 cm][252 def.]
 134, 5.156E-01, 3.662E-01, 8.033E-03, 8.496E-04
 i', 5.156E-01, 3.662E-01, 8.033E-03, 8.496E-04
 j', 5.146E-01, 3.626E-01, 8.033E-03, 8.496E-04
 258, 5.146E-01, 3.626E-01, 8.033E-03, 8.496E-04
 456 (258-136) [l=57 cm][57 def.]
 258, 5.146E-01, 3.626E-01, 8.033E-03, 8.496E-04
 i', 5.146E-01, 3.626E-01, 8.033E-03, 8.496E-04
 j', 5.144E-01, 3.625E-01, 8.033E-03, 8.496E-04
 136, 5.144E-01, 3.625E-01, 8.033E-03, 8.496E-04
 457 (199-260) [l=57 cm][57 def.]
 199, 5.144E-01, 3.611E-01, 8.048E-03, 8.496E-04
 i', 5.144E-01, 3.611E-01, 8.048E-03, 8.496E-04
 j', 5.146E-01, 3.613E-01, 8.047E-03, 8.496E-04
 260, 5.146E-01, 3.613E-01, 8.047E-03, 8.496E-04
 458 (260-198) [l=252 cm][252 def.]

260, 5.146E-01, 3.613E-01, 8.047E-03, 8.496E-04
 i', 5.146E-01, 3.613E-01, 8.047E-03, 8.496E-04
 j', 5.156E-01, 3.653E-01, 8.047E-03, 8.496E-04
 198, 5.156E-01, 3.653E-01, 8.047E-03, 8.496E-04
 459 (135-261) [l=273 cm][273 def.]
 135, 5.168E-01, 3.727E-01, 8.034E-03, 8.496E-04
 i', 5.168E-01, 3.727E-01, 8.034E-03, 8.496E-04
 j', 5.157E-01, 3.669E-01, 8.033E-03, 8.496E-04
 261, 5.157E-01, 3.669E-01, 8.033E-03, 8.496E-04
 460 (261-134) [l=36 cm][36 def.]
 261, 5.157E-01, 3.669E-01, 8.033E-03, 8.496E-04
 i', 5.157E-01, 3.669E-01, 8.033E-03, 8.496E-04
 j', 5.156E-01, 3.662E-01, 8.033E-03, 8.496E-04
 134, 5.156E-01, 3.662E-01, 8.033E-03, 8.496E-04
 461 (198-263) [l=36 cm][36 def.]
 198, 5.156E-01, 3.653E-01, 8.047E-03, 8.496E-04
 i', 5.156E-01, 3.653E-01, 8.047E-03, 8.496E-04
 j', 5.157E-01, 3.661E-01, 8.047E-03, 8.496E-04
 263, 5.157E-01, 3.661E-01, 8.047E-03, 8.496E-04
 462 (263-148) [l=273 cm][273 def.]
 263, 5.157E-01, 3.661E-01, 8.047E-03, 8.496E-04
 i', 5.157E-01, 3.661E-01, 8.047E-03, 8.496E-04
 j', 5.168E-01, 3.725E-01, 8.047E-03, 8.496E-04
 148, 5.168E-01, 3.725E-01, 8.047E-03, 8.496E-04
 463 (151-264) [l=223 cm][223 def.]
 151, 5.178E-01, 3.780E-01, 8.034E-03, 8.496E-04
 i', 5.178E-01, 3.780E-01, 8.034E-03, 8.496E-04
 j', 5.169E-01, 3.731E-01, 8.034E-03, 8.496E-04
 264, 5.169E-01, 3.731E-01, 8.034E-03, 8.496E-04
 464 (264-135) [l=15 cm][15 def.]
 264, 5.169E-01, 3.731E-01, 8.034E-03, 8.496E-04
 i', 5.169E-01, 3.731E-01, 8.034E-03, 8.496E-04
 j', 5.168E-01, 3.727E-01, 8.034E-03, 8.496E-04
 135, 5.168E-01, 3.727E-01, 8.034E-03, 8.496E-04
 465 (148-266) [l=15 cm][15 def.]
 148, 5.168E-01, 3.725E-01, 8.047E-03, 8.496E-04
 i', 5.168E-01, 3.725E-01, 8.047E-03, 8.496E-04
 j', 5.169E-01, 3.729E-01, 8.047E-03, 8.496E-04
 266, 5.169E-01, 3.729E-01, 8.047E-03, 8.496E-04
 466 (266-147) [l=127 cm][127 def.]
 266, 5.169E-01, 3.729E-01, 8.047E-03, 8.496E-04
 i', 5.169E-01, 3.729E-01, 8.047E-03, 8.496E-04
 j', 5.174E-01, 3.760E-01, 8.046E-03, 8.496E-04
 147, 5.174E-01, 3.760E-01, 8.046E-03, 8.496E-04
 467 (162-267) [l=30 cm][30 def.]
 162, 5.194E-01, 3.877E-01, 8.045E-03, 8.496E-04
 i', 5.194E-01, 3.877E-01, 8.045E-03, 8.496E-04
 j', 5.195E-01, 3.884E-01, 8.045E-03, 8.496E-04
 267, 5.195E-01, 3.884E-01, 8.045E-03, 8.496E-04
 468 (267-161) [l=136 cm][136 def.]
 267, 5.195E-01, 3.884E-01, 8.045E-03, 8.496E-04
 i', 5.195E-01, 3.884E-01, 8.045E-03, 8.496E-04
 j', 5.201E-01, 3.919E-01, 8.045E-03, 8.496E-04
 161, 5.201E-01, 3.919E-01, 8.045E-03, 8.496E-04
 469 (156-269) [l=28 cm][28 def.]
 156, 5.197E-01, 3.878E-01, 8.035E-03, 8.496E-04
 i', 5.197E-01, 3.878E-01, 8.035E-03, 8.496E-04
 j', 5.195E-01, 3.871E-01, 8.035E-03, 8.496E-04
 269, 5.195E-01, 3.871E-01, 8.035E-03, 8.496E-04
 470 (269-193) [l=68 cm][68 def.]
 269, 5.195E-01, 3.871E-01, 8.035E-03, 8.496E-04
 i', 5.195E-01, 3.871E-01, 8.035E-03, 8.496E-04
 j', 5.193E-01, 3.856E-01, 8.035E-03, 8.496E-04
 193, 5.193E-01, 3.856E-01, 8.035E-03, 8.496E-04
 471 (163-270) [l=3 cm][3 def.]
 163, 5.208E-01, 3.960E-01, 8.044E-03, 8.496E-04
 i', 5.208E-01, 3.960E-01, 8.044E-03, 8.496E-04
 j', 5.208E-01, 3.961E-01, 8.044E-03, 8.496E-04
 270, 5.208E-01, 3.961E-01, 8.044E-03, 8.496E-04
 472 (270-208) [l=108 cm][108 def.]
 270, 5.208E-01, 3.961E-01, 8.044E-03, 8.496E-04
 i', 5.208E-01, 3.961E-01, 8.044E-03, 8.496E-04
 j', 5.213E-01, 3.988E-01, 8.043E-03, 8.496E-04
 208, 5.213E-01, 3.988E-01, 8.043E-03, 8.496E-04
 473 (155-272) [l=35 cm][35 def.]
 155, 5.210E-01, 3.949E-01, 8.036E-03, 8.496E-04
 i', 5.210E-01, 3.949E-01, 8.036E-03, 8.496E-04
 j', 5.208E-01, 3.941E-01, 8.036E-03, 8.496E-04
 272, 5.208E-01, 3.941E-01, 8.036E-03, 8.496E-04
 474 (272-154) [l=121 cm][121 def.]
 272, 5.208E-01, 3.941E-01, 8.036E-03, 8.496E-04
 i', 5.208E-01, 3.941E-01, 8.036E-03, 8.496E-04
 j', 5.203E-01, 3.913E-01, 8.035E-03, 8.496E-04
 154, 5.203E-01, 3.913E-01, 8.035E-03, 8.496E-04
 475 (176-311) [l=416 cm][416 def.]
 176, 6.013E-02, 3.977E-01, 8.611E-02, 8.496E-04

i', 6.013E-02, 3.977E-01, 8.611E-02, 8.496E-04
 j', 5.890E-02, 1.965E-01, 8.588E-02, 8.496E-04
 311, 5.890E-02, 1.965E-01, 8.588E-02, 8.496E-04
 476 (311-167) [l=416 cm][416 def.]
 311, 5.890E-02, 1.965E-01, 8.588E-02, 8.496E-04
 i', 5.890E-02, 1.965E-01, 8.588E-02, 8.496E-04
 j', 5.971E-02, 4.033E-01, 8.611E-02, 8.496E-04
 167, 5.971E-02, 4.033E-01, 8.611E-02, 8.496E-04
 477 (242-312) [l=416 cm][416 def.]
 242, 6.013E-02, 3.912E-01, 8.611E-02, 8.496E-04
 i', 6.013E-02, 3.912E-01, 8.611E-02, 8.496E-04
 j', 5.890E-02, 1.620E-01, 8.590E-02, 8.496E-04
 312, 5.890E-02, 1.620E-01, 8.590E-02, 8.496E-04
 478 (312-240) [l=416 cm][416 def.]
 312, 5.890E-02, 1.620E-01, 8.590E-02, 8.496E-04
 i', 5.890E-02, 1.620E-01, 8.590E-02, 8.496E-04
 j', 5.971E-02, 3.961E-01, 8.611E-02, 8.496E-04
 240, 5.971E-02, 3.961E-01, 8.611E-02, 8.496E-04
 479 (245-313) [l=416 cm][416 def.]
 245, 6.013E-02, 3.840E-01, 8.611E-02, 8.496E-04
 i', 6.013E-02, 3.840E-01, 8.611E-02, 8.496E-04
 j', 5.890E-02, 1.296E-01, 8.592E-02, 8.496E-04
 313, 5.890E-02, 1.296E-01, 8.592E-02, 8.496E-04
 480 (313-243) [l=416 cm][416 def.]
 313, 5.890E-02, 1.296E-01, 8.592E-02, 8.496E-04
 i', 5.890E-02, 1.296E-01, 8.592E-02, 8.496E-04
 j', 5.971E-02, 3.881E-01, 8.611E-02, 8.496E-04
 243, 5.971E-02, 3.881E-01, 8.611E-02, 8.496E-04
 481 (257-314) [l=416 cm][416 def.]
 257, 6.013E-02, 3.638E-01, 8.610E-02, 8.496E-04
 i', 6.013E-02, 3.638E-01, 8.610E-02, 8.496E-04
 j', 5.890E-02, 2.978E-02, 8.598E-02, 8.496E-04
 314, 5.890E-02, 2.978E-02, 8.598E-02, 8.496E-04
 482 (314-255) [l=416 cm][416 def.]
 314, 5.890E-02, 2.978E-02, 8.598E-02, 8.496E-04
 i', 5.890E-02, 2.978E-02, 8.598E-02, 8.496E-04
 j', 5.971E-02, 3.657E-01, 8.610E-02, 8.496E-04
 255, 5.971E-02, 3.657E-01, 8.610E-02, 8.496E-04
 483 (260-315) [l=416 cm][416 def.]
 260, 6.013E-02, 3.613E-01, 8.610E-02, 8.496E-04
 i', 6.013E-02, 3.613E-01, 8.610E-02, 8.496E-04
 j', 5.890E-02, 2.326E-02, 8.600E-02, 8.496E-04
 315, 5.890E-02, 2.326E-02, 8.600E-02, 8.496E-04
 484 (315-258) [l=416 cm][416 def.]
 315, 5.890E-02, 2.326E-02, 8.600E-02, 8.496E-04
 i', 5.890E-02, 2.326E-02, 8.600E-02, 8.496E-04
 j', 5.971E-02, 3.626E-01, 8.610E-02, 8.496E-04
 258, 5.971E-02, 3.626E-01, 8.610E-02, 8.496E-04
 485 (263-318) [l=416 cm][416 def.]
 263, 6.013E-02, 3.661E-01, 8.610E-02, 8.496E-04
 i', 6.013E-02, 3.661E-01, 8.610E-02, 8.496E-04
 j', 5.890E-02, 5.038E-02, 8.601E-02, 8.496E-04
 318, 5.890E-02, 5.038E-02, 8.601E-02, 8.496E-04
 486 (318-261) [l=416 cm][416 def.]
 318, 5.890E-02, 5.038E-02, 8.601E-02, 8.496E-04
 i', 5.890E-02, 5.038E-02, 8.601E-02, 8.496E-04
 j', 5.971E-02, 3.669E-01, 8.610E-02, 8.496E-04
 261, 5.971E-02, 3.669E-01, 8.610E-02, 8.496E-04
 487 (267-316) [l=416 cm][416 def.]
 267, 6.013E-02, 3.884E-01, 8.609E-02, 8.496E-04
 i', 6.013E-02, 3.884E-01, 8.609E-02, 8.496E-04
 j', 5.890E-02, 1.454E-01, 8.606E-02, 8.496E-04
 316, 5.890E-02, 1.454E-01, 8.606E-02, 8.496E-04
 488 (316-269) [l=416 cm][416 def.]
 316, 5.890E-02, 1.454E-01, 8.606E-02, 8.496E-04
 i', 5.890E-02, 1.454E-01, 8.606E-02, 8.496E-04
 j', 5.971E-02, 3.871E-01, 8.609E-02, 8.496E-04
 269, 5.971E-02, 3.871E-01, 8.609E-02, 8.496E-04
 489 (270-317) [l=416 cm][416 def.]
 270, 6.013E-02, 3.961E-01, 8.609E-02, 8.496E-04
 i', 6.013E-02, 3.961E-01, 8.609E-02, 8.496E-04
 j', 5.890E-02, 1.772E-01, 8.607E-02, 8.496E-04
 317, 5.890E-02, 1.772E-01, 8.607E-02, 8.496E-04
 490 (317-272) [l=416 cm][416 def.]
 317, 5.890E-02, 1.772E-01, 8.607E-02, 8.496E-04
 i', 5.890E-02, 1.772E-01, 8.607E-02, 8.496E-04
 j', 5.971E-02, 3.941E-01, 8.609E-02, 8.496E-04
 272, 5.971E-02, 3.941E-01, 8.609E-02, 8.496E-04
 491 (109-342) [l=224 cm][224 def.]
 109, 6.440E-02, 1.575E-01, 8.609E-02, 3.214E-03
 i', 6.440E-02, 1.575E-01, 8.609E-02, 3.214E-03
 j', 6.924E-02, 2.869E-01, 8.609E-02, 3.214E-03
 342, 6.924E-02, 2.869E-01, 8.609E-02, 3.214E-03
 492 (110-342) [l=448 cm][448 def.]
 110, 6.013E-02, 1.914E-01, 8.609E-02, 3.214E-03
 i', 6.013E-02, 1.914E-01, 8.609E-02, 3.214E-03

j', 6.924E-02, 2.870E-01, 8.609E-02, 3.216E-03
 342, 6.924E-02, 2.870E-01, 8.609E-02, 3.216E-03
 493 (342-111) [l=0 cm][0 def.]
 342, 6.924E-02, 3.360E-01, 8.609E-02, 3.808E-03
 i', 6.924E-02, 3.360E-01, 8.609E-02, 3.808E-03
 j', 6.925E-02, 3.363E-01, 8.609E-02, 3.808E-03
 111, 6.925E-02, 3.363E-01, 8.609E-02, 3.808E-03
 494 (149-284) [l=52 cm][52 def.]
 149, 5.180E-01, 3.795E-01, 8.046E-03, 8.496E-04
 i', 5.180E-01, 3.795E-01, 8.046E-03, 8.496E-04
 j', 5.182E-01, 3.808E-01, 8.046E-03, 8.496E-04
 284, 5.182E-01, 3.808E-01, 8.046E-03, 8.496E-04
 495 (284-206) [l=112 cm][112 def.]
 284, 5.182E-01, 3.808E-01, 8.046E-03, 8.496E-04
 i', 5.182E-01, 3.808E-01, 8.046E-03, 8.496E-04
 j', 5.187E-01, 3.836E-01, 8.046E-03, 8.496E-04
 206, 5.187E-01, 3.836E-01, 8.046E-03, 8.496E-04
 496 (325-239) [l=52 cm][52 def.]
 325, 0.000E+00, 3.688E-01, 8.438E-03, 0.000E+00
 i', 0.000E+00, 3.688E-01, 8.438E-03, 0.000E+00
 j', 0.000E+00, 3.705E-01, 8.439E-03, 0.000E+00
 239, 0.000E+00, 3.705E-01, 8.439E-03, 0.000E+00
 497 (239-44) [l=112 cm][112 def.]
 239, 0.000E+00, 3.705E-01, 8.439E-03, 0.000E+00
 i', 0.000E+00, 3.705E-01, 8.439E-03, 0.000E+00
 j', 0.000E+00, 3.740E-01, 8.439E-03, 0.000E+00
 44, 0.000E+00, 3.740E-01, 8.439E-03, 0.000E+00
 498 (72-238) [l=44 cm][44 def.]
 72, 0.000E+00, 3.701E-01, 8.374E-03, 0.000E+00
 i', 0.000E+00, 3.701E-01, 8.374E-03, 0.000E+00
 j', 0.000E+00, 3.689E-01, 8.374E-03, 0.000E+00
 238, 0.000E+00, 3.689E-01, 8.374E-03, 0.000E+00
 499 (238-328) [l=52 cm][52 def.]
 238, 0.000E+00, 3.689E-01, 8.374E-03, 0.000E+00
 i', 0.000E+00, 3.689E-01, 8.374E-03, 0.000E+00
 j', 0.000E+00, 3.676E-01, 8.373E-03, 0.000E+00
 328, 0.000E+00, 3.676E-01, 8.373E-03, 0.000E+00
 500 (133-343) [l=0 cm][0 def.]
 133, 5.176E-01, 3.721E-01, 8.033E-03, 8.496E-04
 i', 5.176E-01, 3.721E-01, 8.033E-03, 8.496E-04
 j', 5.176E-01, 3.721E-01, 8.033E-03, 8.496E-04
 343, 5.176E-01, 3.721E-01, 8.033E-03, 8.496E-04
 501 (343-132) [l=167 cm][167 def.]
 343, 5.176E-01, 3.721E-01, 8.033E-03, 8.496E-04
 i', 5.176E-01, 3.721E-01, 8.033E-03, 8.496E-04
 j', 5.190E-01, 3.761E-01, 8.033E-03, 8.496E-04
 132, 5.190E-01, 3.761E-01, 8.033E-03, 8.496E-04
 502 (152-345) [l=140 cm][140 def.]
 152, 5.188E-01, 3.834E-01, 8.034E-03, 8.496E-04
 i', 5.188E-01, 3.834E-01, 8.034E-03, 8.496E-04
 j', 5.182E-01, 3.802E-01, 8.034E-03, 8.496E-04
 345, 5.182E-01, 3.802E-01, 8.034E-03, 8.496E-04
 503 (345-151) [l=97 cm][97 def.]
 345, 5.182E-01, 3.802E-01, 8.034E-03, 8.496E-04
 i', 5.182E-01, 3.802E-01, 8.034E-03, 8.496E-04
 j', 5.178E-01, 3.780E-01, 8.034E-03, 8.496E-04
 151, 5.178E-01, 3.780E-01, 8.034E-03, 8.496E-04
 504 (292-232) [l=360 cm][360 def.]
 292, 5.844E-01, 6.961E-02, 1.081E-02, 8.846E-02
 i', 5.844E-01, 6.961E-02, 1.081E-02, 8.846E-02
 j', 2.669E-01, 3.098E-02, 1.081E-02, 8.846E-02
 232, 2.669E-01, 3.098E-02, 1.081E-02, 8.846E-02
 505 (294-234) [l=410 cm][410 def.]
 294, 6.287E-01, 7.617E-02, 1.160E-02, 8.852E-02
 i', 6.287E-01, 7.617E-02, 1.160E-02, 8.852E-02
 j', 2.667E-01, 2.862E-02, 1.160E-02, 8.852E-02
 234, 2.667E-01, 2.862E-02, 1.160E-02, 8.852E-02
 506 (296-235) [l=410 cm][410 def.]
 296, 6.287E-01, 7.649E-02, 1.182E-02, 8.852E-02
 i', 6.287E-01, 7.649E-02, 1.182E-02, 8.852E-02
 j', 2.668E-01, 2.802E-02, 1.182E-02, 8.852E-02
 235, 2.668E-01, 2.802E-02, 1.182E-02, 8.852E-02
 507 (298-236) [l=360 cm][360 def.]
 298, 5.844E-01, 7.032E-02, 1.124E-02, 8.846E-02
 i', 5.844E-01, 7.032E-02, 1.124E-02, 8.846E-02
 j', 2.669E-01, 2.994E-02, 1.124E-02, 8.846E-02
 236, 2.669E-01, 2.994E-02, 1.124E-02, 8.846E-02
 508 (300-250) [l=360 cm][360 def.]
 300, 5.849E-01, 7.029E-02, 1.122E-02, 8.840E-02
 i', 5.849E-01, 7.029E-02, 1.122E-02, 8.840E-02
 j', 2.684E-01, 2.998E-02, 1.122E-02, 8.840E-02
 250, 2.684E-01, 2.998E-02, 1.122E-02, 8.840E-02
 509 (302-249) [l=410 cm][410 def.]
 302, 6.291E-01, 7.646E-02, 1.180E-02, 8.844E-02
 i', 6.291E-01, 7.646E-02, 1.180E-02, 8.844E-02
 j', 2.682E-01, 2.807E-02, 1.180E-02, 8.844E-02

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249, 2.682E-01, 2.807E-02, 1.180E-02, 8.844E-02
510 (304-251) [l=410 cm][410 def.]
304, 6.291E-01, 7.613E-02, 1.158E-02, 8.845E-02
i', 6.291E-01, 7.613E-02, 1.158E-02, 8.845E-02
j', 2.682E-01, 2.866E-02, 1.158E-02, 8.845E-02
251, 2.682E-01, 2.866E-02, 1.158E-02, 8.845E-02
511 (306-252) [l=360 cm][360 def.]
306, 5.849E-01, 6.959E-02, 1.079E-02, 8.842E-02
i', 5.849E-01, 6.959E-02, 1.079E-02, 8.842E-02
j', 2.684E-01, 3.101E-02, 1.079E-02, 8.842E-02
252, 2.684E-01, 3.101E-02, 1.079E-02, 8.842E-02

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--> Reazioni Vincolari (RX, RY, RZ, MX, MY, MZ) [kN, kN m]

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1, 0.88, 25.83, 8.55, 0.00, 0.00, 0.06
2, 0.78, 26.96, 0.00, 0.00, 0.00, 0.06
3, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
4, 0.93, 0.73, 0.00, 0.00, 0.00, 0.00
5, 0.80, 27.09, 10.02, 0.00, 0.00, 0.06
6, 0.70, 28.14, 0.00, 0.00, 0.00, 0.06
7, 0.94, 0.64, 0.00, 0.00, 0.00, 0.00
8, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
9, 8.33, 0.83, 6.14, 0.00, 0.00, 0.03
10, 8.33, 0.83, 0.00, 0.00, 0.00, 0.03
11, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
12, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
13, 11.06, 0.63, 11.10, 0.00, 0.00, 0.04
14, 11.06, 0.63, 0.00, 0.00, 0.00, 0.04
15, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
16, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
17, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
18, 5.95, 0.61, 11.71, 0.00, 0.00, 0.03
19, 3.56, 3.68, 0.00, 0.00, 0.00, 0.05
20, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
21, 15.39, 1.70, 13.84, 0.00, 0.00, 0.06
22, 11.58, 3.98, 0.00, 0.00, 0.00, 0.09
23, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
24, 0.16, 5.88, 0.00, 0.00, 0.00, 0.00
25, 0.36, 0.29, 2.12, 0.00, 0.00, 0.01
26, 0.36, 0.29, 0.00, 0.00, 0.00, 0.01
27, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
28, 0.28, 0.21, 3.66, 0.00, 0.00, 0.00
29, 0.28, 0.21, 0.00, 0.00, 0.00, 0.00
30, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
31, 0.02, 0.09, 0.00, 0.00, 0.00, 0.00
32, 17.37, 1.17, 18.76, 0.00, 0.00, 0.06
33, 13.89, 2.05, 0.00, 0.00, 0.00, 0.08
34, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
35, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
36, 39.17, 3.00, 23.58, 0.00, 0.00, 0.13
37, 31.98, 3.14, 0.00, 0.00, 0.00, 0.18
38, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
39, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
40, 0.05, 6.28, 0.00, 0.00, 0.00, 0.00
41, 0.37, 0.28, 2.10, 0.00, 0.00, 0.01
42, 0.37, 0.28, 0.00, 0.00, 0.00, 0.01
43, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
44, 15.16, 1.25, 18.64, 0.00, 0.00, 0.06
45, 11.40, 3.66, 0.00, 0.00, 0.00, 0.09
46, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
47, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
48, 20.33, 1.29, 15.15, 0.00, 0.00, 0.07
49, 20.33, 1.29, 0.00, 0.00, 0.00, 0.07
50, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
51, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
52, 7.05, 0.74, 5.21, 0.00, 0.00, 0.03
53, 5.57, 2.77, 0.00, 0.00, 0.00, 0.03
54, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
55, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
56, 6.93, 0.73, 4.68, 0.00, 0.00, 0.02
57, 6.93, 0.73, 0.00, 0.00, 0.00, 0.02
58, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
59, 3.65, 0.32, 3.46, 0.00, 0.00, 0.01
60, 3.65, 0.32, 0.00, 0.00, 0.00, 0.01
61, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
62, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
63, 4.47, 0.32, 4.34, 0.00, 0.00, 0.01
64, 4.47, 0.32, 0.00, 0.00, 0.00, 0.01
65, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
66, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
67, 10.87, 0.77, 12.57, 0.00, 0.00, 0.04
68, 10.87, 0.77, 0.00, 0.00, 0.00, 0.04
69, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
70, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
71, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
72, 5.84, 0.76, 12.34, 0.00, 0.00, 0.03

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73, 5.84, 0.76, 0.00, 0.00, 0.00, 0.03
74, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
75, 0.36, 0.29, 2.16, 0.00, 0.00, 0.01
76, 0.36, 0.29, 0.00, 0.00, 0.00, 0.01
77, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
78, 0.05, 5.40, 0.00, 0.00, 0.00, 0.00
79, 38.32, 3.03, 23.98, 0.00, 0.00, 0.13
80, 31.37, 4.10, 0.00, 0.00, 0.00, 0.18
81, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
82, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
83, 17.18, 1.17, 19.06, 0.00, 0.00, 0.06
84, 13.78, 1.64, 0.00, 0.00, 0.00, 0.08
85, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
86, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
87, 0.02, 0.09, 0.00, 0.00, 0.00, 0.00
88, 0.27, 0.21, 3.74, 0.00, 0.00, 0.00
89, 0.27, 0.21, 0.00, 0.00, 0.00, 0.00
90, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
91, 0.35, 0.29, 2.21, 0.00, 0.00, 0.01
92, 0.35, 0.29, 0.00, 0.00, 0.00, 0.01
93, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
94, 0.14, 5.14, 0.00, 0.00, 0.00, 0.00
95, 14.75, 1.72, 13.78, 0.00, 0.00, 0.06
96, 11.05, 3.45, 0.00, 0.00, 0.00, 0.09
97, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
98, 6.03, 0.44, 11.50, 0.00, 0.00, 0.03
99, 3.89, 3.50, 0.00, 0.00, 0.00, 0.05
100, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
101, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
102, 6.03, 0.47, 12.96, 0.00, 0.00, 0.03
103, 6.03, 0.47, 0.00, 0.00, 0.00, 0.03
104, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
105, 4.29, 0.78, 5.29, 0.00, 0.00, 0.03
106, 4.29, 0.78, 0.00, 0.00, 0.00, 0.03
107, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
108, 0.55, 25.44, 9.64, 0.00, 0.00, 0.06
109, 122.36, 34.30, 0.00, 28.54, 101.81, 423.78
110, 204.86, 11.11, 0.00, 0.00, 0.00, 489.45
111, 15.12, 10.04, 0.00, 16.71, 25.16, 193.91
112, 0.44, 26.47, 5.62, 0.00, 0.00, 0.02
113, 0.07, 1.85, 0.00, 1.11, 0.04, 0.38
114, 0.36, 16.34, 0.00, 9.80, 0.22, 0.39
115, 0.00, 6.60, 0.00, 3.96, 0.00, 0.00
116, 0.48, 28.81, 5.73, 0.00, 0.00, 0.03
117, 0.07, 2.33, 0.00, 1.40, 0.04, 0.44
118, 0.00, 6.93, 0.00, 4.16, 0.00, 0.00
119, 0.39, 18.31, 0.00, 10.99, 0.23, 0.45
120, 0.45, 25.70, 5.28, 0.00, 0.00, 0.02
121, 0.07, 2.54, 0.00, 1.53, 0.04, 0.18
122, 0.11, 16.55, 0.00, 9.93, 0.07, 0.12
123, 0.02, 6.45, 0.00, 3.87, 0.01, 0.28
124, 0.48, 28.15, 5.54, 0.00, 0.00, 0.03
125, 0.07, 3.20, 0.00, 1.92, 0.04, 0.17
126, 0.02, 6.72, 0.00, 4.03, 0.01, 0.30
127, 0.13, 18.77, 0.00, 11.26, 0.08, 0.15
128, 4.34, 5.14, 0.00, 0.00, 0.00, 0.05
129, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
130, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
131, 0.55, 0.52, 0.00, 0.00, 0.00, 0.01
132, 0.55, 0.52, 0.00, 0.00, 0.00, 0.01
133, 1.07, 0.01, 0.00, 0.00, 0.00, 13.68
134, 8.15, 2.44, 0.00, 0.00, 0.00, 0.11
135, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
136, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
137, 2.49, 4.28, 0.00, 0.00, 0.00, 0.03
138, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
139, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
140, 0.54, 0.58, 0.00, 0.00, 0.00, 0.01
141, 0.54, 0.58, 0.00, 0.00, 0.00, 0.01
142, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
143, 0.00, 0.91, 0.00, 0.00, 0.00, 0.00
144, 3.83, 3.16, 0.00, 0.00, 0.00, 0.05
145, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
146, 3.71, 1.31, 0.00, 0.00, 0.00, 0.04
147, 3.71, 1.31, 0.00, 0.00, 0.00, 0.04
148, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
149, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
150, 0.77, 0.43, 0.00, 0.00, 0.00, 0.01
151, 0.77, 0.43, 0.00, 0.00, 0.00, 0.01
152, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
153, 4.09, 4.08, 0.00, 0.00, 0.00, 0.05
154, 4.09, 4.08, 0.00, 0.00, 0.00, 0.05
155, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
156, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
157, 0.52, 0.64, 0.00, 0.00, 0.00, 0.01
158, 0.52, 0.64, 0.00, 0.00, 0.00, 0.01

159,	205.03,	6.56,	0.00,	0.00,	0.00,	489.90
160,	4.36,	3.55,	0.00,	0.00,	0.00,	0.05
161,	4.36,	3.55,	0.00,	0.00,	0.00,	0.05
162,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
163,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
164,	0.31,	0.54,	0.00,	0.00,	0.00,	0.00
165,	0.31,	0.54,	0.00,	0.00,	0.00,	0.00
166,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
167,	0.00,	3.08,	0.00,	0.00,	0.00,	0.00
168,	0.37,	0.69,	0.00,	0.00,	0.00,	0.00
169,	0.37,	0.69,	0.00,	0.00,	0.00,	0.00
170,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
171,	0.26,	0.52,	0.00,	0.00,	0.00,	0.00
172,	0.26,	0.52,	0.00,	0.00,	0.00,	0.00
173,	0.01,	3.37,	0.00,	0.00,	0.00,	0.03
174,	0.31,	0.58,	0.00,	0.00,	0.00,	0.00
175,	0.31,	0.58,	0.00,	0.00,	0.00,	0.00
176,	0.00,	3.08,	0.00,	0.00,	0.00,	0.00
177,	0.36,	0.74,	0.00,	0.00,	0.00,	0.00
178,	0.36,	0.74,	0.00,	0.00,	0.00,	0.00
179,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
180,	0.25,	0.56,	0.00,	0.00,	0.00,	0.00
181,	0.25,	0.56,	0.00,	0.00,	0.00,	0.00
182,	0.01,	3.27,	0.00,	0.00,	0.00,	0.03
183,	0.10,	3.79,	0.00,	2.30,	0.06,	0.02
184,	0.01,	0.93,	0.00,	1.13,	0.01,	0.02
185,	0.05,	0.75,	0.00,	1.25,	0.08,	0.04
186,	0.01,	0.96,	0.00,	1.17,	0.01,	0.02
187,	0.10,	3.64,	0.00,	2.21,	0.06,	0.02
188,	2.97,	1.54,	0.00,	0.00,	0.00,	0.03
189,	2.97,	1.54,	0.00,	0.00,	0.00,	0.03
190,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
191,	3.85,	2.73,	0.00,	0.00,	0.00,	0.05
192,	2.51,	2.05,	0.00,	0.00,	0.00,	0.03
193,	2.51,	2.05,	0.00,	0.00,	0.00,	0.03
194,	2.99,	4.18,	0.00,	0.00,	0.00,	0.03
195,	2.99,	4.18,	0.00,	0.00,	0.00,	0.03
196,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
197,	2.52,	3.94,	0.00,	0.00,	0.00,	0.03
198,	8.12,	2.47,	0.00,	0.00,	0.00,	0.11
199,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
200,	2.95,	1.86,	0.00,	0.00,	0.00,	0.03
201,	2.95,	1.86,	0.00,	0.00,	0.00,	0.03
202,	4.30,	5.67,	0.00,	0.00,	0.00,	0.05
203,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
204,	2.96,	4.57,	0.00,	0.00,	0.00,	0.03
205,	2.96,	4.57,	0.00,	0.00,	0.00,	0.03
206,	4.30,	2.47,	0.00,	0.00,	0.00,	0.05
207,	2.92,	2.98,	0.00,	0.00,	0.00,	0.03
208,	2.92,	2.98,	0.00,	0.00,	0.00,	0.03
209,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
210,	1.73,	2.04,	0.00,	0.00,	0.00,	0.02
211,	0.55,	25.44,	8.81,	0.00,	0.00,	0.06
212,	121.82,	31.71,	0.00,	26.38,	101.36,	424.24
213,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
214,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
215,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
216,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
217,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
218,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
219,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
220,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
221,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
222,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
223,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
224,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
225,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
226,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
227,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
228,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
229,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
230,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
231,	0.03,	0.00,	0.00,	0.00,	0.06,	0.00
232,	0.01,	0.04,	0.00,	0.11,	0.03,	0.04
233,	0.01,	0.03,	0.00,	0.08,	0.03,	0.03
234,	0.01,	0.03,	0.00,	0.08,	0.02,	0.01
235,	0.01,	0.03,	0.00,	0.08,	0.02,	0.01
236,	0.01,	0.04,	0.00,	0.09,	0.02,	0.03
237,	0.01,	0.04,	0.00,	0.09,	0.02,	0.02
238,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
239,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
240,	0.00,	2.41,	0.00,	0.00,	0.00,	0.00
241,	0.04,	0.00,	0.00,	0.00,	0.07,	0.00
242,	0.00,	2.41,	0.00,	0.00,	0.00,	0.00
243,	0.00,	1.82,	0.00,	0.00,	0.00,	0.00
244,	0.05,	0.00,	0.00,	0.00,	0.09,	0.00

245,	0.00,	1.82,	0.00,	0.00,	0.00,	0.00
246,	0.00,	0.99,	0.00,	0.00,	0.00,	0.00
247,	0.04,	0.00,	0.00,	0.00,	0.06,	0.00
248,	0.00,	0.99,	0.00,	0.00,	0.00,	0.00
249,	0.01,	0.03,	0.00,	0.08,	0.02,	0.01
250,	0.01,	0.05,	0.00,	0.11,	0.02,	0.03
251,	0.01,	0.04,	0.00,	0.09,	0.02,	0.01
252,	0.01,	0.05,	0.00,	0.12,	0.03,	0.04
253,	0.01,	0.04,	0.00,	0.09,	0.02,	0.02
254,	0.01,	0.04,	0.00,	0.08,	0.03,	0.03
255,	0.00,	0.22,	0.00,	0.00,	0.00,	0.00
256,	0.02,	0.00,	0.00,	0.00,	0.04,	0.00
257,	0.00,	0.22,	0.00,	0.00,	0.00,	0.00
258,	0.00,	0.46,	0.00,	0.00,	0.00,	0.00
259,	0.03,	0.00,	0.00,	0.00,	0.04,	0.00
260,	0.00,	0.46,	0.00,	0.00,	0.00,	0.00
261,	0.00,	1.13,	0.00,	0.00,	0.00,	0.00
262,	0.03,	0.00,	0.00,	0.00,	0.04,	0.00
263,	0.00,	1.13,	0.00,	0.00,	0.00,	0.00
264,	0.00,	0.73,	0.00,	0.00,	0.00,	0.00
265,	0.01,	0.00,	0.00,	0.00,	0.02,	0.00
266,	0.00,	0.73,	0.00,	0.00,	0.00,	0.00
267,	0.00,	2.67,	0.00,	0.00,	0.00,	0.00
268,	0.04,	0.00,	0.00,	0.00,	0.06,	0.00
269,	0.00,	2.67,	0.00,	0.00,	0.00,	0.00
270,	0.00,	3.23,	0.00,	0.00,	0.00,	0.00
271,	0.05,	0.00,	0.00,	0.00,	0.08,	0.00
272,	0.00,	3.23,	0.00,	0.00,	0.00,	0.00
273,	0.02,	0.22,	0.00,	0.37,	0.04,	0.00
274,	0.06,	0.48,	0.00,	0.80,	0.10,	0.00
275,	91.90,	1.18,	0.00,	1.96,	152.92,	0.68
276,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
277,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
278,	0.00,	0.11,	0.00,	0.08,	0.00,	0.00
279,	0.00,	0.21,	0.00,	0.26,	0.00,	0.00
280,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
281,	0.00,	0.05,	0.00,	0.04,	0.00,	0.00
282,	0.00,	0.11,	0.00,	0.13,	0.00,	0.00
283,	0.00,	0.17,	0.00,	0.29,	0.00,	0.00
284,	0.00,	1.94,	0.00,	0.00,	0.00,	0.00
285,	0.00,	0.21,	0.00,	0.16,	0.00,	0.00
286,	0.00,	0.37,	0.00,	0.47,	0.00,	0.00
287,	0.00,	0.37,	0.00,	0.47,	0.00,	0.00
288,	0.00,	0.48,	0.00,	0.80,	0.00,	0.00
289,	0.00,	0.21,	0.00,	0.16,	0.00,	0.00
290,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
291,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
292,	0.01,	0.02,	0.00,	0.03,	0.01,	0.00
293,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
294,	0.01,	0.04,	0.00,	0.06,	0.01,	0.00
295,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
296,	0.01,	0.04,	0.00,	0.06,	0.01,	0.00
297,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
298,	0.01,	0.02,	0.00,	0.03,	0.01,	0.00
299,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
300,	0.01,	0.02,	0.00,	0.03,	0.01,	0.00
301,	0.01,	0.06,	0.00,	0.00,	0.00,	0.00
302,	0.01,	0.04,	0.00,	0.06,	0.01,	0.00
303,	0.01,	0.06,	0.00,	0.00,	0.00,	0.00
304,	0.01,	0.04,	0.00,	0.06,	0.01,	0.00
305,	0.01,	0.05,	0.00,	0.00,	0.00,	0.00
306,	0.01,	0.02,	0.00,	0.03,	0.01,	0.00
311,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
312,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
313,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
314,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
315,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
316,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
317,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
318,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
319,	1.06,	0.67,	0.00,	0.00,	0.00,	13.68
320,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
321,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
322,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
323,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
324,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
325,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
326,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
327,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
328,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
329,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
330,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
331,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
332,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
333,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00
334,	0.00,	0.00,	0.00,	0.00,	0.00,	0.00

335, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 336, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 337, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 338, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 339, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 340, 0.02, 0.09, 0.00, 0.00, 0.00, 0.00
 341, 0.02, 0.10, 0.00, 0.00, 0.00, 0.00
 342, 76.91, 11.22, 0.00, 18.65, 127.83, 192.87
 343, 0.01, 0.01, 0.00, 0.00, 0.00, 0.00
 344, 0.00, 1.94, 0.00, 0.00, 0.00, 0.00
 345, 0.00, 0.00, 0.00, 0.00, 0.00, 0.00
 346, 0.00, 0.53, 0.00, 0.00, 0.00, 0.00
 347, 0.00, 0.53, 0.00, 0.00, 0.00, 0.00
 348, 177.40, 145.79, 0.00, 0.00, 0.00, 400.24
 349, 72.82, 63.02, 0.00, 0.00, 0.00, 191.17

Risultati Analisi Sismica Dinamica Modale - SLU di salvaguardia della Vita (SLV)
 Effetti statici e sismici valutati secondo combinazione del §2.5.3, nella forma:
 Estat ± Esism, dove:
 Esism = E; Estat = G,1 + G,2 + P + Somma(i)[(psi),2i * Q,ki]
 Esism: spostamenti amplificati per (m)d (§7.3.3.3). (m)d=11.000

--> Spostamenti dei Nodi (u=sX, v=sY, w=sZ, fiX, fiY, fiZ) (XYZ=assi globali) [mm, mrad]

1,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.154E+00 ± 3.053E+00,	-1.390E-03 ± 1.006E+00,	-4.113E-02 ±
1.314E-01,	0.000E+00 ± 0.000E+00				
2,	4.304E-02 ± 6.239E-01,	-1.348E-01 ± 5.409E+00,	-7.241E+00 ± 3.076E+00,	2.554E-02 ± 9.710E-01,	5.261E-03 ±
8.839E-02,	-1.477E-04 ± 9.255E-03				
3,	4.327E-02 ± 6.279E-01,	-1.348E-01 ± 5.409E+00,	-7.202E+00 ± 4.543E+00,	2.554E-02 ± 9.710E-01,	5.261E-03 ±
8.839E-02,	-1.477E-04 ± 9.255E-03				
4,	4.282E-02 ± 6.208E-01,	-1.348E-01 ± 5.409E+00,	-7.280E+00 ± 2.242E+00,	2.554E-02 ± 9.710E-01,	5.261E-03 ±
8.839E-02,	-1.477E-04 ± 9.255E-03				
5,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.306E+00 ± 2.967E+00,	6.062E-02 ± 9.983E-01,	-8.072E-04 ±
1.051E-01,	0.000E+00 ± 0.000E+00				
6,	4.226E-02 ± 6.266E-01,	-1.348E-01 ± 5.409E+00,	-7.387E+00 ± 3.005E+00,	3.017E-02 ± 9.707E-01,	5.217E-03 ±
8.847E-02,	-1.477E-04 ± 9.255E-03				
7,	4.248E-02 ± 6.208E-01,	-1.348E-01 ± 5.409E+00,	-7.341E+00 ± 2.222E+00,	3.017E-02 ± 9.707E-01,	5.217E-03 ±
8.847E-02,	-1.477E-04 ± 9.255E-03				
8,	4.204E-02 ± 6.327E-01,	-1.348E-01 ± 5.409E+00,	-7.433E+00 ± 4.472E+00,	3.017E-02 ± 9.707E-01,	5.217E-03 ±
8.847E-02,	-1.477E-04 ± 9.255E-03				
9,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.398E+00 ± 4.429E+00,	6.061E-02 ± 9.983E-01,	-8.094E-04 ±
1.051E-01,	0.000E+00 ± 0.000E+00				
10,	4.204E-02 ± 6.327E-01,	-1.349E-01 ± 5.402E+00,	-7.437E+00 ± 4.452E+00,	3.017E-02 ± 9.707E-01,	5.217E-03 ±
8.848E-02,	-1.477E-04 ± 9.255E-03				
11,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.397E+00 ± 4.389E+00,	6.061E-02 ± 9.983E-01,	-8.095E-04 ±
1.051E-01,	0.000E+00 ± 0.000E+00				
12,	4.204E-02 ± 6.327E-01,	-1.350E-01 ± 5.395E+00,	-7.441E+00 ± 4.432E+00,	3.017E-02 ± 9.707E-01,	5.217E-03 ±
8.848E-02,	-1.477E-04 ± 9.255E-03				
13,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.393E+00 ± 4.255E+00,	4.281E-02 ± 1.085E+00,	-3.620E-03 ±
9.234E-02,	0.000E+00 ± 0.000E+00				
14,	4.204E-02 ± 6.327E-01,	-1.355E-01 ± 5.367E+00,	-7.458E+00 ± 4.352E+00,	3.017E-02 ± 9.707E-01,	5.219E-03 ±
8.848E-02,	-1.477E-04 ± 9.255E-03				
15,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.396E+00 ± 4.286E+00,	4.281E-02 ± 1.085E+00,	-3.620E-03 ±
9.234E-02,	0.000E+00 ± 0.000E+00				
16,	4.204E-02 ± 6.327E-01,	-1.354E-01 ± 5.375E+00,	-7.453E+00 ± 4.376E+00,	3.017E-02 ± 9.707E-01,	5.218E-03 ±
8.848E-02,	-1.477E-04 ± 9.255E-03				
17,	4.204E-02 ± 6.327E-01,	-1.356E-01 ± 5.358E+00,	-7.463E+00 ± 4.329E+00,	3.017E-02 ± 9.707E-01,	5.220E-03 ±
8.848E-02,	-1.477E-04 ± 9.255E-03				
18,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.386E+00 ± 4.192E+00,	4.280E-02 ± 1.085E+00,	-3.671E-03 ±
9.234E-02,	0.000E+00 ± 0.000E+00				
19,	4.204E-02 ± 6.327E-01,	-1.358E-01 ± 5.350E+00,	-7.468E+00 ± 4.305E+00,	3.018E-02 ± 9.707E-01,	5.222E-03 ±
8.848E-02,	-1.477E-04 ± 9.255E-03				
20,	4.204E-02 ± 6.327E-01,	-1.359E-01 ± 5.341E+00,	-7.473E+00 ± 4.281E+00,	3.018E-02 ± 9.707E-01,	5.223E-03 ±
8.848E-02,	-1.477E-04 ± 9.255E-03				
21,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.385E+00 ± 4.101E+00,	4.527E-02 ± 9.501E-01,	-7.736E-04 ±
9.176E-02,	0.000E+00 ± 0.000E+00				
22,	4.204E-02 ± 6.327E-01,	-1.365E-01 ± 5.307E+00,	-7.493E+00 ± 4.185E+00,	3.018E-02 ± 9.707E-01,	5.234E-03 ±
8.849E-02,	-1.477E-04 ± 9.255E-03				
23,	4.204E-02 ± 6.327E-01,	-1.363E-01 ± 5.321E+00,	-7.485E+00 ± 4.225E+00,	3.018E-02 ± 9.707E-01,	5.228E-03 ±
8.849E-02,	-1.477E-04 ± 9.255E-03				
24,	4.204E-02 ± 6.327E-01,	-1.367E-01 ± 5.292E+00,	-7.502E+00 ± 4.146E+00,	3.019E-02 ± 9.707E-01,	5.240E-03 ±
8.849E-02,	-1.477E-04 ± 9.255E-03				
25,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.384E+00 ± 4.083E+00,	4.528E-02 ± 9.500E-01,	-8.580E-04 ±
9.174E-02,	0.000E+00 ± 0.000E+00				
26,	4.204E-02 ± 6.327E-01,	-1.368E-01 ± 5.290E+00,	-7.503E+00 ± 4.139E+00,	3.019E-02 ± 9.707E-01,	5.242E-03 ±
8.849E-02,	-1.477E-04 ± 9.255E-03				
27,	4.204E-02 ± 6.327E-01,	-1.368E-01 ± 5.287E+00,	-7.505E+00 ± 4.132E+00,	3.019E-02 ± 9.707E-01,	5.243E-03 ±
8.849E-02,	-1.477E-04 ± 9.255E-03				
28,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.330E+00 ± 3.955E+00,	4.531E-01 ± 1.020E+00,	3.329E-02 ±
8.906E-02,	0.000E+00 ± 0.000E+00				
29,	4.204E-02 ± 6.327E-01,	-1.372E-01 ± 5.265E+00,	-7.518E+00 ± 4.071E+00,	3.019E-02 ± 9.707E-01,	5.254E-03 ±
8.850E-02,	-1.477E-04 ± 9.255E-03				
30,	4.204E-02 ± 6.327E-01,	-1.372E-01 ± 5.267E+00,	-7.516E+00 ± 4.077E+00,	3.019E-02 ± 9.707E-01,	5.253E-03 ±
8.850E-02,	-1.477E-04 ± 9.255E-03				

31,	4.204E-02 ± 6.327E-01,	-1.372E-01 ± 5.263E+00,	-7.519E+00 ± 4.065E+00,	3.019E-02 ± 9.707E-01,	5.255E-03 ± 8.850E-02,
32,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.387E+00 ± 3.917E+00,	4.529E-01 ± 1.020E+00,	3.324E-02 ± 8.907E-02,
33,	4.204E-02 ± 6.327E-01,	-1.374E-01 ± 5.250E+00,	-7.527E+00 ± 4.032E+00,	3.019E-02 ± 9.707E-01,	5.262E-03 ± 8.850E-02,
34,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.436E+00 ± 3.889E+00,	4.529E-01 ± 1.020E+00,	3.323E-02 ± 8.907E-02,
35,	4.204E-02 ± 6.327E-01,	-1.377E-01 ± 5.238E+00,	-7.535E+00 ± 4.001E+00,	3.019E-02 ± 9.707E-01,	5.269E-03 ± 8.850E-02,
36,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.490E+00 ± 3.942E+00,	6.437E-02 ± 9.535E-01,	1.537E-03 ± 8.949E-02,
37,	4.204E-02 ± 6.327E-01,	-1.385E-01 ± 5.241E+00,	-7.563E+00 ± 4.018E+00,	3.019E-02 ± 9.707E-01,	5.288E-03 ± 8.850E-02,
38,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.485E+00 ± 3.878E+00,	6.437E-02 ± 9.535E-01,	1.539E-03 ± 8.949E-02,
39,	4.204E-02 ± 6.327E-01,	-1.380E-01 ± 5.228E+00,	-7.546E+00 ± 3.972E+00,	3.019E-02 ± 9.707E-01,	5.277E-03 ± 8.850E-02,
40,	4.204E-02 ± 6.327E-01,	-1.389E-01 ± 5.256E+00,	-7.579E+00 ± 4.097E+00,	3.019E-02 ± 9.707E-01,	5.299E-03 ± 8.850E-02,
41,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.495E+00 ± 4.050E+00,	6.417E-02 ± 9.533E-01,	1.241E-03 ± 8.939E-02,
42,	4.204E-02 ± 6.327E-01,	-1.390E-01 ± 5.257E+00,	-7.581E+00 ± 4.105E+00,	3.019E-02 ± 9.707E-01,	5.300E-03 ± 8.850E-02,
43,	4.204E-02 ± 6.327E-01,	-1.390E-01 ± 5.258E+00,	-7.582E+00 ± 4.112E+00,	3.019E-02 ± 9.707E-01,	5.301E-03 ± 8.850E-02,
44,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.447E+00 ± 4.114E+00,	3.810E-01 ± 1.050E+00,	2.777E-02 ± 9.283E-02,
45,	4.204E-02 ± 6.327E-01,	-1.396E-01 ± 5.277E+00,	-7.603E+00 ± 4.219E+00,	3.019E-02 ± 9.707E-01,	5.313E-03 ± 8.850E-02,
46,	4.204E-02 ± 6.327E-01,	-1.393E-01 ± 5.269E+00,	-7.594E+00 ± 4.174E+00,	3.019E-02 ± 9.707E-01,	5.308E-03 ± 8.850E-02,
47,	4.204E-02 ± 6.327E-01,	-1.398E-01 ± 5.285E+00,	-7.612E+00 ± 4.264E+00,	3.019E-02 ± 9.707E-01,	5.317E-03 ± 8.850E-02,
48,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.538E+00 ± 4.229E+00,	3.806E-01 ± 1.050E+00,	2.753E-02 ± 9.279E-02,
49,	4.204E-02 ± 6.327E-01,	-1.401E-01 ± 5.293E+00,	-7.620E+00 ± 4.309E+00,	3.019E-02 ± 9.707E-01,	5.319E-03 ± 8.851E-02,
50,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.583E+00 ± 4.287E+00,	3.806E-01 ± 1.050E+00,	2.753E-02 ± 9.279E-02,
51,	4.204E-02 ± 6.327E-01,	-1.403E-01 ± 5.300E+00,	-7.629E+00 ± 4.355E+00,	3.019E-02 ± 9.707E-01,	5.321E-03 ± 8.851E-02,
52,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.617E+00 ± 4.418E+00,	3.126E-02 ± 9.458E-01,	1.441E-02 ± 9.322E-02,
53,	4.204E-02 ± 6.327E-01,	-1.407E-01 ± 5.315E+00,	-7.645E+00 ± 4.436E+00,	3.019E-02 ± 9.707E-01,	5.322E-03 ± 8.851E-02,
54,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.608E+00 ± 4.395E+00,	3.126E-02 ± 9.458E-01,	1.441E-02 ± 9.322E-02,
55,	4.204E-02 ± 6.327E-01,	-1.406E-01 ± 5.311E+00,	-7.641E+00 ± 4.418E+00,	3.019E-02 ± 9.707E-01,	5.322E-03 ± 8.851E-02,
56,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.358E+00 ± 4.398E+00,	3.117E-02 ± 9.458E-01,	1.439E-02 ± 9.271E-02,
57,	4.327E-02 ± 6.279E-01,	-1.407E-01 ± 5.315E+00,	-7.415E+00 ± 4.412E+00,	2.553E-02 ± 9.710E-01,	5.332E-03 ± 8.836E-02,
58,	4.327E-02 ± 6.279E-01,	-1.406E-01 ± 5.311E+00,	-7.412E+00 ± 4.394E+00,	2.553E-02 ± 9.710E-01,	5.332E-03 ± 8.836E-02,
59,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.336E+00 ± 4.306E+00,	-1.878E-01 ± 1.055E+00,	1.038E-02 ± 9.563E-02,
60,	4.327E-02 ± 6.279E-01,	-1.404E-01 ± 5.305E+00,	-7.404E+00 ± 4.355E+00,	2.553E-02 ± 9.710E-01,	5.332E-03 ± 8.836E-02,
61,	4.327E-02 ± 6.279E-01,	-1.405E-01 ± 5.307E+00,	-7.406E+00 ± 4.366E+00,	2.553E-02 ± 9.710E-01,	5.332E-03 ± 8.836E-02,
62,	4.327E-02 ± 6.279E-01,	-1.404E-01 ± 5.302E+00,	-7.402E+00 ± 4.343E+00,	2.553E-02 ± 9.710E-01,	5.331E-03 ± 8.836E-02,
63,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.327E+00 ± 4.263E+00,	-1.878E-01 ± 1.055E+00,	1.039E-02 ± 9.563E-02,
64,	4.327E-02 ± 6.279E-01,	-1.403E-01 ± 5.300E+00,	-7.400E+00 ± 4.332E+00,	2.553E-02 ± 9.710E-01,	5.331E-03 ± 8.836E-02,
65,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.322E+00 ± 4.241E+00,	-1.878E-01 ± 1.055E+00,	1.039E-02 ± 9.563E-02,
66,	4.327E-02 ± 6.279E-01,	-1.402E-01 ± 5.298E+00,	-7.397E+00 ± 4.321E+00,	2.553E-02 ± 9.710E-01,	5.331E-03 ± 8.836E-02,
67,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.261E+00 ± 4.126E+00,	-4.140E-01 ± 1.051E+00,	2.947E-02 ± 9.211E-02,
68,	4.327E-02 ± 6.279E-01,	-1.398E-01 ± 5.283E+00,	-7.380E+00 ± 4.240E+00,	2.553E-02 ± 9.710E-01,	5.328E-03 ± 8.836E-02,
69,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.290E+00 ± 4.155E+00,	-4.140E-01 ± 1.051E+00,	2.946E-02 ± 9.211E-02,
70,	4.327E-02 ± 6.279E-01,	-1.399E-01 ± 5.287E+00,	-7.385E+00 ± 4.264E+00,	2.553E-02 ± 9.710E-01,	5.329E-03 ± 8.836E-02,
71,	4.327E-02 ± 6.279E-01,	-1.396E-01 ± 5.278E+00,	-7.375E+00 ± 4.216E+00,	2.553E-02 ± 9.710E-01,	5.326E-03 ± 8.836E-02,
72,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.205E+00 ± 4.071E+00,	-4.142E-01 ± 1.051E+00,	2.954E-02 ± 9.211E-02,
73,	4.327E-02 ± 6.279E-01,	-1.395E-01 ± 5.274E+00,	-7.370E+00 ± 4.192E+00,	2.553E-02 ± 9.710E-01,	5.324E-03 ± 8.836E-02,

74, 4.327E-02 ± 6.279E-01, -1.393E-01 ± 5.269E+00, -7.365E+00 ± 4.169E+00, 2.552E-02 ± 9.710E-01, 5.322E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

75, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.269E+00 ± 4.050E+00, -1.176E-02 ± 9.516E-01, 9.020E-04 ± 8.870E-02, 0.000E+00 ± 0.000E+00

76, 4.327E-02 ± 6.279E-01, -1.390E-01 ± 5.257E+00, -7.351E+00 ± 4.106E+00, 2.552E-02 ± 9.710E-01, 5.316E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

77, 4.327E-02 ± 6.279E-01, -1.390E-01 ± 5.258E+00, -7.353E+00 ± 4.113E+00, 2.552E-02 ± 9.710E-01, 5.316E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

78, 4.327E-02 ± 6.279E-01, -1.389E-01 ± 5.256E+00, -7.350E+00 ± 4.099E+00, 2.552E-02 ± 9.710E-01, 5.315E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

79, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.265E+00 ± 3.950E+00, -1.195E-02 ± 9.519E-01, 1.193E-03 ± 8.880E-02, 0.000E+00 ± 0.000E+00

80, 4.327E-02 ± 6.279E-01, -1.385E-01 ± 5.241E+00, -7.333E+00 ± 4.028E+00, 2.553E-02 ± 9.710E-01, 5.307E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

81, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.262E+00 ± 3.892E+00, -1.195E-02 ± 9.519E-01, 1.196E-03 ± 8.880E-02, 0.000E+00 ± 0.000E+00

82, 4.327E-02 ± 6.279E-01, -1.380E-01 ± 5.228E+00, -7.317E+00 ± 3.987E+00, 2.553E-02 ± 9.710E-01, 5.301E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

83, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.164E+00 ± 3.938E+00, -3.955E-01 ± 1.020E+00, 3.322E-02 ± 8.861E-02, 0.000E+00 ± 0.000E+00

84, 4.327E-02 ± 6.279E-01, -1.374E-01 ± 5.250E+00, -7.297E+00 ± 4.055E+00, 2.553E-02 ± 9.710E-01, 5.291E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

85, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.213E+00 ± 3.909E+00, -3.955E-01 ± 1.020E+00, 3.322E-02 ± 8.861E-02, 0.000E+00 ± 0.000E+00

86, 4.327E-02 ± 6.279E-01, -1.377E-01 ± 5.238E+00, -7.305E+00 ± 4.021E+00, 2.553E-02 ± 9.710E-01, 5.295E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

87, 4.327E-02 ± 6.279E-01, -1.372E-01 ± 5.263E+00, -7.290E+00 ± 4.093E+00, 2.553E-02 ± 9.710E-01, 5.286E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

88, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.107E+00 ± 3.980E+00, -3.957E-01 ± 1.020E+00, 3.328E-02 ± 8.859E-02, 0.000E+00 ± 0.000E+00

89, 4.327E-02 ± 6.279E-01, -1.372E-01 ± 5.265E+00, -7.288E+00 ± 4.100E+00, 2.553E-02 ± 9.710E-01, 5.286E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

90, 4.327E-02 ± 6.279E-01, -1.372E-01 ± 5.267E+00, -7.287E+00 ± 4.106E+00, 2.553E-02 ± 9.710E-01, 5.285E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

91, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.158E+00 ± 4.115E+00, 7.944E-03 ± 9.471E-01, -2.508E-03 ± 9.222E-02, 0.000E+00 ± 0.000E+00

92, 4.327E-02 ± 6.279E-01, -1.368E-01 ± 5.290E+00, -7.273E+00 ± 4.174E+00, 2.553E-02 ± 9.710E-01, 5.277E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

93, 4.327E-02 ± 6.279E-01, -1.368E-01 ± 5.287E+00, -7.275E+00 ± 4.167E+00, 2.553E-02 ± 9.710E-01, 5.278E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

94, 4.327E-02 ± 6.279E-01, -1.367E-01 ± 5.292E+00, -7.272E+00 ± 4.182E+00, 2.553E-02 ± 9.710E-01, 5.276E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

95, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.163E+00 ± 4.143E+00, 7.958E-03 ± 9.472E-01, -2.428E-03 ± 9.224E-02, 0.000E+00 ± 0.000E+00

96, 4.327E-02 ± 6.279E-01, -1.365E-01 ± 5.307E+00, -7.263E+00 ± 4.226E+00, 2.553E-02 ± 9.710E-01, 5.271E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

97, 4.327E-02 ± 6.279E-01, -1.363E-01 ± 5.321E+00, -7.255E+00 ± 4.271E+00, 2.553E-02 ± 9.710E-01, 5.268E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

98, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.140E+00 ± 4.239E+00, 2.247E-02 ± 1.130E+00, 1.469E-02 ± 8.569E-02, 0.000E+00 ± 0.000E+00

99, 4.327E-02 ± 6.279E-01, -1.358E-01 ± 5.350E+00, -7.238E+00 ± 4.359E+00, 2.554E-02 ± 9.710E-01, 5.264E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

100, 4.327E-02 ± 6.279E-01, -1.359E-01 ± 5.341E+00, -7.243E+00 ± 4.332E+00, 2.553E-02 ± 9.710E-01, 5.265E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

101, 4.327E-02 ± 6.279E-01, -1.356E-01 ± 5.358E+00, -7.233E+00 ± 4.385E+00, 2.554E-02 ± 9.710E-01, 5.263E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

102, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.112E+00 ± 4.275E+00, 2.247E-02 ± 1.130E+00, 1.474E-02 ± 8.569E-02, 0.000E+00 ± 0.000E+00

103, 4.327E-02 ± 6.279E-01, -1.355E-01 ± 5.367E+00, -7.228E+00 ± 4.411E+00, 2.554E-02 ± 9.710E-01, 5.262E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

104, 4.327E-02 ± 6.279E-01, -1.354E-01 ± 5.375E+00, -7.223E+00 ± 4.437E+00, 2.554E-02 ± 9.710E-01, 5.262E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

105, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.123E+00 ± 4.485E+00, -1.373E-03 ± 1.006E+00, -4.115E-02 ± 1.314E-01, 0.000E+00 ± 0.000E+00

106, 4.327E-02 ± 6.279E-01, -1.349E-01 ± 5.402E+00, -7.206E+00 ± 4.521E+00, 2.554E-02 ± 9.710E-01, 5.261E-03 ± 8.839E-02, -1.477E-04 ± 9.255E-03

107, 4.327E-02 ± 6.279E-01, -1.350E-01 ± 5.395E+00, -7.211E+00 ± 4.500E+00, 2.554E-02 ± 9.710E-01, 5.261E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

108, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.562E+00 ± 2.474E+00, 3.119E-02 ± 9.459E-01, 1.440E-02 ± 9.310E-02, 0.000E+00 ± 0.000E+00

109, 4.916E-02 ± 7.085E-01, -1.764E-01 ± 6.531E+00, -7.591E+00 ± 2.486E+00, 2.753E-02 ± 9.469E-01, 5.343E-03 ± 8.844E-02, -1.535E-04 ± 9.345E-03

110, 4.440E-02 ± 6.615E-01, -1.535E-01 ± 5.746E+00, -7.649E+00 ± 4.455E+00, 2.753E-02 ± 9.469E-01, 5.340E-03 ± 8.846E-02, -1.535E-04 ± 9.345E-03

111, 5.393E-02 ± 7.618E-01, -1.993E-01 ± 7.317E+00, -7.534E+00 ± 1.684E+00, 2.753E-02 ± 9.469E-01, 5.344E-03 ± 8.843E-02, -1.535E-04 ± 9.345E-03

112, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.171E+00 ± 2.673E+00, 7.943E-03 ± 9.471E-01, -2.500E-03 ± 9.222E-02, 0.000E+00 ± 0.000E+00

113, 3.987E-02 ± 5.881E-01, -1.214E-01 ± 4.711E+00, -7.311E+00 ± 2.699E+00, 2.553E-02 ± 9.710E-01, 5.276E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

114, 4.010E-02 ± 5.925E-01, -1.214E-01 ± 4.711E+00, -7.272E+00 ± 4.182E+00, 2.553E-02 ± 9.710E-01, 5.276E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

115, 3.965E-02 ± 5.850E-01, -1.214E-01 ± 4.711E+00, -7.350E+00 ± 1.219E+00, 2.553E-02 ± 9.710E-01, 5.276E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

116, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.310E+00 ± 2.540E+00, 4.529E-02 ± 9.500E-01, -8.498E-04 ± 9.174E-02, 0.000E+00 ± 0.000E+00

117,	3.913E-02 ± 5.906E-01,	-1.186E-01 ± 4.712E+00,	-7.452E+00 ± 2.567E+00,	3.019E-02 ± 9.707E-01,	5.240E-03 ± 8.849E-02,
118,	3.937E-02 ± 5.842E-01,	-1.186E-01 ± 4.712E+00,	-7.403E+00 ± 1.008E+00,	3.019E-02 ± 9.707E-01,	5.240E-03 ± 8.849E-02,
119,	3.889E-02 ± 5.974E-01,	-1.186E-01 ± 4.712E+00,	-7.502E+00 ± 4.146E+00,	3.019E-02 ± 9.707E-01,	5.240E-03 ± 8.849E-02,
120,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.250E+00 ± 2.593E+00,	-1.175E-02 ± 9.516E-01,	9.116E-04 ± 8.870E-02,
121,	3.985E-02 ± 5.881E-01,	-1.236E-01 ± 4.676E+00,	-7.389E+00 ± 2.616E+00,	2.552E-02 ± 9.710E-01,	5.315E-03 ± 8.836E-02,
122,	4.008E-02 ± 5.925E-01,	-1.236E-01 ± 4.676E+00,	-7.350E+00 ± 4.099E+00,	2.552E-02 ± 9.710E-01,	5.315E-03 ± 8.836E-02,
123,	3.962E-02 ± 5.850E-01,	-1.236E-01 ± 4.676E+00,	-7.428E+00 ± 1.136E+00,	2.552E-02 ± 9.710E-01,	5.315E-03 ± 8.836E-02,
124,	0.000E+00 ± 0.000E+00,	0.000E+00 ± 0.000E+00,	-7.390E+00 ± 2.496E+00,	6.416E-02 ± 9.533E-01,	1.251E-03 ± 8.939E-02,
125,	3.910E-02 ± 5.906E-01,	-1.208E-01 ± 4.676E+00,	-7.530E+00 ± 2.521E+00,	3.019E-02 ± 9.707E-01,	5.299E-03 ± 8.850E-02,
126,	3.934E-02 ± 5.842E-01,	-1.208E-01 ± 4.676E+00,	-7.481E+00 ± 9.445E-01,	3.019E-02 ± 9.707E-01,	5.299E-03 ± 8.850E-02,
127,	3.886E-02 ± 5.974E-01,	-1.208E-01 ± 4.676E+00,	-7.579E+00 ± 4.097E+00,	3.019E-02 ± 9.707E-01,	5.299E-03 ± 8.850E-02,
128,	4.567E-02 ± 6.568E-01,	-1.490E-01 ± 5.738E+00,	-7.264E+00 ± 4.226E+00,	2.757E-02 ± 9.472E-01,	5.275E-03 ± 8.837E-02,
129,	4.567E-02 ± 6.568E-01,	-1.492E-01 ± 5.724E+00,	-7.272E+00 ± 4.182E+00,	2.757E-02 ± 9.472E-01,	5.279E-03 ± 8.837E-02,
130,	4.567E-02 ± 6.568E-01,	-1.487E-01 ± 5.753E+00,	-7.255E+00 ± 4.270E+00,	2.757E-02 ± 9.472E-01,	5.271E-03 ± 8.837E-02,
131,	4.327E-02 ± 6.279E-01,	-1.370E-01 ± 5.277E+00,	-7.281E+00 ± 4.137E+00,	2.553E-02 ± 9.710E-01,	5.281E-03 ± 8.837E-02,
132,	4.567E-02 ± 6.568E-01,	-1.495E-01 ± 5.709E+00,	-7.281E+00 ± 4.137E+00,	2.757E-02 ± 9.471E-01,	5.284E-03 ± 8.837E-02,
133,	4.567E-02 ± 6.568E-01,	-1.497E-01 ± 5.694E+00,	-7.290E+00 ± 4.093E+00,	2.756E-02 ± 9.471E-01,	5.290E-03 ± 8.837E-02,
134,	4.567E-02 ± 6.568E-01,	-1.510E-01 ± 5.671E+00,	-7.334E+00 ± 4.028E+00,	2.755E-02 ± 9.471E-01,	5.320E-03 ± 8.837E-02,
135,	4.567E-02 ± 6.568E-01,	-1.515E-01 ± 5.685E+00,	-7.350E+00 ± 4.100E+00,	2.755E-02 ± 9.471E-01,	5.330E-03 ± 8.837E-02,
136,	4.567E-02 ± 6.568E-01,	-1.505E-01 ± 5.659E+00,	-7.317E+00 ± 3.988E+00,	2.756E-02 ± 9.471E-01,	5.308E-03 ± 8.837E-02,
137,	4.440E-02 ± 6.615E-01,	-1.482E-01 ± 5.782E+00,	-7.468E+00 ± 4.304E+00,	2.750E-02 ± 9.472E-01,	5.231E-03 ± 8.855E-02,
138,	4.440E-02 ± 6.615E-01,	-1.481E-01 ± 5.790E+00,	-7.463E+00 ± 4.328E+00,	2.750E-02 ± 9.472E-01,	5.230E-03 ± 8.855E-02,
139,	4.440E-02 ± 6.615E-01,	-1.484E-01 ± 5.773E+00,	-7.473E+00 ± 4.281E+00,	2.750E-02 ± 9.472E-01,	5.233E-03 ± 8.855E-02,
140,	4.204E-02 ± 6.327E-01,	-1.370E-01 ± 5.277E+00,	-7.510E+00 ± 4.105E+00,	3.019E-02 ± 9.707E-01,	5.248E-03 ± 8.849E-02,
141,	4.440E-02 ± 6.615E-01,	-1.495E-01 ± 5.709E+00,	-7.511E+00 ± 4.105E+00,	2.751E-02 ± 9.472E-01,	5.251E-03 ± 8.853E-02,
142,	4.440E-02 ± 6.615E-01,	-1.492E-01 ± 5.724E+00,	-7.502E+00 ± 4.146E+00,	2.751E-02 ± 9.472E-01,	5.246E-03 ± 8.854E-02,
143,	4.440E-02 ± 6.615E-01,	-1.497E-01 ± 5.694E+00,	-7.520E+00 ± 4.066E+00,	2.751E-02 ± 9.471E-01,	5.256E-03 ± 8.853E-02,
144,	4.440E-02 ± 6.615E-01,	-1.500E-01 ± 5.681E+00,	-7.527E+00 ± 4.032E+00,	2.751E-02 ± 9.471E-01,	5.262E-03 ± 8.853E-02,
145,	4.440E-02 ± 6.615E-01,	-1.502E-01 ± 5.669E+00,	-7.535E+00 ± 4.001E+00,	2.751E-02 ± 9.471E-01,	5.267E-03 ± 8.853E-02,
146,	4.204E-02 ± 6.327E-01,	-1.391E-01 ± 5.262E+00,	-7.587E+00 ± 4.135E+00,	3.019E-02 ± 9.707E-01,	5.304E-03 ± 8.850E-02,
147,	4.440E-02 ± 6.615E-01,	-1.517E-01 ± 5.692E+00,	-7.587E+00 ± 4.136E+00,	2.752E-02 ± 9.471E-01,	5.308E-03 ± 8.851E-02,
148,	4.440E-02 ± 6.615E-01,	-1.515E-01 ± 5.685E+00,	-7.579E+00 ± 4.098E+00,	2.752E-02 ± 9.471E-01,	5.303E-03 ± 8.851E-02,
149,	4.440E-02 ± 6.615E-01,	-1.519E-01 ± 5.698E+00,	-7.595E+00 ± 4.175E+00,	2.752E-02 ± 9.470E-01,	5.314E-03 ± 8.851E-02,
150,	4.327E-02 ± 6.279E-01,	-1.393E-01 ± 5.267E+00,	-7.362E+00 ± 4.157E+00,	2.552E-02 ± 9.710E-01,	5.321E-03 ± 8.836E-02,
151,	4.567E-02 ± 6.568E-01,	-1.518E-01 ± 5.696E+00,	-7.363E+00 ± 4.158E+00,	2.755E-02 ± 9.470E-01,	5.336E-03 ± 8.837E-02,
152,	4.567E-02 ± 6.568E-01,	-1.522E-01 ± 5.707E+00,	-7.376E+00 ± 4.217E+00,	2.755E-02 ± 9.470E-01,	5.342E-03 ± 8.838E-02,
153,	4.327E-02 ± 6.279E-01,	-1.401E-01 ± 5.295E+00,	-7.394E+00 ± 4.304E+00,	2.553E-02 ± 9.710E-01,	5.331E-03 ± 8.836E-02,
154,	4.567E-02 ± 6.568E-01,	-1.527E-01 ± 5.724E+00,	-7.394E+00 ± 4.305E+00,	2.754E-02 ± 9.470E-01,	5.348E-03 ± 8.839E-02,
155,	4.567E-02 ± 6.568E-01,	-1.530E-01 ± 5.731E+00,	-7.403E+00 ± 4.344E+00,	2.754E-02 ± 9.470E-01,	5.349E-03 ± 8.839E-02,
156,	4.567E-02 ± 6.568E-01,	-1.525E-01 ± 5.716E+00,	-7.386E+00 ± 4.266E+00,	2.754E-02 ± 9.470E-01,	5.345E-03 ± 8.838E-02,
157,	4.327E-02 ± 6.279E-01,	-1.406E-01 ± 5.310E+00,	-7.410E+00 ± 4.387E+00,	2.553E-02 ± 9.710E-01,	5.332E-03 ± 8.836E-02,
158,	4.567E-02 ± 6.568E-01,	-1.532E-01 ± 5.738E+00,	-7.411E+00 ± 4.387E+00,	2.754E-02 ± 9.470E-01,	5.350E-03 ± 8.840E-02,
159,	4.567E-02 ± 6.568E-01,	-1.535E-01 ± 5.746E+00,	-7.419E+00 ± 4.431E+00,	2.754E-02 ± 9.469E-01,	5.349E-03 ± 8.840E-02,

160, 4.204E-02 ± 6.327E-01, -1.401E-01 ± 5.293E+00, -7.620E+00 ± 4.310E+00, 3.019E-02 ± 9.707E-01, 5.319E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03

161, 4.440E-02 ± 6.615E-01, -1.527E-01 ± 5.721E+00, -7.621E+00 ± 4.310E+00, 2.753E-02 ± 9.470E-01, 5.331E-03 ± 8.849E-02, -1.535E-04 ± 9.345E-03

162, 4.440E-02 ± 6.615E-01, -1.524E-01 ± 5.714E+00, -7.612E+00 ± 4.265E+00, 2.752E-02 ± 9.470E-01, 5.326E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03

163, 4.440E-02 ± 6.615E-01, -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.356E+00, 2.753E-02 ± 9.470E-01, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03

164, 4.327E-02 ± 6.279E-01, -1.355E-01 ± 5.367E+00, -7.228E+00 ± 4.411E+00, 2.554E-02 ± 9.710E-01, 5.262E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

165, 4.567E-02 ± 6.568E-01, -1.479E-01 ± 5.799E+00, -7.228E+00 ± 4.410E+00, 2.758E-02 ± 9.472E-01, 5.262E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

166, 4.567E-02 ± 6.568E-01, -1.481E-01 ± 5.790E+00, -7.233E+00 ± 4.384E+00, 2.757E-02 ± 9.472E-01, 5.263E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

167, 4.567E-02 ± 6.568E-01, -1.478E-01 ± 5.808E+00, -7.223E+00 ± 4.436E+00, 2.758E-02 ± 9.472E-01, 5.261E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

168, 4.327E-02 ± 6.279E-01, -1.352E-01 ± 5.385E+00, -7.217E+00 ± 4.468E+00, 2.554E-02 ± 9.710E-01, 5.261E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

169, 4.567E-02 ± 6.568E-01, -1.476E-01 ± 5.818E+00, -7.217E+00 ± 4.467E+00, 2.758E-02 ± 9.472E-01, 5.260E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

170, 4.567E-02 ± 6.568E-01, -1.474E-01 ± 5.828E+00, -7.211E+00 ± 4.497E+00, 2.758E-02 ± 9.472E-01, 5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

171, 4.327E-02 ± 6.279E-01, -1.349E-01 ± 5.402E+00, -7.206E+00 ± 4.521E+00, 2.554E-02 ± 9.710E-01, 5.261E-03 ± 8.839E-02, -1.477E-04 ± 9.255E-03

172, 4.567E-02 ± 6.568E-01, -1.473E-01 ± 5.835E+00, -7.207E+00 ± 4.519E+00, 2.758E-02 ± 9.472E-01, 5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

173, 4.567E-02 ± 6.568E-01, -1.472E-01 ± 5.842E+00, -7.203E+00 ± 4.541E+00, 2.758E-02 ± 9.472E-01, 5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

174, 4.204E-02 ± 6.327E-01, -1.355E-01 ± 5.367E+00, -7.458E+00 ± 4.352E+00, 3.017E-02 ± 9.707E-01, 5.219E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03

175, 4.440E-02 ± 6.615E-01, -1.479E-01 ± 5.799E+00, -7.458E+00 ± 4.351E+00, 2.750E-02 ± 9.472E-01, 5.229E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

176, 4.440E-02 ± 6.615E-01, -1.478E-01 ± 5.808E+00, -7.453E+00 ± 4.375E+00, 2.750E-02 ± 9.472E-01, 5.228E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

177, 4.204E-02 ± 6.327E-01, -1.352E-01 ± 5.385E+00, -7.447E+00 ± 4.404E+00, 3.017E-02 ± 9.707E-01, 5.218E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03

178, 4.440E-02 ± 6.615E-01, -1.476E-01 ± 5.818E+00, -7.447E+00 ± 4.403E+00, 2.750E-02 ± 9.472E-01, 5.227E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

179, 4.440E-02 ± 6.615E-01, -1.474E-01 ± 5.828E+00, -7.441E+00 ± 4.430E+00, 2.750E-02 ± 9.472E-01, 5.227E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

180, 4.204E-02 ± 6.327E-01, -1.349E-01 ± 5.402E+00, -7.437E+00 ± 4.452E+00, 3.017E-02 ± 9.707E-01, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03

181, 4.440E-02 ± 6.615E-01, -1.473E-01 ± 5.835E+00, -7.437E+00 ± 4.450E+00, 2.750E-02 ± 9.472E-01, 5.227E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

182, 4.440E-02 ± 6.615E-01, -1.472E-01 ± 5.842E+00, -7.433E+00 ± 4.470E+00, 2.749E-02 ± 9.472E-01, 5.226E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

183, 4.863E-02 ± 6.927E-01, -1.639E-01 ± 6.414E+00, -7.244E+00 ± 3.109E+00, 2.758E-02 ± 9.472E-01, 5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

184, 5.158E-02 ± 7.314E-01, -1.806E-01 ± 6.986E+00, -7.286E+00 ± 2.262E+00, 2.758E-02 ± 9.472E-01, 5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

185, 5.451E-02 ± 7.618E-01, -1.932E-01 ± 7.409E+00, -7.338E+00 ± 1.956E+00, 2.766E-02 ± 9.446E-01, 5.693E-03 ± 8.846E-02, -1.535E-04 ± 9.345E-03

186, 5.119E-02 ± 7.315E-01, -1.805E-01 ± 6.986E+00, -7.350E+00 ± 2.242E+00, 2.749E-02 ± 9.472E-01, 5.226E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

187, 4.780E-02 ± 6.953E-01, -1.638E-01 ± 6.414E+00, -7.391E+00 ± 3.037E+00, 2.749E-02 ± 9.472E-01, 5.226E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

188, 4.327E-02 ± 6.279E-01, -1.378E-01 ± 5.228E+00, -7.311E+00 ± 3.999E+00, 2.553E-02 ± 9.710E-01, 5.298E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

189, 4.567E-02 ± 6.568E-01, -1.503E-01 ± 5.659E+00, -7.311E+00 ± 3.999E+00, 2.756E-02 ± 9.471E-01, 5.304E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

190, 4.567E-02 ± 6.568E-01, -1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.021E+00, 2.756E-02 ± 9.471E-01, 5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

191, 4.567E-02 ± 6.568E-01, -1.500E-01 ± 5.681E+00, -7.298E+00 ± 4.056E+00, 2.756E-02 ± 9.471E-01, 5.295E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

192, 4.327E-02 ± 6.279E-01, -1.398E-01 ± 5.283E+00, -7.380E+00 ± 4.240E+00, 2.553E-02 ± 9.710E-01, 5.328E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

193, 4.567E-02 ± 6.568E-01, -1.523E-01 ± 5.712E+00, -7.381E+00 ± 4.241E+00, 2.754E-02 ± 9.470E-01, 5.344E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03

194, 4.327E-02 ± 6.279E-01, -1.361E-01 ± 5.331E+00, -7.249E+00 ± 4.301E+00, 2.553E-02 ± 9.710E-01, 5.266E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03

195, 4.567E-02 ± 6.568E-01, -1.485E-01 ± 5.763E+00, -7.249E+00 ± 4.301E+00, 2.757E-02 ± 9.472E-01, 5.268E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

196, 4.567E-02 ± 6.568E-01, -1.484E-01 ± 5.773E+00, -7.243E+00 ± 4.332E+00, 2.757E-02 ± 9.472E-01, 5.266E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

197, 4.567E-02 ± 6.568E-01, -1.482E-01 ± 5.782E+00, -7.238E+00 ± 4.358E+00, 2.757E-02 ± 9.472E-01, 5.264E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

198, 4.440E-02 ± 6.615E-01, -1.510E-01 ± 5.671E+00, -7.563E+00 ± 4.018E+00, 2.752E-02 ± 9.471E-01, 5.289E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03

199, 4.440E-02 ± 6.615E-01, -1.505E-01 ± 5.659E+00, -7.547E+00 ± 3.972E+00, 2.751E-02 ± 9.471E-01, 5.276E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03

200, 4.204E-02 ± 6.327E-01, -1.378E-01 ± 5.228E+00, -7.541E+00 ± 3.981E+00, 3.019E-02 ± 9.707E-01, 5.273E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03

201, 4.440E-02 ± 6.615E-01, -1.503E-01 ± 5.659E+00, -7.541E+00 ± 3.982E+00, 2.751E-02 ± 9.471E-01, 5.272E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03

202, 4.440E-02 ± 6.615E-01, -1.490E-01 ± 5.738E+00, -7.493E+00 ± 4.185E+00, 2.750E-02 ± 9.472E-01, 5.241E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03

203, 4.440E-02 ± 6.615E-01, -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.225E+00, 2.750E-02 ± 9.472E-01, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03

204, 4.204E-02 ± 6.327E-01, -1.361E-01 ± 5.331E+00, -7.479E+00 ± 4.253E+00, 3.018E-02 ± 9.707E-01, 5.225E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03

205, 4.440E-02 ± 6.615E-01, -1.485E-01 ± 5.763E+00, -7.479E+00 ± 4.253E+00, 2.750E-02 ± 9.472E-01, 5.235E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

206, 4.440E-02 ± 6.615E-01, -1.522E-01 ± 5.706E+00, -7.603E+00 ± 4.220E+00, 2.752E-02 ± 9.470E-01, 5.320E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03

207, 4.204E-02 ± 6.327E-01, -1.405E-01 ± 5.306E+00, -7.635E+00 ± 4.387E+00, 3.019E-02 ± 9.707E-01, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03

208, 4.440E-02 ± 6.615E-01, -1.531E-01 ± 5.734E+00, -7.636E+00 ± 4.387E+00, 2.753E-02 ± 9.470E-01, 5.337E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03

209, 4.440E-02 ± 6.615E-01, -1.533E-01 ± 5.740E+00, -7.641E+00 ± 4.418E+00, 2.753E-02 ± 9.470E-01, 5.339E-03 ± 8.847E-02, -1.535E-04 ± 9.345E-03

210, 4.440E-02 ± 6.615E-01, -1.534E-01 ± 5.743E+00, -7.645E+00 ± 4.436E+00, 2.753E-02 ± 9.470E-01, 5.339E-03 ± 8.847E-02, -1.535E-04 ± 9.345E-03

211, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.432E+00 ± 2.446E+00, 3.117E-02 ± 9.459E-01, 1.439E-02 ± 9.285E-02, 0.000E+00 ± 0.000E+00

212, 4.980E-02 ± 7.071E-01, -1.764E-01 ± 6.531E+00, -7.477E+00 ± 2.460E+00, 2.753E-02 ± 9.469E-01, 5.346E-03 ± 8.842E-02, -1.535E-04 ± 9.345E-03

213, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.156E+00 ± 4.570E+00, -1.376E-03 ± 1.006E+00, -4.115E-02 ± 1.314E-01, 0.000E+00 ± 0.000E+00

214, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.152E+00 ± 2.171E+00, -1.426E-03 ± 1.006E+00, -4.113E-02 ± 1.314E-01, 0.000E+00 ± 0.000E+00

215, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.215E+00 ± 2.149E+00, 6.066E-02 ± 9.982E-01, -8.099E-04 ± 1.051E-01, 0.000E+00 ± 0.000E+00

216, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.398E+00 ± 4.469E+00, 6.061E-02 ± 9.983E-01, -8.078E-04 ± 1.051E-01, 0.000E+00 ± 0.000E+00

217, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.389E+00 ± 4.223E+00, 4.281E-02 ± 1.085E+00, -3.649E-03 ± 9.234E-02, 0.000E+00 ± 0.000E+00

218, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.384E+00 ± 4.086E+00, 4.528E-02 ± 9.500E-01, -8.501E-04 ± 9.174E-02, 0.000E+00 ± 0.000E+00

219, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.339E+00 ± 3.949E+00, 4.531E-01 ± 1.020E+00, 3.329E-02 ± 8.906E-02, 0.000E+00 ± 0.000E+00

220, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.494E+00 ± 4.041E+00, 6.417E-02 ± 9.533E-01, 1.251E-03 ± 8.939E-02, 0.000E+00 ± 0.000E+00

221, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.492E+00 ± 4.171E+00, 3.808E-01 ± 1.050E+00, 2.767E-02 ± 9.280E-02, 0.000E+00 ± 0.000E+00

222, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.627E+00 ± 4.440E+00, 3.121E-02 ± 9.458E-01, 1.441E-02 ± 9.321E-02, 0.000E+00 ± 0.000E+00

223, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.367E+00 ± 4.414E+00, 3.118E-02 ± 9.458E-01, 1.439E-02 ± 9.272E-02, 0.000E+00 ± 0.000E+00

224, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.331E+00 ± 4.284E+00, -1.878E-01 ± 1.055E+00, 1.038E-02 ± 9.563E-02, 0.000E+00 ± 0.000E+00

225, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.233E+00 ± 4.099E+00, -4.141E-01 ± 1.051E+00, 2.951E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00

226, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.268E+00 ± 4.041E+00, -1.176E-02 ± 9.516E-01, 9.113E-04 ± 8.870E-02, 0.000E+00 ± 0.000E+00

227, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.116E+00 ± 3.974E+00, -3.957E-01 ± 1.020E+00, 3.328E-02 ± 8.859E-02, 0.000E+00 ± 0.000E+00

228, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.159E+00 ± 4.119E+00, 7.949E-03 ± 9.471E-01, -2.501E-03 ± 9.222E-02, 0.000E+00 ± 0.000E+00

229, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.126E+00 ± 4.257E+00, 2.247E-02 ± 1.130E+00, 1.471E-02 ± 8.569E-02, 0.000E+00 ± 0.000E+00

230, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.497E+00 ± 1.648E+00, 3.118E-02 ± 9.457E-01, 1.440E-02 ± 9.297E-02, 0.000E+00 ± 0.000E+00

231, 5.570E-02 ± 7.643E-01, -1.938E-01 ± 7.375E+00, -8.128E+00 ± 2.162E+00, 2.766E-02 ± 9.446E-01, 6.407E-03 ± 8.928E-02, -1.535E-04 ± 9.345E-03

232, 3.466E-02 ± 3.408E-01, -7.941E-02 ± 2.935E+00, -6.330E+00 ± 2.348E+00, 2.409E-02 ± 9.731E-01, 3.483E-03 ± 1.189E-01, -1.477E-04 ± 9.255E-03

233, 3.058E-02 ± 5.051E-01, -7.597E-02 ± 2.941E+00, -7.290E+00 ± 4.093E+00, 2.553E-02 ± 9.710E-01, 5.286E-03 ± 8.837E-02, -1.477E-04 ± 9.255E-03

234, 3.522E-02 ± 3.148E-01, -7.624E-02 ± 2.934E+00, -5.855E+00 ± 1.138E+00, 2.541E-02 ± 9.737E-01, 3.169E-03 ± 1.276E-01, -1.477E-04 ± 9.255E-03

235, 3.528E-02 ± 3.082E-01, -6.625E-02 ± 2.934E+00, -5.855E+00 ± 9.401E-01, 2.958E-02 ± 9.737E-01, 3.011E-03 ± 1.300E-01, -1.477E-04 ± 9.255E-03

236, 3.459E-02 ± 3.294E-01, -6.266E-02 ± 2.936E+00, -6.353E+00 ± 2.136E+00, 3.107E-02 ± 9.731E-01, 3.218E-03 ± 1.237E-01, -1.477E-04 ± 9.255E-03

237, 2.942E-02 ± 5.105E-01, -6.478E-02 ± 2.943E+00, -7.519E+00 ± 4.065E+00, 3.019E-02 ± 9.707E-01, 5.255E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03

238, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.192E+00 ± 4.058E+00, -4.142E-01 ± 1.051E+00, 2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00

239, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.416E+00 ± 4.075E+00, 3.813E-01 ± 1.050E+00, 2.782E-02 ± 9.283E-02, 0.000E+00 ± 0.000E+00

240, 4.567E-02 ± 6.568E-01, -1.482E-01 ± 5.782E+00, -7.238E+00 ± 4.357E+00, 2.757E-02 ± 9.472E-01, 5.264E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

241, 5.476E-02 ± 7.671E-01, -1.942E-01 ± 7.349E+00, -8.116E+00 ± 1.782E+00, 2.764E-02 ± 9.449E-01, 5.842E-03 ± 9.049E-02, -1.535E-04 ± 9.345E-03

242, 4.440E-02 ± 6.615E-01, -1.482E-01 ± 5.782E+00, -7.468E+00 ± 4.304E+00, 2.750E-02 ± 9.472E-01, 5.231E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

243, 4.567E-02 ± 6.568E-01, -1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.269E+00, 2.757E-02 ± 9.472E-01, 5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

244, 5.298E-02 ± 7.697E-01, -1.947E-01 ± 7.321E+00, -8.270E+00 ± 1.426E+00, 2.763E-02 ± 9.451E-01, 4.772E-03 ± 9.171E-02, -1.535E-04 ± 9.345E-03

245, 4.440E-02 ± 6.615E-01, -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.224E+00, 2.750E-02 ± 9.472E-01, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03

246, 4.567E-02 ± 6.568E-01, -1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.181E+00, 2.757E-02 ± 9.472E-01, 5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

247, 5.246E-02 ± 7.703E-01, -1.952E-01 ± 7.292E+00, -7.905E+00 ± 9.752E-01, 2.764E-02 ± 9.454E-01, 4.464E-03 ± 9.251E-02, -1.535E-04 ± 9.345E-03

248, 4.440E-02 ± 6.615E-01, -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.145E+00, 2.751E-02 ± 9.472E-01, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03

249, 3.277E-02 ± 3.087E-01, -6.818E-02 ± 2.950E+00, -5.989E+00 ± 1.031E+00, 2.968E-02 ± 9.729E-01, 4.058E-03 ± 1.298E-01, -1.477E-04 ± 9.255E-03

250, 3.226E-02 ± 3.298E-01, -6.476E-02 ± 2.952E+00, -6.495E+00 ± 2.233E+00, 3.110E-02 ± 9.724E-01, 4.187E-03 ± 1.234E-01, -1.477E-04 ± 9.255E-03

251, 3.304E-02 ± 3.153E-01, -7.806E-02 ± 2.950E+00, -5.943E+00 ± 1.190E+00, 2.556E-02 ± 9.730E-01, 4.079E-03 ± 1.274E-01, -1.477E-04 ± 9.255E-03

252, 3.283E-02 ± 3.412E-01, -8.134E-02 ± 2.952E+00, -6.400E+00 ± 2.406E+00, 2.419E-02 ± 9.726E-01, 4.248E-03 ± 1.187E-01, -1.477E-04 ± 9.255E-03

253, 2.929E-02 ± 5.104E-01, -6.695E-02 ± 2.958E+00, -7.597E+00 ± 4.188E+00, 3.019E-02 ± 9.707E-01, 5.310E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03

254, 3.049E-02 ± 5.051E-01, -7.814E-02 ± 2.958E+00, -7.368E+00 ± 4.182E+00, 2.553E-02 ± 9.710E-01, 5.323E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

255, 4.567E-02 ± 6.568E-01, -1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.022E+00, 2.756E-02 ± 9.471E-01, 5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

256, 5.545E-02 ± 7.698E-01, -2.099E-01 ± 7.239E+00, -8.029E+00 ± 3.276E-01, 3.587E-02 ± 9.458E-01, 6.257E-03 ± 9.304E-02, -1.535E-04 ± 9.345E-03

257, 4.440E-02 ± 6.615E-01, -1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.002E+00, 2.751E-02 ± 9.471E-01, 5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03

258, 4.567E-02 ± 6.568E-01, -1.506E-01 ± 5.661E+00, -7.320E+00 ± 3.989E+00, 2.756E-02 ± 9.471E-01, 5.310E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

259, 5.508E-02 ± 7.696E-01, -1.966E-01 ± 7.231E+00, -8.146E+00 ± 2.558E-01, 2.761E-02 ± 9.460E-01, 6.038E-03 ± 9.297E-02, -1.535E-04 ± 9.345E-03

260, 4.440E-02 ± 6.615E-01, -1.506E-01 ± 5.661E+00, -7.550E+00 ± 3.974E+00, 2.751E-02 ± 9.471E-01, 5.279E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03

261, 4.567E-02 ± 6.568E-01, -1.511E-01 ± 5.673E+00, -7.336E+00 ± 4.036E+00, 2.755E-02 ± 9.471E-01, 5.321E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

262, 5.363E-02 ± 7.688E-01, -1.969E-01 ± 7.243E+00, -8.248E+00 ± 5.542E-01, 2.757E-02 ± 9.461E-01, 5.166E-03 ± 9.262E-02, -1.535E-04 ± 9.345E-03

263, 4.440E-02 ± 6.615E-01, -1.511E-01 ± 5.673E+00, -7.565E+00 ± 4.027E+00, 2.752E-02 ± 9.471E-01, 5.291E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03

264, 4.567E-02 ± 6.568E-01, -1.515E-01 ± 5.686E+00, -7.351E+00 ± 4.104E+00, 2.755E-02 ± 9.471E-01, 5.330E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

265, 5.351E-02 ± 7.688E-01, -1.974E-01 ± 7.257E+00, -7.951E+00 ± 7.177E-01, 2.756E-02 ± 9.463E-01, 5.091E-03 ± 9.216E-02, -1.535E-04 ± 9.345E-03

266, 4.440E-02 ± 6.615E-01, -1.515E-01 ± 5.686E+00, -7.580E+00 ± 4.102E+00, 2.752E-02 ± 9.471E-01, 5.303E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03

267, 4.440E-02 ± 6.615E-01, -1.525E-01 ± 5.715E+00, -7.614E+00 ± 4.273E+00, 2.752E-02 ± 9.470E-01, 5.327E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03

268, 5.403E-02 ± 7.667E-01, -1.983E-01 ± 7.286E+00, -8.347E+00 ± 1.599E+00, 2.754E-02 ± 9.467E-01, 5.404E-03 ± 9.051E-02, -1.535E-04 ± 9.345E-03

269, 4.567E-02 ± 6.568E-01, -1.525E-01 ± 5.715E+00, -7.384E+00 ± 4.259E+00, 2.754E-02 ± 9.470E-01, 5.345E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03

270, 4.440E-02 ± 6.615E-01, -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.357E+00, 2.753E-02 ± 9.470E-01, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03

271, 5.221E-02 ± 7.636E-01, -1.988E-01 ± 7.300E+00, -8.287E+00 ± 1.949E+00, 2.754E-02 ± 9.468E-01, 4.309E-03 ± 8.918E-02, -1.535E-04 ± 9.345E-03

272, 4.567E-02 ± 6.568E-01, -1.529E-01 ± 5.729E+00, -7.401E+00 ± 4.335E+00, 2.754E-02 ± 9.470E-01, 5.349E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03

273, 5.428E-02 ± 7.697E-01, -2.086E-01 ± 7.271E+00, -7.851E+00 ± 6.339E-01, 3.540E-02 ± 9.515E-01, 5.557E-03 ± 9.286E-02, -1.535E-04 ± 9.345E-03

274, 5.475E-02 ± 7.688E-01, -1.980E-01 ± 7.280E+00, -8.056E+00 ± 1.092E+00, 2.767E-02 ± 9.534E-01, 5.838E-03 ± 9.156E-02, -1.535E-04 ± 9.345E-03

275, 5.393E-02 ± 7.618E-01, -1.993E-01 ± 7.317E+00, -7.534E+00 ± 1.685E+00, 2.753E-02 ± 9.469E-01, 5.344E-03 ± 8.843E-02, -1.535E-04 ± 9.345E-03

276, 4.567E-02 ± 6.568E-01, -1.472E-01 ± 5.842E+00, -7.203E+00 ± 4.545E+00, 2.758E-02 ± 9.472E-01, 5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

277, 4.440E-02 ± 6.615E-01, -1.472E-01 ± 5.842E+00, -7.433E+00 ± 4.473E+00, 2.749E-02 ± 9.472E-01, 5.226E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

278, 4.876E-02 ± 7.060E-01, 3.175E-03 ± 6.391E+00, -8.149E+00 ± 2.481E+00, -2.066E-01 ± 9.621E-01, 5.515E-03 ± 9.212E-02, -1.535E-04 ± 9.345E-03

279, 5.192E-02 ± 7.407E-01, -9.118E-02 ± 6.891E+00, -8.061E+00 ± 1.196E+00, -4.617E-02 ± 9.527E-01, 5.550E-03 ± 9.272E-02, -1.535E-04 ± 9.345E-03

280, 4.567E-02 ± 6.568E-01, -1.497E-01 ± 5.694E+00, -7.290E+00 ± 4.096E+00, 2.756E-02 ± 9.471E-01, 5.290E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

281, 5.059E-02 ± 7.041E-01, -2.871E-01 ± 6.392E+00, -7.833E+00 ± 2.430E+00, 1.857E-01 ± 9.497E-01, 7.025E-03 ± 9.187E-02, -1.535E-04 ± 9.345E-03

282, 5.258E-02 ± 7.410E-01, -2.605E-01 ± 6.896E+00, -7.897E+00 ± 1.171E+00, 8.738E-02 ± 9.522E-01, 5.826E-03 ± 9.267E-02, -1.535E-04 ± 9.345E-03

283, 5.428E-02 ± 7.697E-01, -2.086E-01 ± 7.271E+00, -7.851E+00 ± 6.339E-01, 3.540E-02 ± 9.515E-01, 5.557E-03 ± 9.286E-02, -1.535E-04 ± 9.345E-03

284, 4.440E-02 ± 6.615E-01, -1.520E-01 ± 5.701E+00, -7.597E+00 ± 4.189E+00, 2.752E-02 ± 9.470E-01, 5.316E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03

285, 4.895E-02 ± 7.057E-01, 1.722E-02 ± 6.439E+00, -8.309E+00 ± 2.693E+00, -2.287E-01 ± 1.011E+00, 5.764E-03 ± 9.104E-02, -1.535E-04 ± 9.345E-03

286, 5.227E-02 ± 7.401E-01, -7.655E-02 ± 6.924E+00, -8.253E+00 ± 1.528E+00, -5.949E-02 ± 9.714E-01, 5.824E-03 ± 9.146E-02, -1.535E-04 ± 9.345E-03

287, 5.307E-02 ± 7.406E-01, -2.975E-01 ± 6.919E+00, -8.198E+00 ± 1.528E+00, 1.148E-01 ± 9.712E-01, 6.220E-03 ± 9.156E-02, -1.535E-04 ± 9.345E-03

288, 5.475E-02 ± 7.688E-01, -1.980E-01 ± 7.280E+00, -8.056E+00 ± 1.092E+00, 2.767E-02 ± 9.534E-01, 5.838E-03 ± 9.156E-02, -1.535E-04 ± 9.345E-03

289, 5.125E-02 ± 7.045E-01, -3.618E-01 ± 6.433E+00, -8.180E+00 ± 2.689E+00, 2.836E-01 ± 1.011E+00, 7.921E-03 ± 9.159E-02, -1.535E-04 ± 9.345E-03

290, 4.567E-02 ± 6.568E-01, -1.520E-01 ± 5.701E+00, -7.368E+00 ± 4.185E+00, 2.755E-02 ± 9.470E-01, 5.339E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03

291, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.326E+00 ± 2.341E+00, -4.763E-01 ± 9.480E-01, 3.309E-02 ± 8.874E-02, 0.000E+00 ± 0.000E+00

292, 4.720E-02 ± 7.657E-01, -1.661E-01 ± 6.429E+00, -6.330E+00 ± 2.348E+00, 2.409E-02 ± 9.731E-01, 3.483E-03 ± 1.189E-01, -1.477E-04 ± 9.255E-03

293, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.820E+00 ± 1.139E+00, -2.629E-01 ± 8.769E-01, 3.302E-02 ± 8.874E-02, 0.000E+00 ± 0.000E+00

294, 4.821E-02 ± 8.378E-01, -1.804E-01 ± 6.916E+00, -5.855E+00 ± 1.138E+00, 2.541E-02 ± 9.737E-01, 3.169E-03 ± 1.276E-01, -1.477E-04 ± 9.255E-03

295, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.821E+00 ± 9.418E-01, 2.687E-01 ± 8.687E-01, 3.302E-02 ± 8.882E-02, 0.000E+00 ± 0.000E+00

296, 4.762E-02 ± 8.414E-01, -1.875E-01 ± 6.915E+00, -5.855E+00 ± 9.401E-01, 2.958E-02 ± 9.737E-01, 3.011E-03 ± 1.300E-01, -1.477E-04 ± 9.255E-03

297, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.351E+00 ± 2.129E+00, 5.100E-01 ± 9.353E-01, 3.309E-02 ± 8.900E-02, 0.000E+00 ± 0.000E+00

298, 4.617E-02 ± 7.735E-01, -1.745E-01 ± 6.428E+00, -6.353E+00 ± 2.136E+00, 3.107E-02 ± 9.731E-01, 3.218E-03 ± 1.237E-01, -1.477E-04 ± 9.255E-03

299, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.494E+00 ± 2.226E+00, 5.036E-01 ± 9.453E-01, 2.805E-02 ± 9.239E-02, 0.000E+00 ± 0.000E+00

300, 4.733E-02 ± 7.732E-01, -1.767E-01 ± 6.434E+00, -6.495E+00 ± 2.233E+00, 3.110E-02 ± 9.724E-01, 4.187E-03 ± 1.234E-01, -1.477E-04 ± 9.255E-03

301, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.956E+00 ± 1.033E+00, 2.847E-01 ± 8.701E-01, 2.827E-02 ± 9.206E-02, 0.000E+00 ± 0.000E+00

302, 4.940E-02 ± 8.410E-01, -1.899E-01 ± 6.920E+00, -5.989E+00 ± 1.031E+00, 2.968E-02 ± 9.729E-01, 4.058E-03 ± 1.298E-01, -1.477E-04 ± 9.255E-03

303, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -5.909E+00 ± 1.191E+00, -2.427E-01 ± 8.772E-01, 2.872E-02 ± 9.144E-02, 0.000E+00 ± 0.000E+00

304, 4.976E-02 ± 8.375E-01, -1.829E-01 ± 6.920E+00, -5.943E+00 ± 1.190E+00, 2.556E-02 ± 9.730E-01, 4.079E-03 ± 1.274E-01, -1.477E-04 ± 9.255E-03

305, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.395E+00 ± 2.398E+00, -4.682E-01 ± 9.572E-01, 2.905E-02 ± 9.149E-02, 0.000E+00 ± 0.000E+00

306, 4.812E-02 ± 7.655E-01, -1.684E-01 ± 6.434E+00, -6.400E+00 ± 2.406E+00, 2.419E-02 ± 9.726E-01, 4.248E-03 ± 1.187E-01, -1.477E-04 ± 9.255E-03

307, 3.256E-02 ± 5.156E-01, -8.497E-02 ± 3.523E+00, -7.280E+00 ± 2.242E+00, 2.555E-02 ± 9.710E-01, 5.261E-03 ± 8.839E-02, -1.477E-04 ± 9.255E-03

308, 3.231E-02 ± 5.157E-01, -7.596E-02 ± 3.525E+00, -7.341E+00 ± 2.222E+00, 3.017E-02 ± 9.707E-01, 5.217E-03 ± 8.847E-02, -1.477E-04 ± 9.255E-03

309, 3.059E-02 ± 5.007E-01, -8.021E-02 ± 3.038E+00, -7.428E+00 ± 1.136E+00, 2.552E-02 ± 9.710E-01, 5.315E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

310, 3.033E-02 ± 4.998E-01, -6.947E-02 ± 3.038E+00, -7.481E+00 ± 9.445E-01, 3.019E-02 ± 9.707E-01, 5.299E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03

311, 4.504E-02 ± 6.479E-01, -1.478E-01 ± 5.808E+00, -8.128E+00 ± 2.162E+00, 2.766E-02 ± 9.446E-01, 6.407E-03 ± 8.928E-02, -1.535E-04 ± 9.345E-03

312, 4.504E-02 ± 6.479E-01, -1.482E-01 ± 5.782E+00, -8.116E+00 ± 1.782E+00, 2.764E-02 ± 9.449E-01, 5.842E-03 ± 9.049E-02, -1.535E-04 ± 9.345E-03

313, 4.504E-02 ± 6.479E-01, -1.487E-01 ± 5.753E+00, -8.270E+00 ± 1.426E+00, 2.763E-02 ± 9.451E-01, 4.772E-03 ± 9.171E-02, -1.535E-04 ± 9.345E-03

314, 4.504E-02 ± 6.479E-01, -1.502E-01 ± 5.669E+00, -8.029E+00 ± 3.276E-01, 3.587E-02 ± 9.458E-01, 6.257E-03 ± 9.304E-02, -1.535E-04 ± 9.345E-03

315, 4.504E-02 ± 6.479E-01, -1.506E-01 ± 5.661E+00, -8.146E+00 ± 2.558E-01, 2.761E-02 ± 9.460E-01, 6.038E-03 ± 9.297E-02, -1.535E-04 ± 9.345E-03

316, 4.504E-02 ± 6.479E-01, -1.525E-01 ± 5.715E+00, -8.347E+00 ± 1.599E+00, 2.754E-02 ± 9.467E-01, 5.404E-03 ± 9.051E-02, -1.535E-04 ± 9.345E-03

317, 4.504E-02 ± 6.479E-01, -1.529E-01 ± 5.729E+00, -8.287E+00 ± 1.949E+00, 2.754E-02 ± 9.468E-01, 4.309E-03 ± 8.918E-02, -1.535E-04 ± 9.345E-03

318, 4.504E-02 ± 6.479E-01, -1.511E-01 ± 5.673E+00, -8.248E+00 ± 5.542E-01, 2.757E-02 ± 9.461E-01, 5.166E-03 ± 9.262E-02, -1.535E-04 ± 9.345E-03

319, 4.568E-02 ± 6.568E-01, -1.498E-01 ± 5.695E+00, -7.290E+00 ± 4.093E+00, 2.756E-02 ± 9.471E-01, 5.290E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

320, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.382E+00 ± 4.160E+00, 4.280E-02 ± 1.085E+00, -3.687E-03 ± 9.234E-02, 0.000E+00 ± 0.000E+00

321, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.387E+00 ± 4.118E+00, 4.527E-02 ± 9.501E-01, -7.240E-04 ± 9.175E-02, 0.000E+00 ± 0.000E+00

322, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.384E+00 ± 4.081E+00, 4.529E-02 ± 9.500E-01, -8.639E-04 ± 9.174E-02, 0.000E+00 ± 0.000E+00

323, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.321E+00 ± 3.961E+00, 4.531E-01 ± 1.020E+00, 3.329E-02 ± 8.906E-02, 0.000E+00 ± 0.000E+00

324, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.495E+00 ± 4.060E+00, 6.418E-02 ± 9.533E-01, 1.234E-03 ± 8.938E-02, 0.000E+00 ± 0.000E+00

325, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.402E+00 ± 4.057E+00, 3.813E-01 ± 1.050E+00, 2.781E-02 ± 9.282E-02, 0.000E+00 ± 0.000E+00

326, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.348E+00 ± 4.382E+00, 3.116E-02 ± 9.458E-01, 1.439E-02 ± 9.271E-02, 0.000E+00 ± 0.000E+00

327, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.340E+00 ± 4.329E+00, -1.878E-01 ± 1.055E+00, 1.037E-02 ± 9.563E-02, 0.000E+00 ± 0.000E+00

328, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.176E+00 ± 4.043E+00, -4.142E-01 ± 1.051E+00, 2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00

329, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.269E+00 ± 4.058E+00, -1.177E-02 ± 9.516E-01, 8.949E-04 ± 8.869E-02, 0.000E+00 ± 0.000E+00

330, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.098E+00 ± 3.987E+00, -3.957E-01 ± 1.020E+00, 3.327E-02 ± 8.859E-02, 0.000E+00 ± 0.000E+00

331, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.157E+00 ± 4.111E+00, 7.939E-03 ± 9.471E-01, -2.514E-03 ± 9.222E-02, 0.000E+00 ± 0.000E+00

332, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.167E+00 ± 4.169E+00, 7.959E-03 ± 9.472E-01, -2.382E-03 ± 9.223E-02, 0.000E+00 ± 0.000E+00
333, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.154E+00 ± 4.220E+00, 2.247E-02 ± 1.130E+00, 1.467E-02 ± 8.569E-02, 0.000E+00 ± 0.000E+00
334, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.098E+00 ± 4.295E+00, 2.247E-02 ± 1.130E+00, 1.476E-02 ± 8.569E-02, 0.000E+00 ± 0.000E+00
335, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.090E+00 ± 4.401E+00, -1.372E-03 ± 1.006E+00, -4.115E-02 ± 1.314E-01, 0.000E+00 ± 0.000E+00
336, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.183E+00 ± 1.230E+00, 7.929E-03 ± 9.471E-01, -2.500E-03 ± 9.222E-02, 0.000E+00 ± 0.000E+00
337, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.236E+00 ± 9.976E-01, 4.530E-02 ± 9.499E-01, -8.500E-04 ± 9.174E-02, 0.000E+00 ± 0.000E+00
338, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.232E+00 ± 1.147E+00, -1.176E-02 ± 9.516E-01, 9.116E-04 ± 8.870E-02, 0.000E+00 ± 0.000E+00
339, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.285E+00 ± 9.514E-01, 6.418E-02 ± 9.532E-01, 1.251E-03 ± 8.939E-02, 0.000E+00 ± 0.000E+00
340, 4.204E-02 ± 6.327E-01, -1.394E-01 ± 5.272E+00, -7.597E+00 ± 4.188E+00, 3.019E-02 ± 9.707E-01, 5.310E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
341, 4.327E-02 ± 6.279E-01, -1.394E-01 ± 5.272E+00, -7.368E+00 ± 4.182E+00, 2.553E-02 ± 9.710E-01, 5.323E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
342, 5.392E-02 ± 7.616E-01, -1.992E-01 ± 7.315E+00, -7.534E+00 ± 1.685E+00, 2.753E-02 ± 9.469E-01, 5.344E-03 ± 8.843E-02, -1.535E-04 ± 9.345E-03
343, 4.567E-02 ± 6.568E-01, -1.497E-01 ± 5.694E+00, -7.290E+00 ± 4.093E+00, 2.756E-02 ± 9.471E-01, 5.290E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
344, 4.568E-02 ± 6.568E-01, -1.520E-01 ± 5.702E+00, -7.368E+00 ± 4.182E+00, 2.755E-02 ± 9.470E-01, 5.339E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
345, 4.567E-02 ± 6.568E-01, -1.520E-01 ± 5.701E+00, -7.368E+00 ± 4.182E+00, 2.755E-02 ± 9.470E-01, 5.339E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
346, 4.568E-02 ± 6.569E-01, -1.472E-01 ± 5.844E+00, -7.203E+00 ± 4.541E+00, 2.758E-02 ± 9.472E-01, 5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
347, 4.441E-02 ± 6.616E-01, -1.472E-01 ± 5.844E+00, -7.433E+00 ± 4.470E+00, 2.749E-02 ± 9.472E-01, 5.226E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
348, 4.266E-02 ± 6.189E-01, -1.375E-01 ± 5.245E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 0.000E+00, -1.477E-04 ± 9.255E-03
349, 4.503E-02 ± 6.479E-01, -1.509E-01 ± 5.669E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -1.535E-04 ± 9.345E-03

--> Sollecitazioni nelle Aste (N, Ty, Tz, Mx, My, Mz) [kN, kN m]

1 (1-j'-2) [l=480 cm] [Piano XZ: 402 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
1', 231.72 ± 8.55, 2.92 ± 0.88, -25.17 ± 25.83, 0.01 ± 0.06, 87.70 ± 47.65, 9.10 ± 2.09
j', 39.96 ± 8.55, 71.32 ± 8.55, 2.92 ± 0.88, -25.17 ± 25.83, 0.01 ± 0.06, -13.35 ± 56.62, -4.89 ± 2.15
2, 39.96 ± 8.55, 2.92 ± 0.88, -25.17 ± 25.83, 0.01 ± 0.06, -33.11 ± 76.81, -4.89 ± 2.15
2 (3-2) [l=151 cm] - K.
3, 0.00 ± 0.00, 0.00 ± 0.00, 33.85 ± 35.94, 4.91 ± 0.80, -153.06 ± 37.58, 0.00 ± 0.00
2, 0.00 ± 0.00, 0.00 ± 0.00, 33.85 ± 35.94, 4.91 ± 0.80, -101.85 ± 34.09, 0.00 ± 0.00
3 (2-4) [l=151 cm] - K.
2, 0.00 ± 0.00, 0.00 ± 0.00, 28.77 ± 11.01, 0.00 ± 1.81, -56.82 ± 29.79, 0.00 ± 0.00
4, 0.00 ± 0.00, 0.00 ± 0.00, 28.77 ± 11.01, 0.00 ± 1.81, -13.26 ± 13.53, 0.00 ± 0.00
4 (5-j'-6) [l=480 cm] [Piano XZ: 402 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
5, 220.58 ± 10.02, 0.72 ± 0.80, 27.04 ± 27.09, 0.01 ± 0.06, -96.32 ± 51.72, 1.99 ± 1.81
j', 28.83 ± 10.02, 60.19 ± 10.02, 0.72 ± 0.80, 27.04 ± 27.09, 0.01 ± 0.06, 12.24 ± 57.19, -1.44 ± 2.03
6, 28.83 ± 10.02, 0.72 ± 0.80, 27.04 ± 27.09, 0.01 ± 0.06, 33.46 ± 78.42, -1.44 ± 2.03
5 (7-6) [l=151 cm] - K.
7, 0.00 ± 0.00, 0.00 ± 0.00, -30.11 ± 11.13, 0.00 ± 1.83, -14.77 ± 13.17, 0.00 ± 0.00
6, 0.00 ± 0.00, 0.00 ± 0.00, -30.11 ± 11.13, 0.00 ± 1.83, -60.33 ± 29.93, 0.00 ± 0.00
6 (6-8) [l=151 cm] - K.
6, 0.00 ± 0.00, 0.00 ± 0.00, -51.99 ± 32.65, -1.46 ± 0.35, -109.41 ± 35.88, 0.00 ± 0.00
8, 0.00 ± 0.00, 0.00 ± 0.00, -51.99 ± 32.65, -1.46 ± 0.35, -188.07 ± 33.52, 0.00 ± 0.00
7 (4-7) [l=227 cm] - S.
4, 0.00 ± 0.00, 0.00 ± 0.00, -0.66 ± 10.66, 0.00 ± 0.00, -2.27 ± 12.14, 0.00 ± 0.00
7, 0.00 ± 0.00, 0.00 ± 0.00, -0.66 ± 10.66, 0.00 ± 0.00, -3.78 ± 12.00, 0.00 ± 0.00
8 (9-i'-j'-10) [l=480 cm] [Piano XZ: 192 rig.-267 def.-21 rig.] [in i' j': N=Nxy,Nxz] - M.
9, 99.17 ± 6.14, -0.98 ± 0.83, 8.94 ± 8.33, 0.01 ± 0.03, -30.88 ± 26.37, -3.08 ± 1.94
i', 99.17 ± 6.14, 59.01 ± 6.14, -0.98 ± 0.83, 8.94 ± 8.33, 0.01 ± 0.03, -13.76 ± 10.42, -3.08 ± 1.94
j', -1.43 ± 6.14, 2.97 ± 6.14, -0.98 ± 0.83, 8.94 ± 8.33, 0.01 ± 0.03, 10.15 ± 11.84, 1.63 ± 2.03
10, -1.43 ± 6.14, -0.98 ± 0.83, 8.94 ± 8.33, 0.01 ± 0.03, 12.02 ± 13.59, 1.63 ± 2.03
9 (9-11) [l=79 cm] - K.
9, 0.00 ± 0.00, 0.00 ± 0.00, -20.44 ± 7.37, 3.32 ± 1.77, 43.06 ± 19.95, 0.00 ± 0.00
11, 0.00 ± 0.00, 0.00 ± 0.00, -20.44 ± 7.37, 3.32 ± 1.77, 26.83 ± 15.23, 0.00 ± 0.00
10 (8-10) [l=79 cm] - K.
8, 0.00 ± 0.00, 0.00 ± 0.00, -51.99 ± 32.65, -188.07 ± 33.52, 1.46 ± 0.35, 0.00 ± 0.00
10, 0.00 ± 0.00, 0.00 ± 0.00, -51.99 ± 32.65, -188.07 ± 33.52, -39.82 ± 25.64, 0.00 ± 0.00
11 (13-i'-j'-14) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.] [in i' j': N=Nxy,Nxz] - M.
13, 148.63 ± 11.10, -0.57 ± 0.63, 13.78 ± 11.06, 0.01 ± 0.04, -48.00 ± 34.16, -1.73 ± 1.18
i', 148.63 ± 11.10, 104.74 ± 11.10, -0.57 ± 0.63, 13.78 ± 11.06, 0.01 ± 0.04, -24.11 ± 14.99, -1.73 ± 1.18
j', 27.13 ± 11.10, 32.09 ± 11.10, -0.57 ± 0.63, 13.78 ± 11.06, 0.01 ± 0.04, 15.42 ± 16.76, 1.00 ± 1.84
14, 27.13 ± 11.10, -0.57 ± 0.63, 13.78 ± 11.06, 0.01 ± 0.04, 18.12 ± 18.92, 1.00 ± 1.84
12 (15-13) [l=96 cm] - K.
15, 0.00 ± 0.00, 0.00 ± 0.00, 34.20 ± 8.25, 3.32 ± 1.77, 39.35 ± 9.61, 0.00 ± 0.00
13, 0.00 ± 0.00, 0.00 ± 0.00, 34.20 ± 8.25, 3.32 ± 1.77, 72.12 ± 15.72, 0.00 ± 0.00
13 (14-17) [l=96 cm] - K.
14, 0.00 ± 0.00, 0.00 ± 0.00, -77.53 ± 22.17, -194.26 ± 32.55, -326.23 ± 154.50, 0.00 ± 0.00
17, 0.00 ± 0.00, 0.00 ± 0.00, -77.53 ± 22.17, -194.26 ± 32.55, -400.58 ± 174.86, 0.00 ± 0.00
14 (11-15) [l=227 cm] - F.
11, 0.00 ± 0.00, 0.00 ± 0.00, 4.00 ± 6.97, 2.61 ± 1.39, 3.60 ± 11.81, 0.00 ± 0.00

15, 0.00 ± 0.00, 0.00 ± 0.00, 4.00 ± 6.97, 2.61 ± 1.39, 12.66 ± 6.82, 0.00 ± 0.00
15 (12-16) [l=227 cm] - S.
12, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
16, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
16 (18-j'-19) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
18, 141.55 ± 11.71, -0.56 ± 0.61, 5.42 ± 5.95, 0.01 ± 0.03, -13.99 ± 11.30, -1.72 ± 1.13
j', 20.06 ± 11.71, 40.03 ± 11.71, -0.56 ± 0.61, 5.42 ± 5.95, 0.01 ± 0.03, 7.74 ± 12.57, 0.99 ± 1.79
19, 20.06 ± 11.71, -0.56 ± 0.61, 5.42 ± 5.95, 0.01 ± 0.03, 12.01 ± 17.26, 0.99 ± 1.79
17 (17-19) [l=96 cm] - K.
17, 0.00 ± 0.00, 0.00 ± 0.00, -77.53 ± 22.17, -194.26 ± 32.55, -400.58 ± 174.86, 0.00 ± 0.00
19, 0.00 ± 0.00, 0.00 ± 0.00, -77.53 ± 22.17, -194.26 ± 32.55, -474.93 ± 195.26, 0.00 ± 0.00
18 (19-20) [l=96 cm] - K.
19, 0.00 ± 0.00, 0.00 ± 0.00, -90.02 ± 10.25, -204.43 ± 35.57, -462.64 ± 198.06, 0.00 ± 0.00
20, 0.00 ± 0.00, 0.00 ± 0.00, -90.02 ± 10.25, -204.43 ± 35.57, -548.97 ± 201.26, 0.00 ± 0.00
19 (21-j'-22) [l=480 cm] [Piano XZ: 425 def.-55 rig.] [in j': N=Nxy,Nxz] - M.
21, 284.29 ± 13.84, -1.09 ± 1.70, 11.67 ± 15.39, 0.01 ± 0.06, -34.67 ± 30.83, -3.35 ± 4.15
j', 77.26 ± 13.84, 100.90 ± 13.84, -1.09 ± 1.70, 11.67 ± 15.39, 0.01 ± 0.06, 14.95 ± 34.71, 1.87 ± 4.00
22, 77.26 ± 13.84, -1.09 ± 1.70, 11.67 ± 15.39, 0.01 ± 0.06, 21.34 ± 43.09, 1.87 ± 4.00
20 (23-22) [l=163 cm] - K.
23, 0.00 ± 0.00, 0.00 ± 0.00, -182.36 ± 11.74, -215.20 ± 40.82, -857.04 ± 201.28, 0.00 ± 0.00
22, 0.00 ± 0.00, 0.00 ± 0.00, -182.36 ± 11.74, -215.20 ± 40.82, -1154.83 ± 197.35, 0.00 ± 0.00
21 (22-24) [l=163 cm] - K.
22, 0.00 ± 0.00, 0.00 ± 0.00, -166.80 ± 16.39, -232.50 ± 45.28, -1132.54 ± 205.18, 0.00 ± 0.00
24, 0.00 ± 0.00, 0.00 ± 0.00, -166.80 ± 16.39, -232.50 ± 45.28, -1405.10 ± 180.26, 0.00 ± 0.00
22 (20-23) [l=227 cm] - S.
20, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
23, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
23 (25-j'-26) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
25, 54.57 ± 2.12, -0.19 ± 0.29, 0.25 ± 0.36, 0.00 ± 0.01, -0.51 ± 0.63, -0.58 ± 0.71
j', 18.62 ± 2.12, 28.08 ± 2.12, -0.19 ± 0.29, 0.25 ± 0.36, 0.00 ± 0.01, 0.39 ± 0.65, 0.32 ± 0.68
26, 18.62 ± 2.12, -0.19 ± 0.29, 0.25 ± 0.36, 0.00 ± 0.01, 0.71 ± 1.11, 0.32 ± 0.68
24 (24-26) [l=28 cm] - K.
24, 0.00 ± 0.00, 0.00 ± 0.00, 9.13 ± 15.77, 6.71 ± 23.72, -1404.20 ± 180.66, 0.00 ± 0.00
26, 0.00 ± 0.00, 0.00 ± 0.00, 9.13 ± 15.77, 6.71 ± 23.72, -1401.61 ± 178.35, 0.00 ± 0.00
25 (26-27) [l=28 cm] - K.
26, 0.00 ± 0.00, 0.00 ± 0.00, 27.75 ± 16.95, 6.39 ± 24.39, -1400.90 ± 178.64, 0.00 ± 0.00
27, 0.00 ± 0.00, 0.00 ± 0.00, 27.75 ± 16.95, 6.39 ± 24.39, -1393.02 ± 176.06, 0.00 ± 0.00
26 (28-j'-29) [l=480 cm] [Piano XZ: 352 def.-128 rig.] [in j': N=Nxy,Nxz] - M.
28, 70.38 ± 3.66, -3.95 ± 0.21, -0.23 ± 0.28, 0.00 ± 0.00, 0.63 ± 0.47, -12.77 ± 0.49
j', 37.58 ± 3.66, 46.35 ± 3.66, -3.95 ± 0.21, -0.23 ± 0.28, 0.00 ± 0.00, -0.19 ± 0.50, 6.20 ± 0.53
29, 37.58 ± 3.66, -3.95 ± 0.21, -0.23 ± 0.28, 0.00 ± 0.00, -0.49 ± 0.85, 6.20 ± 0.53
27 (30-29) [l=26 cm] - K.
30, 0.00 ± 0.00, 0.00 ± 0.00, -41.26 ± 17.34, 4.39 ± 23.25, -1408.70 ± 162.42, 0.00 ± 0.00
29, 0.00 ± 0.00, 0.00 ± 0.00, -41.26 ± 17.34, 4.39 ± 23.25, -1419.34 ± 162.50, 0.00 ± 0.00
28 (29-31) [l=26 cm] - K.
29, 0.00 ± 0.00, 0.00 ± 0.00, -3.68 ± 16.29, -1.81 ± 23.76, -1419.83 ± 162.23, 0.00 ± 0.00
31, 0.00 ± 0.00, 0.00 ± 0.00, -3.68 ± 16.29, -1.81 ± 23.76, -1420.79 ± 161.59, 0.00 ± 0.00
29 (27-30) [l=227 cm] - S.
27, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
30, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
30 (32-i'-j'-33) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.] [in i' j': N=Nxy,Nxz] - M.
32, 343.38 ± 18.76, -22.25 ± 1.17, -32.00 ± 17.37, 0.01 ± 0.06, 136.25 ± 48.49, -71.89 ± 2.68
i', 343.38 ± 18.76, 293.78 ± 18.76, -22.25 ± 1.17, -32.00 ± 17.37, 0.01 ± 0.06, 95.04 ± 26.14, -71.89 ± 2.68
j', 158.53 ± 18.76, 164.81 ± 18.76, -22.25 ± 1.17, -32.00 ± 17.37, 0.01 ± 0.06, -12.11 ± 32.05, 34.90 ± 2.93
33, 158.53 ± 18.76, -22.25 ± 1.17, -32.00 ± 17.37, 0.01 ± 0.06, -17.33 ± 34.88, 34.90 ± 2.93
31 (32-34) [l=146 cm] - K.
32, 0.00 ± 0.00, 0.00 ± 0.00, -36.23 ± 10.96, 72.39 ± 1.24, 150.90 ± 31.25, 0.00 ± 0.00
34, 0.00 ± 0.00, 0.00 ± 0.00, -36.23 ± 10.96, 72.39 ± 1.24, 98.04 ± 15.83, 0.00 ± 0.00
32 (31-33) [l=146 cm] - K.
31, 0.00 ± 0.00, 0.00 ± 0.00, -1.39 ± 16.28, 1.23 ± 24.06, -1420.80 ± 161.58, 0.00 ± 0.00
33, 0.00 ± 0.00, 0.00 ± 0.00, -1.39 ± 16.28, 1.23 ± 24.06, -1422.84 ± 158.42, 0.00 ± 0.00
33 (33-35) [l=146 cm] - K.
33, 0.00 ± 0.00, 0.00 ± 0.00, 99.49 ± 20.16, -47.15 ± 19.04, -1440.27 ± 146.39, 0.00 ± 0.00
35, 0.00 ± 0.00, 0.00 ± 0.00, 99.49 ± 20.16, -47.15 ± 19.04, -1295.11 ± 126.54, 0.00 ± 0.00
34 (36-i'-j'-37) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.] [in i' j': N=Nxy,Nxz] - M.
36, 442.18 ± 23.58, -4.07 ± 3.00, 26.64 ± 39.17, 0.02 ± 0.13, -110.82 ± 89.68, -12.94 ± 7.36
i', 442.18 ± 23.58, 402.86 ± 23.58, -4.07 ± 3.00, 26.64 ± 39.17, 0.02 ± 0.13, -97.96 ± 70.79, -12.94 ± 7.36
j', 51.41 ± 23.58, 58.73 ± 23.58, -4.07 ± 3.00, 26.64 ± 39.17, 0.02 ± 0.13, 14.65 ± 97.68, 6.61 ± 7.05
37, 51.41 ± 23.58, -4.07 ± 3.00, 26.64 ± 39.17, 0.02 ± 0.13, 17.05 ± 101.12, 6.61 ± 7.05
35 (38-36) [l=308 cm] - K.
38, 0.00 ± 0.00, 0.00 ± 0.00, 110.46 ± 13.24, 72.39 ± 1.24, 96.05 ± 11.55, 0.00 ± 0.00
36, 0.00 ± 0.00, 0.00 ± 0.00, 110.46 ± 13.24, 72.39 ± 1.24, 436.60 ± 50.83, 0.00 ± 0.00
36 (39-37) [l=308 cm] - K.
39, 0.00 ± 0.00, 0.00 ± 0.00, 30.13 ± 14.90, -57.52 ± 14.66, -1148.48 ± 102.75, 0.00 ± 0.00
37, 0.00 ± 0.00, 0.00 ± 0.00, 30.13 ± 14.90, -57.52 ± 14.66, -1055.58 ± 97.41, 0.00 ± 0.00
37 (37-40) [l=308 cm] - K.
37, 0.00 ± 0.00, 0.00 ± 0.00, -38.02 ± 14.67, -91.99 ± 23.89, -1038.01 ± 54.04, 0.00 ± 0.00
40, 0.00 ± 0.00, 0.00 ± 0.00, -38.02 ± 14.67, -91.99 ± 23.89, -1155.27 ± 29.89, 0.00 ± 0.00
38 (34-38) [l=227 cm] - F.
34, 0.00 ± 0.00, 0.00 ± 0.00, 9.92 ± 8.05, 56.92 ± 0.98, 80.47 ± 11.78, 0.00 ± 0.00
38, 0.00 ± 0.00, 0.00 ± 0.00, 9.92 ± 8.05, 56.92 ± 0.98, 102.94 ± 7.70, 0.00 ± 0.00
39 (35-39) [l=227 cm] - S.
35, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
39, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
40 (41-j'-42) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
41, 43.77 ± 2.10, -0.37 ± 0.28, 0.22 ± 0.37, 0.00 ± 0.01, -0.43 ± 0.64, -1.18 ± 0.70

j' , 7.81 ± 2.10 , 17.27 ± 2.10 , -0.37 ± 0.28 , 0.22 ± 0.37 , 0.00 ± 0.01 , 0.35 ± 0.66 , 0.60 ± 0.67
 42, 7.81 ± 2.10 , -0.37 ± 0.28 , 0.22 ± 0.37 , 0.00 ± 0.01 , 0.62 ± 1.12 , 0.60 ± 0.67
 41 (40-42) [l=28 cm] - K.
 40, 0.00 ± 0.00 , 0.00 ± 0.00 , 134.28 ± 15.18 , 119.21 ± 34.26 , -1154.49 ± 29.72 , 0.00 ± 0.00
 42, 0.00 ± 0.00 , 0.00 ± 0.00 , 134.28 ± 15.18 , 119.21 ± 34.26 , -1116.36 ± 30.53 , 0.00 ± 0.00
 42 (42-43) [l=28 cm] - K.
 42, 0.00 ± 0.00 , 0.00 ± 0.00 , 142.09 ± 16.68 , 118.61 ± 34.82 , -1115.74 ± 30.18 , 0.00 ± 0.00
 43, 0.00 ± 0.00 , 0.00 ± 0.00 , 142.09 ± 16.68 , 118.61 ± 34.82 , -1075.38 ± 31.26 , 0.00 ± 0.00
 43 (44-j'-45) [l=480 cm] [Piano XZ: 425 def.-55 rig.] [in j': N=Nxy,Nxz] - M.
 44, 368.13 ± 18.64 , -20.70 ± 1.25 , -12.30 ± 15.16 , 0.01 ± 0.06 , 63.20 ± 29.78 , -66.90 ± 2.73
 j' , 160.77 ± 18.64 , 184.44 ± 18.64 , -20.70 ± 1.25 , -12.30 ± 15.16 , 0.01 ± 0.06 , 10.89 ± 34.79 , 32.45 ± 3.27
 45, 160.77 ± 18.64 , -20.70 ± 1.25 , -12.30 ± 15.16 , 0.01 ± 0.06 , 4.15 ± 43.01 , 32.45 ± 3.27
 44 (45-47) [l=164 cm] - K.
 45, 0.00 ± 0.00 , 0.00 ± 0.00 , 128.89 ± 5.16 , 62.15 ± 18.73 , -830.31 ± 36.88 , 0.00 ± 0.00
 47, 0.00 ± 0.00 , 0.00 ± 0.00 , 128.89 ± 5.16 , 62.15 ± 18.73 , -619.44 ± 42.27 , 0.00 ± 0.00
 45 (43-46) [l=227 cm] - S.
 43, 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 46, 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 46 (48-i'-j'-49) [l=480 cm] [Piano XZ: 116 rig.-349 def.-15 rig.] [in i' j': N=Nxy,Nxz] - M.
 48, 271.24 ± 15.15 , -20.66 ± 1.29 , -26.15 ± 20.33 , 0.01 ± 0.07 , 120.59 ± 56.01 , -66.78 ± 2.82
 i' , 271.24 ± 15.15 , 221.13 ± 15.15 , -20.66 ± 1.29 , -26.15 ± 20.33 , 0.01 ± 0.07 , 90.26 ± 32.43 , -66.78 ± 2.82
 j' , 63.88 ± 15.15 , 70.54 ± 15.15 , -20.66 ± 1.29 , -26.15 ± 20.33 , 0.01 ± 0.07 , -0.90 ± 38.45 , 32.38 ± 3.36
 49, 63.88 ± 15.15 , -20.66 ± 1.29 , -26.15 ± 20.33 , 0.01 ± 0.07 , -4.92 ± 41.57 , 32.38 ± 3.36
 47 (48-50) [l=164 cm] - K.
 48, 0.00 ± 0.00 , 0.00 ± 0.00 , -82.40 ± 10.19 , 65.08 ± 1.86 , 227.39 ± 27.62 , 0.00 ± 0.00
 50, 0.00 ± 0.00 , 0.00 ± 0.00 , -82.40 ± 10.19 , 65.08 ± 1.86 , 92.58 ± 12.13 , 0.00 ± 0.00
 48 (47-49) [l=164 cm] - K.
 47, 0.00 ± 0.00 , 0.00 ± 0.00 , 128.89 ± 5.16 , 62.15 ± 18.73 , -619.44 ± 42.27 , 0.00 ± 0.00
 49, 0.00 ± 0.00 , 0.00 ± 0.00 , 128.89 ± 5.16 , 62.15 ± 18.73 , -408.45 ± 47.97 , 0.00 ± 0.00
 49 (52-i'-j'-53) [l=480 cm] [Piano XZ: 206 rig.-252 def.-22 rig.] [in i' j': N=Nxy,Nxz] - M.
 52, 75.00 ± 5.21 , -0.07 ± 0.74 , -2.71 ± 7.05 , 0.00 ± 0.03 , 10.77 ± 23.09 , -0.18 ± 1.82
 i' , 75.00 ± 5.21 , 38.31 ± 5.21 , -0.07 ± 0.74 , -2.71 ± 7.05 , 0.00 ± 0.03 , 5.17 ± 8.53 , -0.18 ± 1.82
 j' , -10.31 ± 5.21 , -6.40 ± 5.21 , -0.07 ± 0.74 , -2.71 ± 7.05 , 0.00 ± 0.03 , -1.65 ± 9.22 , 0.14 ± 1.75
 53, -10.31 ± 5.21 , -0.07 ± 0.74 , -2.71 ± 7.05 , 0.00 ± 0.03 , -2.24 ± 10.77 , 0.14 ± 1.75
 50 (54-52) [l=67 cm] - K.
 54, 0.00 ± 0.00 , 0.00 ± 0.00 , 3.56 ± 7.25 , 65.08 ± 1.86 , 28.79 ± 15.21 , 0.00 ± 0.00
 52, 0.00 ± 0.00 , 0.00 ± 0.00 , 3.56 ± 7.25 , 65.08 ± 1.86 , 31.19 ± 20.05 , 0.00 ± 0.00
 51 (55-53) [l=67 cm] - K.
 55, 0.00 ± 0.00 , 0.00 ± 0.00 , 43.41 ± 0.81 , 5.87 ± 3.28 , -26.96 ± 10.75 , 0.00 ± 0.00
 53, 0.00 ± 0.00 , 0.00 ± 0.00 , 43.41 ± 0.81 , 5.87 ± 3.28 , 2.26 ± 11.13 , 0.00 ± 0.00
 52 (50-54) [l=227 cm] - F.
 50, 0.00 ± 0.00 , 0.00 ± 0.00 , -21.88 ± 8.04 , 51.17 ± 1.46 , 62.74 ± 8.25 , 0.00 ± 0.00
 54, 0.00 ± 0.00 , 0.00 ± 0.00 , -21.88 ± 8.04 , 51.17 ± 1.46 , 13.17 ± 9.96 , 0.00 ± 0.00
 53 (51-55) [l=227 cm] - S.
 51, 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 55, 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 54 (56-j'-57) [l=480 cm] [Piano XZ: 261 def.-219 rig.] [in j': N=Nxy,Nxz] - M.
 56, 81.95 ± 4.68 , 0.05 ± 0.73 , 1.03 ± 6.93 , 0.00 ± 0.02 , 0.27 ± 8.73 , 0.00 ± 1.79
 j' , -2.27 ± 4.68 , 36.10 ± 4.68 , 0.05 ± 0.73 , 1.03 ± 6.93 , 0.00 ± 0.02 , 2.98 ± 9.37 , -0.22 ± 1.72
 57, -2.27 ± 4.68 , 0.05 ± 0.73 , 1.03 ± 6.93 , 0.00 ± 0.02 , 5.24 ± 24.53 , -0.22 ± 1.72
 55 (57-58) [l=67 cm] - K.
 57, 0.00 ± 0.00 , 0.00 ± 0.00 , -2.27 ± 2.95 , -0.23 ± 1.72 , -5.24 ± 24.53 , 0.00 ± 0.00
 58, 0.00 ± 0.00 , 0.00 ± 0.00 , -2.27 ± 2.95 , -0.23 ± 1.72 , -6.75 ± 24.45 , 0.00 ± 0.00
 56 (59-j'-60) [l=480 cm] [Piano XZ: 231 def.-249 rig.] [in j': N=Nxy,Nxz] - M.
 59, 60.24 ± 3.46 , 3.42 ± 0.32 , 1.00 ± 3.65 , 0.00 ± 0.01 , -0.85 ± 4.23 , 10.96 ± 0.67
 j' , 5.52 ± 3.46 , 33.91 ± 3.46 , 3.42 ± 0.32 , 1.00 ± 3.65 , 0.00 ± 0.01 , 1.46 ± 4.20 , -5.43 ± 0.87
 60, 5.52 ± 3.46 , 3.42 ± 0.32 , 1.00 ± 3.65 , 0.00 ± 0.01 , 3.96 ± 13.28 , -5.43 ± 0.87
 57 (61-60) [l=43 cm] - K.
 61, 0.00 ± 0.00 , 0.00 ± 0.00 , -57.92 ± 3.44 , -1.99 ± 0.50 , -42.01 ± 23.72 , 0.00 ± 0.00
 60, 0.00 ± 0.00 , 0.00 ± 0.00 , -57.92 ± 3.44 , -1.99 ± 0.50 , -67.03 ± 23.15 , 0.00 ± 0.00
 58 (60-62) [l=43 cm] - K.
 60, 0.00 ± 0.00 , 0.00 ± 0.00 , -52.40 ± 3.07 , -7.42 ± 1.35 , -70.99 ± 36.14 , 0.00 ± 0.00
 62, 0.00 ± 0.00 , 0.00 ± 0.00 , -52.40 ± 3.07 , -7.42 ± 1.35 , -93.62 ± 35.16 , 0.00 ± 0.00
 59 (58-61) [l=100 cm] - S.
 58, 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 61, 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 60 (63-i'-j'-64) [l=480 cm] [Piano XZ: 238 rig.-213 def.-28 rig.] [in i' j': N=Nxy,Nxz] - M.
 63, 77.07 ± 4.34 , 3.42 ± 0.32 , 0.02 ± 4.47 , 0.00 ± 0.01 , 0.22 ± 15.44 , 10.96 ± 0.67
 i' , 77.07 ± 4.34 , 49.89 ± 4.34 , 3.42 ± 0.32 , 0.02 ± 4.47 , 0.00 ± 0.01 , 0.28 ± 4.78 , 10.96 ± 0.67
 j' , 22.35 ± 4.34 , 25.58 ± 4.34 , 3.42 ± 0.32 , 0.02 ± 4.47 , 0.00 ± 0.01 , 0.33 ± 4.75 , -5.43 ± 0.86
 64, 22.35 ± 4.34 , 3.42 ± 0.32 , 0.02 ± 4.47 , 0.00 ± 0.01 , 0.34 ± 6.02 , -5.43 ± 0.86
 61 (63-65) [l=43 cm] - K.
 63, 0.00 ± 0.00 , 0.00 ± 0.00 , -3.15 ± 3.05 , -42.13 ± 0.63 , 63.18 ± 6.84 , 0.00 ± 0.00
 65, 0.00 ± 0.00 , 0.00 ± 0.00 , -3.15 ± 3.05 , -42.13 ± 0.63 , 61.82 ± 5.96 , 0.00 ± 0.00
 62 (62-64) [l=43 cm] - K.
 62, 0.00 ± 0.00 , 0.00 ± 0.00 , -52.40 ± 3.07 , -7.21 ± 1.38 , -93.64 ± 35.16 , 0.00 ± 0.00
 64, 0.00 ± 0.00 , 0.00 ± 0.00 , -52.40 ± 3.07 , -7.21 ± 1.38 , -116.23 ± 34.19 , 0.00 ± 0.00
 63 (64-66) [l=43 cm] - K.
 64, 0.00 ± 0.00 , 0.00 ± 0.00 , -30.05 ± 4.38 , -12.64 ± 2.23 , -116.56 ± 39.68 , 0.00 ± 0.00
 66, 0.00 ± 0.00 , 0.00 ± 0.00 , -30.05 ± 4.38 , -12.64 ± 2.23 , -129.54 ± 38.08 , 0.00 ± 0.00
 64 (67-i'-j'-68) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.] [in i' j': N=Nxy,Nxz] - M.
 67, 213.00 ± 12.57 , 15.34 ± 0.77 , -18.00 ± 10.87 , 0.01 ± 0.04 , 68.91 ± 33.59 , 49.47 ± 1.72
 i' , 213.00 ± 12.57 , 169.11 ± 12.57 , 15.34 ± 0.77 , -18.00 ± 10.87 , 0.01 ± 0.04 , 37.70 ± 14.75 , 49.47 ± 1.72
 j' , 91.50 ± 12.57 , 96.47 ± 12.57 , 15.34 ± 0.77 , -18.00 ± 10.87 , 0.01 ± 0.04 , -13.96 ± 16.44 , -24.18 ± 1.99
 68, 91.50 ± 12.57 , 15.34 ± 0.77 , -18.00 ± 10.87 , 0.01 ± 0.04 , -17.49 ± 18.57 , -24.18 ± 1.99
 65 (69-67) [l=96 cm] - K.

69, 0.00 ± 0.00, 0.00 ± 0.00, 41.52 ± 6.67, -42.13 ± 0.63, 102.06 ± 14.15, 0.00 ± 0.00
67, 0.00 ± 0.00, 0.00 ± 0.00, 41.52 ± 6.67, -42.13 ± 0.63, 141.87 ± 18.86, 0.00 ± 0.00
66 (68-71) [l=96 cm] - K.
68, 0.00 ± 0.00, 0.00 ± 0.00, -112.12 ± 8.13, -58.50 ± 14.57, -500.84 ± 48.66, 0.00 ± 0.00
71, 0.00 ± 0.00, 0.00 ± 0.00, -112.12 ± 8.13, -58.50 ± 14.57, -608.36 ± 44.42, 0.00 ± 0.00
67 (65-69) [l=227 cm] - F.
65, 0.00 ± 0.00, 0.00 ± 0.00, 12.35 ± 5.24, -33.13 ± 0.50, 41.22 ± 6.46, 0.00 ± 0.00
69, 0.00 ± 0.00, 0.00 ± 0.00, 12.35 ± 5.24, -33.13 ± 0.50, 69.18 ± 11.45, 0.00 ± 0.00
68 (66-70) [l=227 cm] - S.
66, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
70, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
69 (72-j'-73) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
72, 228.28 ± 12.34, 15.35 ± 0.76, -4.80 ± 5.84, 0.01 ± 0.03, 18.15 ± 11.10, 49.48 ± 1.69
j', 106.79 ± 12.34, 126.76 ± 12.34, 15.35 ± 0.76, -4.80 ± 5.84, 0.01 ± 0.03, -1.11 ± 12.35, -24.18 ± 1.96
73, 106.79 ± 12.34, 15.35 ± 0.76, -4.80 ± 5.84, 0.01 ± 0.03, -4.90 ± 16.94, -24.18 ± 1.96
70 (71-73) [l=96 cm] - K.
71, 0.00 ± 0.00, 0.00 ± 0.00, -112.12 ± 8.13, -58.50 ± 14.57, -608.36 ± 44.42, 0.00 ± 0.00
73, 0.00 ± 0.00, 0.00 ± 0.00, -112.12 ± 8.13, -58.50 ± 14.57, -715.88 ± 41.48, 0.00 ± 0.00
71 (75-j'-76) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
75, 42.63 ± 2.16, 0.45 ± 0.29, 0.24 ± 0.36, 0.00 ± 0.01, -0.46 ± 0.62, 1.40 ± 0.70
j', 6.67 ± 2.16, 16.13 ± 2.16, 0.45 ± 0.29, 0.24 ± 0.36, 0.00 ± 0.01, 0.37 ± 0.65, -0.76 ± 0.67
76, 6.67 ± 2.16, 0.45 ± 0.29, 0.24 ± 0.36, 0.00 ± 0.01, 0.67 ± 1.10, -0.76 ± 0.67
72 (77-76) [l=28 cm] - K.
77, 0.00 ± 0.00, 0.00 ± 0.00, -82.50 ± 12.58, -81.23 ± 14.90, -830.31 ± 33.00, 0.00 ± 0.00
76, 0.00 ± 0.00, 0.00 ± 0.00, -82.50 ± 12.58, -81.23 ± 14.90, -853.74 ± 32.48, 0.00 ± 0.00
73 (76-78) [l=28 cm] - K.
76, 0.00 ± 0.00, 0.00 ± 0.00, -75.83 ± 11.25, -81.99 ± 14.33, -854.41 ± 32.84, 0.00 ± 0.00
78, 0.00 ± 0.00, 0.00 ± 0.00, -75.83 ± 11.25, -81.99 ± 14.33, -875.95 ± 32.22, 0.00 ± 0.00
74 (74-77) [l=227 cm] - S.
74, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
77, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
75 (79-i'-j'-80) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.] [in i' j': N=Nxy,Nxz] - M.
79, 426.79 ± 23.98, 4.87 ± 3.03, 28.74 ± 38.32, 0.02 ± 0.13, -120.30 ± 86.84, 15.16 ± 7.47
i', 426.79 ± 23.98, 387.47 ± 23.98, 4.87 ± 3.03, 28.74 ± 38.32, 0.02 ± 0.13, -106.42 ± 68.36, 15.16 ± 7.47
j', 36.02 ± 23.98, 43.35 ± 23.98, 4.87 ± 3.03, 28.74 ± 38.32, 0.02 ± 0.13, 15.06 ± 96.81, -8.23 ± 7.08
80, 36.02 ± 23.98, 4.87 ± 3.03, 28.74 ± 38.32, 0.02 ± 0.13, 17.65 ± 100.19, -8.23 ± 7.08
76 (79-81) [l=308 cm] - K.
79, 0.00 ± 0.00, 0.00 ± 0.00, -104.51 ± 13.14, -71.46 ± 1.30, 419.19 ± 50.88, 0.00 ± 0.00
81, 0.00 ± 0.00, 0.00 ± 0.00, -104.51 ± 13.14, -71.46 ± 1.30, 96.99 ± 11.81, 0.00 ± 0.00
77 (78-80) [l=308 cm] - K.
78, 0.00 ± 0.00, 0.00 ± 0.00, 84.73 ± 9.99, 85.11 ± 34.76, -876.72 ± 32.35, 0.00 ± 0.00
80, 0.00 ± 0.00, 0.00 ± 0.00, 84.73 ± 9.99, 85.11 ± 34.76, -615.42 ± 53.24, 0.00 ± 0.00
78 (80-82) [l=308 cm] - K.
80, 0.00 ± 0.00, 0.00 ± 0.00, -20.30 ± 12.99, 51.33 ± 24.97, -643.16 ± 101.33, 0.00 ± 0.00
82, 0.00 ± 0.00, 0.00 ± 0.00, -20.30 ± 12.99, 51.33 ± 24.97, -705.75 ± 108.24, 0.00 ± 0.00
79 (83-i'-j'-84) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.] [in i' j': N=Nxy,Nxz] - M.
83, 331.88 ± 19.06, 22.32 ± 1.17, -31.41 ± 17.18, 0.01 ± 0.06, 134.45 ± 48.02, 71.99 ± 2.68
i', 331.88 ± 19.06, 282.28 ± 19.06, 22.32 ± 1.17, -31.41 ± 17.18, 0.01 ± 0.06, 93.99 ± 25.90, 71.99 ± 2.68
j', 147.03 ± 19.06, 153.31 ± 19.06, 22.32 ± 1.17, -31.41 ± 17.18, 0.01 ± 0.06, -11.19 ± 31.66, -35.15 ± 2.92
84, 147.03 ± 19.06, 22.32 ± 1.17, -31.41 ± 17.18, 0.01 ± 0.06, -16.31 ± 34.46, -35.15 ± 2.92
80 (85-83) [l=146 cm] - K.
85, 0.00 ± 0.00, 0.00 ± 0.00, 33.21 ± 10.93, -71.46 ± 1.30, 98.71 ± 15.30, 0.00 ± 0.00
83, 0.00 ± 0.00, 0.00 ± 0.00, 33.21 ± 10.93, -71.46 ± 1.30, 147.16 ± 30.82, 0.00 ± 0.00
81 (86-84) [l=146 cm] - K.
86, 0.00 ± 0.00, 0.00 ± 0.00, -93.78 ± 18.95, 42.09 ± 19.14, -835.33 ± 132.69, 0.00 ± 0.00
84, 0.00 ± 0.00, 0.00 ± 0.00, -93.78 ± 18.95, 42.09 ± 19.14, -972.15 ± 152.82, 0.00 ± 0.00
82 (84-87) [l=146 cm] - K.
84, 0.00 ± 0.00, 0.00 ± 0.00, -7.84 ± 14.44, -4.83 ± 14.58, -956.40 ± 166.38, 0.00 ± 0.00
87, 0.00 ± 0.00, 0.00 ± 0.00, -7.84 ± 14.44, -4.83 ± 14.58, -967.84 ± 171.15, 0.00 ± 0.00
83 (81-85) [l=227 cm] - F.
81, 0.00 ± 0.00, 0.00 ± 0.00, -9.57 ± 7.99, -56.19 ± 1.02, 103.51 ± 7.96, 0.00 ± 0.00
85, 0.00 ± 0.00, 0.00 ± 0.00, -9.57 ± 7.99, -56.19 ± 1.02, 81.82 ± 11.29, 0.00 ± 0.00
84 (82-86) [l=227 cm] - S.
82, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
85 (88-j'-89) [l=480 cm] [Piano XZ: 352 def.-128 rig.] [in j': N=Nxy,Nxz] - M.
88, 68.35 ± 3.74, 3.96 ± 0.21, -0.23 ± 0.27, 0.00 ± 0.00, 0.62 ± 0.46, 12.79 ± 0.49
j', 35.56 ± 3.74, 44.32 ± 3.74, 3.96 ± 0.21, -0.23 ± 0.27, 0.00 ± 0.00, -0.18 ± 0.49, -6.24 ± 0.53
89, 35.56 ± 3.74, 3.96 ± 0.21, -0.23 ± 0.27, 0.00 ± 0.00, -0.46 ± 0.84, -6.24 ± 0.53
86 (87-89) [l=26 cm] - K.
87, 0.00 ± 0.00, 0.00 ± 0.00, -4.86 ± 14.44, -0.73 ± 14.86, -967.82 ± 171.18, 0.00 ± 0.00
89, 0.00 ± 0.00, 0.00 ± 0.00, -4.86 ± 14.44, -0.73 ± 14.86, -969.08 ± 172.03, 0.00 ± 0.00
87 (89-90) [l=26 cm] - K.
89, 0.00 ± 0.00, 0.00 ± 0.00, 30.70 ± 15.40, -6.97 ± 15.31, -968.61 ± 172.34, 0.00 ± 0.00
90, 0.00 ± 0.00, 0.00 ± 0.00, 30.70 ± 15.40, -6.97 ± 15.31, -960.69 ± 172.39, 0.00 ± 0.00
88 (91-j'-92) [l=480 cm] [Piano XZ: 354 def.-126 rig.] [in j': N=Nxy,Nxz] - M.
91, 53.22 ± 2.21, 0.24 ± 0.29, 0.29 ± 0.35, 0.00 ± 0.01, -0.59 ± 0.60, 0.72 ± 0.72
j', 17.27 ± 2.21, 26.73 ± 2.21, 0.24 ± 0.29, 0.29 ± 0.35, 0.00 ± 0.01, 0.43 ± 0.64, -0.42 ± 0.68
92, 17.27 ± 2.21, 0.24 ± 0.29, 0.29 ± 0.35, 0.00 ± 0.01, 0.80 ± 1.08, -0.42 ± 0.68
89 (93-92) [l=28 cm] - K.
93, 0.00 ± 0.00, 0.00 ± 0.00, -38.71 ± 15.07, -8.67 ± 14.29, -969.41 ± 175.88, 0.00 ± 0.00
92, 0.00 ± 0.00, 0.00 ± 0.00, -38.71 ± 15.07, -8.67 ± 14.29, -980.40 ± 177.59, 0.00 ± 0.00
90 (92-94) [l=28 cm] - K.
92, 0.00 ± 0.00, 0.00 ± 0.00, -21.44 ± 13.87, -9.10 ± 14.86, -981.20 ± 177.47, 0.00 ± 0.00
94, 0.00 ± 0.00, 0.00 ± 0.00, -21.44 ± 13.87, -9.10 ± 14.86, -987.29 ± 179.45, 0.00 ± 0.00
91 (90-93) [l=227 cm] - S.

90, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 93, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 92 (95-j'-96) [l=480 cm] [Piano XZ: 425 def.-55 rig.] [in j': N=Nxy,Nxz] - M.
 95, 271.51 ± 13.78, 1.37 ± 1.72, 13.49 ± 14.75, 0.01 ± 0.06, -41.33 ± 28.72, 4.15 ± 4.25
 j', 64.48 ± 13.78, 88.12 ± 13.78, 1.37 ± 1.72, 13.49 ± 14.75, 0.01 ± 0.06, 16.05 ± 34.21, -2.42 ± 4.03
 96, 64.48 ± 13.78, 1.37 ± 1.72, 13.49 ± 14.75, 0.01 ± 0.06, 23.44 ± 42.10, -2.42 ± 4.03
 93 (94-96) [l=163 cm] - K.
 94, 0.00 ± 0.00, 0.00 ± 0.00, 141.60 ± 16.52, 190.10 ± 49.89, -988.23 ± 179.23, 0.00 ± 0.00
 96, 0.00 ± 0.00, 0.00 ± 0.00, 141.60 ± 16.52, 190.10 ± 49.89, -756.86 ± 204.41, 0.00 ± 0.00
 94 (96-97) [l=163 cm] - K.
 96, 0.00 ± 0.00, 0.00 ± 0.00, 140.37 ± 12.03, 174.81 ± 45.31, -781.07 ± 209.40, 0.00 ± 0.00
 97, 0.00 ± 0.00, 0.00 ± 0.00, 140.37 ± 12.03, 174.81 ± 45.31, -551.85 ± 206.91, 0.00 ± 0.00
 95 (98-j'-99) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
 98, 157.66 ± 11.50, 0.29 ± 0.44, -0.14 ± 6.03, 0.01 ± 0.03, 3.60 ± 11.72, 0.79 ± 0.61
 j', 36.17 ± 11.50, 56.14 ± 11.50, 0.29 ± 0.44, -0.14 ± 6.03, 0.01 ± 0.03, 3.03 ± 12.52, -0.62 ± 1.53
 99, 36.17 ± 11.50, 0.29 ± 0.44, -0.14 ± 6.03, 0.01 ± 0.03, 2.92 ± 17.25, -0.62 ± 1.53
 96 (100-99) [l=96 cm] - K.
 100, 0.00 ± 0.00, 0.00 ± 0.00, 43.65 ± 9.97, 166.00 ± 40.01, -343.79 ± 206.28, 0.00 ± 0.00
 99, 0.00 ± 0.00, 0.00 ± 0.00, 43.65 ± 9.97, 166.00 ± 40.01, -301.93 ± 203.66, 0.00 ± 0.00
 97 (99-101) [l=96 cm] - K.
 99, 0.00 ± 0.00, 0.00 ± 0.00, 42.13 ± 23.13, 158.00 ± 36.78, -305.11 ± 201.15, 0.00 ± 0.00
 101, 0.00 ± 0.00, 0.00 ± 0.00, 42.13 ± 23.13, 158.00 ± 36.78, -264.70 ± 180.98, 0.00 ± 0.00
 98 (97-100) [l=227 cm] - S.
 97, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 100, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 99 (102-j'-103) [l=480 cm] [Piano XZ: 401 def.-79 rig.] [in j': N=Nxy,Nxz] - M.
 102, 176.60 ± 12.96, 0.29 ± 0.47, -0.16 ± 6.03, 0.01 ± 0.03, 3.65 ± 11.72, 0.78 ± 0.66
 j', 55.11 ± 12.96, 75.08 ± 12.96, 0.29 ± 0.47, -0.16 ± 6.03, 0.01 ± 0.03, 3.02 ± 12.52, -0.61 ± 1.58
 103, 55.11 ± 12.96, 0.29 ± 0.47, -0.16 ± 6.03, 0.01 ± 0.03, 2.90 ± 17.25, -0.61 ± 1.58
 100 (101-103) [l=96 cm] - K.
 101, 0.00 ± 0.00, 0.00 ± 0.00, 42.13 ± 23.13, 158.00 ± 36.78, -264.70 ± 180.98, 0.00 ± 0.00
 103, 0.00 ± 0.00, 0.00 ± 0.00, 42.13 ± 23.13, 158.00 ± 36.78, -224.30 ± 161.05, 0.00 ± 0.00
 101 (105-j'-106) [l=480 cm] [Piano XZ: 391 def.-90 rig.] [in j': N=Nxy,Nxz] - M.
 105, 118.56 ± 5.29, 0.91 ± 0.78, 11.72 ± 4.29, 0.00 ± 0.03, -32.40 ± 8.24, 2.83 ± 1.81
 j', 17.96 ± 5.29, 36.72 ± 5.29, 0.91 ± 0.78, 11.72 ± 4.29, 0.00 ± 0.03, 13.36 ± 8.53, -1.55 ± 1.96
 106, 17.96 ± 5.29, 0.91 ± 0.78, 11.72 ± 4.29, 0.00 ± 0.03, 23.85 ± 12.37, -1.55 ± 1.96
 102 (106-3) [l=79 cm] - K.
 106, 0.00 ± 0.00, 0.00 ± 0.00, 33.85 ± 35.94, 153.06 ± 37.58, -21.97 ± 27.76, 0.00 ± 0.00
 3, 0.00 ± 0.00, 0.00 ± 0.00, 33.85 ± 35.94, 153.06 ± 37.58, 4.91 ± 0.80, 0.00 ± 0.00
 103 (104-107) [l=227 cm] - S.
 104, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 107, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 104 (108-109) [l=608 cm] - M.
 108, 215.36 ± 9.64, -0.17 ± 0.55, 0.71 ± 25.44, 0.01 ± 0.06, -10.83 ± 76.37, -0.96 ± 1.58
 109, -118.85 ± 9.64, -0.17 ± 0.55, 0.71 ± 25.44, 0.01 ± 0.06, -6.54 ± 78.43, 0.07 ± 1.76
 105 (110-109) [l=224 cm] - K.
 110, 182.17 ± 12.45, 59.21 ± 204.86, 80.57 ± 43.65, -155.36 ± 537.52, 118.19 ± 145.35, 214.46 ± 742.03
 109, 181.02 ± 12.45, 59.21 ± 204.86, 77.69 ± 43.65, -155.36 ± 537.52, 295.52 ± 47.87, 81.77 ± 282.91
 106 (112-j'-113) [l=420 cm] [Piano XZ: 361 def.-59 rig.] [in j': N=Nxy,Nxz] - M.
 112, 261.59 ± 5.62, 0.40 ± 0.44, -17.86 ± 26.47, 0.00 ± 0.02, 55.63 ± 50.69, 0.98 ± 0.89
 j', 173.71 ± 5.62, 186.08 ± 5.62, 0.40 ± 0.44, -17.86 ± 26.47, 0.00 ± 0.02, -8.81 ± 44.90, -0.70 ± 0.95
 113, 173.71 ± 5.62, 0.40 ± 0.44, -17.86 ± 26.47, 0.00 ± 0.02, -19.37 ± 60.53, -0.70 ± 0.95
 107 (114-113) [l=153 cm] - K.
 114, -32.86 ± 21.45, 0.39 ± 0.50, -163.04 ± 9.49, 0.70 ± 0.91, 179.48 ± 30.10, 0.30 ± 0.39
 113, -32.86 ± 21.45, 0.39 ± 0.50, -163.04 ± 9.49, 0.70 ± 0.91, -69.96 ± 41.96, -0.30 ± 0.39
 108 (113-115) [l=153 cm] - K.
 113, 5.30 ± 6.71, 0.00 ± 0.00, 10.68 ± 8.55, 0.00 ± 0.00, -16.99 ± 17.71, 0.00 ± 0.00
 115, 5.30 ± 6.71, 0.00 ± 0.00, 10.68 ± 8.55, 0.00 ± 0.00, -0.67 ± 4.66, 0.00 ± 0.00
 109 (116-j'-117) [l=420 cm] [Piano XZ: 363 def.-57 rig.] [in j': N=Nxy,Nxz] - M.
 116, 282.14 ± 5.73, 0.37 ± 0.48, 15.18 ± 28.81, 0.00 ± 0.03, -51.71 ± 54.86, 0.90 ± 0.99
 j', 188.52 ± 5.73, 201.31 ± 5.73, 0.37 ± 0.48, 15.18 ± 28.81, 0.00 ± 0.03, 3.33 ± 49.79, -0.67 ± 1.03
 117, 188.52 ± 5.73, 0.37 ± 0.48, 15.18 ± 28.81, 0.00 ± 0.03, 12.04 ± 66.31, -0.67 ± 1.03
 110 (118-117) [l=163 cm] - K.
 118, 7.06 ± 6.83, 0.00 ± 0.00, -12.58 ± 8.61, 0.00 ± 0.00, -1.51 ± 4.40, 0.00 ± 0.00
 117, 7.06 ± 6.83, 0.00 ± 0.00, -12.58 ± 8.61, 0.00 ± 0.00, -22.01 ± 18.39, 0.00 ± 0.00
 111 (117-119) [l=163 cm] - K.
 117, -42.31 ± 24.16, -0.37 ± 0.55, 175.94 ± 9.30, -0.67 ± 1.00, -72.78 ± 46.82, -0.30 ± 0.45
 119, -42.31 ± 24.16, -0.37 ± 0.55, 175.94 ± 9.30, -0.67 ± 1.00, 213.82 ± 34.62, 0.30 ± 0.45
 112 (115-118) [l=200 cm] - S.
 115, 4.79 ± 0.23, 0.00 ± 0.00, -0.95 ± 8.56, 0.00 ± 0.00, -0.97 ± 8.61, 0.00 ± 0.00
 118, 4.79 ± 0.23, 0.00 ± 0.00, -0.95 ± 8.56, 0.00 ± 0.00, -2.87 ± 8.52, 0.00 ± 0.00
 113 (120-j'-121) [l=420 cm] [Piano XZ: 361 def.-59 rig.] [in j': N=Nxy,Nxz] - M.
 120, 259.21 ± 5.28, 0.31 ± 0.45, -32.52 ± 25.70, 0.00 ± 0.02, 108.30 ± 49.13, 0.74 ± 0.92
 j', 171.33 ± 5.28, 183.70 ± 5.28, 0.31 ± 0.45, -32.52 ± 25.70, 0.00 ± 0.02, -9.06 ± 44.10, -0.58 ± 0.96
 121, 171.33 ± 5.28, 0.31 ± 0.45, -32.52 ± 25.70, 0.00 ± 0.02, -28.28 ± 59.12, -0.58 ± 0.96
 114 (122-121) [l=153 cm] - K.
 122, -19.53 ± 21.92, 0.32 ± 0.16, -160.55 ± 9.15, 0.58 ± 0.29, 155.38 ± 31.98, 0.24 ± 0.12
 121, -19.53 ± 21.92, 0.32 ± 0.16, -160.55 ± 9.15, 0.58 ± 0.29, -90.26 ± 41.84, -0.24 ± 0.12
 115 (121-123) [l=153 cm] - K.
 121, 9.93 ± 6.89, 0.00 ± 0.36, 10.78 ± 8.39, 0.00 ± 0.65, -24.79 ± 17.89, 0.00 ± 0.28
 123, 9.93 ± 6.89, 0.00 ± 0.36, 10.78 ± 8.39, 0.00 ± 0.65, -8.31 ± 5.08, 0.00 ± 0.28
 116 (124-j'-125) [l=420 cm] [Piano XZ: 363 def.-57 rig.] [in j': N=Nxy,Nxz] - M.
 124, 278.92 ± 5.54, 0.32 ± 0.48, 28.88 ± 28.15, 0.00 ± 0.03, -106.78 ± 53.71, 0.74 ± 1.00
 j', 185.29 ± 5.54, 198.09 ± 5.54, 0.32 ± 0.48, 28.88 ± 28.15, 0.00 ± 0.03, -2.07 ± 48.62, -0.59 ± 1.04
 125, 185.29 ± 5.54, 0.32 ± 0.48, 28.88 ± 28.15, 0.00 ± 0.03, 14.50 ± 64.66, -0.59 ± 1.04
 117 (126-125) [l=163 cm] - K.

126, 11.94 ± 6.85 , 0.00 ± 0.36 , -12.99 ± 8.30 , 0.00 ± 0.66 , -9.32 ± 4.68 , 0.00 ± 0.30
 125, 11.94 ± 6.85 , 0.00 ± 0.36 , -12.99 ± 8.30 , 0.00 ± 0.66 , -30.49 ± 18.16 , 0.00 ± 0.30
 118 (125-127) [l=163 cm] - K.
 125, -31.26 ± 25.03 , -0.32 ± 0.19 , 172.30 ± 8.88 , -0.59 ± 0.34 , -88.24 ± 46.37 , -0.26 ± 0.15
 127, -31.26 ± 25.03 , -0.32 ± 0.19 , 172.30 ± 8.88 , -0.59 ± 0.34 , 192.44 ± 37.40 , 0.26 ± 0.15
 119 (123-126) [l=200 cm] - S.
 123, 4.80 ± 0.23 , 0.00 ± 0.00 , -1.10 ± 8.26 , 0.00 ± 0.00 , -0.83 ± 8.31 , 0.00 ± 0.00
 126, 4.80 ± 0.23 , 0.00 ± 0.00 , -1.10 ± 8.26 , 0.00 ± 0.00 , -3.02 ± 8.22 , 0.00 ± 0.00
 120 (96-128) [l=45 cm] - C.
 96, 65.71 ± 4.82 , 20.44 ± 5.14 , 1.65 ± 4.34 , 0.04 ± 0.05 , -0.77 ± 2.17 , 12.86 ± 9.03
 128, 43.66 ± 4.82 , 20.44 ± 5.14 , 1.65 ± 4.34 , 0.04 ± 0.05 , -0.02 ± 1.73 , 3.66 ± 11.13
 121 (129-128) [l=163 cm] - K.
 129, 0.00 ± 0.00 , 0.00 ± 0.00 , 29.75 ± 5.42 , 133.84 ± 73.96 , -890.99 ± 138.69 , 0.00 ± 0.00
 128, 0.00 ± 0.00 , 0.00 ± 0.00 , 29.75 ± 5.42 , 133.84 ± 73.96 , -842.37 ± 145.44 , 0.00 ± 0.00
 122 (131-132) [l=45 cm] - M.
 131, 17.38 ± 0.45 , 2.70 ± 0.52 , 0.18 ± 0.55 , 0.00 ± 0.01 , -0.09 ± 0.24 , 1.70 ± 1.23
 132, -2.52 ± 0.45 , 2.70 ± 0.52 , 0.18 ± 0.55 , 0.00 ± 0.01 , -0.01 ± 0.18 , 0.48 ± 1.44
 123 (80-134) [l=45 cm] - C.
 80, 141.05 ± 21.00 , 44.58 ± 2.44 , 1.50 ± 8.15 , 0.07 ± 0.11 , -10.09 ± 3.79 , 25.56 ± 18.98
 134, 99.42 ± 21.00 , 44.58 ± 2.44 , 1.50 ± 8.15 , 0.07 ± 0.11 , -9.41 ± 3.61 , 5.49 ± 19.20
 124 (19-137) [l=45 cm] - C.
 19, 32.55 ± 8.94 , -12.50 ± 4.28 , 0.22 ± 2.49 , 0.02 ± 0.03 , -0.28 ± 0.70 , -9.18 ± 4.83
 137, 19.61 ± 8.94 , -12.50 ± 4.28 , 0.22 ± 2.49 , 0.02 ± 0.03 , -0.18 ± 0.66 , -3.55 ± 6.62
 125 (138-137) [l=96 cm] - K.
 138, 0.00 ± 0.00 , 0.00 ± 0.00 , -83.62 ± 16.92 , -110.10 ± 46.97 , -385.12 ± 112.44 , 0.00 ± 0.00
 137, 0.00 ± 0.00 , 0.00 ± 0.00 , -83.62 ± 16.92 , -110.10 ± 46.97 , -465.31 ± 128.64 , 0.00 ± 0.00
 126 (140-141) [l=45 cm] - M.
 140, 16.99 ± 0.39 , -2.49 ± 0.58 , -0.01 ± 0.54 , 0.00 ± 0.01 , -0.05 ± 0.22 , -2.00 ± 1.17
 141, -2.91 ± 0.39 , -2.49 ± 0.58 , -0.01 ± 0.54 , 0.00 ± 0.01 , -0.05 ± 0.17 , -0.88 ± 1.41
 127 (141-143) [l=168 cm] - K.
 141, 0.00 ± 0.00 , 0.00 ± 0.00 , -54.68 ± 4.55 , -115.05 ± 73.42 , -983.81 ± 136.45 , 0.00 ± 0.00
 143, 0.00 ± 0.00 , 0.00 ± 0.00 , -54.68 ± 4.55 , -115.05 ± 73.42 , -1075.39 ± 136.23 , 0.00 ± 0.00
 128 (33-144) [l=45 cm] - C.
 33, 57.65 ± 5.12 , -16.87 ± 3.16 , -0.32 ± 3.83 , 0.03 ± 0.05 , 0.11 ± 1.02 , -13.48 ± 8.10
 144, 37.95 ± 5.12 , -16.87 ± 3.16 , -0.32 ± 3.83 , 0.03 ± 0.05 , -0.04 ± 0.96 , -5.89 ± 9.33
 129 (143-144) [l=146 cm] - K.
 143, 0.00 ± 0.00 , 0.00 ± 0.00 , -64.80 ± 4.67 , -117.24 ± 73.40 , -1075.39 ± 136.23 , 0.00 ± 0.00
 144, 0.00 ± 0.00 , 0.00 ± 0.00 , -64.80 ± 4.67 , -117.24 ± 73.40 , -1169.94 ± 136.03 , 0.00 ± 0.00
 130 (146-147) [l=45 cm] - C.
 146, 56.45 ± 8.06 , -14.26 ± 1.31 , -1.12 ± 3.71 , 0.03 ± 0.04 , -0.09 ± 0.76 , -12.59 ± 8.60
 147, 37.33 ± 8.06 , -14.26 ± 1.31 , -1.12 ± 3.71 , 0.03 ± 0.04 , -0.59 ± 0.95 , -6.17 ± 8.37
 131 (147-149) [l=142 cm] - K.
 147, 0.00 ± 0.00 , 0.00 ± 0.00 , 51.82 ± 33.91 , -113.14 ± 116.80 , -1262.66 ± 296.61 , 0.00 ± 0.00
 149, 0.00 ± 0.00 , 0.00 ± 0.00 , 51.82 ± 33.91 , -113.14 ± 116.80 , -1189.23 ± 344.25 , 0.00 ± 0.00
 132 (150-151) [l=45 cm] - M.
 150, 28.15 ± 2.38 , 4.49 ± 0.43 , 0.08 ± 0.77 , 0.01 ± 0.01 , -0.75 ± 0.18 , 2.55 ± 1.96
 151, -0.06 ± 2.38 , 4.49 ± 0.43 , 0.08 ± 0.77 , 0.01 ± 0.01 , -0.71 ± 0.26 , 0.53 ± 1.84
 133 (153-154) [l=45 cm] - C.
 153, 93.52 ± 10.30 , 25.05 ± 4.08 , 0.24 ± 4.09 , 0.03 ± 0.05 , -1.81 ± 1.18 , 13.41 ± 10.41
 154, 72.51 ± 10.30 , 25.05 ± 4.08 , 0.24 ± 4.09 , 0.03 ± 0.05 , -1.70 ± 1.67 , 2.14 ± 8.93
 134 (154-156) [l=156 cm] - K.
 154, 0.00 ± 0.00 , 0.00 ± 0.00 , -72.12 ± 38.17 , 159.11 ± 118.84 , -397.30 ± 566.17 , 0.00 ± 0.00
 156, 0.00 ± 0.00 , 0.00 ± 0.00 , -72.12 ± 38.17 , 159.11 ± 118.84 , -509.52 ± 507.17 , 0.00 ± 0.00
 135 (157-158) [l=45 cm] - M.
 157, 21.32 ± 0.92 , 3.28 ± 0.64 , 0.02 ± 0.52 , 0.00 ± 0.01 , -0.20 ± 0.32 , 1.76 ± 1.40
 158, 2.35 ± 0.92 , 3.28 ± 0.64 , 0.02 ± 0.52 , 0.00 ± 0.01 , -0.20 ± 0.38 , 0.29 ± 1.16
 136 (159-158) [l=160 cm] - K.
 159, 0.00 ± 0.00 , 0.00 ± 0.00 , -128.15 ± 44.22 , 163.55 ± 127.67 , 224.51 ± 775.49 , 0.00 ± 0.00
 158, 0.00 ± 0.00 , 0.00 ± 0.00 , -128.16 ± 44.22 , 163.55 ± 127.67 , 19.85 ± 705.83 , 0.00 ± 0.00
 137 (158-155) [l=160 cm] - K.
 158, 0.00 ± 0.00 , 0.00 ± 0.00 , -125.81 ± 44.44 , 163.84 ± 126.51 , 20.05 ± 705.51 , 0.00 ± 0.00
 155, 0.00 ± 0.00 , 0.00 ± 0.00 , -125.82 ± 44.44 , 163.84 ± 126.51 , -180.88 ± 635.60 , 0.00 ± 0.00
 138 (160-161) [l=45 cm] - C.
 160, 72.34 ± 7.14 , -15.23 ± 3.55 , -1.72 ± 4.36 , 0.04 ± 0.05 , -1.00 ± 1.20 , -14.36 ± 10.54
 161, 49.98 ± 7.14 , -15.23 ± 3.55 , -1.72 ± 4.36 , 0.04 ± 0.05 , -1.77 ± 1.76 , -7.50 ± 9.34
 139 (161-163) [l=166 cm] - K.
 161, 0.00 ± 0.00 , 0.00 ± 0.00 , 115.22 ± 45.76 , -108.82 ± 135.56 , -865.34 ± 537.75 , 0.00 ± 0.00
 163, 0.00 ± 0.00 , 0.00 ± 0.00 , 115.22 ± 45.76 , -108.82 ± 135.56 , -674.54 ± 613.03 , 0.00 ± 0.00
 140 (164-165) [l=45 cm] - M.
 164, 9.76 ± 1.64 , 1.37 ± 0.54 , 0.13 ± 0.31 , 0.00 ± 0.00 , -0.03 ± 0.10 , 0.94 ± 0.65
 165, -1.67 ± 1.64 , 1.37 ± 0.54 , 0.13 ± 0.31 , 0.00 ± 0.00 , 0.03 ± 0.08 , 0.32 ± 0.88
 141 (166-165) [l=96 cm] - K.
 166, 0.00 ± 0.00 , 0.00 ± 0.00 , 87.12 ± 17.13 , 126.76 ± 48.32 , -413.57 ± 114.79 , 0.00 ± 0.00
 165, 0.00 ± 0.00 , 0.00 ± 0.00 , 87.12 ± 17.13 , 126.76 ± 48.32 , -329.85 ± 98.36 , 0.00 ± 0.00
 142 (165-167) [l=96 cm] - K.
 165, 0.00 ± 0.00 , 0.00 ± 0.00 , 85.45 ± 18.74 , 127.08 ± 47.44 , -329.89 ± 98.43 , 0.00 ± 0.00
 167, 0.00 ± 0.00 , 0.00 ± 0.00 , 85.45 ± 18.74 , 127.08 ± 47.44 , -247.68 ± 80.44 , 0.00 ± 0.00
 143 (168-169) [l=45 cm] - M.
 168, 11.45 ± 2.50 , 1.56 ± 0.69 , 0.16 ± 0.37 , 0.00 ± 0.00 , -0.03 ± 0.16 , 1.09 ± 0.75
 169, -1.93 ± 2.50 , 1.56 ± 0.69 , 0.16 ± 0.37 , 0.00 ± 0.00 , 0.04 ± 0.12 , 0.38 ± 1.04
 144 (167-169) [l=113 cm] - K.
 167, 0.00 ± 0.00 , 0.00 ± 0.00 , 66.18 ± 18.78 , 119.58 ± 47.45 , -247.68 ± 80.44 , 0.00 ± 0.00
 169, 0.00 ± 0.00 , 0.00 ± 0.00 , 66.18 ± 18.78 , 119.58 ± 47.45 , -173.10 ± 59.28 , 0.00 ± 0.00
 145 (169-170) [l=113 cm] - K.
 169, 0.00 ± 0.00 , 0.00 ± 0.00 , 64.24 ± 21.24 , 119.97 ± 46.41 , -173.14 ± 59.39 , 0.00 ± 0.00
 170, 0.00 ± 0.00 , 0.00 ± 0.00 , 64.24 ± 21.24 , 119.97 ± 46.41 , -100.74 ± 35.45 , 0.00 ± 0.00

146 (171-172) [l=45 cm] - M.
171, 8.12 ± 2.16, 1.07 ± 0.52, 0.11 ± 0.26, 0.00 ± 0.00, -0.02 ± 0.07, 0.76 ± 0.52
172, -1.34 ± 2.16, 1.07 ± 0.52, 0.11 ± 0.26, 0.00 ± 0.00, 0.03 ± 0.06, 0.28 ± 0.75

147 (170-172) [l=80 cm] - K.
170, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 64.24 ± 21.24, 119.97 ± 46.41, -100.74 ± 35.45, 0.00 ± 0.00
172, 0.00 ± 0.00, 0.00 ± 0.00, 64.24 ± 21.24, 119.97 ± 46.41, -49.60 ± 18.54, 0.00 ± 0.00

148 (172-173) [l=80 cm] - K.
172, 0.00 ± 0.00, 0.00 ± 0.00, 62.90 ± 23.38, 120.24 ± 45.67, -49.63 ± 18.58, 0.00 ± 0.00
173, 0.00 ± 0.00, 0.00 ± 0.00, 62.90 ± 23.38, 120.24 ± 45.67, 0.50 ± 0.07, 0.00 ± 0.00

149 (174-175) [l=45 cm] - M.
174, 8.90 ± 1.55, -1.58 ± 0.58, 0.03 ± 0.31, 0.00 ± 0.00, -0.04 ± 0.09, -1.18 ± 0.62
175, -2.52 ± 1.55, -1.58 ± 0.58, 0.03 ± 0.31, 0.00 ± 0.00, -0.02 ± 0.09, -0.47 ± 0.86

150 (138-175) [l=96 cm] - K.
138, 0.00 ± 0.00, 0.00 ± 0.00, 83.62 ± 16.92, -110.10 ± 46.97, -385.12 ± 112.44, 0.00 ± 0.00
175, 0.00 ± 0.00, 0.00 ± 0.00, 83.62 ± 16.92, -110.10 ± 46.97, -304.76 ± 96.22, 0.00 ± 0.00

151 (175-176) [l=96 cm] - K.
175, 0.00 ± 0.00, 0.00 ± 0.00, 81.10 ± 18.44, -110.56 ± 46.12, -304.73 ± 96.29, 0.00 ± 0.00
176, 0.00 ± 0.00, 0.00 ± 0.00, 81.10 ± 18.44, -110.56 ± 46.12, -226.72 ± 78.60, 0.00 ± 0.00

152 (177-178) [l=45 cm] - M.
177, 10.18 ± 2.35, -1.89 ± 0.74, 0.04 ± 0.36, 0.00 ± 0.00, -0.06 ± 0.14, -1.39 ± 0.71
178, -3.20 ± 2.35, -1.89 ± 0.74, 0.04 ± 0.36, 0.00 ± 0.00, -0.04 ± 0.12, -0.54 ± 1.02

153 (176-178) [l=113 cm] - K.
176, 0.00 ± 0.00, 0.00 ± 0.00, 61.83 ± 18.44, -103.06 ± 46.13, -226.72 ± 78.60, 0.00 ± 0.00
178, 0.00 ± 0.00, 0.00 ± 0.00, 61.83 ± 18.44, -103.06 ± 46.13, -157.04 ± 57.83, 0.00 ± 0.00

154 (178-179) [l=113 cm] - K.
178, 0.00 ± 0.00, 0.00 ± 0.00, 58.62 ± 20.75, -103.60 ± 45.11, -157.00 ± 57.94, 0.00 ± 0.00
179, 0.00 ± 0.00, 0.00 ± 0.00, 58.62 ± 20.75, -103.60 ± 45.11, -90.93 ± 34.55, 0.00 ± 0.00

155 (180-181) [l=45 cm] - M.
180, 7.04 ± 2.03, -1.36 ± 0.56, 0.03 ± 0.25, 0.00 ± 0.00, -0.02 ± 0.07, -0.99 ± 0.49
181, -2.42 ± 2.03, -1.36 ± 0.56, 0.03 ± 0.25, 0.00 ± 0.00, -0.01 ± 0.07, -0.37 ± 0.73

156 (179-181) [l=80 cm] - K.
179, 0.00 ± 0.00, 0.00 ± 0.00, 58.62 ± 20.75, -103.60 ± 45.11, -90.93 ± 34.55, 0.00 ± 0.00
181, 0.00 ± 0.00, 0.00 ± 0.00, 58.62 ± 20.75, -103.60 ± 45.11, -44.27 ± 18.04, 0.00 ± 0.00

157 (181-182) [l=80 cm] - K.
181, 0.00 ± 0.00, 0.00 ± 0.00, 56.20 ± 22.75, -103.98 ± 44.39, -44.25 ± 18.08, 0.00 ± 0.00
182, 0.00 ± 0.00, 0.00 ± 0.00, 56.20 ± 22.75, -103.98 ± 44.39, 0.54 ± 0.06, 0.00 ± 0.00

158 (2-183) [l=106 cm] - M.
2, 45.04 ± 23.98, 0.04 ± 0.10, -2.34 ± 1.18, 0.00 ± 0.00, 11.92 ± 13.64, 0.02 ± 0.06
183, 2.85 ± 23.98, 0.04 ± 0.10, -2.34 ± 1.18, 0.00 ± 0.00, 9.45 ± 12.40, -0.02 ± 0.05

159 (173-183) [l=163 cm] - K.
173, 16.38 ± 11.79, -0.11 ± 0.01, 40.48 ± 20.39, 0.35 ± 0.05, -109.45 ± 45.68, -0.42 ± 0.06
183, 15.49 ± 11.79, -0.11 ± 0.01, 38.25 ± 20.39, 0.35 ± 0.05, -45.29 ± 12.47, -0.25 ± 0.03

160 (183-184) [l=163 cm] - K.
183, 17.55 ± 0.98, -0.21 ± 0.03, 40.49 ± 2.47, 0.23 ± 0.03, -56.83 ± 4.33, -0.39 ± 0.05
184, 16.65 ± 0.98, -0.21 ± 0.03, 38.25 ± 2.47, 0.23 ± 0.03, 7.36 ± 0.82, -0.05 ± 0.01

161 (184-185) [l=122 cm] - S.
184, 25.51 ± 1.37, -0.30 ± 0.04, 18.61 ± 1.78, 0.05 ± 0.01, -11.42 ± 1.41, -0.20 ± 0.02
185, 25.51 ± 1.37, -0.30 ± 0.04, 18.61 ± 1.78, 0.05 ± 0.01, 11.27 ± 0.77, 0.17 ± 0.02

162 (186-185) [l=122 cm] - S.
186, 25.39 ± 1.37, 0.32 ± 0.04, 17.58 ± 1.80, -0.06 ± 0.01, -10.58 ± 1.43, 0.22 ± 0.02
185, 25.39 ± 1.37, 0.32 ± 0.04, 17.58 ± 1.80, -0.06 ± 0.01, 10.87 ± 0.79, -0.18 ± 0.02

163 (6-187) [l=106 cm] - M.
6, 50.71 ± 23.29, 0.02 ± 0.10, 3.05 ± 1.11, 0.00 ± 0.00, -15.63 ± 13.17, 0.02 ± 0.05
187, 8.52 ± 23.29, 0.02 ± 0.10, 3.05 ± 1.11, 0.00 ± 0.00, -12.41 ± 12.01, -0.01 ± 0.05

164 (182-187) [l=163 cm] - K.
182, 13.68 ± 11.45, 0.11 ± 0.01, 34.37 ± 19.81, -0.38 ± 0.05, -93.20 ± 44.40, 0.45 ± 0.05
187, 12.78 ± 11.45, 0.11 ± 0.01, 32.13 ± 19.81, -0.38 ± 0.05, -39.01 ± 12.13, 0.27 ± 0.03

165 (187-186) [l=163 cm] - K.
187, 17.74 ± 0.96, 0.22 ± 0.02, 39.32 ± 2.60, -0.25 ± 0.03, -54.45 ± 4.35, 0.42 ± 0.05
186, 16.84 ± 0.96, 0.22 ± 0.02, 37.09 ± 2.60, -0.25 ± 0.03, 7.81 ± 0.81, 0.06 ± 0.01

166 (188-189) [l=45 cm] - C.
188, 48.36 ± 6.02, 15.67 ± 1.54, 0.73 ± 2.97, 0.02 ± 0.03, -0.40 ± 0.72, 9.24 ± 6.74
189, 33.07 ± 6.02, 15.67 ± 1.54, 0.73 ± 2.97, 0.02 ± 0.03, -0.07 ± 0.66, 2.18 ± 7.26

167 (136-189) [l=113 cm] - K.
136, 0.00 ± 0.00, 0.00 ± 0.00, -10.93 ± 11.48, 137.89 ± 92.15, -1138.57 ± 164.22, 0.00 ± 0.00
189, 0.00 ± 0.00, 0.00 ± 0.00, -10.93 ± 11.48, 137.89 ± 92.15, -1150.95 ± 151.89, 0.00 ± 0.00

168 (189-190) [l=113 cm] - K.
189, 0.00 ± 0.00, 0.00 ± 0.00, 22.14 ± 6.15, 140.07 ± 84.91, -1150.88 ± 152.14, 0.00 ± 0.00
190, 0.00 ± 0.00, 0.00 ± 0.00, 22.14 ± 6.15, 140.07 ± 84.91, -1125.81 ± 145.91, 0.00 ± 0.00

169 (84-191) [l=45 cm] - C.
84, 61.09 ± 5.95, 19.63 ± 2.73, 1.10 ± 3.85, 0.03 ± 0.05, -0.56 ± 1.14, 11.78 ± 8.51
191, 41.40 ± 5.95, 19.63 ± 2.73, 1.10 ± 3.85, 0.03 ± 0.05, -0.07 ± 1.01, 2.94 ± 9.52

170 (191-133) [l=146 cm] - K.
191, 0.00 ± 0.00, 0.00 ± 0.00, 51.72 ± 5.82, 139.06 ± 75.41, -1110.17 ± 138.64, 0.00 ± 0.00
133, 0.00 ± 0.00, 0.00 ± 0.00, 51.72 ± 5.82, 139.06 ± 75.41, -1034.71 ± 138.13, 0.00 ± 0.00

171 (192-193) [l=45 cm] - C.
192, 54.94 ± 7.21, 15.21 ± 2.05, 0.19 ± 2.51, 0.02 ± 0.03, -0.43 ± 0.54, 8.26 ± 6.35
193, 41.89 ± 7.21, 15.21 ± 2.05, 0.19 ± 2.51, 0.02 ± 0.03, -0.35 ± 0.63, 1.42 ± 5.65

172 (193-152) [l=97 cm] - K.
193, 0.00 ± 0.00, 0.00 ± 0.00, -50.96 ± 32.89, 152.46 ± 113.19, -593.07 ± 470.33, 0.00 ± 0.00
152, 0.00 ± 0.00, 0.00 ± 0.00, -50.96 ± 32.89, 152.46 ± 113.19, -642.35 ± 438.76, 0.00 ± 0.00

173 (194-195) [l=45 cm] - C.
194, 44.70 ± 7.46, 13.69 ± 4.18, 1.22 ± 2.99, 0.02 ± 0.03, -0.35 ± 1.03, 8.81 ± 6.11
195, 29.41 ± 7.46, 13.69 ± 4.18, 1.22 ± 2.99, 0.02 ± 0.03, 0.20 ± 0.83, 2.64 ± 7.85

174 (130-195) [l=113 cm] - K.
130, 0.00 ± 0.00, 0.00 ± 0.00, 51.40 ± 3.08, 128.93 ± 62.86, -723.51 ± 146.54, 0.00 ± 0.00

195, 0.00 ± 0.00, 0.00 ± 0.00, 51.40 ± 3.08, 128.93 ± 62.86, -665.27 ± 146.17, 0.00 ± 0.00
 175 (195-196) [l=113 cm] - K.
 195, 0.00 ± 0.00, 0.00 ± 0.00, 80.81 ± 8.19, 131.57 ± 55.03, -665.47 ± 146.83, 0.00 ± 0.00
 196, 0.00 ± 0.00, 0.00 ± 0.00, 80.81 ± 8.19, 131.57 ± 55.03, -574.00 ± 138.10, 0.00 ± 0.00
 176 (99-197) [l=45 cm] - C.
 99, 37.68 ± 9.45, 11.29 ± 3.94, 1.07 ± 2.52, 0.02 ± 0.03, -0.25 ± 0.76, 7.39 ± 5.08
 197, 24.74 ± 9.45, 11.29 ± 3.94, 1.07 ± 2.52, 0.02 ± 0.03, 0.23 ± 0.66, 2.31 ± 6.74
 177 (197-166) [l=96 cm] - K.
 197, 0.00 ± 0.00, 0.00 ± 0.00, 87.12 ± 17.13, 126.76 ± 48.32, -497.12 ± 131.19, 0.00 ± 0.00
 166, 0.00 ± 0.00, 0.00 ± 0.00, 87.12 ± 17.13, 126.76 ± 48.32, -413.57 ± 114.79, 0.00 ± 0.00
 178 (37-198) [l=45 cm] - C.
 37, 119.56 ± 17.04, -32.91 ± 2.47, -1.77 ± 8.12, 0.07 ± 0.11, -0.52 ± 2.53, -27.85 ± 18.09
 198, 77.93 ± 17.04, -32.91 ± 2.47, -1.77 ± 8.12, 0.07 ± 0.11, -1.32 ± 3.04, -13.04 ± 18.82
 179 (200-201) [l=45 cm] - C.
 200, 44.25 ± 5.14, -12.71 ± 1.86, -0.40 ± 2.95, 0.02 ± 0.03, 0.15 ± 0.71, -10.38 ± 6.42
 201, 28.96 ± 5.14, -12.71 ± 1.86, -0.40 ± 2.95, 0.02 ± 0.03, -0.04 ± 0.66, -4.65 ± 7.12
 180 (145-201) [l=113 cm] - K.
 145, 0.00 ± 0.00, 0.00 ± 0.00, -44.47 ± 5.36, -118.78 ± 82.67, -1209.91 ± 141.31, 0.00 ± 0.00
 201, 0.00 ± 0.00, 0.00 ± 0.00, -44.47 ± 5.36, -118.78 ± 82.67, -1260.25 ± 145.91, 0.00 ± 0.00
 181 (201-199) [l=113 cm] - K.
 201, 0.00 ± 0.00, 0.00 ± 0.00, -15.52 ± 10.02, -114.12 ± 89.75, -1260.29 ± 145.70, 0.00 ± 0.00
 199, 0.00 ± 0.00, 0.00 ± 0.00, -15.52 ± 10.02, -114.12 ± 89.75, -1277.86 ± 155.40, 0.00 ± 0.00
 182 (22-202) [l=45 cm] - C.
 22, 61.71 ± 4.84, -20.29 ± 5.67, 0.15 ± 4.30, 0.04 ± 0.05, -0.95 ± 1.98, -15.43 ± 8.60
 202, 39.65 ± 4.84, -20.29 ± 5.67, 0.15 ± 4.30, 0.04 ± 0.05, -0.88 ± 1.63, -6.29 ± 10.93
 183 (202-142) [l=163 cm] - K.
 202, 0.00 ± 0.00, 0.00 ± 0.00, -39.77 ± 4.32, -111.67 ± 72.01, -832.41 ± 145.36, 0.00 ± 0.00
 142, 0.00 ± 0.00, 0.00 ± 0.00, -39.77 ± 4.32, -111.67 ± 72.01, -897.40 ± 139.26, 0.00 ± 0.00
 184 (204-205) [l=45 cm] - C.
 204, 40.31 ± 7.13, -14.46 ± 4.57, 0.21 ± 2.96, 0.02 ± 0.03, -0.42 ± 0.94, -10.77 ± 5.81
 205, 25.03 ± 7.13, -14.46 ± 4.57, 0.21 ± 2.96, 0.02 ± 0.03, -0.33 ± 0.83, -4.27 ± 7.71
 185 (139-205) [l=113 cm] - K.
 139, 0.00 ± 0.00, 0.00 ± 0.00, -82.44 ± 8.24, -113.65 ± 53.53, -544.16 ± 135.86, 0.00 ± 0.00
 205, 0.00 ± 0.00, 0.00 ± 0.00, -82.44 ± 8.24, -113.65 ± 53.53, -637.48 ± 144.92, 0.00 ± 0.00
 186 (205-203) [l=113 cm] - K.
 205, 0.00 ± 0.00, 0.00 ± 0.00, -57.41 ± 2.94, -109.39 ± 61.18, -637.81 ± 144.28, 0.00 ± 0.00
 203, 0.00 ± 0.00, 0.00 ± 0.00, -57.41 ± 2.94, -109.39 ± 61.18, -702.86 ± 145.34, 0.00 ± 0.00
 187 (45-206) [l=45 cm] - C.
 45, 67.64 ± 8.74, -15.79 ± 2.47, -1.52 ± 4.30, 0.04 ± 0.05, -0.53 ± 0.85, -14.37 ± 10.17
 206, 45.55 ± 8.74, -15.79 ± 2.47, -1.52 ± 4.30, 0.04 ± 0.05, -1.21 ± 1.36, -7.26 ± 9.46
 188 (206-162) [l=164 cm] - K.
 206, 0.00 ± 0.00, 0.00 ± 0.00, 85.97 ± 41.45, -108.25 ± 126.25, -1118.42 ± 400.43, 0.00 ± 0.00
 162, 0.00 ± 0.00, 0.00 ± 0.00, 85.97 ± 41.45, -108.25 ± 126.25, -977.78 ± 467.80, 0.00 ± 0.00
 189 (207-208) [l=45 cm] - C.
 207, 51.91 ± 3.19, -9.81 ± 2.98, -1.21 ± 2.92, 0.02 ± 0.03, -0.31 ± 0.65, -9.54 ± 7.22
 208, 36.89 ± 3.19, -9.81 ± 2.98, -1.21 ± 2.92, 0.02 ± 0.03, -0.85 ± 0.94, -5.13 ± 6.15
 190 (208-209) [l=111 cm] - K.
 208, 0.00 ± 0.00, 0.00 ± 0.00, 133.29 ± 45.72, -111.02 ± 141.69, -567.50 ± 664.45, 0.00 ± 0.00
 209, 0.00 ± 0.00, 0.00 ± 0.00, 133.29 ± 45.72, -111.02 ± 141.69, -419.28 ± 714.64, 0.00 ± 0.00
 191 (53-210) [l=45 cm] - C.
 53, 33.10 ± 2.29, -5.78 ± 2.04, -0.72 ± 1.73, 0.01 ± 0.02, 0.02 ± 0.36, -5.73 ± 4.43
 210, 24.01 ± 2.29, -5.78 ± 2.04, -0.72 ± 1.73, 0.01 ± 0.02, -0.31 ± 0.46, -3.13 ± 3.67
 192 (209-210) [l=67 cm] - K.
 209, 0.00 ± 0.00, 0.00 ± 0.00, 133.29 ± 45.72, -111.02 ± 141.69, -419.28 ± 714.64, 0.00 ± 0.00
 210, 0.00 ± 0.00, 0.00 ± 0.00, 133.29 ± 45.72, -111.02 ± 141.69, -329.58 ± 745.04, 0.00 ± 0.00
 193 (210-110) [l=67 cm] - K.
 210, 0.00 ± 0.00, 0.00 ± 0.00, 157.30 ± 44.44, -107.89 ± 145.35, -329.89 ± 745.39, 0.00 ± 0.00
 110, 0.00 ± 0.00, 0.00 ± 0.00, 157.30 ± 44.44, -107.89 ± 145.35, -223.87 ± 774.58, 0.00 ± 0.00
 194 (211-212) [l=608 cm] - M.
 211, 240.29 ± 8.81, -0.16 ± 0.55, 0.69 ± 25.44, 0.01 ± 0.06, -10.73 ± 76.36, -0.93 ± 1.59
 212, -93.92 ± 8.81, -0.16 ± 0.55, 0.69 ± 25.44, 0.01 ± 0.06, -6.53 ± 78.43, 0.04 ± 1.76
 195 (159-212) [l=224 cm] - K.
 159, 166.25 ± 16.12, 59.49 ± 205.03, 55.55 ± 41.71, -156.12 ± 538.06, 173.31 ± 129.27, 215.46 ± 742.58
 212, 165.10 ± 16.12, 59.49 ± 205.03, 52.67 ± 41.71, -156.12 ± 538.06, 294.63 ± 35.96, 82.08 ± 282.89
 196 (212-111) [l=224 cm] - K.
 212, 186.17 ± 10.19, 94.96 ± 326.99, -56.92 ± 41.23, -83.05 ± 285.99, 251.62 ± 74.06, 185.59 ± 639.07
 111, 185.02 ± 10.19, 94.96 ± 326.99, -59.80 ± 41.23, -83.05 ± 285.99, 120.82 ± 19.09, -27.23 ± 93.76
 197 (214-215) [l=227 cm] - Z.
 214, 0.00 ± 0.00, 0.00 ± 0.00, -61.24 ± 13.96, 1.66 ± 0.40, 14.71 ± 16.01, 0.00 ± 0.00
 215, 0.00 ± 0.00, 0.00 ± 0.00, 58.70 ± 13.96, 1.66 ± 0.40, 11.59 ± 15.60, 0.00 ± 0.00
 198 (176-231) [l=448 cm] - T.
 176, 26.93 ± 3.33, 0.00 ± 0.00, 4.62 ± 0.02, 0.00 ± 0.00, -3.71 ± 0.05, 0.00 ± 0.00
 231, 23.38 ± 3.33, 0.00 ± 0.00, -4.26 ± 0.02, 0.00 ± 0.00, -2.91 ± 0.05, 0.00 ± 0.00
 199 (232-i'-233) [l=165 cm][8 rig.-157 def.] [in i' : N=Nxy,Nxz] - T.
 232, -0.70 ± 0.12, -0.01 ± 0.03, 3.30 ± 0.04, 0.00 ± 0.00, -2.76 ± 0.04, -0.01 ± 0.03
 i', -0.70 ± 0.12, -0.70 ± 0.12, -0.01 ± 0.03, 3.28 ± 0.04, 0.00 ± 0.00, -2.50 ± 0.03, -0.01 ± 0.03
 233, -0.70 ± 0.12, -0.01 ± 0.03, 2.98 ± 0.04, 0.00 ± 0.00, 2.42 ± 0.03, 0.01 ± 0.03
 200 (232-i'-j'-234) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 232, 0.87 ± 0.05, 0.00 ± 0.01, -3.65 ± 0.07, 0.00 ± 0.00, 2.46 ± 0.05, 0.00 ± 0.01
 i', 0.87 ± 0.05, 0.87 ± 0.05, 0.00 ± 0.01, -3.67 ± 0.07, 0.00 ± 0.00, 2.17 ± 0.04, 0.00 ± 0.01
 j', 0.87 ± 0.05, 0.87 ± 0.05, 0.00 ± 0.01, -3.89 ± 0.07, 0.00 ± 0.00, -2.22 ± 0.04, 0.00 ± 0.01
 234, 0.87 ± 0.05, 0.00 ± 0.01, -3.91 ± 0.07, 0.00 ± 0.00, -2.53 ± 0.05, 0.00 ± 0.01
 201 (234-i'-j'-235) [l=218 cm][8 rig.-202 def.-8 rig.] [in i' j' : N=Nxy,Nxz] - T.
 234, 1.58 ± 0.02, 0.00 ± 0.00, 0.12 ± 0.04, 0.00 ± 0.00, 0.02 ± 0.04, 0.00 ± 0.00
 i', 1.58 ± 0.02, 1.58 ± 0.02, 0.00 ± 0.00, 0.10 ± 0.04, 0.00 ± 0.00, 0.02 ± 0.04, 0.00 ± 0.00
 j', 1.58 ± 0.02, 1.58 ± 0.02, 0.00 ± 0.00, -0.28 ± 0.04, 0.00 ± 0.00, -0.16 ± 0.04, 0.00 ± 0.00

235, 1.58 ± 0.02, 0.00 ± 0.00, -0.30 ± 0.04, 0.00 ± 0.00, -0.18 ± 0.04, 0.00 ± 0.00
 202 (235-i'-j'-236) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 235, 0.99 ± 0.06, 0.00 ± 0.01, 3.54 ± 0.08, 0.00 ± 0.00, -2.28 ± 0.05, 0.00 ± 0.01
 i', 0.99 ± 0.06, 0.99 ± 0.06, 0.00 ± 0.01, 3.52 ± 0.08, 0.00 ± 0.00, -2.00 ± 0.05, 0.00 ± 0.01
 j', 0.99 ± 0.06, 0.99 ± 0.06, 0.00 ± 0.01, 3.30 ± 0.08, 0.00 ± 0.00, 1.96 ± 0.05, 0.00 ± 0.01
 236, 0.99 ± 0.06, 0.00 ± 0.01, 3.29 ± 0.08, 0.00 ± 0.00, 2.22 ± 0.05, 0.00 ± 0.01
 203 (236-i'-237) [l=185 cm][8 rig.-177 def.] [in i' j': N=Nxy,Nxz] - T.
 236, -0.38 ± 0.12, 0.01 ± 0.03, 2.64 ± 0.03, 0.00 ± 0.00, -2.43 ± 0.03, 0.01 ± 0.03
 i', -0.38 ± 0.12, -0.38 ± 0.12, 0.01 ± 0.03, 2.62 ± 0.03, 0.00 ± 0.00, -2.22 ± 0.02, 0.01 ± 0.02
 j', -0.38 ± 0.12, 0.01 ± 0.03, 2.28 ± 0.03, 0.00 ± 0.00, 2.12 ± 0.03, -0.01 ± 0.02
 204 (167-231) [l=448 cm] - T.
 167, 26.93 ± 3.33, 0.00 ± 0.00, 4.62 ± 0.02, 0.00 ± 0.00, -3.71 ± 0.05, 0.00 ± 0.00
 231, 23.38 ± 3.33, 0.00 ± 0.00, -4.26 ± 0.02, 0.00 ± 0.00, -2.91 ± 0.05, 0.00 ± 0.00
 205 (240-241) [l=448 cm] - T.
 240, 25.98 ± 2.61, 0.00 ± 0.00, 4.37 ± 0.02, 0.00 ± 0.00, -3.52 ± 0.04, 0.00 ± 0.00
 241, 22.62 ± 2.61, 0.00 ± 0.00, -4.03 ± 0.02, 0.00 ± 0.00, -2.75 ± 0.04, 0.00 ± 0.00
 206 (242-241) [l=448 cm] - T.
 242, 25.98 ± 2.61, 0.00 ± 0.00, 4.37 ± 0.02, 0.00 ± 0.00, -3.52 ± 0.04, 0.00 ± 0.00
 241, 22.62 ± 2.61, 0.00 ± 0.00, -4.03 ± 0.02, 0.00 ± 0.00, -2.75 ± 0.04, 0.00 ± 0.00
 207 (243-244) [l=448 cm] - T.
 243, 30.70 ± 1.97, 0.00 ± 0.00, 5.28 ± 0.01, 0.00 ± 0.00, -4.25 ± 0.03, 0.00 ± 0.00
 244, 26.63 ± 1.97, 0.00 ± 0.00, -4.87 ± 0.01, 0.00 ± 0.00, -3.34 ± 0.03, 0.00 ± 0.00
 208 (245-244) [l=448 cm] - T.
 245, 30.70 ± 1.97, 0.00 ± 0.00, 5.28 ± 0.01, 0.00 ± 0.00, -4.25 ± 0.03, 0.00 ± 0.00
 244, 26.63 ± 1.97, 0.00 ± 0.00, -4.87 ± 0.01, 0.00 ± 0.00, -3.34 ± 0.03, 0.00 ± 0.00
 209 (246-247) [l=448 cm] - T.
 246, 18.63 ± 1.06, 0.00 ± 0.00, 5.46 ± 0.01, 0.00 ± 0.00, -4.25 ± 0.02, 0.00 ± 0.00
 247, 14.35 ± 1.06, 0.00 ± 0.00, -5.23 ± 0.01, 0.00 ± 0.00, -3.73 ± 0.02, 0.00 ± 0.00
 210 (248-247) [l=448 cm] - T.
 248, 18.63 ± 1.06, 0.00 ± 0.00, 5.46 ± 0.01, 0.00 ± 0.00, -4.25 ± 0.02, 0.00 ± 0.00
 247, 14.36 ± 1.06, 0.00 ± 0.00, -5.23 ± 0.01, 0.00 ± 0.00, -3.73 ± 0.02, 0.00 ± 0.00
 211 (249-i'-j'-250) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 249, 0.94 ± 0.06, 0.00 ± 0.01, 3.59 ± 0.08, 0.00 ± 0.00, -2.32 ± 0.05, 0.00 ± 0.01
 i', 0.94 ± 0.06, 0.94 ± 0.06, 0.00 ± 0.01, 3.58 ± 0.08, 0.00 ± 0.00, -2.03 ± 0.05, 0.00 ± 0.01
 j', 0.94 ± 0.06, 0.94 ± 0.06, 0.00 ± 0.01, 3.35 ± 0.08, 0.00 ± 0.00, 1.99 ± 0.05, 0.00 ± 0.01
 250, 0.94 ± 0.06, 0.00 ± 0.01, 3.34 ± 0.08, 0.00 ± 0.00, 2.25 ± 0.05, 0.00 ± 0.01
 212 (251-i'-j'-249) [l=218 cm][8 rig.-202 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 251, 1.57 ± 0.02, 0.00 ± 0.00, 0.19 ± 0.04, 0.00 ± 0.00, -0.06 ± 0.04, 0.00 ± 0.00
 i', 1.57 ± 0.02, 1.57 ± 0.02, 0.00 ± 0.00, 0.17 ± 0.04, 0.00 ± 0.00, -0.05 ± 0.04, 0.00 ± 0.00
 j', 1.57 ± 0.02, 1.57 ± 0.02, 0.00 ± 0.00, -0.22 ± 0.04, 0.00 ± 0.00, -0.09 ± 0.04, 0.00 ± 0.00
 249, 1.57 ± 0.02, 0.00 ± 0.00, -0.23 ± 0.04, 0.00 ± 0.00, -0.11 ± 0.04, 0.00 ± 0.00
 213 (252-i'-j'-251) [l=132 cm][8 rig.-116 def.-8 rig.] [in i' j': N=Nxy,Nxz] - T.
 252, 0.90 ± 0.05, 0.00 ± 0.01, -3.52 ± 0.08, 0.00 ± 0.00, 2.38 ± 0.05, 0.00 ± 0.01
 i', 0.90 ± 0.05, 0.90 ± 0.05, 0.00 ± 0.01, -3.54 ± 0.08, 0.00 ± 0.00, 2.09 ± 0.04, 0.00 ± 0.01
 j', 0.90 ± 0.05, 0.90 ± 0.05, 0.00 ± 0.01, -3.76 ± 0.08, 0.00 ± 0.00, -2.14 ± 0.04, 0.00 ± 0.01
 251, 0.90 ± 0.05, 0.00 ± 0.01, -3.77 ± 0.08, 0.00 ± 0.00, -2.44 ± 0.05, 0.00 ± 0.01
 214 (250-i'-253) [l=185 cm][8 rig.-177 def.] [in i' j': N=Nxy,Nxz] - T.
 250, -0.40 ± 0.13, 0.00 ± 0.03, 2.50 ± 0.04, 0.00 ± 0.00, -2.29 ± 0.04, 0.00 ± 0.03
 i', -0.40 ± 0.13, -0.40 ± 0.13, 0.00 ± 0.03, 2.48 ± 0.04, 0.00 ± 0.00, -2.10 ± 0.04, 0.00 ± 0.02
 253, -0.40 ± 0.13, 0.00 ± 0.03, 2.14 ± 0.04, 0.00 ± 0.00, 2.00 ± 0.04, 0.00 ± 0.02
 215 (252-i'-254) [l=165 cm][8 rig.-157 def.] [in i' j': N=Nxy,Nxz] - T.
 252, -0.65 ± 0.13, -0.01 ± 0.03, 3.32 ± 0.06, 0.00 ± 0.00, -2.78 ± 0.05, 0.00 ± 0.03
 i', -0.65 ± 0.13, -0.65 ± 0.13, -0.01 ± 0.03, 3.31 ± 0.06, 0.00 ± 0.00, -2.52 ± 0.04, 0.00 ± 0.03
 254, -0.65 ± 0.13, -0.01 ± 0.03, 3.01 ± 0.06, 0.00 ± 0.00, 2.44 ± 0.04, 0.00 ± 0.03
 216 (255-256) [l=448 cm] - T.
 255, 19.17 ± 0.24, 0.00 ± 0.00, 2.34 ± 0.00, 0.00 ± 0.00, -1.95 ± 0.00, 0.00 ± 0.00
 256, 17.40 ± 0.24, 0.00 ± 0.00, -2.08 ± 0.00, 0.00 ± 0.00, -1.35 ± 0.00, 0.00 ± 0.00
 217 (257-256) [l=448 cm] - T.
 257, 22.28 ± 0.24, 0.00 ± 0.00, 4.66 ± 0.00, 0.00 ± 0.00, -3.69 ± 0.00, 0.00 ± 0.00
 256, 18.67 ± 0.24, 0.00 ± 0.00, -4.38 ± 0.00, 0.00 ± 0.00, -3.05 ± 0.00, 0.00 ± 0.00
 218 (258-259) [l=448 cm] - T.
 258, 24.21 ± 0.49, 0.00 ± 0.00, 4.10 ± 0.00, 0.00 ± 0.00, -3.30 ± 0.01, 0.00 ± 0.00
 259, 21.06 ± 0.49, 0.00 ± 0.00, -3.78 ± 0.00, 0.00 ± 0.00, -2.58 ± 0.01, 0.00 ± 0.00
 219 (260-259) [l=448 cm] - T.
 260, 24.22 ± 0.49, 0.00 ± 0.00, 4.10 ± 0.00, 0.00 ± 0.00, -3.30 ± 0.01, 0.00 ± 0.00
 259, 21.07 ± 0.49, 0.00 ± 0.00, -3.78 ± 0.00, 0.00 ± 0.00, -2.58 ± 0.01, 0.00 ± 0.00
 220 (261-262) [l=448 cm] - T.
 261, 27.21 ± 1.22, 0.00 ± 0.00, 4.70 ± 0.01, 0.00 ± 0.00, -3.78 ± 0.02, 0.00 ± 0.00
 262, 23.59 ± 1.22, 0.00 ± 0.00, -4.34 ± 0.01, 0.00 ± 0.00, -2.97 ± 0.02, 0.00 ± 0.00
 221 (263-262) [l=448 cm] - T.
 263, 27.21 ± 1.22, 0.00 ± 0.00, 4.70 ± 0.01, 0.00 ± 0.00, -3.78 ± 0.02, 0.00 ± 0.00
 262, 23.59 ± 1.22, 0.00 ± 0.00, -4.34 ± 0.01, 0.00 ± 0.00, -2.97 ± 0.02, 0.00 ± 0.00
 222 (264-265) [l=448 cm] - T.
 264, 17.43 ± 0.79, 0.00 ± 0.00, 5.05 ± 0.01, 0.00 ± 0.00, -3.93 ± 0.01, 0.00 ± 0.00
 265, 13.48 ± 0.79, 0.00 ± 0.00, -4.83 ± 0.01, 0.00 ± 0.00, -3.44 ± 0.01, 0.00 ± 0.00
 223 (266-265) [l=448 cm] - T.
 266, 17.43 ± 0.79, 0.00 ± 0.00, 5.05 ± 0.01, 0.00 ± 0.00, -3.93 ± 0.01, 0.00 ± 0.00
 265, 13.48 ± 0.79, 0.00 ± 0.00, -4.83 ± 0.01, 0.00 ± 0.00, -3.44 ± 0.01, 0.00 ± 0.00
 224 (267-268) [l=448 cm] - T.
 267, 28.93 ± 2.88, 0.00 ± 0.00, 4.97 ± 0.02, 0.00 ± 0.00, -4.00 ± 0.05, 0.00 ± 0.00
 268, 25.10 ± 2.88, 0.00 ± 0.00, -4.58 ± 0.02, 0.00 ± 0.00, -3.14 ± 0.05, 0.00 ± 0.00
 225 (269-268) [l=448 cm] - T.
 269, 28.93 ± 2.88, 0.00 ± 0.00, 4.97 ± 0.02, 0.00 ± 0.00, -4.00 ± 0.05, 0.00 ± 0.00
 268, 25.10 ± 2.88, 0.00 ± 0.00, -4.58 ± 0.02, 0.00 ± 0.00, -3.14 ± 0.05, 0.00 ± 0.00
 226 (270-271) [l=448 cm] - T.
 270, 26.30 ± 3.49, 0.00 ± 0.00, 4.51 ± 0.02, 0.00 ± 0.00, -3.63 ± 0.06, 0.00 ± 0.00

271, 22.83 ± 3.49, 0.00 ± 0.00, -4.16 ± 0.02, 0.00 ± 0.00, -2.85 ± 0.06, 0.00 ± 0.00
 227 (272-271) [l=448 cm] - T.
 272, 26.29 ± 3.49, 0.00 ± 0.00, 4.51 ± 0.02, 0.00 ± 0.00, -3.63 ± 0.06, 0.00 ± 0.00
 271, 22.83 ± 3.49, 0.00 ± 0.00, -4.16 ± 0.02, 0.00 ± 0.00, -2.84 ± 0.06, 0.00 ± 0.00
 228 (185-231) [l=385 cm] - T.
 185, -0.12 ± 0.07, 0.00 ± 0.00, 0.74 ± 0.04, 0.00 ± 0.00, -0.85 ± 0.08, 0.00 ± 0.00
 231, -0.12 ± 0.07, 0.00 ± 0.00, -0.15 ± 0.04, 0.00 ± 0.00, 0.28 ± 0.08, 0.00 ± 0.00
 229 (231-241) [l=290 cm] - T.
 231, 0.12 ± 0.10, 0.00 ± 0.00, 0.31 ± 0.03, 0.00 ± 0.00, -0.12 ± 0.04, 0.00 ± 0.00
 241, 0.12 ± 0.10, 0.00 ± 0.00, -0.36 ± 0.03, 0.00 ± 0.00, -0.20 ± 0.04, 0.00 ± 0.00
 230 (241-244) [l=325 cm] - T.
 241, 0.21 ± 0.07, 0.00 ± 0.00, 0.46 ± 0.04, 0.00 ± 0.00, -0.34 ± 0.06, 0.00 ± 0.00
 244, 0.21 ± 0.07, 0.00 ± 0.00, -0.29 ± 0.04, 0.00 ± 0.00, -0.06 ± 0.06, 0.00 ± 0.00
 231 (244-247) [l=325 cm] - T.
 244, 0.06 ± 0.03, 0.00 ± 0.00, 0.13 ± 0.05, 0.00 ± 0.00, 0.19 ± 0.08, 0.00 ± 0.00
 247, 0.06 ± 0.03, 0.00 ± 0.00, -0.61 ± 0.05, 0.00 ± 0.00, -0.59 ± 0.08, 0.00 ± 0.00
 232 (247-273) [l=332 cm] - T.
 247, -0.21 ± 0.03, 0.00 ± 0.00, 0.34 ± 0.02, 0.00 ± 0.00, -0.14 ± 0.04, 0.01 ± 0.00
 273, -0.21 ± 0.03, 0.00 ± 0.00, -0.42 ± 0.02, 0.00 ± 0.00, -0.28 ± 0.04, -0.01 ± 0.00
 233 (273-256) [l=288 cm] - T.
 273, -0.16 ± 0.02, 0.00 ± 0.00, 0.48 ± 0.02, 0.00 ± 0.00, -0.37 ± 0.03, 0.00 ± 0.00
 256, -0.16 ± 0.02, 0.00 ± 0.00, -0.18 ± 0.02, 0.00 ± 0.00, 0.05 ± 0.03, 0.00 ± 0.00
 234 (256-259) [l=288 cm] - T.
 256, 0.05 ± 0.01, -0.01 ± 0.00, 0.42 ± 0.02, 0.00 ± 0.00, -0.29 ± 0.02, -0.01 ± 0.00
 259, 0.05 ± 0.01, -0.01 ± 0.00, -0.24 ± 0.02, 0.00 ± 0.00, -0.03 ± 0.02, 0.01 ± 0.00
 235 (259-262) [l=288 cm] - T.
 259, 0.19 ± 0.03, 0.00 ± 0.00, 0.41 ± 0.02, 0.00 ± 0.00, -0.27 ± 0.03, 0.00 ± 0.00
 262, 0.19 ± 0.03, 0.00 ± 0.00, -0.25 ± 0.02, 0.00 ± 0.00, -0.05 ± 0.03, 0.00 ± 0.00
 236 (262-265) [l=288 cm] - T.
 262, 0.02 ± 0.02, 0.00 ± 0.00, 0.05 ± 0.05, 0.00 ± 0.00, 0.25 ± 0.07, 0.00 ± 0.00
 265, 0.02 ± 0.02, 0.00 ± 0.00, -0.61 ± 0.05, 0.00 ± 0.00, -0.57 ± 0.07, 0.00 ± 0.00
 237 (265-274) [l=320 cm] - T.
 265, -0.15 ± 0.03, 0.00 ± 0.00, 0.43 ± 0.04, 0.00 ± 0.00, -0.29 ± 0.06, 0.00 ± 0.00
 274, -0.15 ± 0.03, 0.00 ± 0.00, -0.31 ± 0.04, 0.00 ± 0.00, -0.10 ± 0.06, 0.00 ± 0.00
 238 (274-268) [l=305 cm] - T.
 274, 0.09 ± 0.06, 0.00 ± 0.00, 0.56 ± 0.05, 0.00 ± 0.00, -0.50 ± 0.08, 0.00 ± 0.00
 268, 0.09 ± 0.06, 0.00 ± 0.00, -0.14 ± 0.05, 0.00 ± 0.00, 0.14 ± 0.08, 0.00 ± 0.00
 239 (268-271) [l=305 cm] - T.
 268, 0.23 ± 0.10, 0.00 ± 0.00, 0.29 ± 0.05, 0.00 ± 0.00, -0.09 ± 0.07, 0.00 ± 0.00
 271, 0.23 ± 0.10, 0.00 ± 0.00, -0.41 ± 0.05, 0.00 ± 0.00, -0.27 ± 0.07, 0.00 ± 0.00
 240 (271-275) [l=354 cm] - T.
 271, -0.19 ± 0.06, 0.00 ± 0.00, 0.03 ± 0.05, 0.00 ± 0.00, 0.43 ± 0.10, 0.00 ± 0.00
 275, -0.19 ± 0.06, 0.00 ± 0.00, -0.78 ± 0.05, 0.00 ± 0.00, -0.91 ± 0.10, 0.00 ± 0.00
 241 (159-111) [l=448 cm] - T.
 159, 5.52 ± 0.00, 0.00 ± 0.00, 13.81 ± 0.00, 0.00 ± 0.00, -10.32 ± 0.00, 0.00 ± 0.00
 111, -5.52 ± 0.00, 0.00 ± 0.00, -13.81 ± 0.00, 0.00 ± 0.00, -10.32 ± 0.00, 0.00 ± 0.00
 242 (143-278) [l=199 cm] - T.
 143, 18.58 ± 1.01, 0.00 ± 0.00, 3.47 ± 0.08, 0.00 ± 0.00, -2.19 ± 0.09, 0.00 ± 0.00
 278, 16.79 ± 1.01, 0.00 ± 0.00, -1.00 ± 0.08, 0.00 ± 0.00, 0.27 ± 0.06, 0.00 ± 0.00
 243 (278-279) [l=142 cm] - T.
 278, 15.49 ± 0.80, 0.00 ± 0.00, -0.48 ± 0.18, 0.00 ± 0.00, 1.31 ± 0.14, 0.00 ± 0.00
 279, 14.22 ± 0.80, 0.00 ± 0.00, -3.67 ± 0.18, 0.00 ± 0.00, -1.65 ± 0.11, 0.00 ± 0.00
 244 (279-273) [l=107 cm] - T.
 279, 11.57 ± 0.55, 0.00 ± 0.00, -2.62 ± 0.27, 0.00 ± 0.00, 1.96 ± 0.15, 0.00 ± 0.00
 273, 10.62 ± 0.55, 0.00 ± 0.00, -5.01 ± 0.27, 0.00 ± 0.00, -2.10 ± 0.14, 0.00 ± 0.00
 245 (281-282) [l=142 cm] - T.
 281, 13.46 ± 0.66, 0.00 ± 0.00, -0.15 ± 0.09, 0.00 ± 0.00, 0.64 ± 0.07, 0.00 ± 0.00
 282, 12.77 ± 0.66, 0.00 ± 0.00, -1.87 ± 0.09, 0.00 ± 0.00, -0.80 ± 0.06, 0.00 ± 0.00
 246 (282-283) [l=107 cm] - T.
 282, 11.43 ± 0.56, 0.00 ± 0.00, -1.34 ± 0.14, 0.00 ± 0.00, 1.03 ± 0.08, 0.00 ± 0.00
 283, 10.91 ± 0.56, 0.00 ± 0.00, -2.63 ± 0.14, 0.00 ± 0.00, -1.08 ± 0.07, 0.00 ± 0.00
 247 (284-285) [l=199 cm] - T.
 284, 21.55 ± 2.16, 0.00 ± 0.00, 3.66 ± 0.16, 0.00 ± 0.00, -2.38 ± 0.19, 0.00 ± 0.00
 285, 19.74 ± 2.16, 0.00 ± 0.00, -0.87 ± 0.16, 0.00 ± 0.00, 0.40 ± 0.13, 0.00 ± 0.00
 248 (285-286) [l=142 cm] - T.
 285, 18.62 ± 1.79, 0.00 ± 0.00, -0.42 ± 0.31, 0.00 ± 0.00, 1.29 ± 0.25, 0.00 ± 0.00
 286, 17.33 ± 1.79, 0.00 ± 0.00, -3.66 ± 0.31, 0.00 ± 0.00, -1.61 ± 0.19, 0.00 ± 0.00
 249 (286-274) [l=107 cm] - T.
 286, 14.71 ± 1.33, 0.00 ± 0.00, -2.61 ± 0.49, 0.00 ± 0.00, 1.97 ± 0.28, 0.00 ± 0.00
 274, 13.74 ± 1.33, 0.00 ± 0.00, -5.03 ± 0.49, 0.00 ± 0.00, -2.10 ± 0.24, 0.00 ± 0.00
 250 (287-288) [l=107 cm] - T.
 287, 14.71 ± 1.33, 0.00 ± 0.00, -2.61 ± 0.49, 0.00 ± 0.00, 1.97 ± 0.28, 0.00 ± 0.00
 288, 13.74 ± 1.33, 0.00 ± 0.00, -5.03 ± 0.49, 0.00 ± 0.00, -2.10 ± 0.24, 0.00 ± 0.00
 251 (289-287) [l=142 cm] - T.
 289, 18.62 ± 1.79, 0.01 ± 0.00, -0.42 ± 0.31, 0.00 ± 0.00, 1.28 ± 0.25, 0.00 ± 0.00
 287, 17.33 ± 1.79, 0.01 ± 0.00, -3.65 ± 0.31, 0.00 ± 0.00, -1.61 ± 0.19, 0.00 ± 0.00
 252 (291-j'-292) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 291, 0.80 ± 0.11, 0.43 ± 0.05, -0.01 ± 0.01, 0.00 ± 0.00, 0.02 ± 0.02, 0.63 ± 0.06
 j', 0.37 ± 0.11, 0.37 ± 0.11, 0.43 ± 0.05, -0.01 ± 0.01, 0.00 ± 0.00, 0.01 ± 0.01, -0.32 ± 0.05
 292, -0.35 ± 0.11, 0.43 ± 0.05, -0.01 ± 0.01, 0.00 ± 0.00, -0.02 ± 0.07, -1.96 ± 0.24
 253 (293-j'-294) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 293, 5.27 ± 0.03, 0.25 ± 0.05, -0.01 ± 0.01, 0.00 ± 0.00, 0.02 ± 0.01, 0.37 ± 0.06
 j', 4.85 ± 0.03, 4.85 ± 0.03, 0.25 ± 0.05, -0.01 ± 0.01, 0.00 ± 0.00, 0.01 ± 0.01, -0.19 ± 0.06
 294, 4.03 ± 0.03, 0.25 ± 0.05, -0.01 ± 0.01, 0.00 ± 0.00, -0.02 ± 0.05, -1.27 ± 0.29
 254 (295-j'-296) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 295, 5.09 ± 0.04, 0.20 ± 0.05, 0.01 ± 0.01, 0.00 ± 0.00, -0.02 ± 0.01, 0.30 ± 0.06

j' , 4.66 ± 0.04 , 4.66 ± 0.04 , 0.20 ± 0.05 , 0.01 ± 0.01 , 0.00 ± 0.00 , -0.01 ± 0.01 , -0.15 ± 0.06
 296, 3.84 ± 0.04 , 0.20 ± 0.05 , 0.01 ± 0.01 , 0.00 ± 0.00 , 0.02 ± 0.04 , -1.02 ± 0.29
 255 (297-j'-298) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 297, 0.50 ± 0.10 , 0.41 ± 0.05 , 0.01 ± 0.01 , 0.00 ± 0.00 , -0.02 ± 0.02 , 0.60 ± 0.06
 j' , 0.08 ± 0.10 , 0.08 ± 0.10 , 0.41 ± 0.05 , 0.01 ± 0.01 , 0.00 ± 0.00 , -0.01 ± 0.01 , -0.30 ± 0.05
 298, -0.65 ± 0.10 , 0.41 ± 0.05 , 0.01 ± 0.01 , 0.00 ± 0.00 , 0.02 ± 0.06 , -1.85 ± 0.24
 256 (299-j'-300) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 299, 0.31 ± 0.10 , 0.40 ± 0.05 , 0.00 ± 0.01 , 0.00 ± 0.00 , -0.02 ± 0.02 , 0.59 ± 0.06
 j' , -0.11 ± 0.10 , -0.11 ± 0.10 , 0.40 ± 0.05 , 0.00 ± 0.01 , 0.00 ± 0.00 , -0.01 ± 0.01 , -0.29 ± 0.06
 300, -0.84 ± 0.10 , 0.40 ± 0.05 , 0.00 ± 0.01 , 0.00 ± 0.00 , 0.01 ± 0.06 , -1.81 ± 0.25
 257 (301-j'-302) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 301, 5.07 ± 0.06 , 0.21 ± 0.06 , 0.00 ± 0.01 , 0.00 ± 0.00 , -0.02 ± 0.01 , 0.31 ± 0.07
 j' , 4.65 ± 0.06 , 4.65 ± 0.06 , 0.21 ± 0.06 , 0.00 ± 0.01 , 0.00 ± 0.00 , -0.01 ± 0.01 , -0.16 ± 0.06
 302, 3.82 ± 0.06 , 0.21 ± 0.06 , 0.00 ± 0.01 , 0.00 ± 0.00 , 0.01 ± 0.04 , -1.08 ± 0.30
 258 (303-j'-304) [l=650 cm][220 def.-430 rig.] [in j': N=Nxy,Nxz] -
 303, 5.21 ± 0.05 , 0.24 ± 0.06 , 0.00 ± 0.01 , 0.00 ± 0.00 , 0.02 ± 0.01 , 0.34 ± 0.07
 j' , 4.79 ± 0.05 , 4.79 ± 0.05 , 0.24 ± 0.06 , 0.00 ± 0.01 , 0.00 ± 0.00 , 0.01 ± 0.01 , -0.18 ± 0.06
 304, 3.96 ± 0.05 , 0.24 ± 0.06 , 0.00 ± 0.01 , 0.00 ± 0.00 , -0.01 ± 0.05 , -1.19 ± 0.30
 259 (305-j'-306) [l=600 cm][220 def.-380 rig.] [in j': N=Nxy,Nxz] -
 305, 0.96 ± 0.11 , 0.43 ± 0.05 , -0.01 ± 0.01 , 0.00 ± 0.00 , 0.02 ± 0.02 , 0.62 ± 0.06
 j' , 0.53 ± 0.11 , 0.53 ± 0.11 , 0.43 ± 0.05 , -0.01 ± 0.01 , 0.00 ± 0.00 , 0.01 ± 0.01 , -0.32 ± 0.06
 306, -0.20 ± 0.11 , 0.43 ± 0.05 , -0.01 ± 0.01 , 0.00 ± 0.00 , -0.01 ± 0.07 , -1.94 ± 0.25
 260 (307-4) [l=195 cm] - K.
 307, -14.95 ± 0.86 , 2.74 ± 0.73 , 0.00 ± 0.93 , 0.00 ± 0.00 , 0.00 ± 0.00 , -5.65 ± 0.06
 4, -14.95 ± 0.86 , 2.74 ± 0.73 , 0.00 ± 0.93 , 0.00 ± 0.00 , 0.00 ± 1.82 , -10.99 ± 1.47
 261 (308-7) [l=195 cm] - K.
 308, -14.95 ± 0.85 , -2.74 ± 0.64 , 0.00 ± 0.94 , 0.00 ± 0.00 , 0.00 ± 0.00 , 5.65 ± 0.06
 7, -14.95 ± 0.85 , -2.74 ± 0.64 , 0.00 ± 0.94 , 0.00 ± 0.00 , 0.00 ± 1.83 , 11.00 ± 1.30
 262 (307-308) [l=227 cm] - W_23957_24_-1_-1.
 307, 2.74 ± 0.13 , 0.00 ± 0.00 , 14.95 ± 0.05 , 0.00 ± 0.00 , -5.65 ± 0.06 , 0.00 ± 0.00
 308, 2.74 ± 0.13 , 0.00 ± 0.00 , -14.95 ± 0.05 , 0.00 ± 0.00 , -5.65 ± 0.06 , 0.00 ± 0.00
 263 (309-123) [l=170 cm] - K.
 309, -6.17 ± 0.16 , 3.70 ± 0.37 , 0.00 ± 0.38 , 0.00 ± 0.00 , 0.00 ± 0.00 , -2.06 ± 0.07
 123, -6.17 ± 0.16 , 3.70 ± 0.37 , 0.00 ± 0.38 , 0.00 ± 0.00 , 0.00 ± 0.64 , -8.34 ± 0.69
 264 (310-126) [l=170 cm] - K.
 310, -6.19 ± 0.15 , -3.70 ± 0.30 , 0.00 ± 0.38 , 0.00 ± 0.00 , 0.00 ± 0.00 , 2.07 ± 0.07
 126, -6.19 ± 0.15 , -3.70 ± 0.30 , 0.00 ± 0.38 , 0.00 ± 0.00 , 0.00 ± 0.65 , 8.36 ± 0.57
 265 (309-310) [l=200 cm] - W_23976_24_-1_-1.
 309, 3.70 ± 0.18 , 0.00 ± 0.00 , 6.17 ± 0.07 , 0.00 ± 0.00 , -2.06 ± 0.07 , 0.00 ± 0.00
 310, 3.70 ± 0.18 , 0.00 ± 0.00 , -6.19 ± 0.07 , 0.00 ± 0.00 , -2.07 ± 0.07 , 0.00 ± 0.00
 266 (129-246) [l=3 cm] - K.
 129, 0.00 ± 0.00 , 0.00 ± 0.00 , -14.88 ± 2.71 , 66.92 ± 36.98 , -445.50 ± 69.35 , 0.00 ± 0.00
 246, 0.00 ± 0.00 , 0.00 ± 0.00 , -14.88 ± 2.71 , 66.92 ± 36.98 , -445.94 ± 69.34 , 0.00 ± 0.00
 267 (130-243) [l=5 cm] - K.
 130, 0.00 ± 0.00 , 0.00 ± 0.00 , -25.70 ± 1.54 , 64.46 ± 31.43 , -361.75 ± 73.27 , 0.00 ± 0.00
 243, 0.00 ± 0.00 , 0.00 ± 0.00 , -25.70 ± 1.54 , 64.46 ± 31.43 , -362.96 ± 73.28 , 0.00 ± 0.00
 268 (203-245) [l=5 cm] - K.
 203, 0.00 ± 0.00 , 0.00 ± 0.00 , -28.71 ± 1.47 , -54.69 ± 30.59 , -351.43 ± 72.67 , 0.00 ± 0.00
 245, 0.00 ± 0.00 , 0.00 ± 0.00 , -28.71 ± 1.47 , -54.69 ± 30.59 , -352.78 ± 72.69 , 0.00 ± 0.00
 269 (142-248) [l=3 cm] - K.
 142, 0.00 ± 0.00 , 0.00 ± 0.00 , -19.89 ± 2.16 , -55.84 ± 36.01 , -448.70 ± 69.63 , 0.00 ± 0.00
 248, 0.00 ± 0.00 , 0.00 ± 0.00 , -19.89 ± 2.16 , -55.84 ± 36.01 , -449.30 ± 69.58 , 0.00 ± 0.00
 270 (190-255) [l=4 cm] - K.
 190, 0.00 ± 0.00 , 0.00 ± 0.00 , 11.07 ± 3.08 , 70.04 ± 42.45 , -562.91 ± 72.95 , 0.00 ± 0.00
 255, 0.00 ± 0.00 , 0.00 ± 0.00 , 11.07 ± 3.08 , 70.04 ± 42.45 , -562.43 ± 72.83 , 0.00 ± 0.00
 271 (145-257) [l=4 cm] - K.
 145, 0.00 ± 0.00 , 0.00 ± 0.00 , 22.24 ± 2.68 , -59.39 ± 41.34 , -604.95 ± 70.65 , 0.00 ± 0.00
 257, 0.00 ± 0.00 , 0.00 ± 0.00 , 22.24 ± 2.68 , -59.39 ± 41.34 , -604.00 ± 70.57 , 0.00 ± 0.00
 272 (163-270) [l=3 cm] - K.
 163, 0.00 ± 0.00 , 0.00 ± 0.00 , 57.61 ± 22.88 , -54.41 ± 67.78 , -337.27 ± 306.51 , 0.00 ± 0.00
 270, 0.00 ± 0.00 , 0.00 ± 0.00 , 57.61 ± 22.88 , -54.41 ± 67.78 , -335.43 ± 307.24 , 0.00 ± 0.00
 273 (283-273) [l=0 cm] - K.
 283, 7.68 ± 0.39 , 0.00 ± 0.00 , 1.61 ± 0.12 , 0.00 ± 0.00 , 4.61 ± 0.23 , 0.00 ± 0.00
 273, 7.68 ± 0.39 , 0.00 ± 0.00 , 1.61 ± 0.12 , 0.00 ± 0.00 , 4.62 ± 0.23 , 0.00 ± 0.00
 274 (288-274) [l=0 cm] - K.
 288, 9.82 ± 0.92 , 0.00 ± 0.00 , 0.44 ± 0.25 , 0.00 ± 0.00 , 5.90 ± 0.56 , 0.00 ± 0.00
 274, 9.82 ± 0.92 , 0.00 ± 0.00 , 0.43 ± 0.25 , 0.00 ± 0.00 , 5.90 ± 0.56 , 0.00 ± 0.00
 275 (111-275) [l=0 cm] - K.
 111, 191.31 ± 4.47 , 99.35 ± 342.10 , -1.73 ± 41.38 , -59.70 ± 205.59 , 114.97 ± 2.61 , 0.20 ± 0.68
 275, 191.31 ± 4.47 , 99.35 ± 342.10 , -1.73 ± 41.38 , -59.70 ± 205.59 , 114.97 ± 2.77 , -0.20 ± 0.68
 276 (231-311) [l=166 cm] - K.
 231, -9.01 ± 1.20 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 311, -9.01 ± 1.20 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 277 (241-312) [l=166 cm] - K.
 241, -8.51 ± 0.92 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 312, -8.51 ± 0.92 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 278 (244-313) [l=166 cm] - K.
 244, -10.32 ± 0.72 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 313, -10.32 ± 0.72 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 279 (256-314) [l=166 cm] - K.
 256, -6.80 ± 0.09 , 0.43 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , -0.99 ± 0.00
 314, -6.80 ± 0.09 , 0.43 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , -1.69 ± 0.00
 280 (259-315) [l=166 cm] - K.
 259, -7.98 ± 0.17 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 315, -7.98 ± 0.17 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00 , 0.00 ± 0.00
 281 (268-316) [l=166 cm] - K.

268, -9.70 ± 1.04, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 316, -9.70 ± 1.04, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 282 (271-317) [l=166 cm] - K.
 271, -8.80 ± 1.27, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 317, -8.80 ± 1.27, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 283 (262-318) [l=166 cm] - K.
 262, -9.17 ± 0.46, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 318, -9.17 ± 0.46, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 284 (133-319) [l=0 cm] - K.
 133, 24.18 ± 2.59, -0.02 ± 0.01, 10.23 ± 1.08, 25.88 ± 13.97, -303.07 ± 40.46, -61.71 ± 33.32
 319, 24.18 ± 2.59, -0.02 ± 0.01, 10.23 ± 1.08, 25.88 ± 13.97, -303.05 ± 40.46, -61.71 ± 33.32
 285 (131-90) [l=116 cm] - K.
 131, 0.00 ± 0.00, 0.00 ± 0.00, -4.69 ± 15.24, -6.97 ± 15.31, -955.26 ± 173.45, 0.00 ± 0.00
 90, 0.00 ± 0.00, 0.00 ± 0.00, -4.69 ± 15.24, -6.97 ± 15.31, -960.69 ± 172.39, 0.00 ± 0.00
 286 (131-93) [l=111 cm] - K.
 131, 0.00 ± 0.00, 0.00 ± 0.00, -12.70 ± 15.20, -8.67 ± 14.29, -955.35 ± 173.68, 0.00 ± 0.00
 93, 0.00 ± 0.00, 0.00 ± 0.00, -12.70 ± 15.20, -8.67 ± 14.29, -969.40 ± 175.88, 0.00 ± 0.00
 287 (140-27) [l=111 cm] - K.
 140, 0.00 ± 0.00, 0.00 ± 0.00, -1.74 ± 17.09, 6.39 ± 24.39, -1391.09 ± 166.86, 0.00 ± 0.00
 27, 0.00 ± 0.00, 0.00 ± 0.00, -1.74 ± 17.09, 6.39 ± 24.39, -1393.01 ± 176.06, 0.00 ± 0.00
 288 (140-30) [l=116 cm] - K.
 140, 0.00 ± 0.00, 0.00 ± 0.00, -15.25 ± 17.18, 4.39 ± 23.25, -1391.04 ± 166.70, 0.00 ± 0.00
 30, 0.00 ± 0.00, 0.00 ± 0.00, -15.25 ± 17.18, 4.39 ± 23.25, -1408.70 ± 162.41, 0.00 ± 0.00
 289 (146-43) [l=85 cm] - K.
 146, 0.00 ± 0.00, 0.00 ± 0.00, -116.08 ± 15.98, 118.61 ± 34.82, -976.94 ± 40.75, 0.00 ± 0.00
 43, 0.00 ± 0.00, 0.00 ± 0.00, -116.08 ± 15.98, 118.61 ± 34.82, -1075.38 ± 31.26, 0.00 ± 0.00
 290 (146-46) [l=142 cm] - K.
 146, 0.00 ± 0.00, 0.00 ± 0.00, 59.63 ± 15.69, 106.02 ± 26.24, -976.86 ± 40.04, 0.00 ± 0.00
 46, 0.00 ± 0.00, 0.00 ± 0.00, 59.63 ± 15.69, 106.02 ± 26.24, -892.36 ± 58.13, 0.00 ± 0.00
 291 (150-74) [l=46 cm] - K.
 150, 0.00 ± 0.00, 0.00 ± 0.00, 28.33 ± 12.02, -78.68 ± 12.94, -727.49 ± 41.14, 0.00 ± 0.00
 74, 0.00 ± 0.00, 0.00 ± 0.00, 28.33 ± 12.02, -78.68 ± 12.94, -714.51 ± 46.36, 0.00 ± 0.00
 292 (150-77) [l=181 cm] - K.
 150, 0.00 ± 0.00, 0.00 ± 0.00, -56.49 ± 11.95, -81.23 ± 14.90, -728.24 ± 41.30, 0.00 ± 0.00
 77, 0.00 ± 0.00, 0.00 ± 0.00, -56.49 ± 11.95, -81.23 ± 14.90, -830.31 ± 33.00, 0.00 ± 0.00
 293 (153-66) [l=69 cm] - K.
 153, 0.00 ± 0.00, 0.00 ± 0.00, 42.60 ± 4.43, -12.64 ± 2.23, -159.07 ± 36.04, 0.00 ± 0.00
 66, 0.00 ± 0.00, 0.00 ± 0.00, 42.60 ± 4.43, -12.64 ± 2.23, -129.54 ± 38.08, 0.00 ± 0.00
 294 (153-70) [l=157 cm] - K.
 153, 0.00 ± 0.00, 0.00 ± 0.00, -136.13 ± 9.12, -26.06 ± 9.60, -160.88 ± 36.48, 0.00 ± 0.00
 70, 0.00 ± 0.00, 0.00 ± 0.00, -136.13 ± 9.12, -26.06 ± 9.60, -374.87 ± 32.35, 0.00 ± 0.00
 295 (157-58) [l=27 cm] - K.
 157, 0.00 ± 0.00, 0.00 ± 0.00, 19.43 ± 2.75, -0.21 ± 1.74, -11.94 ± 24.30, 0.00 ± 0.00
 58, 0.00 ± 0.00, 0.00 ± 0.00, 19.43 ± 2.75, -0.21 ± 1.74, -6.75 ± 24.45, 0.00 ± 0.00
 296 (157-61) [l=73 cm] - K.
 157, 0.00 ± 0.00, 0.00 ± 0.00, -40.75 ± 2.79, -2.01 ± 0.49, -12.14 ± 24.35, 0.00 ± 0.00
 61, 0.00 ± 0.00, 0.00 ± 0.00, -40.75 ± 2.79, -2.01 ± 0.49, -42.01 ± 23.72, 0.00 ± 0.00
 297 (49-160) [l=2 cm] - K.
 49, 0.00 ± 0.00, 0.00 ± 0.00, 192.78 ± 12.09, 29.78 ± 21.04, -413.37 ± 12.00, 0.00 ± 0.00
 160, 0.00 ± 0.00, 0.00 ± 0.00, 192.78 ± 12.09, 29.78 ± 21.04, -409.51 ± 11.80, 0.00 ± 0.00
 298 (160-51) [l=162 cm] - K.
 160, 0.00 ± 0.00, 0.00 ± 0.00, 120.44 ± 4.85, 15.42 ± 10.50, -408.51 ± 11.94, 0.00 ± 0.00
 51, 0.00 ± 0.00, 0.00 ± 0.00, 120.44 ± 4.85, 15.42 ± 10.50, -213.89 ± 8.80, 0.00 ± 0.00
 299 (103-164) [l=0 cm] - K.
 103, 0.00 ± 0.00, 0.00 ± 0.00, 97.25 ± 32.63, 157.39 ± 37.90, -227.19 ± 158.93, 0.00 ± 0.00
 164, 0.00 ± 0.00, 0.00 ± 0.00, 97.25 ± 32.63, 157.39 ± 37.90, -227.00 ± 158.87, 0.00 ± 0.00
 300 (164-104) [l=96 cm] - K.
 164, 0.00 ± 0.00, 0.00 ± 0.00, 87.49 ± 33.92, 156.46 ± 37.34, -227.03 ± 158.97, 0.00 ± 0.00
 104, 0.00 ± 0.00, 0.00 ± 0.00, 87.49 ± 33.92, 156.46 ± 37.34, -143.39 ± 127.83, 0.00 ± 0.00
 301 (168-104) [l=113 cm] - K.
 168, 0.00 ± 0.00, 0.00 ± 0.00, -61.48 ± 33.27, 156.46 ± 37.34, -73.73 ± 91.82, 0.00 ± 0.00
 104, 0.00 ± 0.00, 0.00 ± 0.00, -61.48 ± 33.27, 156.46 ± 37.34, -143.39 ± 127.82, 0.00 ± 0.00
 302 (168-107) [l=113 cm] - K.
 168, 0.00 ± 0.00, 0.00 ± 0.00, 50.02 ± 35.41, 155.37 ± 36.70, -73.77 ± 91.94, 0.00 ± 0.00
 107, 0.00 ± 0.00, 0.00 ± 0.00, 50.02 ± 35.41, 155.37 ± 36.70, -17.14 ± 53.51, 0.00 ± 0.00
 303 (107-171) [l=79 cm] - K.
 107, 0.00 ± 0.00, 0.00 ± 0.00, 24.01 ± 34.96, 155.37 ± 36.70, -17.14 ± 53.51, 0.00 ± 0.00
 171, 0.00 ± 0.00, 0.00 ± 0.00, 24.01 ± 34.96, 155.37 ± 36.70, 1.86 ± 26.89, 0.00 ± 0.00
 304 (171-106) [l=0 cm] - K.
 171, 0.00 ± 0.00, 0.00 ± 0.00, 15.89 ± 36.96, 154.61 ± 36.26, 1.84 ± 26.93, 0.00 ± 0.00
 106, 0.00 ± 0.00, 0.00 ± 0.00, 15.89 ± 36.96, 154.61 ± 36.26, 1.88 ± 26.82, 0.00 ± 0.00
 305 (16-174) [l=96 cm] - K.
 16, 0.00 ± 0.00, 0.00 ± 0.00, -95.76 ± 30.40, -192.08 ± 33.29, -252.63 ± 122.56, 0.00 ± 0.00
 174, 0.00 ± 0.00, 0.00 ± 0.00, -95.76 ± 30.40, -192.08 ± 33.29, -344.18 ± 151.52, 0.00 ± 0.00
 306 (174-14) [l=0 cm] - K.
 174, 0.00 ± 0.00, 0.00 ± 0.00, -104.66 ± 29.00, -193.26 ± 33.84, -344.14 ± 151.46, 0.00 ± 0.00
 14, 0.00 ± 0.00, 0.00 ± 0.00, -104.66 ± 29.00, -193.26 ± 33.84, -344.35 ± 151.51, 0.00 ± 0.00
 307 (177-12) [l=113 cm] - K.
 177, 0.00 ± 0.00, 0.00 ± 0.00, 73.02 ± 32.56, -190.69 ± 32.65, -158.42 ± 88.44, 0.00 ± 0.00
 12, 0.00 ± 0.00, 0.00 ± 0.00, 73.02 ± 32.56, -190.69 ± 32.65, -75.76 ± 51.71, 0.00 ± 0.00
 308 (177-16) [l=113 cm] - K.
 177, 0.00 ± 0.00, 0.00 ± 0.00, -83.20 ± 30.28, -192.08 ± 33.29, -158.36 ± 88.33, 0.00 ± 0.00
 16, 0.00 ± 0.00, 0.00 ± 0.00, -83.20 ± 30.28, -192.08 ± 33.29, -252.63 ± 122.56, 0.00 ± 0.00
 309 (10-180) [l=0 cm] - K.
 10, 0.00 ± 0.00, 0.00 ± 0.00, -53.42 ± 34.54, -189.71 ± 32.21, -27.79 ± 26.10, 0.00 ± 0.00
 180, 0.00 ± 0.00, 0.00 ± 0.00, -53.42 ± 34.54, -189.71 ± 32.21, -27.95 ± 26.18, 0.00 ± 0.00

310 (180-12) [l=79 cm] - K.
 180, 0.00 ± 0.00, 0.00 ± 0.00, -60.46 ± 32.53, -190.69 ± 32.65, -27.93 ± 26.15, 0.00 ± 0.00
 12, 0.00 ± 0.00, 0.00 ± 0.00, -60.46 ± 32.53, -190.69 ± 32.65, -75.76 ± 51.71, 0.00 ± 0.00

311 (188-82) [l=113 cm] - K.
 188, 0.00 ± 0.00, 0.00 ± 0.00, 32.86 ± 13.18, 51.33 ± 24.97, -742.98 ± 116.93, 0.00 ± 0.00
 82, 0.00 ± 0.00, 0.00 ± 0.00, 32.86 ± 13.18, 51.33 ± 24.97, -705.75 ± 108.24, 0.00 ± 0.00

312 (188-86) [l=113 cm] - K.
 188, 0.00 ± 0.00, 0.00 ± 0.00, -81.22 ± 18.71, 42.09 ± 19.14, -743.38 ± 117.52, 0.00 ± 0.00
 86, 0.00 ± 0.00, 0.00 ± 0.00, -81.22 ± 18.71, 42.09 ± 19.14, -835.33 ± 132.69, 0.00 ± 0.00

313 (70-192) [l=95 cm] - K.
 70, 0.00 ± 0.00, 0.00 ± 0.00, -148.68 ± 9.65, -26.06 ± 9.60, -374.87 ± 32.35, 0.00 ± 0.00
 192, 0.00 ± 0.00, 0.00 ± 0.00, -148.68 ± 9.65, -26.06 ± 9.60, -516.27 ± 29.84, 0.00 ± 0.00

314 (192-68) [l=1 cm] - K.
 192, 0.00 ± 0.00, 0.00 ± 0.00, -203.62 ± 16.89, -34.32 ± 15.95, -516.70 ± 30.33, 0.00 ± 0.00
 68, 0.00 ± 0.00, 0.00 ± 0.00, -203.62 ± 16.89, -34.32 ± 15.95, -518.33 ± 30.32, 0.00 ± 0.00

315 (194-97) [l=113 cm] - K.
 194, 0.00 ± 0.00, 0.00 ± 0.00, -114.35 ± 11.32, 174.81 ± 45.31, -422.29 ± 209.30, 0.00 ± 0.00
 97, 0.00 ± 0.00, 0.00 ± 0.00, -114.35 ± 11.32, 174.81 ± 45.31, -551.85 ± 206.91, 0.00 ± 0.00

316 (194-100) [l=113 cm] - K.
 194, 0.00 ± 0.00, 0.00 ± 0.00, 69.66 ± 10.56, 166.00 ± 40.01, -422.64 ± 210.07, 0.00 ± 0.00
 100, 0.00 ± 0.00, 0.00 ± 0.00, 69.66 ± 10.56, 166.00 ± 40.01, -343.79 ± 206.28, 0.00 ± 0.00

317 (200-35) [l=113 cm] - K.
 200, 0.00 ± 0.00, 0.00 ± 0.00, -86.94 ± 19.95, -47.15 ± 19.04, -1196.70 ± 112.13, 0.00 ± 0.00
 35, 0.00 ± 0.00, 0.00 ± 0.00, -86.94 ± 19.95, -47.15 ± 19.04, -1295.11 ± 126.54, 0.00 ± 0.00

318 (200-39) [l=113 cm] - K.
 200, 0.00 ± 0.00, 0.00 ± 0.00, 42.69 ± 15.06, -57.52 ± 14.66, -1196.85 ± 111.62, 0.00 ± 0.00
 39, 0.00 ± 0.00, 0.00 ± 0.00, 42.69 ± 15.06, -57.52 ± 14.66, -1148.48 ± 102.75, 0.00 ± 0.00

319 (204-20) [l=113 cm] - K.
 204, 0.00 ± 0.00, 0.00 ± 0.00, 116.03 ± 10.77, -204.43 ± 35.57, -680.32 ± 205.36, 0.00 ± 0.00
 20, 0.00 ± 0.00, 0.00 ± 0.00, 116.03 ± 10.77, -204.43 ± 35.57, -548.97 ± 201.26, 0.00 ± 0.00

320 (204-23) [l=113 cm] - K.
 204, 0.00 ± 0.00, 0.00 ± 0.00, -156.35 ± 11.02, -215.20 ± 40.82, -679.90 ± 204.74, 0.00 ± 0.00
 23, 0.00 ± 0.00, 0.00 ± 0.00, -156.35 ± 11.02, -215.20 ± 40.82, -857.04 ± 201.28, 0.00 ± 0.00

321 (207-51) [l=115 cm] - K.
 207, 0.00 ± 0.00, 0.00 ± 0.00, -107.88 ± 4.15, 15.42 ± 10.50, -89.50 ± 10.33, 0.00 ± 0.00
 51, 0.00 ± 0.00, 0.00 ± 0.00, -107.88 ± 4.15, 15.42 ± 10.50, -213.89 ± 8.80, 0.00 ± 0.00

322 (207-55) [l=111 cm] - K.
 207, 0.00 ± 0.00, 0.00 ± 0.00, 55.97 ± 1.07, 5.87 ± 3.28, -89.20 ± 9.86, 0.00 ± 0.00
 55, 0.00 ± 0.00, 0.00 ± 0.00, 55.97 ± 1.07, 5.87 ± 3.28, -26.96 ± 10.75, 0.00 ± 0.00

323 (213-1) [l=151 cm] - Z.
 213, 0.00 ± 0.00, 0.00 ± 0.00, 10.55 ± 7.87, 10.76 ± 2.25, 3.81 ± 2.34, 0.00 ± 0.00
 1, 0.00 ± 0.00, 0.00 ± 0.00, 90.50 ± 12.22, 10.76 ± 2.25, 80.26 ± 13.03, 0.00 ± 0.00

324 (1-214) [l=151 cm] - Z.
 1, 0.00 ± 0.00, 0.00 ± 0.00, -141.21 ± 12.70, 1.66 ± 0.40, 167.96 ± 36.22, 0.00 ± 0.00
 214, 0.00 ± 0.00, 0.00 ± 0.00, -61.24 ± 13.96, 1.66 ± 0.40, 14.71 ± 16.01, 0.00 ± 0.00

325 (215-5) [l=151 cm] - Z.
 215, 0.00 ± 0.00, 0.00 ± 0.00, 58.70 ± 13.96, 1.66 ± 0.40, 11.59 ± 15.60, 0.00 ± 0.00
 5, 0.00 ± 0.00, 0.00 ± 0.00, 140.19 ± 12.80, 1.66 ± 0.40, 161.88 ± 35.84, 0.00 ± 0.00

326 (5-216) [l=151 cm] - Z.
 5, 0.00 ± 0.00, 0.00 ± 0.00, -80.39 ± 15.75, -0.33 ± 1.93, 65.56 ± 17.22, 0.00 ± 0.00
 216, 0.00 ± 0.00, 0.00 ± 0.00, 2.44 ± 11.66, -0.33 ± 1.93, 6.42 ± 3.72, 0.00 ± 0.00

327 (216-9) [l=79 cm] - Z.
 216, 0.00 ± 0.00, 0.00 ± 0.00, 2.44 ± 11.66, 6.42 ± 3.72, 0.33 ± 1.93, 0.00 ± 0.00
 9, 0.00 ± 0.00, 0.00 ± 0.00, 46.25 ± 9.30, 6.42 ± 3.72, 19.66 ± 6.94, 0.00 ± 0.00

328 (9-11) [l=79 cm] - Z.
 9, 0.00 ± 0.00, 0.00 ± 0.00, -32.48 ± 4.46, 0.02 ± 0.01, 7.49 ± 1.77, 0.00 ± 0.00
 11, 0.00 ± 0.00, 0.00 ± 0.00, 11.33 ± 3.36, 0.02 ± 0.01, -0.91 ± 1.26, 0.00 ± 0.00

329 (11-15) [l=227 cm] - Z.
 11, 0.00 ± 0.00, 0.00 ± 0.00, -60.94 ± 4.95, 0.73 ± 0.39, 22.32 ± 3.43, 0.00 ± 0.00
 15, 0.00 ± 0.00, 0.00 ± 0.00, 63.89 ± 4.70, 0.73 ± 0.39, 25.65 ± 3.11, 0.00 ± 0.00

330 (15-13) [l=96 cm] - Z.
 15, 0.00 ± 0.00, 0.00 ± 0.00, -14.15 ± 2.56, 0.02 ± 0.01, -1.04 ± 1.19, 0.00 ± 0.00
 13, 0.00 ± 0.00, 0.00 ± 0.00, 38.68 ± 3.86, 0.02 ± 0.01, 10.72 ± 1.65, 0.00 ± 0.00

331 (13-217) [l=96 cm] - Z.
 13, 0.00 ± 0.00, 0.00 ± 0.00, -75.74 ± 10.12, 1.61 ± 0.60, 130.84 ± 18.09, 0.00 ± 0.00
 217, 0.00 ± 0.00, 0.00 ± 0.00, -22.89 ± 9.22, 1.61 ± 0.60, 83.54 ± 8.93, 0.00 ± 0.00

332 (217-18) [l=96 cm] - Z.
 217, 0.00 ± 0.00, 0.00 ± 0.00, -22.89 ± 9.22, 1.61 ± 0.60, 83.54 ± 8.93, 0.00 ± 0.00
 18, 0.00 ± 0.00, 0.00 ± 0.00, 29.93 ± 10.21, 1.61 ± 0.60, 86.92 ± 5.74, 0.00 ± 0.00

333 (18-320) [l=96 cm] - Z.
 18, 0.00 ± 0.00, 0.00 ± 0.00, -111.62 ± 8.39, -0.10 ± 0.55, 100.91 ± 11.93, 0.00 ± 0.00
 320, 0.00 ± 0.00, 0.00 ± 0.00, -58.84 ± 5.94, -0.10 ± 0.55, 19.18 ± 5.73, 0.00 ± 0.00

334 (320-321) [l=226 cm] - Z.
 320, 0.00 ± 0.00, 0.00 ± 0.00, -58.84 ± 5.94, -0.10 ± 0.55, 19.18 ± 5.73, 0.00 ± 0.00
 321, 0.00 ± 0.00, 0.00 ± 0.00, 65.66 ± 6.15, -0.10 ± 0.55, 26.87 ± 5.77, 0.00 ± 0.00

335 (321-21) [l=163 cm] - Z.
 321, 0.00 ± 0.00, 0.00 ± 0.00, 65.66 ± 6.15, -0.10 ± 0.55, 26.87 ± 5.77, 0.00 ± 0.00
 21, 0.00 ± 0.00, 0.00 ± 0.00, 155.63 ± 11.25, -0.10 ± 0.55, 207.67 ± 17.43, 0.00 ± 0.00

336 (21-218) [l=163 cm] - Z.
 21, 0.00 ± 0.00, 0.00 ± 0.00, -128.66 ± 7.28, -3.45 ± 4.70, 242.34 ± 19.16, 0.00 ± 0.00
 218, 0.00 ± 0.00, 0.00 ± 0.00, -38.70 ± 7.12, -3.45 ± 4.70, 105.61 ± 11.43, 0.00 ± 0.00

337 (218-25) [l=28 cm] - Z.
 218, 0.00 ± 0.00, 0.00 ± 0.00, -73.98 ± 8.88, -16.20 ± 0.96, 106.18 ± 11.14, 0.00 ± 0.00
 25, 0.00 ± 0.00, 0.00 ± 0.00, -58.35 ± 7.95, -16.20 ± 0.96, 87.39 ± 8.75, 0.00 ± 0.00

338 (25-322) [l=28 cm] - Z.
 25, 0.00 ± 0.00, 0.00 ± 0.00, -112.92 ± 9.07, -16.78 ± 0.28, 87.90 ± 8.91, 0.00 ± 0.00

322, 0.00 ± 0.00 , 0.00 ± 0.00 , -97.35 ± 8.11 , -16.78 ± 0.28 , 58.15 ± 6.58 , 0.00 ± 0.00
 339 (322-323) [l=227 cm] - Z.
 322, 0.00 ± 0.00 , 0.00 ± 0.00 , -97.35 ± 8.11 , -16.78 ± 0.28 , 58.15 ± 6.58 , 0.00 ± 0.00
 323, 0.00 ± 0.00 , 0.00 ± 0.00 , 26.38 ± 5.11 , -16.78 ± 0.28 , -21.88 ± 5.81 , 0.00 ± 0.00
 340 (323-28) [l=26 cm] - Z.
 323, 0.00 ± 0.00 , 0.00 ± 0.00 , 26.38 ± 5.11 , -16.78 ± 0.28 , -21.88 ± 5.81 , 0.00 ± 0.00
 28, 0.00 ± 0.00 , 0.00 ± 0.00 , 40.49 ± 5.39 , -16.78 ± 0.28 , -13.22 ± 6.96 , 0.00 ± 0.00
 341 (28-219) [l=26 cm] - Z.
 28, 0.00 ± 0.00 , 0.00 ± 0.00 , -29.88 ± 6.81 , -29.56 ± 0.32 , -13.86 ± 6.49 , 0.00 ± 0.00
 219, 0.00 ± 0.00 , 0.00 ± 0.00 , -15.75 ± 6.62 , -29.56 ± 0.32 , -19.77 ± 8.22 , 0.00 ± 0.00
 342 (219-32) [l=146 cm] - Z.
 219, 0.00 ± 0.00 , 0.00 ± 0.00 , 181.02 ± 8.13 , 144.79 ± 1.92 , -19.81 ± 8.21 , 0.00 ± 0.00
 32, 0.00 ± 0.00 , 0.00 ± 0.00 , 261.04 ± 11.30 , 144.79 ± 1.92 , 302.59 ± 20.41 , 0.00 ± 0.00
 343 (32-34) [l=146 cm] - Z.
 32, 0.00 ± 0.00 , 0.00 ± 0.00 , -46.11 ± 3.77 , 0.52 ± 0.01 , 15.45 ± 1.72 , 0.00 ± 0.00
 34, 0.00 ± 0.00 , 0.00 ± 0.00 , 34.58 ± 2.11 , 0.52 ± 0.01 , 6.95 ± 0.87 , 0.00 ± 0.00
 344 (34-38) [l=227 cm] - Z.
 34, 0.00 ± 0.00 , 0.00 ± 0.00 , -59.40 ± 4.71 , 15.99 ± 0.27 , 24.52 ± 3.82 , 0.00 ± 0.00
 38, 0.00 ± 0.00 , 0.00 ± 0.00 , 66.94 ± 4.83 , 15.99 ± 0.27 , 32.84 ± 3.67 , 0.00 ± 0.00
 345 (38-36) [l=308 cm] - Z.
 38, 0.00 ± 0.00 , 0.00 ± 0.00 , -81.43 ± 4.92 , 0.52 ± 0.01 , 39.74 ± 2.31 , 0.00 ± 0.00
 36, 0.00 ± 0.00 , 0.00 ± 0.00 , 91.34 ± 5.76 , 0.52 ± 0.01 , 54.97 ± 3.74 , 0.00 ± 0.00
 346 (36-220) [l=308 cm] - Z.
 36, 0.00 ± 0.00 , 0.00 ± 0.00 , -240.38 ± 13.44 , 59.97 ± 8.46 , 602.39 ± 46.92 , 0.00 ± 0.00
 220, 0.00 ± 0.00 , 0.00 ± 0.00 , -67.41 ± 12.02 , 59.97 ± 8.46 , 127.75 ± 11.17 , 0.00 ± 0.00
 347 (220-41) [l=28 cm] - Z.
 220, 0.00 ± 0.00 , 0.00 ± 0.00 , -96.33 ± 9.16 , -11.87 ± 1.08 , 128.42 ± 11.41 , 0.00 ± 0.00
 41, 0.00 ± 0.00 , 0.00 ± 0.00 , -80.40 ± 8.68 , -11.87 ± 1.08 , 103.32 ± 8.90 , 0.00 ± 0.00
 348 (41-324) [l=28 cm] - Z.
 41, 0.00 ± 0.00 , 0.00 ± 0.00 , -124.16 ± 9.19 , -13.05 ± 0.40 , 103.75 ± 9.52 , 0.00 ± 0.00
 324, 0.00 ± 0.00 , 0.00 ± 0.00 , -108.23 ± 8.22 , -13.05 ± 0.40 , 70.75 ± 7.38 , 0.00 ± 0.00
 349 (324-325) [l=227 cm] - Z.
 324, 0.00 ± 0.00 , 0.00 ± 0.00 , -108.23 ± 8.22 , -13.05 ± 0.40 , 70.75 ± 7.38 , 0.00 ± 0.00
 325, 0.00 ± 0.00 , 0.00 ± 0.00 , 17.61 ± 5.83 , -13.05 ± 0.40 , -31.38 ± 6.68 , 0.00 ± 0.00
 350 (44-221) [l=164 cm] - Z.
 44, 0.00 ± 0.00 , 0.00 ± 0.00 , -51.81 ± 14.24 , 132.33 ± 1.95 , 241.14 ± 16.72 , 0.00 ± 0.00
 221, 0.00 ± 0.00 , 0.00 ± 0.00 , 39.59 ± 12.93 , 132.33 ± 1.95 , 231.04 ± 9.98 , 0.00 ± 0.00
 351 (221-48) [l=164 cm] - Z.
 221, 0.00 ± 0.00 , 0.00 ± 0.00 , 39.59 ± 12.93 , 132.33 ± 1.95 , 231.04 ± 9.98 , 0.00 ± 0.00
 48, 0.00 ± 0.00 , 0.00 ± 0.00 , 131.76 ± 14.74 , 132.33 ± 1.95 , 371.20 ± 31.42 , 0.00 ± 0.00
 352 (48-50) [l=164 cm] - Z.
 48, 0.00 ± 0.00 , 0.00 ± 0.00 , -57.08 ± 3.81 , 0.47 ± 0.01 , 23.21 ± 1.62 , 0.00 ± 0.00
 50, 0.00 ± 0.00 , 0.00 ± 0.00 , 35.74 ± 2.84 , 0.47 ± 0.01 , 5.66 ± 0.86 , 0.00 ± 0.00
 353 (50-54) [l=227 cm] - Z.
 50, 0.00 ± 0.00 , 0.00 ± 0.00 , -72.62 ± 4.27 , 14.37 ± 0.41 , 35.51 ± 3.28 , 0.00 ± 0.00
 54, 0.00 ± 0.00 , 0.00 ± 0.00 , 56.58 ± 5.83 , 14.37 ± 0.41 , 17.26 ± 3.81 , 0.00 ± 0.00
 354 (54-52) [l=67 cm] - Z.
 54, 0.00 ± 0.00 , 0.00 ± 0.00 , -16.71 ± 4.82 , 0.47 ± 0.01 , 1.64 ± 1.51 , 0.00 ± 0.00
 52, 0.00 ± 0.00 , 0.00 ± 0.00 , 21.82 ± 6.22 , 0.47 ± 0.01 , 3.35 ± 2.00 , 0.00 ± 0.00
 355 (52-222) [l=67 cm] - Z.
 52, 0.00 ± 0.00 , 0.00 ± 0.00 , -49.62 ± 13.72 , 65.37 ± 3.65 , 23.77 ± 12.55 , 0.00 ± 0.00
 222, 0.00 ± 0.00 , 0.00 ± 0.00 , -10.98 ± 15.65 , 65.37 ± 3.65 , 3.35 ± 19.75 , 0.00 ± 0.00
 356 (223-56) [l=67 cm] - Z.
 223, 0.00 ± 0.00 , 0.00 ± 0.00 , 0.73 ± 15.64 , -20.42 ± 2.75 , -1.40 ± 20.38 , 0.00 ± 0.00
 56, 0.00 ± 0.00 , 0.00 ± 0.00 , 37.20 ± 13.78 , -20.42 ± 2.75 , 11.22 ± 10.98 , 0.00 ± 0.00
 357 (56-326) [l=67 cm] - Z.
 56, 0.00 ± 0.00 , 0.00 ± 0.00 , -44.75 ± 12.64 , -20.41 ± 0.99 , 11.49 ± 13.48 , 0.00 ± 0.00
 326, 0.00 ± 0.00 , 0.00 ± 0.00 , -8.34 ± 10.47 , -20.41 ± 0.99 , -6.16 ± 5.81 , 0.00 ± 0.00
 358 (326-327) [l=100 cm] - Z.
 326, 0.00 ± 0.00 , 0.00 ± 0.00 , -8.34 ± 10.47 , -20.41 ± 1.00 , -6.18 ± 5.81 , 0.00 ± 0.00
 327, 0.00 ± 0.00 , 0.00 ± 0.00 , 46.32 ± 8.42 , -20.41 ± 1.00 , 12.82 ± 3.54 , 0.00 ± 0.00
 359 (327-59) [l=43 cm] - Z.
 327, 0.00 ± 0.00 , 0.00 ± 0.00 , 46.32 ± 8.42 , -20.40 ± 1.00 , 12.82 ± 3.54 , 0.00 ± 0.00
 59, 0.00 ± 0.00 , 0.00 ± 0.00 , 69.91 ± 8.19 , -20.40 ± 1.00 , 37.93 ± 7.11 , 0.00 ± 0.00
 360 (59-224) [l=43 cm] - Z.
 59, 0.00 ± 0.00 , 0.00 ± 0.00 , 9.67 ± 8.47 , -31.37 ± 0.48 , 37.08 ± 4.35 , 0.00 ± 0.00
 224, 0.00 ± 0.00 , 0.00 ± 0.00 , 33.24 ± 8.05 , -31.37 ± 0.48 , 46.35 ± 7.07 , 0.00 ± 0.00
 361 (224-63) [l=43 cm] - Z.
 224, 0.00 ± 0.00 , 0.00 ± 0.00 , 33.24 ± 8.05 , -31.47 ± 0.48 , 46.28 ± 7.07 , 0.00 ± 0.00
 63, 0.00 ± 0.00 , 0.00 ± 0.00 , 56.74 ± 7.70 , -31.47 ± 0.48 , 65.67 ± 9.81 , 0.00 ± 0.00
 362 (63-65) [l=43 cm] - Z.
 63, 0.00 ± 0.00 , 0.00 ± 0.00 , -17.18 ± 5.52 , -0.30 ± 0.00 , 2.71 ± 1.20 , 0.00 ± 0.00
 65, 0.00 ± 0.00 , 0.00 ± 0.00 , 6.35 ± 5.00 , -0.30 ± 0.00 , 0.37 ± 1.07 , 0.00 ± 0.00
 363 (65-69) [l=227 cm] - Z.
 65, 0.00 ± 0.00 , 0.00 ± 0.00 , -56.98 ± 4.41 , -9.31 ± 0.14 , 20.97 ± 2.26 , 0.00 ± 0.00
 69, 0.00 ± 0.00 , 0.00 ± 0.00 , 65.95 ± 4.70 , -9.31 ± 0.14 , 31.25 ± 2.83 , 0.00 ± 0.00
 364 (69-67) [l=96 cm] - Z.
 69, 0.00 ± 0.00 , 0.00 ± 0.00 , -11.06 ± 1.87 , -0.30 ± 0.00 , -1.63 ± 0.88 , 0.00 ± 0.00
 67, 0.00 ± 0.00 , 0.00 ± 0.00 , 40.73 ± 3.88 , -0.30 ± 0.00 , 12.62 ± 1.41 , 0.00 ± 0.00
 365 (67-225) [l=96 cm] - Z.
 67, 0.00 ± 0.00 , 0.00 ± 0.00 , -130.75 ± 9.16 , -91.91 ± 2.24 , 223.41 ± 15.68 , 0.00 ± 0.00
 225, 0.00 ± 0.00 , 0.00 ± 0.00 , -79.22 ± 8.10 , -91.91 ± 2.24 , 122.76 ± 7.55 , 0.00 ± 0.00
 366 (225-72) [l=96 cm] - Z.
 225, 0.00 ± 0.00 , 0.00 ± 0.00 , -79.22 ± 8.10 , -91.91 ± 2.24 , 122.76 ± 7.55 , 0.00 ± 0.00
 72, 0.00 ± 0.00 , 0.00 ± 0.00 , -27.95 ± 8.65 , -91.91 ± 2.24 , 71.39 ± 3.56 , 0.00 ± 0.00
 367 (328-329) [l=226 cm] - Z.

328, 0.00 ± 0.00, 0.00 ± 0.00, -14.83 ± 5.15, 16.57 ± 0.40, -32.96 ± 5.99, 0.00 ± 0.00
 329, 0.00 ± 0.00, 0.00 ± 0.00, 106.04 ± 8.14, 16.57 ± 0.40, 69.81 ± 6.73, 0.00 ± 0.00
 368 (329-75) [l=28 cm] - Z.
 329, 0.00 ± 0.00, 0.00 ± 0.00, 106.04 ± 8.14, 16.57 ± 0.40, 69.81 ± 6.73, 0.00 ± 0.00
 75, 0.00 ± 0.00, 0.00 ± 0.00, 121.36 ± 9.11, 16.57 ± 0.40, 102.10 ± 8.77, 0.00 ± 0.00
 369 (75-226) [l=28 cm] - Z.
 75, 0.00 ± 0.00, 0.00 ± 0.00, 78.74 ± 8.21, 15.17 ± 1.09, 101.64 ± 8.57, 0.00 ± 0.00
 226, 0.00 ± 0.00, 0.00 ± 0.00, 94.05 ± 9.06, 15.17 ± 1.09, 126.17 ± 11.00, 0.00 ± 0.00
 370 (226-79) [l=308 cm] - Z.
 226, 0.00 ± 0.00, 0.00 ± 0.00, 68.23 ± 11.35, -56.81 ± 8.63, 125.37 ± 11.03, 0.00 ± 0.00
 79, 0.00 ± 0.00, 0.00 ± 0.00, 234.53 ± 13.00, -56.81 ± 8.63, 592.25 ± 44.65, 0.00 ± 0.00
 371 (79-81) [l=308 cm] - Z.
 79, 0.00 ± 0.00, 0.00 ± 0.00, -87.75 ± 5.78, -0.51 ± 0.01, 52.77 ± 3.75, 0.00 ± 0.00
 81, 0.00 ± 0.00, 0.00 ± 0.00, 78.39 ± 4.94, -0.51 ± 0.01, 38.36 ± 2.33, 0.00 ± 0.00
 372 (81-85) [l=227 cm] - Z.
 81, 0.00 ± 0.00, 0.00 ± 0.00, -64.39 ± 4.85, -15.78 ± 0.29, 31.83 ± 3.67, 0.00 ± 0.00
 85, 0.00 ± 0.00, 0.00 ± 0.00, 57.11 ± 4.77, -15.78 ± 0.29, 23.80 ± 3.79, 0.00 ± 0.00
 373 (85-83) [l=146 cm] - Z.
 85, 0.00 ± 0.00, 0.00 ± 0.00, -33.51 ± 2.12, -0.51 ± 0.01, 6.91 ± 0.86, 0.00 ± 0.00
 83, 0.00 ± 0.00, 0.00 ± 0.00, 44.07 ± 3.81, -0.51 ± 0.01, 14.69 ± 1.72, 0.00 ± 0.00
 374 (83-227) [l=146 cm] - Z.
 83, 0.00 ± 0.00, 0.00 ± 0.00, -254.61 ± 11.54, -143.97 ± 1.86, 296.30 ± 20.58, 0.00 ± 0.00
 227, 0.00 ± 0.00, 0.00 ± 0.00, -177.71 ± 8.19, -143.97 ± 1.86, -18.99 ± 8.20, 0.00 ± 0.00
 375 (227-88) [l=26 cm] - Z.
 227, 0.00 ± 0.00, 0.00 ± 0.00, 15.45 ± 6.62, 29.40 ± 0.31, -18.95 ± 8.23, 0.00 ± 0.00
 88, 0.00 ± 0.00, 0.00 ± 0.00, 29.03 ± 6.81, 29.40 ± 0.31, -13.19 ± 6.49, 0.00 ± 0.00
 376 (88-330) [l=26 cm] - Z.
 88, 0.00 ± 0.00, 0.00 ± 0.00, -39.32 ± 5.51, 16.61 ± 0.29, -12.57 ± 6.95, 0.00 ± 0.00
 330, 0.00 ± 0.00, 0.00 ± 0.00, -25.76 ± 5.22, 16.61 ± 0.29, -21.00 ± 5.79, 0.00 ± 0.00
 377 (330-331) [l=227 cm] - Z.
 330, 0.00 ± 0.00, 0.00 ± 0.00, -25.76 ± 5.22, 16.61 ± 0.29, -21.00 ± 5.79, 0.00 ± 0.00
 331, 0.00 ± 0.00, 0.00 ± 0.00, 93.08 ± 8.07, 16.61 ± 0.29, 54.92 ± 6.68, 0.00 ± 0.00
 378 (331-91) [l=28 cm] - Z.
 331, 0.00 ± 0.00, 0.00 ± 0.00, 93.08 ± 8.07, 16.61 ± 0.29, 54.92 ± 6.68, 0.00 ± 0.00
 91, 0.00 ± 0.00, 0.00 ± 0.00, 108.04 ± 9.03, 16.61 ± 0.29, 83.38 ± 8.81, 0.00 ± 0.00
 379 (91-228) [l=28 cm] - Z.
 91, 0.00 ± 0.00, 0.00 ± 0.00, 54.82 ± 7.79, 15.89 ± 0.99, 82.78 ± 8.63, 0.00 ± 0.00
 228, 0.00 ± 0.00, 0.00 ± 0.00, 69.84 ± 8.74, 15.89 ± 0.99, 100.48 ± 10.97, 0.00 ± 0.00
 380 (228-95) [l=163 cm] - Z.
 228, 0.00 ± 0.00, 0.00 ± 0.00, 39.14 ± 7.36, 4.74 ± 5.00, 99.18 ± 11.29, 0.00 ± 0.00
 95, 0.00 ± 0.00, 0.00 ± 0.00, 125.59 ± 7.59, 4.74 ± 5.00, 233.76 ± 20.06, 0.00 ± 0.00
 381 (95-332) [l=163 cm] - Z.
 95, 0.00 ± 0.00, 0.00 ± 0.00, -145.92 ± 10.60, 0.60 ± 0.75, 192.43 ± 15.20, 0.00 ± 0.00
 332, 0.00 ± 0.00, 0.00 ± 0.00, -59.42 ± 4.94, 0.60 ± 0.75, 24.66 ± 4.64, 0.00 ± 0.00
 382 (332-333) [l=226 cm] - Z.
 332, 0.00 ± 0.00, 0.00 ± 0.00, -59.42 ± 4.94, 0.60 ± 0.75, 24.66 ± 4.64, 0.00 ± 0.00
 333, 0.00 ± 0.00, 0.00 ± 0.00, 60.30 ± 5.41, 0.60 ± 0.75, 25.71 ± 4.61, 0.00 ± 0.00
 383 (333-98) [l=96 cm] - Z.
 333, 0.00 ± 0.00, 0.00 ± 0.00, 60.30 ± 5.41, 0.60 ± 0.75, 25.71 ± 4.61, 0.00 ± 0.00
 98, 0.00 ± 0.00, 0.00 ± 0.00, 110.91 ± 8.77, 0.60 ± 0.75, 107.82 ± 10.05, 0.00 ± 0.00
 384 (98-229) [l=96 cm] - Z.
 98, 0.00 ± 0.00, 0.00 ± 0.00, -46.75 ± 5.82, -0.20 ± 0.15, 111.41 ± 9.04, 0.00 ± 0.00
 229, 0.00 ± 0.00, 0.00 ± 0.00, 3.73 ± 4.76, -0.20 ± 0.15, 90.79 ± 6.69, 0.00 ± 0.00
 385 (229-102) [l=96 cm] - Z.
 229, 0.00 ± 0.00, 0.00 ± 0.00, 3.73 ± 4.76, -0.20 ± 0.15, 90.79 ± 6.69, 0.00 ± 0.00
 102, 0.00 ± 0.00, 0.00 ± 0.00, 54.08 ± 5.83, -0.20 ± 0.15, 118.52 ± 9.60, 0.00 ± 0.00
 386 (102-334) [l=96 cm] - Z.
 102, 0.00 ± 0.00, 0.00 ± 0.00, -122.53 ± 9.62, -0.98 ± 0.53, 122.17 ± 10.42, 0.00 ± 0.00
 334, 0.00 ± 0.00, 0.00 ± 0.00, -72.31 ± 6.16, -0.98 ± 0.53, 28.76 ± 4.01, 0.00 ± 0.00
 387 (334-335) [l=226 cm] - Z.
 334, 0.00 ± 0.00, 0.00 ± 0.00, -72.31 ± 6.16, -0.98 ± 0.53, 28.76 ± 4.01, 0.00 ± 0.00
 335, 0.00 ± 0.00, 0.00 ± 0.00, 45.67 ± 4.21, -0.98 ± 0.53, -1.34 ± 4.14, 0.00 ± 0.00
 388 (335-105) [l=79 cm] - Z.
 335, 0.00 ± 0.00, 0.00 ± 0.00, 45.67 ± 4.21, -0.98 ± 0.53, -1.34 ± 4.14, 0.00 ± 0.00
 105, 0.00 ± 0.00, 0.00 ± 0.00, 87.26 ± 6.71, -0.98 ± 0.53, 51.42 ± 7.21, 0.00 ± 0.00
 389 (105-213) [l=79 cm] - Z.
 105, 0.00 ± 0.00, 0.00 ± 0.00, -31.30 ± 5.57, -3.81 ± 2.34, 19.02 ± 3.23, 0.00 ± 0.00
 213, 0.00 ± 0.00, 0.00 ± 0.00, 10.55 ± 7.87, -3.81 ± 2.34, 10.76 ± 2.25, 0.00 ± 0.00
 390 (222-108) [l=208 cm] - Z.
 222, 0.00 ± 0.00, 0.00 ± 0.00, -10.98 ± 15.65, 3.35 ± 19.75, -65.37 ± 3.65, 0.00 ± 0.00
 108, 0.00 ± 0.00, 0.00 ± 0.00, 107.78 ± 20.68, 3.35 ± 19.75, 35.58 ± 34.69, 0.00 ± 0.00
 391 (108-230) [l=208 cm] - Z.
 108, 0.00 ± 0.00, 0.00 ± 0.00, -107.58 ± 20.79, 2.39 ± 19.97, 46.41 ± 48.19, 0.00 ± 0.00
 230, 0.00 ± 0.00, 0.00 ± 0.00, 9.93 ± 21.90, 2.39 ± 19.97, -55.02 ± 12.54, 0.00 ± 0.00
 392 (336-112) [l=153 cm] - Z.
 336, 0.00 ± 0.00, 0.00 ± 0.00, 57.02 ± 15.48, 0.33 ± 0.56, 4.17 ± 15.50, 0.00 ± 0.00
 112, 0.00 ± 0.00, 0.00 ± 0.00, 144.02 ± 13.78, 0.33 ± 0.56, 157.89 ± 38.00, 0.00 ± 0.00
 393 (112-228) [l=153 cm] - Z.
 112, 0.00 ± 0.00, 0.00 ± 0.00, -117.57 ± 14.69, 1.30 ± 0.96, 102.26 ± 13.59, 0.00 ± 0.00
 228, 0.00 ± 0.00, 0.00 ± 0.00, -30.69 ± 10.50, 1.30 ± 0.96, -11.14 ± 5.96, 0.00 ± 0.00
 394 (218-116) [l=163 cm] - Z.
 218, 0.00 ± 0.00, 0.00 ± 0.00, 35.28 ± 10.89, -0.57 ± 1.22, -12.75 ± 5.65, 0.00 ± 0.00
 116, 0.00 ± 0.00, 0.00 ± 0.00, 130.63 ± 15.27, -0.57 ± 1.22, 122.53 ± 15.96, 0.00 ± 0.00
 395 (337-336) [l=200 cm] - Z.
 337, 0.00 ± 0.00, 0.00 ± 0.00, -57.26 ± 15.63, 0.33 ± 0.56, 4.25 ± 15.95, 0.00 ± 0.00
 336, 0.00 ± 0.00, 0.00 ± 0.00, 57.02 ± 15.48, 0.33 ± 0.56, 4.17 ± 15.50, 0.00 ± 0.00

396 (116-337) [l=163 cm] - Z.
 116, 0.00 ± 0.00, 0.00 ± 0.00, -151.51 ± 14.04, 0.33 ± 0.56, 174.24 ± 40.25, 0.00 ± 0.00
 337, 0.00 ± 0.00, 0.00 ± 0.00, -57.26 ± 15.63, 0.33 ± 0.56, 4.25 ± 15.95, 0.00 ± 0.00
 397 (226-120) [l=153 cm] - Z.
 226, 0.00 ± 0.00, 0.00 ± 0.00, 25.82 ± 11.95, 0.80 ± 1.00, -71.98 ± 9.65, 0.00 ± 0.00
 120, 0.00 ± 0.00, 0.00 ± 0.00, 114.09 ± 15.87, 0.80 ± 1.00, 35.08 ± 11.90, 0.00 ± 0.00
 398 (120-338) [l=153 cm] - Z.
 120, 0.00 ± 0.00, 0.00 ± 0.00, -145.12 ± 13.77, 0.07 ± 0.31, 143.38 ± 38.25, 0.00 ± 0.00
 338, 0.00 ± 0.00, 0.00 ± 0.00, -57.18 ± 15.50, 0.07 ± 0.31, -11.24 ± 15.84, 0.00 ± 0.00
 399 (338-339) [l=200 cm] - Z.
 338, 0.00 ± 0.00, 0.00 ± 0.00, -57.18 ± 15.50, 0.07 ± 0.31, -11.24 ± 15.84, 0.00 ± 0.00
 339, 0.00 ± 0.00, 0.00 ± 0.00, 57.91 ± 15.66, 0.07 ± 0.31, -10.68 ± 16.13, 0.00 ± 0.00
 400 (339-124) [l=163 cm] - Z.
 339, 0.00 ± 0.00, 0.00 ± 0.00, 57.91 ± 15.66, 0.07 ± 0.31, -10.68 ± 16.13, 0.00 ± 0.00
 124, 0.00 ± 0.00, 0.00 ± 0.00, 153.17 ± 13.99, 0.07 ± 0.31, 161.13 ± 40.38, 0.00 ± 0.00
 401 (124-220) [l=163 cm] - Z.
 124, 0.00 ± 0.00, 0.00 ± 0.00, -125.75 ± 16.54, -0.67 ± 1.09, 54.36 ± 14.42, 0.00 ± 0.00
 220, 0.00 ± 0.00, 0.00 ± 0.00, -28.92 ± 12.42, -0.67 ± 1.09, -71.84 ± 9.49, 0.00 ± 0.00
 402 (230-211) [l=208 cm] - Z.
 230, 0.00 ± 0.00, 0.00 ± 0.00, 9.93 ± 21.90, 2.39 ± 19.97, -55.02 ± 12.54, 0.00 ± 0.00
 211, 0.00 ± 0.00, 0.00 ± 0.00, 126.10 ± 20.94, 2.39 ± 19.97, 86.75 ± 47.02, 0.00 ± 0.00
 403 (211-223) [l=208 cm] - Z.
 211, 0.00 ± 0.00, 0.00 ± 0.00, -114.19 ± 20.57, 1.46 ± 20.37, 97.48 ± 35.32, 0.00 ± 0.00
 223, 0.00 ± 0.00, 0.00 ± 0.00, 0.73 ± 15.64, 1.46 ± 20.37, -20.41 ± 2.81, 0.00 ± 0.00
 404 (291-227) [l=165 cm] - Z.
 291, 0.00 ± 0.00, 0.00 ± 0.00, 106.34 ± 0.92, -0.04 ± 0.04, -71.97 ± 4.36, 0.00 ± 0.00
 227, 0.00 ± 0.00, 0.00 ± 0.00, 193.16 ± 4.64, -0.04 ± 0.04, 173.37 ± 2.17, 0.00 ± 0.00
 405 (293-291) [l=132 cm] - Z.
 293, 0.00 ± 0.00, 0.00 ± 0.00, 46.32 ± 2.06, -0.02 ± 0.03, -171.91 ± 3.12, 0.00 ± 0.00
 291, 0.00 ± 0.00, 0.00 ± 0.00, 107.14 ± 0.91, -0.02 ± 0.03, -71.34 ± 4.41, 0.00 ± 0.00
 406 (295-293) [l=218 cm] - Z.
 295, 0.00 ± 0.00, 0.00 ± 0.00, -41.92 ± 2.25, 0.00 ± 0.03, -182.08 ± 2.74, 0.00 ± 0.00
 293, 0.00 ± 0.00, 0.00 ± 0.00, 51.59 ± 2.09, 0.00 ± 0.03, -171.55 ± 3.17, 0.00 ± 0.00
 407 (219-297) [l=185 cm] - Z.
 219, 0.00 ± 0.00, 0.00 ± 0.00, -196.77 ± 4.58, 0.04 ± 0.04, 174.35 ± 2.24, 0.00 ± 0.00
 297, 0.00 ± 0.00, 0.00 ± 0.00, -97.27 ± 0.94, 0.04 ± 0.04, -94.88 ± 4.33, 0.00 ± 0.00
 408 (297-295) [l=132 cm] - Z.
 297, 0.00 ± 0.00, 0.00 ± 0.00, -97.77 ± 0.91, 0.02 ± 0.03, -94.29 ± 4.38, 0.00 ± 0.00
 295, 0.00 ± 0.00, 0.00 ± 0.00, -36.83 ± 2.21, 0.02 ± 0.03, -182.38 ± 2.68, 0.00 ± 0.00
 409 (299-239) [l=185 cm] - Z.
 299, 0.00 ± 0.00, 0.00 ± 0.00, 106.38 ± 1.61, -0.05 ± 0.07, -75.96 ± 5.12, 0.00 ± 0.00
 239, 0.00 ± 0.00, 0.00 ± 0.00, 208.02 ± 4.85, -0.05 ± 0.07, 212.28 ± 3.98, 0.00 ± 0.00
 410 (301-299) [l=132 cm] - Z.
 301, 0.00 ± 0.00, 0.00 ± 0.00, 43.96 ± 2.57, -0.07 ± 0.07, -174.05 ± 3.27, 0.00 ± 0.00
 299, 0.00 ± 0.00, 0.00 ± 0.00, 106.70 ± 1.57, -0.07 ± 0.07, -75.37 ± 5.17, 0.00 ± 0.00
 411 (303-301) [l=218 cm] - Z.
 303, 0.00 ± 0.00, 0.00 ± 0.00, -46.83 ± 2.45, -0.08 ± 0.07, -175.96 ± 3.71, 0.00 ± 0.00
 301, 0.00 ± 0.00, 0.00 ± 0.00, 49.03 ± 2.61, -0.08 ± 0.07, -173.74 ± 3.33, 0.00 ± 0.00
 412 (238-305) [l=165 cm] - Z.
 238, 0.00 ± 0.00, 0.00 ± 0.00, -190.38 ± 4.72, -0.12 ± 0.07, 157.96 ± 3.69, 0.00 ± 0.00
 305, 0.00 ± 0.00, 0.00 ± 0.00, -102.47 ± 1.48, -0.12 ± 0.07, -81.88 ± 5.21, 0.00 ± 0.00
 413 (305-303) [l=132 cm] - Z.
 305, 0.00 ± 0.00, 0.00 ± 0.00, -103.42 ± 1.46, -0.10 ± 0.07, -81.25 ± 5.26, 0.00 ± 0.00
 303, 0.00 ± 0.00, 0.00 ± 0.00, -41.62 ± 2.41, -0.10 ± 0.07, -176.30 ± 3.65, 0.00 ± 0.00
 414 (24-119) [l=60 cm] - K.
 24, 175.94 ± 9.30, -28.65 ± 5.88, 0.11 ± 0.16, 0.00 ± 0.00, -0.90 ± 1.32, -239.21 ± 49.08
 119, 175.94 ± 9.30, -28.65 ± 5.88, 0.11 ± 0.16, 0.00 ± 0.00, -0.83 ± 1.23, -222.01 ± 45.55
 415 (31-237) [l=240 cm] - K.
 31, 2.28 ± 0.03, -0.85 ± 0.09, 0.00 ± 0.02, 0.00 ± 0.00, 0.02 ± 0.07, -3.04 ± 0.31
 237, 2.28 ± 0.03, -0.85 ± 0.09, 0.00 ± 0.02, 0.00 ± 0.00, 0.01 ± 0.02, -1.01 ± 0.10
 416 (40-127) [l=60 cm] - K.
 40, 172.30 ± 8.88, -25.30 ± 6.28, 0.09 ± 0.05, 0.00 ± 0.00, -0.78 ± 0.46, -211.20 ± 52.40
 127, 172.30 ± 8.88, -25.30 ± 6.28, 0.09 ± 0.05, 0.00 ± 0.00, -0.72 ± 0.42, -196.02 ± 48.63
 417 (340-253) [l=240 cm] - K.
 340, 2.14 ± 0.04, -0.82 ± 0.09, 0.00 ± 0.02, 0.00 ± 0.00, 0.01 ± 0.07, -2.95 ± 0.33
 253, 2.14 ± 0.04, -0.82 ± 0.09, 0.00 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.02, -0.98 ± 0.11
 418 (341-254) [l=240 cm] - K.
 341, 3.01 ± 0.06, 1.12 ± 0.10, 0.00 ± 0.02, 0.00 ± 0.00, 0.01 ± 0.09, 4.00 ± 0.34
 254, 3.01 ± 0.06, 1.12 ± 0.10, 0.00 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.03, 1.32 ± 0.11
 419 (78-122) [l=60 cm] - K.
 78, 160.55 ± 9.15, 20.02 ± 5.40, 0.09 ± 0.05, 0.00 ± 0.00, -0.77 ± 0.39, 167.10 ± 45.11
 122, 160.55 ± 9.15, 20.02 ± 5.40, 0.09 ± 0.05, 0.00 ± 0.00, -0.71 ± 0.36, 155.09 ± 41.86
 420 (87-233) [l=240 cm] - K.
 87, 2.98 ± 0.04, 1.14 ± 0.09, -0.01 ± 0.02, 0.00 ± 0.00, 0.02 ± 0.08, 4.10 ± 0.31
 233, 2.98 ± 0.04, 1.14 ± 0.09, -0.01 ± 0.02, 0.00 ± 0.00, 0.01 ± 0.03, 1.36 ± 0.10
 421 (94-114) [l=60 cm] - K.
 94, 163.04 ± 9.49, 23.86 ± 5.14, 0.11 ± 0.14, 0.00 ± 0.00, -0.94 ± 1.21, 199.19 ± 42.92
 114, 163.04 ± 9.49, 23.86 ± 5.14, 0.11 ± 0.14, 0.00 ± 0.00, -0.87 ± 1.12, 184.88 ± 39.83
 422 (342-275) [l=0 cm] - K.
 342, 2.52 ± 41.38, 139.92 ± 3.30, 72.26 ± 250.20, 0.00 ± 0.00, -103.69 ± 359.02, 200.77 ± 4.73
 275, 2.52 ± 41.38, 139.92 ± 3.30, 72.26 ± 250.20, 0.00 ± 0.00, -103.55 ± 358.51, 200.49 ± 4.73
 423 (280-319) [l=0 cm] - T.
 280, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 319, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 424 (319-281) [l=199 cm] - T.
 319, 14.77 ± 0.74, 0.00 ± 0.00, 2.12 ± 0.05, 0.00 ± 0.00, -1.46 ± 0.06, 0.00 ± 0.00

281, 13.81 ± 0.74, 0.00 ± 0.00, -0.29 ± 0.05, 0.00 ± 0.00, 0.37 ± 0.04, 0.00 ± 0.00
 425 (343-319) [l=0 cm] - K.
 343, -16.88 ± 2.52, -0.01 ± 0.01, 0.06 ± 0.01, 0.00 ± 0.00, -303.04 ± 40.46, -60.49 ± 33.43
 319, -16.88 ± 2.52, -0.01 ± 0.01, 0.06 ± 0.01, 0.00 ± 0.00, -303.04 ± 40.46, -60.49 ± 33.43
 426 (290-344) [l=0 cm] - T.
 290, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 344, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 427 (344-289) [l=199 cm] - T.
 344, 21.53 ± 2.15, 0.00 ± 0.00, 3.66 ± 0.16, 0.00 ± 0.00, -2.38 ± 0.19, 0.00 ± 0.00
 289, 19.72 ± 2.15, 0.00 ± 0.00, -0.86 ± 0.16, 0.00 ± 0.00, 0.40 ± 0.13, 0.00 ± 0.00
 428 (345-344) [l=0 cm] - K.
 345, 11.39 ± 0.97, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 2.36 ± 0.19
 344, 11.39 ± 0.97, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 2.36 ± 0.19
 429 (276-346) [l=0 cm] - T.
 276, -0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 346, -0.02 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 430 (346-185) [l=448 cm] - T.
 346, 16.33 ± 0.58, -0.01 ± 0.00, 14.16 ± 0.01, 0.01 ± 0.00, -10.81 ± 0.03, -0.03 ± 0.00
 185, 5.15 ± 0.58, -0.01 ± 0.00, -13.83 ± 0.01, 0.01 ± 0.00, -10.08 ± 0.02, 0.01 ± 0.00
 431 (173-346) [l=0 cm] - K.
 173, 19.23 ± 1.21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.00, 10.79 ± 0.03
 346, 19.23 ± 1.21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.00, 10.79 ± 0.03
 432 (277-347) [l=0 cm] - T.
 277, -0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 347, -0.02 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 433 (347-185) [l=448 cm] - T.
 347, 16.30 ± 0.58, 0.01 ± 0.00, 14.15 ± 0.01, -0.01 ± 0.00, -10.80 ± 0.03, 0.03 ± 0.00
 185, 5.11 ± 0.58, 0.01 ± 0.00, -13.84 ± 0.01, -0.01 ± 0.00, -10.09 ± 0.02, -0.01 ± 0.00
 434 (182-347) [l=0 cm] - K.
 182, 19.21 ± 1.21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.00, -10.78 ± 0.03
 347, 19.21 ± 1.21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.00, -10.78 ± 0.03
 435 (196-240) [l=94 cm] - K.
 196, 0.00 ± 0.00, 0.00 ± 0.00, 80.81 ± 8.19, 131.57 ± 55.03, -574.00 ± 138.10, 0.00 ± 0.00
 240, 0.00 ± 0.00, 0.00 ± 0.00, 80.81 ± 8.19, 131.57 ± 55.03, -498.20 ± 130.90, 0.00 ± 0.00
 436 (240-197) [l=2 cm] - K.
 240, 0.00 ± 0.00, 0.00 ± 0.00, 62.38 ± 8.12, 124.46 ± 55.04, -498.20 ± 130.90, 0.00 ± 0.00
 197, 0.00 ± 0.00, 0.00 ± 0.00, 62.38 ± 8.12, 124.46 ± 55.04, -496.89 ± 130.74, 0.00 ± 0.00
 437 (137-242) [l=2 cm] - K.
 137, 0.00 ± 0.00, 0.00 ± 0.00, -64.01 ± 8.15, -106.54 ± 53.54, -465.49 ± 128.20, 0.00 ± 0.00
 242, 0.00 ± 0.00, 0.00 ± 0.00, -64.01 ± 8.15, -106.54 ± 53.54, -466.84 ± 128.36, 0.00 ± 0.00
 438 (242-139) [l=94 cm] - K.
 242, 0.00 ± 0.00, 0.00 ± 0.00, -82.44 ± 8.24, -113.65 ± 53.53, -466.84 ± 128.36, 0.00 ± 0.00
 139, 0.00 ± 0.00, 0.00 ± 0.00, -82.44 ± 8.24, -113.65 ± 53.53, -544.16 ± 135.86, 0.00 ± 0.00
 439 (128-243) [l=159 cm] - K.
 128, 0.00 ± 0.00, 0.00 ± 0.00, 73.41 ± 3.43, 137.51 ± 62.86, -842.35 ± 147.13, 0.00 ± 0.00
 243, 0.00 ± 0.00, 0.00 ± 0.00, 73.41 ± 3.43, 137.51 ± 62.86, -725.92 ± 146.56, 0.00 ± 0.00
 440 (243-130) [l=5 cm] - K.
 243, 0.00 ± 0.00, 0.00 ± 0.00, 25.70 ± 1.54, 64.46 ± 31.43, -362.96 ± 73.28, 0.00 ± 0.00
 130, 0.00 ± 0.00, 0.00 ± 0.00, 25.70 ± 1.54, 64.46 ± 31.43, -361.75 ± 73.27, 0.00 ± 0.00
 441 (203-245) [l=5 cm] - K.
 203, 0.00 ± 0.00, 0.00 ± 0.00, -28.71 ± 1.47, -54.69 ± 30.59, -351.43 ± 72.67, 0.00 ± 0.00
 245, 0.00 ± 0.00, 0.00 ± 0.00, -28.71 ± 1.47, -54.69 ± 30.59, -352.78 ± 72.69, 0.00 ± 0.00
 442 (245-202) [l=159 cm] - K.
 245, 0.00 ± 0.00, 0.00 ± 0.00, -79.42 ± 3.22, -117.97 ± 61.17, -705.56 ± 145.39, 0.00 ± 0.00
 202, 0.00 ± 0.00, 0.00 ± 0.00, -79.42 ± 3.22, -117.97 ± 61.17, -831.52 ± 146.93, 0.00 ± 0.00
 443 (132-246) [l=165 cm] - K.
 132, 0.00 ± 0.00, 0.00 ± 0.00, 41.75 ± 5.62, 138.10 ± 73.96, -960.56 ± 138.14, 0.00 ± 0.00
 246, 0.00 ± 0.00, 0.00 ± 0.00, 41.75 ± 5.62, 138.10 ± 73.96, -891.88 ± 138.68, 0.00 ± 0.00
 444 (246-129) [l=3 cm] - K.
 246, 0.00 ± 0.00, 0.00 ± 0.00, 14.88 ± 2.71, 66.92 ± 36.98, -445.94 ± 69.34, 0.00 ± 0.00
 129, 0.00 ± 0.00, 0.00 ± 0.00, 14.88 ± 2.71, 66.92 ± 36.98, -445.50 ± 69.35, 0.00 ± 0.00
 445 (142-248) [l=3 cm] - K.
 142, 0.00 ± 0.00, 0.00 ± 0.00, -19.89 ± 2.16, -55.84 ± 36.01, -448.70 ± 69.63, 0.00 ± 0.00
 248, 0.00 ± 0.00, 0.00 ± 0.00, -19.89 ± 2.16, -55.84 ± 36.01, -449.30 ± 69.58, 0.00 ± 0.00
 446 (248-141) [l=165 cm] - K.
 248, 0.00 ± 0.00, 0.00 ± 0.00, -51.77 ± 4.38, -115.93 ± 72.02, -898.59 ± 139.15, 0.00 ± 0.00
 141, 0.00 ± 0.00, 0.00 ± 0.00, -51.77 ± 4.38, -115.93 ± 72.02, -983.75 ± 136.60, 0.00 ± 0.00
 447 (46-340) [l=52 cm] - K.
 46, 0.00 ± 0.00, 0.00 ± 0.00, 33.62 ± 15.29, 106.02 ± 26.24, -892.37 ± 58.13, 0.00 ± 0.00
 340, 0.00 ± 0.00, 0.00 ± 0.00, 33.62 ± 15.29, 106.02 ± 26.24, -874.99 ± 64.74, 0.00 ± 0.00
 448 (340-45) [l=112 cm] - K.
 340, 0.00 ± 0.00, 0.00 ± 0.00, 35.76 ± 15.27, 108.97 ± 26.46, -875.00 ± 64.68, 0.00 ± 0.00
 45, 0.00 ± 0.00, 0.00 ± 0.00, 35.76 ± 15.27, 108.97 ± 26.46, -834.98 ± 79.71, 0.00 ± 0.00
 449 (73-341) [l=44 cm] - K.
 73, 0.00 ± 0.00, 0.00 ± 0.00, -5.33 ± 11.64, -82.68 ± 13.16, -710.98 ± 57.08, 0.00 ± 0.00
 341, 0.00 ± 0.00, 0.00 ± 0.00, -5.33 ± 11.64, -82.68 ± 13.16, -713.33 ± 52.11, 0.00 ± 0.00
 450 (341-74) [l=52 cm] - K.
 341, 0.00 ± 0.00, 0.00 ± 0.00, -2.32 ± 11.67, -78.68 ± 12.94, -713.31 ± 52.19, 0.00 ± 0.00
 74, 0.00 ± 0.00, 0.00 ± 0.00, -2.32 ± 11.67, -78.68 ± 12.94, -714.52 ± 46.36, 0.00 ± 0.00
 451 (190-255) [l=4 cm] - K.
 190, 0.00 ± 0.00, 0.00 ± 0.00, 11.07 ± 3.08, 70.04 ± 42.45, -562.91 ± 72.95, 0.00 ± 0.00
 255, 0.00 ± 0.00, 0.00 ± 0.00, 11.07 ± 3.08, 70.04 ± 42.45, -562.43 ± 72.83, 0.00 ± 0.00
 452 (255-191) [l=142 cm] - K.
 255, 0.00 ± 0.00, 0.00 ± 0.00, 10.32 ± 6.11, 136.12 ± 84.91, -1124.86 ± 145.67, 0.00 ± 0.00
 191, 0.00 ± 0.00, 0.00 ± 0.00, 10.32 ± 6.11, 136.12 ± 84.91, -1110.24 ± 137.99, 0.00 ± 0.00
 453 (144-257) [l=142 cm] - K.

144, 0.00 ± 0.00, 0.00 ± 0.00, -26.85 ± 5.31, -111.35 ± 82.67, -1169.98 ± 135.45, 0.00 ± 0.00
 257, 0.00 ± 0.00, 0.00 ± 0.00, -26.85 ± 5.31, -111.35 ± 82.67, -1208.00 ± 141.14, 0.00 ± 0.00
 454 (257-145) [l=4 cm] - K.
 257, 0.00 ± 0.00, 0.00 ± 0.00, -22.24 ± 2.68, -59.39 ± 41.34, -604.00 ± 70.57, 0.00 ± 0.00
 145, 0.00 ± 0.00, 0.00 ± 0.00, -22.24 ± 2.68, -59.39 ± 41.34, -604.95 ± 70.65, 0.00 ± 0.00
 455 (134-258) [l=252 cm] - K.
 134, 0.00 ± 0.00, 0.00 ± 0.00, 6.30 ± 11.46, 144.56 ± 92.16, -1148.21 ± 198.04, 0.00 ± 0.00
 258, 0.00 ± 0.00, 0.00 ± 0.00, 6.30 ± 11.46, 144.56 ± 92.16, -1132.37 ± 170.41, 0.00 ± 0.00
 456 (258-136) [l=57 cm] - K.
 258, 0.00 ± 0.00, 0.00 ± 0.00, -10.93 ± 11.48, 137.89 ± 92.15, -1132.37 ± 170.41, 0.00 ± 0.00
 136, 0.00 ± 0.00, 0.00 ± 0.00, -10.93 ± 11.48, 137.89 ± 92.15, -1138.57 ± 164.22, 0.00 ± 0.00
 457 (199-260) [l=57 cm] - K.
 199, 0.00 ± 0.00, 0.00 ± 0.00, -15.52 ± 10.02, -114.12 ± 89.75, -1277.86 ± 155.40, 0.00 ± 0.00
 260, 0.00 ± 0.00, 0.00 ± 0.00, -15.52 ± 10.02, -114.12 ± 89.75, -1286.66 ± 160.30, 0.00 ± 0.00
 458 (260-198) [l=252 cm] - K.
 260, 0.00 ± 0.00, 0.00 ± 0.00, -32.74 ± 10.00, -120.79 ± 89.75, -1286.66 ± 160.30, 0.00 ± 0.00
 198, 0.00 ± 0.00, 0.00 ± 0.00, -32.74 ± 10.00, -120.79 ± 89.75, -1369.04 ± 182.33, 0.00 ± 0.00
 459 (135-261) [l=273 cm] - K.
 135, 0.00 ± 0.00, 0.00 ± 0.00, -73.58 ± 30.99, 146.69 ± 111.33, -923.69 ± 289.06, 0.00 ± 0.00
 261, 0.00 ± 0.00, 0.00 ± 0.00, -73.58 ± 30.99, 146.69 ± 111.33, -1124.20 ± 206.55, 0.00 ± 0.00
 460 (261-134) [l=36 cm] - K.
 261, 0.00 ± 0.00, 0.00 ± 0.00, -93.12 ± 31.13, 139.06 ± 111.32, -1124.20 ± 206.55, 0.00 ± 0.00
 134, 0.00 ± 0.00, 0.00 ± 0.00, -93.12 ± 31.13, 139.06 ± 111.32, -1157.63 ± 195.80, 0.00 ± 0.00
 461 (198-263) [l=36 cm] - K.
 198, 0.00 ± 0.00, 0.00 ± 0.00, 45.19 ± 26.35, -107.75 ± 108.47, -1370.36 ± 180.81, 0.00 ± 0.00
 263, 0.00 ± 0.00, 0.00 ± 0.00, 45.19 ± 26.35, -107.75 ± 108.47, -1354.14 ± 189.64, 0.00 ± 0.00
 462 (263-148) [l=273 cm] - K.
 263, 0.00 ± 0.00, 0.00 ± 0.00, 25.65 ± 26.25, -115.38 ± 108.47, -1354.14 ± 189.64, 0.00 ± 0.00
 148, 0.00 ± 0.00, 0.00 ± 0.00, 25.65 ± 26.25, -115.38 ± 108.47, -1284.25 ± 259.31, 0.00 ± 0.00
 463 (151-264) [l=223 cm] - K.
 151, 0.00 ± 0.00, 0.00 ± 0.00, -62.42 ± 30.89, 150.63 ± 111.32, -773.77 ± 361.37, 0.00 ± 0.00
 264, 0.00 ± 0.00, 0.00 ± 0.00, -62.42 ± 30.89, 150.63 ± 111.32, -912.65 ± 293.63, 0.00 ± 0.00
 464 (264-135) [l=15 cm] - K.
 264, 0.00 ± 0.00, 0.00 ± 0.00, -73.58 ± 30.99, 146.69 ± 111.33, -912.65 ± 293.63, 0.00 ± 0.00
 135, 0.00 ± 0.00, 0.00 ± 0.00, -73.58 ± 30.99, 146.69 ± 111.33, -923.69 ± 289.06, 0.00 ± 0.00
 465 (148-266) [l=15 cm] - K.
 148, 0.00 ± 0.00, 0.00 ± 0.00, 25.65 ± 26.25, -115.38 ± 108.47, -1284.25 ± 259.31, 0.00 ± 0.00
 266, 0.00 ± 0.00, 0.00 ± 0.00, 25.65 ± 26.25, -115.38 ± 108.47, -1280.40 ± 263.19, 0.00 ± 0.00
 466 (266-147) [l=127 cm] - K.
 266, 0.00 ± 0.00, 0.00 ± 0.00, 14.48 ± 26.31, -119.31 ± 108.47, -1280.40 ± 263.19, 0.00 ± 0.00
 147, 0.00 ± 0.00, 0.00 ± 0.00, 14.48 ± 26.31, -119.31 ± 108.47, -1262.06 ± 296.15, 0.00 ± 0.00
 467 (162-267) [l=30 cm] - K.
 162, 0.00 ± 0.00, 0.00 ± 0.00, 85.97 ± 41.45, -108.25 ± 126.25, -977.78 ± 467.80, 0.00 ± 0.00
 267, 0.00 ± 0.00, 0.00 ± 0.00, 85.97 ± 41.45, -108.25 ± 126.25, -952.42 ± 479.97, 0.00 ± 0.00
 468 (267-161) [l=136 cm] - K.
 267, 0.00 ± 0.00, 0.00 ± 0.00, 65.24 ± 41.35, -116.33 ± 126.25, -952.42 ± 479.97, 0.00 ± 0.00
 161, 0.00 ± 0.00, 0.00 ± 0.00, 65.24 ± 41.35, -116.33 ± 126.25, -863.56 ± 536.03, 0.00 ± 0.00
 469 (156-269) [l=28 cm] - K.
 156, 0.00 ± 0.00, 0.00 ± 0.00, -72.12 ± 38.17, 159.11 ± 118.84, -509.52 ± 507.17, 0.00 ± 0.00
 269, 0.00 ± 0.00, 0.00 ± 0.00, -72.12 ± 38.17, 159.11 ± 118.84, -530.01 ± 496.41, 0.00 ± 0.00
 470 (269-193) [l=68 cm] - K.
 269, 0.00 ± 0.00, 0.00 ± 0.00, -92.85 ± 38.28, 151.04 ± 118.83, -530.01 ± 496.41, 0.00 ± 0.00
 193, 0.00 ± 0.00, 0.00 ± 0.00, -92.85 ± 38.28, 151.04 ± 118.83, -593.42 ± 470.50, 0.00 ± 0.00
 471 (163-270) [l=3 cm] - K.
 163, 0.00 ± 0.00, 0.00 ± 0.00, 57.61 ± 22.88, -54.41 ± 67.78, -337.27 ± 306.51, 0.00 ± 0.00
 270, 0.00 ± 0.00, 0.00 ± 0.00, 57.61 ± 22.88, -54.41 ± 67.78, -335.43 ± 307.24, 0.00 ± 0.00
 472 (270-208) [l=108 cm] - K.
 270, 0.00 ± 0.00, 0.00 ± 0.00, 96.39 ± 45.71, -116.15 ± 135.57, -670.85 ± 614.48, 0.00 ± 0.00
 208, 0.00 ± 0.00, 0.00 ± 0.00, 96.39 ± 45.71, -116.15 ± 135.57, -566.65 ± 663.56, 0.00 ± 0.00
 473 (155-272) [l=35 cm] - K.
 155, 0.00 ± 0.00, 0.00 ± 0.00, -125.82 ± 44.44, 164.29 ± 127.77, -180.47 ± 635.32, 0.00 ± 0.00
 272, 0.00 ± 0.00, 0.00 ± 0.00, -125.82 ± 44.44, 164.29 ± 127.77, -224.00 ± 620.20, 0.00 ± 0.00
 474 (272-154) [l=121 cm] - K.
 272, 0.00 ± 0.00, 0.00 ± 0.00, -144.63 ± 44.58, 156.97 ± 127.76, -224.00 ± 620.20, 0.00 ± 0.00
 154, 0.00 ± 0.00, 0.00 ± 0.00, -144.63 ± 44.58, 156.97 ± 127.76, -399.01 ± 567.34, 0.00 ± 0.00
 475 (176-311) [l=416 cm] - T.
 176, 0.00 ± 0.00, 0.00 ± 0.00, 4.98 ± 0.03, 0.00 ± 0.00, -3.79 ± 0.07, 0.00 ± 0.00
 311, 0.00 ± 0.00, 0.00 ± 0.00, -4.50 ± 0.03, 0.00 ± 0.00, -2.79 ± 0.07, 0.00 ± 0.00
 476 (311-167) [l=416 cm] - T.
 311, 0.00 ± 0.00, 0.00 ± 0.00, 4.50 ± 0.03, 0.00 ± 0.00, -2.79 ± 0.07, 0.00 ± 0.00
 167, 0.00 ± 0.00, 0.00 ± 0.00, -4.98 ± 0.03, 0.00 ± 0.00, -3.79 ± 0.07, 0.00 ± 0.00
 477 (242-312) [l=416 cm] - T.
 242, 0.00 ± 0.00, 0.00 ± 0.00, 4.72 ± 0.02, 0.00 ± 0.00, -3.59 ± 0.05, 0.00 ± 0.00
 312, 0.00 ± 0.00, 0.00 ± 0.00, -4.25 ± 0.02, 0.00 ± 0.00, -2.63 ± 0.05, 0.00 ± 0.00
 478 (312-240) [l=416 cm] - T.
 312, 0.00 ± 0.00, 0.00 ± 0.00, 4.25 ± 0.02, 0.00 ± 0.00, -2.63 ± 0.05, 0.00 ± 0.00
 240, 0.00 ± 0.00, 0.00 ± 0.00, -4.72 ± 0.02, 0.00 ± 0.00, -3.59 ± 0.05, 0.00 ± 0.00
 479 (245-313) [l=416 cm] - T.
 245, 0.00 ± 0.00, 0.00 ± 0.00, 5.71 ± 0.02, 0.00 ± 0.00, -4.33 ± 0.04, 0.00 ± 0.00
 313, 0.00 ± 0.00, 0.00 ± 0.00, -5.16 ± 0.02, 0.00 ± 0.00, -3.20 ± 0.04, 0.00 ± 0.00
 480 (313-243) [l=416 cm] - T.
 313, 0.00 ± 0.00, 0.00 ± 0.00, 5.16 ± 0.02, 0.00 ± 0.00, -3.20 ± 0.04, 0.00 ± 0.00
 243, 0.00 ± 0.00, 0.00 ± 0.00, -5.71 ± 0.02, 0.00 ± 0.00, -4.33 ± 0.04, 0.00 ± 0.00
 481 (257-314) [l=416 cm] - T.
 257, 0.00 ± 0.00, 0.00 ± 0.00, 5.02 ± 0.00, 0.00 ± 0.00, -3.74 ± 0.00, 0.00 ± 0.00
 314, 0.00 ± 0.00, 0.00 ± 0.00, -4.64 ± 0.00, 0.00 ± 0.00, -2.95 ± 0.00, 0.00 ± 0.00

482 (314-255) [l=416 cm] - T.
 314, 0.00 ± 0.00, 0.00 ± 0.00, 2.16 ± 0.00, 0.00 ± 0.00, -1.25 ± 0.00, 0.00 ± 0.00
 255, 0.00 ± 0.00, 0.00 ± 0.00, -2.52 ± 0.00, 0.00 ± 0.00, -2.00 ± 0.00, 0.00 ± 0.00
 483 (260-315) [l=416 cm] - T.
 260, 0.00 ± 0.00, 0.00 ± 0.00, 4.42 ± 0.00, 0.00 ± 0.00, -3.36 ± 0.01, 0.00 ± 0.00
 315, 0.00 ± 0.00, 0.00 ± 0.00, -3.99 ± 0.00, 0.00 ± 0.00, -2.47 ± 0.01, 0.00 ± 0.00
 484 (315-258) [l=416 cm] - T.
 315, 0.00 ± 0.00, 0.00 ± 0.00, 3.99 ± 0.00, 0.00 ± 0.00, -2.47 ± 0.01, 0.00 ± 0.00
 258, 0.00 ± 0.00, 0.00 ± 0.00, -4.42 ± 0.00, 0.00 ± 0.00, -3.36 ± 0.01, 0.00 ± 0.00
 485 (263-318) [l=416 cm] - T.
 263, 0.00 ± 0.00, 0.00 ± 0.00, 5.07 ± 0.01, 0.00 ± 0.00, -3.85 ± 0.02, 0.00 ± 0.00
 318, 0.00 ± 0.00, 0.00 ± 0.00, -4.59 ± 0.01, 0.00 ± 0.00, -2.84 ± 0.02, 0.00 ± 0.00
 486 (318-261) [l=416 cm] - T.
 318, 0.00 ± 0.00, 0.00 ± 0.00, 4.59 ± 0.01, 0.00 ± 0.00, -2.84 ± 0.02, 0.00 ± 0.00
 261, 0.00 ± 0.00, 0.00 ± 0.00, -5.07 ± 0.01, 0.00 ± 0.00, -3.85 ± 0.02, 0.00 ± 0.00
 487 (267-316) [l=416 cm] - T.
 267, 0.00 ± 0.00, 0.00 ± 0.00, 5.37 ± 0.03, 0.00 ± 0.00, -4.08 ± 0.06, 0.00 ± 0.00
 316, 0.00 ± 0.00, 0.00 ± 0.00, -4.85 ± 0.03, 0.00 ± 0.00, -3.01 ± 0.06, 0.00 ± 0.00
 488 (316-269) [l=416 cm] - T.
 316, 0.00 ± 0.00, 0.00 ± 0.00, 4.85 ± 0.03, 0.00 ± 0.00, -3.01 ± 0.06, 0.00 ± 0.00
 269, 0.00 ± 0.00, 0.00 ± 0.00, -5.37 ± 0.03, 0.00 ± 0.00, -4.08 ± 0.06, 0.00 ± 0.00
 489 (270-317) [l=416 cm] - T.
 270, 0.00 ± 0.00, 0.00 ± 0.00, 4.87 ± 0.03, 0.00 ± 0.00, -3.70 ± 0.07, 0.00 ± 0.00
 317, 0.00 ± 0.00, 0.00 ± 0.00, -4.40 ± 0.03, 0.00 ± 0.00, -2.72 ± 0.07, 0.00 ± 0.00
 490 (317-272) [l=416 cm] - T.
 317, 0.00 ± 0.00, 0.00 ± 0.00, 4.40 ± 0.03, 0.00 ± 0.00, -2.72 ± 0.07, 0.00 ± 0.00
 272, 0.00 ± 0.00, 0.00 ± 0.00, -4.87 ± 0.03, 0.00 ± 0.00, -3.70 ± 0.07, 0.00 ± 0.00
 491 (109-342) [l=224 cm] - K.
 109, 186.87 ± 3.71, 94.48 ± 327.12, -52.57 ± 43.88, -82.67 ± 286.23, 243.65 ± 84.24, 184.45 ± 638.61
 342, 185.72 ± 3.71, 94.48 ± 327.12, -55.45 ± 43.88, -82.67 ± 286.23, 122.78 ± 14.82, -26.96 ± 93.35
 492 (110-342) [l=448 cm] - T.
 110, 5.52 ± 0.00, 0.00 ± 0.00, 13.80 ± 0.00, 0.00 ± 0.00, -10.30 ± 0.00, 0.00 ± 0.00
 342, -5.51 ± 0.00, 0.00 ± 0.00, -13.80 ± 0.00, 0.00 ± 0.00, -10.30 ± 0.00, 0.00 ± 0.00
 493 (342-111) [l=0 cm] - T.
 342, 0.01 ± 0.00, 0.00 ± 0.01, 0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 111, 0.00 ± 0.00, 0.00 ± 0.01, -0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 494 (149-284) [l=52 cm] - K.
 149, 0.00 ± 0.00, 0.00 ± 0.00, 51.82 ± 33.91, -113.14 ± 116.80, -1189.23 ± 344.25, 0.00 ± 0.00
 284, 0.00 ± 0.00, 0.00 ± 0.00, 51.82 ± 33.91, -113.14 ± 116.80, -1162.44 ± 361.66, 0.00 ± 0.00
 495 (284-206) [l=112 cm] - K.
 284, 0.00 ± 0.00, 0.00 ± 0.00, 40.42 ± 33.91, -115.52 ± 116.83, -1162.44 ± 361.66, 0.00 ± 0.00
 206, 0.00 ± 0.00, 0.00 ± 0.00, 40.42 ± 33.91, -115.52 ± 116.83, -1117.21 ± 399.39, 0.00 ± 0.00
 496 (325-239) [l=52 cm] - Z.
 325, 0.00 ± 0.00, 0.00 ± 0.00, 17.61 ± 5.83, -13.05 ± 0.40, -31.38 ± 6.68, 0.00 ± 0.00
 239, 0.00 ± 0.00, 0.00 ± 0.00, 46.19 ± 6.39, -13.05 ± 0.40, -14.89 ± 9.36, 0.00 ± 0.00
 497 (239-44) [l=112 cm] - Z.
 239, 0.00 ± 0.00, 0.00 ± 0.00, 254.21 ± 8.93, 199.23 ± 4.24, -14.84 ± 9.34, 0.00 ± 0.00
 44, 0.00 ± 0.00, 0.00 ± 0.00, 316.32 ± 12.78, 199.23 ± 4.24, 304.34 ± 18.66, 0.00 ± 0.00
 498 (72-238) [l=44 cm] - Z.
 72, 0.00 ± 0.00, 0.00 ± 0.00, -256.22 ± 10.10, -141.39 ± 3.93, 89.54 ± 11.04, 0.00 ± 0.00
 238, 0.00 ± 0.00, 0.00 ± 0.00, -232.74 ± 8.59, -141.39 ± 3.93, -18.27 ± 8.27, 0.00 ± 0.00
 499 (238-328) [l=52 cm] - Z.
 238, 0.00 ± 0.00, 0.00 ± 0.00, -42.35 ± 5.70, 16.57 ± 0.40, -18.15 ± 8.28, 0.00 ± 0.00
 328, 0.00 ± 0.00, 0.00 ± 0.00, -14.83 ± 5.15, 16.57 ± 0.40, -32.96 ± 5.99, 0.00 ± 0.00
 500 (133-343) [l=0 cm] - K.
 133, 0.00 ± 0.00, 0.00 ± 0.00, 27.39 ± 3.22, 77.12 ± 41.97, -731.64 ± 97.67, 0.00 ± 0.00
 343, 0.00 ± 0.00, 0.00 ± 0.00, 27.39 ± 3.22, 77.12 ± 41.97, -731.62 ± 97.67, 0.00 ± 0.00
 501 (343-132) [l=167 cm] - K.
 343, 0.00 ± 0.00, 0.00 ± 0.00, 44.26 ± 5.74, 137.61 ± 75.40, -1034.66 ± 138.13, 0.00 ± 0.00
 132, 0.00 ± 0.00, 0.00 ± 0.00, 44.26 ± 5.74, 137.61 ± 75.40, -960.56 ± 137.97, 0.00 ± 0.00
 502 (152-345) [l=140 cm] - K.
 152, 0.00 ± 0.00, 0.00 ± 0.00, -50.96 ± 32.89, 152.46 ± 113.19, -642.35 ± 438.76, 0.00 ± 0.00
 345, 0.00 ± 0.00, 0.00 ± 0.00, -50.96 ± 32.89, 152.46 ± 113.19, -713.75 ± 393.08, 0.00 ± 0.00
 503 (345-151) [l=97 cm] - K.
 345, 0.00 ± 0.00, 0.00 ± 0.00, -62.35 ± 32.82, 150.10 ± 113.16, -713.75 ± 393.08, 0.00 ± 0.00
 151, 0.00 ± 0.00, 0.00 ± 0.00, -62.35 ± 32.82, 150.10 ± 113.16, -774.48 ± 361.48, 0.00 ± 0.00
 504 (292-232) [l=360 cm] - K.
 292, 0.35 ± 0.10, 0.23 ± 0.03, 0.00 ± 0.01, 0.00 ± 0.00, -0.02 ± 0.06, 1.72 ± 0.22
 232, 0.35 ± 0.10, 0.23 ± 0.03, 0.00 ± 0.01, 0.00 ± 0.00, -0.01 ± 0.03, 0.90 ± 0.11
 505 (294-234) [l=410 cm] - K.
 294, -4.03 ± 0.03, 0.08 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.04, 0.97 ± 0.22
 234, -4.03 ± 0.03, 0.08 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.02, 0.66 ± 0.15
 506 (296-235) [l=410 cm] - K.
 296, -3.84 ± 0.04, -0.06 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.03, -0.78 ± 0.23
 235, -3.84 ± 0.04, -0.06 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.02, -0.53 ± 0.15
 507 (298-236) [l=360 cm] - K.
 298, 0.65 ± 0.10, -0.21 ± 0.03, 0.00 ± 0.01, 0.00 ± 0.00, -0.01 ± 0.05, -1.61 ± 0.22
 236, 0.65 ± 0.10, -0.21 ± 0.03, 0.00 ± 0.01, 0.00 ± 0.00, -0.01 ± 0.03, -0.85 ± 0.11
 508 (300-250) [l=360 cm] - K.
 300, 0.84 ± 0.10, -0.21 ± 0.03, 0.00 ± 0.01, 0.00 ± 0.00, -0.01 ± 0.05, -1.59 ± 0.23
 250, 0.84 ± 0.10, -0.21 ± 0.03, 0.00 ± 0.01, 0.00 ± 0.00, 0.00 ± 0.03, -0.83 ± 0.12
 509 (302-249) [l=410 cm] - K.
 302, -3.82 ± 0.05, -0.06 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03, -0.82 ± 0.24
 249, -3.82 ± 0.05, -0.06 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02, -0.56 ± 0.16
 510 (304-251) [l=410 cm] - K.
 304, -3.96 ± 0.05, 0.07 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.04, 0.91 ± 0.24

251, -3.96 ± 0.05, 0.07 ± 0.02, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02, 0.62 ± 0.16
511 (306-252) [l=360 cm] - K.
306, 0.20 ± 0.10, 0.22 ± 0.03, 0.00 ± 0.01, 0.00 ± 0.00, -0.01 ± 0.06, 1.70 ± 0.22
252, 0.20 ± 0.10, 0.22 ± 0.03, 0.00 ± 0.01, 0.00 ± 0.00, -0.01 ± 0.03, 0.89 ± 0.12

--> Deformazioni nelle Aste (v=sy, w=sz, fiy, fiz) (yz=assi locali) [mm, mrad]

1 (1-j'-2) [l=480 cm] [Piano XZ: 402 def.-79 rig.] - M.
1, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.390E-03 ± 1.006E+00, 4.113E-02 ± 1.314E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.390E-03 ± 1.006E+00, 4.113E-02 ± 1.314E-01
j', -4.304E-02 ± 6.239E-01, 1.147E-01 ± 4.649E+00, -2.554E-02 ± 9.710E-01, -5.261E-03 ± 8.839E-02
2, -4.304E-02 ± 6.239E-01, 1.348E-01 ± 5.409E+00, -2.554E-02 ± 9.710E-01, -5.261E-03 ± 8.839E-02 - K.
2 (3-2) [l=151 cm][151 def.]
3, 4.327E-02 ± 6.279E-01, -7.202E+00 ± 4.543E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
i', 4.327E-02 ± 6.279E-01, -7.202E+00 ± 4.543E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - K.
j', 4.304E-02 ± 6.239E-01, -7.241E+00 ± 3.076E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
2, 4.304E-02 ± 6.239E-01, -7.241E+00 ± 3.076E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
3 (2-4) [l=151 cm][151 def.]
2, 4.304E-02 ± 6.239E-01, -7.241E+00 ± 3.076E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - M.
i', 4.304E-02 ± 6.239E-01, -7.241E+00 ± 3.076E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
j', 4.282E-02 ± 6.208E-01, -7.280E+00 ± 2.242E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
4, 4.282E-02 ± 6.208E-01, -7.280E+00 ± 2.242E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - K.
4 (5-j'-6) [l=480 cm] [Piano XZ: 402 def.-79 rig.]
5, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.062E-02 ± 9.983E-01, 8.072E-04 ± 1.051E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.062E-02 ± 9.983E-01, 8.072E-04 ± 1.051E-01 - K.
j', -4.226E-02 ± 6.266E-01, 1.111E-01 ± 4.650E+00, -3.017E-02 ± 9.707E-01, -5.217E-03 ± 8.847E-02
6, -4.226E-02 ± 6.266E-01, 1.348E-01 ± 5.409E+00, -3.017E-02 ± 9.707E-01, -5.217E-03 ± 8.847E-02
5 (7-6) [l=151 cm][151 def.]
7, 4.248E-02 ± 6.208E-01, -7.341E+00 ± 2.222E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - S.
i', 4.248E-02 ± 6.208E-01, -7.341E+00 ± 2.222E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
j', 4.226E-02 ± 6.266E-01, -7.387E+00 ± 3.005E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
6, 4.226E-02 ± 6.266E-01, -7.387E+00 ± 3.005E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - M.
6 (6-8) [l=151 cm][151 def.]
6, 4.226E-02 ± 6.266E-01, -7.387E+00 ± 3.005E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
i', 4.226E-02 ± 6.266E-01, -7.387E+00 ± 3.005E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - K.
j', 4.204E-02 ± 6.327E-01, -7.433E+00 ± 4.472E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
8, 4.204E-02 ± 6.327E-01, -7.433E+00 ± 4.472E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
7 (4-7) [l=227 cm][227 def.]
4, 4.282E-02 ± 6.208E-01, -7.280E+00 ± 2.242E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - K.
i', 4.282E-02 ± 6.208E-01, -7.280E+00 ± 2.242E+00, 2.554E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
j', 4.248E-02 ± 6.208E-01, -7.341E+00 ± 2.222E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
7, 4.248E-02 ± 6.208E-01, -7.341E+00 ± 2.222E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - M.
8 (9-i'-j'-10) [l=480 cm] [Piano XZ: 192 rig.-267 def.-21 rig.]
9, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -8.094E-04 ± 1.051E-01, -6.061E-02 ± 9.983E-01
i', 0.000E+00 ± 0.000E+00, 1.551E-03 ± 2.013E-01, -8.094E-04 ± 1.051E-01, -6.061E-02 ± 9.983E-01 - K.
j', -1.349E-01 ± 5.402E+00, -4.094E-02 ± 6.200E-01, 5.217E-03 ± 8.848E-02, -3.017E-02 ± 9.707E-01
10, -1.349E-01 ± 5.402E+00, -4.204E-02 ± 6.327E-01, 5.217E-03 ± 8.848E-02, -3.017E-02 ± 9.707E-01
9 (9-11) [l=79 cm][79 def.]
9, 0.000E+00 ± 0.000E+00, -7.398E+00 ± 4.429E+00, -8.094E-04 ± 1.051E-01, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -7.398E+00 ± 4.429E+00, -8.094E-04 ± 1.051E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.397E+00 ± 4.389E+00, -8.095E-04 ± 1.051E-01, 0.000E+00 ± 0.000E+00
11, 0.000E+00 ± 0.000E+00, -7.397E+00 ± 4.389E+00, -8.095E-04 ± 1.051E-01, 0.000E+00 ± 0.000E+00 - F.
10 (8-10) [l=79 cm][79 def.]
8, -1.348E-01 ± 5.409E+00, -7.433E+00 ± 4.472E+00, 5.217E-03 ± 8.847E-02, -1.477E-04 ± 9.255E-03
i', -1.348E-01 ± 5.409E+00, -7.433E+00 ± 4.472E+00, 5.217E-03 ± 8.847E-02, -1.477E-04 ± 9.255E-03 - S.
j', -1.349E-01 ± 5.402E+00, -7.437E+00 ± 4.452E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
10, -1.349E-01 ± 5.402E+00, -7.437E+00 ± 4.452E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
11 (13-i'-j'-14) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.]
13, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -3.620E-03 ± 9.234E-02, -4.281E-02 ± 1.085E+00 - M.
i', 0.000E+00 ± 0.000E+00, 6.277E-03 ± 1.601E-01, -3.620E-03 ± 9.234E-02, -4.281E-02 ± 1.085E+00
j', -1.355E-01 ± 5.367E+00, -4.101E-02 ± 6.209E-01, 5.219E-03 ± 8.848E-02, -3.017E-02 ± 9.707E-01
14, -1.355E-01 ± 5.367E+00, -4.204E-02 ± 6.327E-01, 5.219E-03 ± 8.848E-02, -3.017E-02 ± 9.707E-01 - K.
12 (15-13) [l=96 cm][96 def.]
15, 0.000E+00 ± 0.000E+00, -7.396E+00 ± 4.286E+00, -3.620E-03 ± 9.234E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.396E+00 ± 4.286E+00, -3.620E-03 ± 9.234E-02, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -7.393E+00 ± 4.255E+00, -3.620E-03 ± 9.234E-02, 0.000E+00 ± 0.000E+00
13, 0.000E+00 ± 0.000E+00, -7.393E+00 ± 4.255E+00, -3.620E-03 ± 9.234E-02, 0.000E+00 ± 0.000E+00
13 (14-17) [l=96 cm][96 def.]
14, -1.355E-01 ± 5.367E+00, -7.458E+00 ± 4.352E+00, 5.219E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - M.
i', -1.355E-01 ± 5.367E+00, -7.458E+00 ± 4.352E+00, 5.219E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
j', -1.356E-01 ± 5.358E+00, -7.463E+00 ± 4.329E+00, 5.220E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
17, -1.356E-01 ± 5.358E+00, -7.463E+00 ± 4.329E+00, 5.220E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - K.
14 (11-15) [l=227 cm][227 def.]
11, 0.000E+00 ± 0.000E+00, -7.397E+00 ± 4.389E+00, -8.095E-04 ± 1.051E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.397E+00 ± 4.389E+00, -8.095E-04 ± 1.051E-01, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -7.396E+00 ± 4.286E+00, -3.620E-03 ± 9.234E-02, 0.000E+00 ± 0.000E+00
15, 0.000E+00 ± 0.000E+00, -7.396E+00 ± 4.286E+00, -3.620E-03 ± 9.234E-02, 0.000E+00 ± 0.000E+00
15 (12-16) [l=227 cm][227 def.]
12, -1.350E-01 ± 5.395E+00, -7.441E+00 ± 4.432E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - S.
i', -1.350E-01 ± 5.395E+00, -7.441E+00 ± 4.432E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
j', -1.354E-01 ± 5.375E+00, -7.453E+00 ± 4.376E+00, 5.218E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
16, -1.354E-01 ± 5.375E+00, -7.453E+00 ± 4.376E+00, 5.218E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - M.
16 (18-j'-19) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
18, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -3.671E-03 ± 9.234E-02, -4.280E-02 ± 1.085E+00
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -3.671E-03 ± 9.234E-02, -4.280E-02 ± 1.085E+00 - K.
j', -1.358E-01 ± 5.350E+00, -3.792E-02 ± 5.868E-01, 5.222E-03 ± 8.848E-02, -3.018E-02 ± 9.707E-01

19, -1.358E-01 ± 5.350E+00, -4.204E-02 ± 6.327E-01, 5.222E-03 ± 8.848E-02, -3.018E-02 ± 9.707E-01
17 (17-19) [l=96 cm][96 def.]
17, -1.356E-01 ± 5.358E+00, -7.463E+00 ± 4.329E+00, 5.220E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.356E-01 ± 5.358E+00, -7.463E+00 ± 4.329E+00, 5.220E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
j', -1.358E-01 ± 5.350E+00, -7.468E+00 ± 4.305E+00, 5.222E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
19, -1.358E-01 ± 5.350E+00, -7.468E+00 ± 4.305E+00, 5.222E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - M.
18 (19-20) [l=96 cm][96 def.]
19, -1.358E-01 ± 5.350E+00, -7.468E+00 ± 4.305E+00, 5.222E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
i', -1.358E-01 ± 5.350E+00, -7.468E+00 ± 4.305E+00, 5.222E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - K.
j', -1.359E-01 ± 5.341E+00, -7.473E+00 ± 4.281E+00, 5.223E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
20, -1.359E-01 ± 5.341E+00, -7.473E+00 ± 4.281E+00, 5.223E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
19 (21-j'-22) [l=480 cm][Piano XZ: 425 def.-55 rig.]
21, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.736E-04 ± 9.176E-02, -4.527E-02 ± 9.501E-01 - K.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.736E-04 ± 9.176E-02, -4.527E-02 ± 9.501E-01
j', -1.365E-01 ± 5.307E+00, -3.917E-02 ± 6.003E-01, 5.234E-03 ± 8.849E-02, -3.018E-02 ± 9.707E-01
22, -1.365E-01 ± 5.307E+00, -4.204E-02 ± 6.327E-01, 5.234E-03 ± 8.849E-02, -3.018E-02 ± 9.707E-01 - S.
20 (23-22) [l=163 cm][163 def.]
23, -1.363E-01 ± 5.321E+00, -7.485E+00 ± 4.225E+00, 5.228E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
i', -1.363E-01 ± 5.321E+00, -7.485E+00 ± 4.225E+00, 5.228E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03 - M.
j', -1.365E-01 ± 5.307E+00, -7.493E+00 ± 4.185E+00, 5.234E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
22, -1.365E-01 ± 5.307E+00, -7.493E+00 ± 4.185E+00, 5.234E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
21 (22-24) [l=163 cm][163 def.]
22, -1.365E-01 ± 5.307E+00, -7.493E+00 ± 4.185E+00, 5.234E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.365E-01 ± 5.307E+00, -7.493E+00 ± 4.185E+00, 5.234E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
j', -1.367E-01 ± 5.292E+00, -7.502E+00 ± 4.146E+00, 5.240E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
24, -1.367E-01 ± 5.292E+00, -7.502E+00 ± 4.146E+00, 5.240E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03 - K.
22 (20-23) [l=227 cm][227 def.]
20, -1.359E-01 ± 5.341E+00, -7.473E+00 ± 4.281E+00, 5.223E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
i', -1.359E-01 ± 5.341E+00, -7.473E+00 ± 4.281E+00, 5.223E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - K.
j', -1.363E-01 ± 5.321E+00, -7.485E+00 ± 4.225E+00, 5.228E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
23, -1.363E-01 ± 5.321E+00, -7.485E+00 ± 4.225E+00, 5.228E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
23 (25-j'-26) [l=480 cm][Piano XZ: 354 def.-126 rig.]
25, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -8.580E-04 ± 9.174E-02, -4.528E-02 ± 9.500E-01 - M.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -8.580E-04 ± 9.174E-02, -4.528E-02 ± 9.500E-01
j', -1.368E-01 ± 5.290E+00, -3.542E-02 ± 5.617E-01, 5.242E-03 ± 8.849E-02, -3.019E-02 ± 9.707E-01
26, -1.368E-01 ± 5.290E+00, -4.204E-02 ± 6.327E-01, 5.242E-03 ± 8.849E-02, -3.019E-02 ± 9.707E-01 - K.
24 (24-26) [l=28 cm][28 def.]
24, -1.367E-01 ± 5.292E+00, -7.502E+00 ± 4.146E+00, 5.240E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
i', -1.367E-01 ± 5.292E+00, -7.502E+00 ± 4.146E+00, 5.240E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03 - K.
j', -1.368E-01 ± 5.290E+00, -7.503E+00 ± 4.139E+00, 5.242E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
26, -1.368E-01 ± 5.290E+00, -7.503E+00 ± 4.139E+00, 5.242E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
25 (26-27) [l=28 cm][28 def.]
26, -1.368E-01 ± 5.290E+00, -7.503E+00 ± 4.139E+00, 5.242E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.368E-01 ± 5.290E+00, -7.503E+00 ± 4.139E+00, 5.242E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
j', -1.368E-01 ± 5.287E+00, -7.505E+00 ± 4.132E+00, 5.243E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
27, -1.368E-01 ± 5.287E+00, -7.505E+00 ± 4.132E+00, 5.243E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03 - F.
26 (28-j'-29) [l=480 cm][Piano XZ: 352 def.-128 rig.]
28, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 3.329E-02 ± 8.906E-02, -4.531E-01 ± 1.020E+00
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 3.329E-02 ± 8.906E-02, -4.531E-01 ± 1.020E+00 - S.
j', -1.372E-01 ± 5.265E+00, -3.530E-02 ± 5.606E-01, 5.254E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
29, -1.372E-01 ± 5.265E+00, -4.204E-02 ± 6.327E-01, 5.254E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
27 (30-29) [l=26 cm][26 def.]
30, -1.372E-01 ± 5.267E+00, -7.516E+00 ± 4.077E+00, 5.253E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - M.
i', -1.372E-01 ± 5.267E+00, -7.516E+00 ± 4.077E+00, 5.253E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
j', -1.372E-01 ± 5.265E+00, -7.518E+00 ± 4.071E+00, 5.254E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
29, -1.372E-01 ± 5.265E+00, -7.518E+00 ± 4.071E+00, 5.254E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
28 (29-31) [l=26 cm][26 def.]
29, -1.372E-01 ± 5.265E+00, -7.518E+00 ± 4.071E+00, 5.254E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
i', -1.372E-01 ± 5.265E+00, -7.518E+00 ± 4.071E+00, 5.254E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
j', -1.372E-01 ± 5.263E+00, -7.519E+00 ± 4.065E+00, 5.255E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
31, -1.372E-01 ± 5.263E+00, -7.519E+00 ± 4.065E+00, 5.255E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
29 (27-30) [l=227 cm][227 def.]
27, -1.368E-01 ± 5.287E+00, -7.505E+00 ± 4.132E+00, 5.243E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03 - M.
i', -1.368E-01 ± 5.287E+00, -7.505E+00 ± 4.132E+00, 5.243E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
j', -1.372E-01 ± 5.267E+00, -7.516E+00 ± 4.077E+00, 5.253E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
30, -1.372E-01 ± 5.267E+00, -7.516E+00 ± 4.077E+00, 5.253E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
30 (32-i'-j'-33) [l=480 cm][Piano XZ: 129 rig.-335 def.-16 rig.]
32, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 3.324E-02 ± 8.907E-02, -4.529E-01 ± 1.020E+00
i', 0.000E+00 ± 0.000E+00, -4.281E-02 ± 1.147E-01, 3.324E-02 ± 8.907E-02, -4.529E-01 ± 1.020E+00 - S.
j', -1.374E-01 ± 5.250E+00, -4.118E-02 ± 6.228E-01, 5.262E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
33, -1.374E-01 ± 5.250E+00, -4.204E-02 ± 6.327E-01, 5.262E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
31 (32-34) [l=146 cm][146 def.]
32, 0.000E+00 ± 0.000E+00, -7.387E+00 ± 3.917E+00, 3.324E-02 ± 8.907E-02, 0.000E+00 ± 0.000E+00 - M.
i', 0.000E+00 ± 0.000E+00, -7.387E+00 ± 3.917E+00, 3.324E-02 ± 8.907E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.436E+00 ± 3.889E+00, 3.323E-02 ± 8.907E-02, 0.000E+00 ± 0.000E+00
34, 0.000E+00 ± 0.000E+00, -7.436E+00 ± 3.889E+00, 3.323E-02 ± 8.907E-02, 0.000E+00 ± 0.000E+00 - K.
32 (31-33) [l=146 cm][146 def.]
31, -1.372E-01 ± 5.263E+00, -7.519E+00 ± 4.065E+00, 5.255E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
i', -1.372E-01 ± 5.263E+00, -7.519E+00 ± 4.065E+00, 5.255E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
j', -1.374E-01 ± 5.250E+00, -7.527E+00 ± 4.032E+00, 5.262E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
33, -1.374E-01 ± 5.250E+00, -7.527E+00 ± 4.032E+00, 5.262E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
33 (33-35) [l=146 cm][146 def.]
33, -1.374E-01 ± 5.250E+00, -7.527E+00 ± 4.032E+00, 5.262E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - M.
i', -1.374E-01 ± 5.250E+00, -7.527E+00 ± 4.032E+00, 5.262E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
j', -1.377E-01 ± 5.238E+00, -7.535E+00 ± 4.001E+00, 5.269E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
35, -1.377E-01 ± 5.238E+00, -7.535E+00 ± 4.001E+00, 5.269E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.

34 (36-i'-j'-37) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.]
36, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.537E-03 ± 8.949E-02, -6.437E-02 ± 9.535E-01
i', 0.000E+00 ± 0.000E+00, -7.423E-04 ± 4.322E-02, 1.537E-03 ± 8.949E-02, -6.437E-02 ± 9.535E-01 - K.
j', -1.385E-01 ± 5.241E+00, -4.156E-02 ± 6.272E-01, 5.288E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
37, -1.385E-01 ± 5.241E+00, -4.204E-02 ± 6.327E-01, 5.288E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
35 (38-36) [l=308 cm][308 def.]
38, 0.000E+00 ± 0.000E+00, -7.485E+00 ± 3.878E+00, 1.539E-03 ± 8.949E-02, 0.000E+00 ± 0.000E+00 - F.
i', 0.000E+00 ± 0.000E+00, -7.485E+00 ± 3.878E+00, 1.539E-03 ± 8.949E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.490E+00 ± 3.942E+00, 1.537E-03 ± 8.949E-02, 0.000E+00 ± 0.000E+00
36, 0.000E+00 ± 0.000E+00, -7.490E+00 ± 3.942E+00, 1.537E-03 ± 8.949E-02, 0.000E+00 ± 0.000E+00 - S.
36 (39-37) [l=308 cm][308 def.]
39, -1.380E-01 ± 5.228E+00, -7.546E+00 ± 3.972E+00, 5.277E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
i', -1.380E-01 ± 5.228E+00, -7.546E+00 ± 3.972E+00, 5.277E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - M.
j', -1.385E-01 ± 5.241E+00, -7.563E+00 ± 4.018E+00, 5.288E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
37, -1.385E-01 ± 5.241E+00, -7.563E+00 ± 4.018E+00, 5.288E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
37 (37-40) [l=308 cm][308 def.]
37, -1.385E-01 ± 5.241E+00, -7.563E+00 ± 4.018E+00, 5.288E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.385E-01 ± 5.241E+00, -7.563E+00 ± 4.018E+00, 5.288E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
j', -1.389E-01 ± 5.256E+00, -7.579E+00 ± 4.097E+00, 5.299E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
40, -1.389E-01 ± 5.256E+00, -7.579E+00 ± 4.097E+00, 5.299E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - M.
38 (34-38) [l=227 cm][227 def.]
34, 0.000E+00 ± 0.000E+00, -7.436E+00 ± 3.889E+00, 3.323E-02 ± 8.907E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.436E+00 ± 3.889E+00, 3.323E-02 ± 8.907E-02, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -7.485E+00 ± 3.878E+00, 1.539E-03 ± 8.949E-02, 0.000E+00 ± 0.000E+00
38, 0.000E+00 ± 0.000E+00, -7.485E+00 ± 3.878E+00, 1.539E-03 ± 8.949E-02, 0.000E+00 ± 0.000E+00
39 (35-39) [l=227 cm][227 def.]
35, -1.377E-01 ± 5.238E+00, -7.535E+00 ± 4.001E+00, 5.269E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.377E-01 ± 5.238E+00, -7.535E+00 ± 4.001E+00, 5.269E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
j', -1.380E-01 ± 5.228E+00, -7.546E+00 ± 3.972E+00, 5.277E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
39, -1.380E-01 ± 5.228E+00, -7.546E+00 ± 3.972E+00, 5.277E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - S.
40 (41-j'-42) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
41, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.241E-03 ± 8.939E-02, -6.417E-02 ± 9.533E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.241E-03 ± 8.939E-02, -6.417E-02 ± 9.533E-01 - M.
j', -1.390E-01 ± 5.257E+00, -3.534E-02 ± 5.616E-01, 5.300E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
42, -1.390E-01 ± 5.257E+00, -4.204E-02 ± 6.327E-01, 5.300E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
41 (40-42) [l=28 cm][28 def.]
40, -1.389E-01 ± 5.256E+00, -7.579E+00 ± 4.097E+00, 5.299E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.389E-01 ± 5.256E+00, -7.579E+00 ± 4.097E+00, 5.299E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
j', -1.390E-01 ± 5.257E+00, -7.581E+00 ± 4.105E+00, 5.300E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
42, -1.390E-01 ± 5.257E+00, -7.581E+00 ± 4.105E+00, 5.300E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
42 (42-43) [l=28 cm][28 def.]
42, -1.390E-01 ± 5.257E+00, -7.581E+00 ± 4.105E+00, 5.300E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
i', -1.390E-01 ± 5.257E+00, -7.581E+00 ± 4.105E+00, 5.300E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
j', -1.390E-01 ± 5.258E+00, -7.582E+00 ± 4.112E+00, 5.301E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
43, -1.390E-01 ± 5.258E+00, -7.582E+00 ± 4.112E+00, 5.301E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
43 (44-j'-45) [l=480 cm] [Piano XZ: 425 def.-55 rig.]
44, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 2.777E-02 ± 9.283E-02, -3.810E-01 ± 1.050E+00 - M.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 2.777E-02 ± 9.283E-02, -3.810E-01 ± 1.050E+00
j', -1.396E-01 ± 5.277E+00, -3.913E-02 ± 6.003E-01, 5.313E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
45, -1.396E-01 ± 5.277E+00, -4.204E-02 ± 6.327E-01, 5.313E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01 - K.
44 (45-47) [l=164 cm][164 def.]
45, -1.396E-01 ± 5.277E+00, -7.603E+00 ± 4.219E+00, 5.313E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
i', -1.396E-01 ± 5.277E+00, -7.603E+00 ± 4.219E+00, 5.313E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
j', -1.398E-01 ± 5.285E+00, -7.612E+00 ± 4.264E+00, 5.317E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
47, -1.398E-01 ± 5.285E+00, -7.612E+00 ± 4.264E+00, 5.317E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
45 (43-46) [l=227 cm][227 def.]
43, -1.390E-01 ± 5.258E+00, -7.582E+00 ± 4.112E+00, 5.301E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - F.
i', -1.390E-01 ± 5.258E+00, -7.582E+00 ± 4.112E+00, 5.301E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
j', -1.393E-01 ± 5.269E+00, -7.594E+00 ± 4.174E+00, 5.308E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
46, -1.393E-01 ± 5.269E+00, -7.594E+00 ± 4.174E+00, 5.308E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - S.
46 (48-i'-j'-49) [l=480 cm] [Piano XZ: 116 rig.-349 def.-15 rig.]
48, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 2.753E-02 ± 9.279E-02, -3.806E-01 ± 1.050E+00
i', 0.000E+00 ± 0.000E+00, -3.194E-02 ± 1.076E-01, 2.753E-02 ± 9.279E-02, -3.806E-01 ± 1.050E+00 - M.
j', -1.401E-01 ± 5.293E+00, -4.122E-02 ± 6.234E-01, 5.319E-03 ± 8.851E-02, -3.019E-02 ± 9.707E-01
49, -1.401E-01 ± 5.293E+00, -4.204E-02 ± 6.327E-01, 5.319E-03 ± 8.851E-02, -3.019E-02 ± 9.707E-01
47 (48-50) [l=164 cm][164 def.]
48, 0.000E+00 ± 0.000E+00, -7.538E+00 ± 4.229E+00, 2.753E-02 ± 9.279E-02, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -7.538E+00 ± 4.229E+00, 2.753E-02 ± 9.279E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.583E+00 ± 4.287E+00, 2.753E-02 ± 9.279E-02, 0.000E+00 ± 0.000E+00
50, 0.000E+00 ± 0.000E+00, -7.583E+00 ± 4.287E+00, 2.753E-02 ± 9.279E-02, 0.000E+00 ± 0.000E+00 - M.
48 (47-49) [l=164 cm][164 def.]
47, -1.398E-01 ± 5.285E+00, -7.612E+00 ± 4.264E+00, 5.317E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
i', -1.398E-01 ± 5.285E+00, -7.612E+00 ± 4.264E+00, 5.317E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - K.
j', -1.401E-01 ± 5.293E+00, -7.620E+00 ± 4.309E+00, 5.319E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
49, -1.401E-01 ± 5.293E+00, -7.620E+00 ± 4.309E+00, 5.319E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
49 (52-i'-j'-53) [l=480 cm] [Piano XZ: 206 rig.-252 def.-22 rig.]
52, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.441E-02 ± 9.322E-02, -3.126E-02 ± 9.458E-01 - K.
i', 0.000E+00 ± 0.000E+00, -2.975E-02 ± 1.924E-01, 1.441E-02 ± 9.322E-02, -3.126E-02 ± 9.458E-01
j', -1.407E-01 ± 5.315E+00, -4.087E-02 ± 6.194E-01, 5.322E-03 ± 8.851E-02, -3.019E-02 ± 9.707E-01
53, -1.407E-01 ± 5.315E+00, -4.204E-02 ± 6.327E-01, 5.322E-03 ± 8.851E-02, -3.019E-02 ± 9.707E-01 - S.
50 (54-52) [l=67 cm][67 def.]
54, 0.000E+00 ± 0.000E+00, -7.608E+00 ± 4.395E+00, 1.441E-02 ± 9.322E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.608E+00 ± 4.395E+00, 1.441E-02 ± 9.322E-02, 0.000E+00 ± 0.000E+00 - M.
j', 0.000E+00 ± 0.000E+00, -7.617E+00 ± 4.418E+00, 1.441E-02 ± 9.322E-02, 0.000E+00 ± 0.000E+00
52, 0.000E+00 ± 0.000E+00, -7.617E+00 ± 4.418E+00, 1.441E-02 ± 9.322E-02, 0.000E+00 ± 0.000E+00
51 (55-53) [l=67 cm][67 def.]

55, -1.406E-01 ± 5.311E+00, -7.641E+00 ± 4.418E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.406E-01 ± 5.311E+00, -7.641E+00 ± 4.418E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
j', -1.407E-01 ± 5.315E+00, -7.645E+00 ± 4.436E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
53, -1.407E-01 ± 5.315E+00, -7.645E+00 ± 4.436E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03 - K.
52 (50-54) [l=227 cm][227 def.]
50, 0.000E+00 ± 0.000E+00, -7.583E+00 ± 4.287E+00, 2.753E-02 ± 9.279E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.583E+00 ± 4.287E+00, 2.753E-02 ± 9.279E-02, 0.000E+00 ± 0.000E+00 - K.
j', 0.000E+00 ± 0.000E+00, -7.608E+00 ± 4.395E+00, 1.441E-02 ± 9.322E-02, 0.000E+00 ± 0.000E+00
54, 0.000E+00 ± 0.000E+00, -7.608E+00 ± 4.395E+00, 1.441E-02 ± 9.322E-02, 0.000E+00 ± 0.000E+00
53 (51-55) [l=227 cm][227 def.]
51, -1.403E-01 ± 5.300E+00, -7.629E+00 ± 4.355E+00, 5.321E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03 - M.
i', -1.403E-01 ± 5.300E+00, -7.629E+00 ± 4.355E+00, 5.321E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
j', -1.406E-01 ± 5.311E+00, -7.641E+00 ± 4.418E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
55, -1.406E-01 ± 5.311E+00, -7.641E+00 ± 4.418E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03 - K.
54 (56-j'-57) [l=480 cm] [Piano XZ: 261 def.-219 rig.]
56, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.433E-02 ± 9.219E-02, -3.120E-02 ± 9.458E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.433E-02 ± 9.219E-02, -3.120E-02 ± 9.458E-01 - K.
j', -1.408E-01 ± 5.314E+00, -3.144E-02 ± 5.152E-01, 5.281E-03 ± 8.834E-02, -2.554E-02 ± 9.710E-01
57, -1.408E-01 ± 5.314E+00, -4.299E-02 ± 6.307E-01, 5.281E-03 ± 8.834E-02, -2.554E-02 ± 9.710E-01
55 (57-58) [l=67 cm][67 def.]
57, 1.409E-01 ± 5.314E+00, -7.415E+00 ± 4.412E+00, -5.255E-03 ± 8.857E-02, -1.477E-04 ± 9.255E-03 - K.
i', 1.409E-01 ± 5.314E+00, -7.415E+00 ± 4.412E+00, -5.255E-03 ± 8.857E-02, -1.477E-04 ± 9.255E-03
j', 1.408E-01 ± 5.311E+00, -7.412E+00 ± 4.394E+00, -5.255E-03 ± 8.857E-02, -1.477E-04 ± 9.255E-03
58, 1.408E-01 ± 5.311E+00, -7.412E+00 ± 4.394E+00, -5.255E-03 ± 8.857E-02, -1.477E-04 ± 9.255E-03 - F.
56 (59-j'-60) [l=480 cm] [Piano XZ: 231 def.-249 rig.]
59, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.075E-02 ± 9.628E-02, 1.878E-01 ± 1.055E+00
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.075E-02 ± 9.628E-02, 1.878E-01 ± 1.055E+00 - S.
j', -1.405E-01 ± 5.304E+00, -2.983E-02 ± 5.030E-01, 5.280E-03 ± 8.834E-02, -2.554E-02 ± 9.710E-01
60, -1.405E-01 ± 5.304E+00, -4.299E-02 ± 6.307E-01, 5.280E-03 ± 8.834E-02, -2.554E-02 ± 9.710E-01
57 (61-60) [l=43 cm][43 def.]
61, 1.406E-01 ± 5.306E+00, -7.406E+00 ± 4.366E+00, -5.273E-03 ± 8.840E-02, -1.477E-04 ± 9.255E-03 - M.
i', 1.406E-01 ± 5.306E+00, -7.406E+00 ± 4.366E+00, -5.273E-03 ± 8.840E-02, -1.477E-04 ± 9.255E-03
j', 1.405E-01 ± 5.304E+00, -7.404E+00 ± 4.355E+00, -5.272E-03 ± 8.840E-02, -1.477E-04 ± 9.255E-03
60, 1.405E-01 ± 5.304E+00, -7.404E+00 ± 4.355E+00, -5.272E-03 ± 8.840E-02, -1.477E-04 ± 9.255E-03 - K.
58 (60-62) [l=43 cm][43 def.]
60, 1.405E-01 ± 5.304E+00, -7.404E+00 ± 4.355E+00, -5.272E-03 ± 8.840E-02, -1.477E-04 ± 9.255E-03
i', 1.405E-01 ± 5.304E+00, -7.404E+00 ± 4.355E+00, -5.272E-03 ± 8.840E-02, -1.477E-04 ± 9.255E-03 - K.
j', 1.405E-01 ± 5.302E+00, -7.402E+00 ± 4.343E+00, -5.272E-03 ± 8.840E-02, -1.477E-04 ± 9.255E-03
62, 1.405E-01 ± 5.302E+00, -7.402E+00 ± 4.343E+00, -5.272E-03 ± 8.840E-02, -1.477E-04 ± 9.255E-03
59 (58-61) [l=100 cm][100 def.]
58, 1.407E-01 ± 5.311E+00, -7.412E+00 ± 4.394E+00, -5.281E-03 ± 8.834E-02, -1.477E-04 ± 9.255E-03 - M.
i', 1.407E-01 ± 5.311E+00, -7.412E+00 ± 4.394E+00, -5.281E-03 ± 8.834E-02, -1.477E-04 ± 9.255E-03
j', 1.406E-01 ± 5.306E+00, -7.406E+00 ± 4.366E+00, -5.281E-03 ± 8.834E-02, -1.477E-04 ± 9.255E-03
61, 1.406E-01 ± 5.306E+00, -7.406E+00 ± 4.366E+00, -5.281E-03 ± 8.834E-02, -1.477E-04 ± 9.255E-03 - K.
60 (63-i'-j'-64) [l=480 cm] [Piano XZ: 238 rig.-213 def.-28 rig.]
63, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.039E-02 ± 9.563E-02, 1.878E-01 ± 1.055E+00
i', 0.000E+00 ± 0.000E+00, -2.476E-02 ± 2.280E-01, 1.039E-02 ± 9.563E-02, 1.878E-01 ± 1.055E+00 - K.
j', -1.403E-01 ± 5.300E+00, -4.176E-02 ± 6.109E-01, 5.331E-03 ± 8.836E-02, -2.553E-02 ± 9.710E-01
64, -1.403E-01 ± 5.300E+00, -4.327E-02 ± 6.279E-01, 5.331E-03 ± 8.836E-02, -2.553E-02 ± 9.710E-01
61 (63-65) [l=43 cm][43 def.]
63, 0.000E+00 ± 0.000E+00, -7.327E+00 ± 4.263E+00, -1.039E-02 ± 9.563E-02, 0.000E+00 ± 0.000E+00 - S.
i', 0.000E+00 ± 0.000E+00, -7.327E+00 ± 4.263E+00, -1.039E-02 ± 9.563E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.322E+00 ± 4.241E+00, -1.039E-02 ± 9.563E-02, 0.000E+00 ± 0.000E+00
65, 0.000E+00 ± 0.000E+00, -7.322E+00 ± 4.241E+00, -1.039E-02 ± 9.563E-02, 0.000E+00 ± 0.000E+00 - M.
62 (62-64) [l=43 cm][43 def.]
62, 1.404E-01 ± 5.302E+00, -7.402E+00 ± 4.343E+00, -5.331E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
i', 1.404E-01 ± 5.302E+00, -7.402E+00 ± 4.343E+00, -5.331E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - K.
j', 1.403E-01 ± 5.300E+00, -7.400E+00 ± 4.332E+00, -5.331E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
64, 1.403E-01 ± 5.300E+00, -7.400E+00 ± 4.332E+00, -5.331E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
63 (64-66) [l=43 cm][43 def.]
64, 1.403E-01 ± 5.300E+00, -7.400E+00 ± 4.332E+00, -5.331E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - K.
i', 1.403E-01 ± 5.300E+00, -7.400E+00 ± 4.332E+00, -5.331E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
j', 1.402E-01 ± 5.298E+00, -7.397E+00 ± 4.321E+00, -5.331E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
66, 1.402E-01 ± 5.298E+00, -7.397E+00 ± 4.321E+00, -5.331E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - M.
64 (67-i'-j'-68) [l=480 cm] [Piano XZ: 173 rig.-287 def.-20 rig.]
67, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 2.947E-02 ± 9.211E-02, 4.140E-01 ± 1.051E+00
i', 0.000E+00 ± 0.000E+00, -5.109E-02 ± 1.597E-01, 2.947E-02 ± 9.211E-02, 4.140E-01 ± 1.051E+00 - K.
j', -1.398E-01 ± 5.283E+00, -4.222E-02 ± 6.161E-01, 5.328E-03 ± 8.836E-02, -2.553E-02 ± 9.710E-01
68, -1.398E-01 ± 5.283E+00, -4.327E-02 ± 6.279E-01, 5.328E-03 ± 8.836E-02, -2.553E-02 ± 9.710E-01
65 (69-67) [l=96 cm][96 def.]
69, 0.000E+00 ± 0.000E+00, -7.290E+00 ± 4.155E+00, -2.946E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -7.290E+00 ± 4.155E+00, -2.946E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.261E+00 ± 4.126E+00, -2.947E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00
67, 0.000E+00 ± 0.000E+00, -7.261E+00 ± 4.126E+00, -2.947E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00 - S.
66 (68-71) [l=96 cm][96 def.]
68, 1.398E-01 ± 5.283E+00, -7.380E+00 ± 4.240E+00, -5.328E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
i', 1.398E-01 ± 5.283E+00, -7.380E+00 ± 4.240E+00, -5.328E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - M.
j', 1.396E-01 ± 5.278E+00, -7.375E+00 ± 4.216E+00, -5.326E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
71, 1.396E-01 ± 5.278E+00, -7.375E+00 ± 4.216E+00, -5.326E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
67 (65-69) [l=227 cm][227 def.]
65, 0.000E+00 ± 0.000E+00, -7.322E+00 ± 4.241E+00, -1.039E-02 ± 9.563E-02, 0.000E+00 ± 0.000E+00 - K.
i', 0.000E+00 ± 0.000E+00, -7.322E+00 ± 4.241E+00, -1.039E-02 ± 9.563E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.290E+00 ± 4.155E+00, -2.946E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00
69, 0.000E+00 ± 0.000E+00, -7.290E+00 ± 4.155E+00, -2.946E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00 - M.
68 (66-70) [l=227 cm][227 def.]
66, 1.402E-01 ± 5.298E+00, -7.397E+00 ± 4.321E+00, -5.331E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03

i' , $1.402E-01 \pm 5.298E+00$, $-7.397E+00 \pm 4.321E+00$, $-5.331E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.399E-01 \pm 5.287E+00$, $-7.385E+00 \pm 4.264E+00$, $-5.329E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
70, $1.399E-01 \pm 5.287E+00$, $-7.385E+00 \pm 4.264E+00$, $-5.329E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
69 (72-j'-73) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
72, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $2.954E-02 \pm 9.211E-02$, $4.142E-01 \pm 1.051E+00$ - S.
 i' , $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $2.954E-02 \pm 9.211E-02$, $4.142E-01 \pm 1.051E+00$
 j' , $-1.395E-01 \pm 5.274E+00$, $-3.906E-02 \pm 5.819E-01$, $5.324E-03 \pm 8.836E-02$, $-2.553E-02 \pm 9.710E-01$
73, $-1.395E-01 \pm 5.274E+00$, $-4.327E-02 \pm 6.279E-01$, $5.324E-03 \pm 8.836E-02$, $-2.553E-02 \pm 9.710E-01$ - M.
70 (71-73) [l=96 cm] [96 def.]
71, $1.396E-01 \pm 5.278E+00$, $-7.375E+00 \pm 4.216E+00$, $-5.326E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
 i' , $1.396E-01 \pm 5.278E+00$, $-7.375E+00 \pm 4.216E+00$, $-5.326E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.395E-01 \pm 5.274E+00$, $-7.370E+00 \pm 4.192E+00$, $-5.324E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
73, $1.395E-01 \pm 5.274E+00$, $-7.370E+00 \pm 4.192E+00$, $-5.324E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
71 (75-j'-76) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
75, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $9.020E-04 \pm 8.870E-02$, $1.176E-02 \pm 9.516E-01$ - M.
 i' , $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $9.020E-04 \pm 8.870E-02$, $1.176E-02 \pm 9.516E-01$
 j' , $-1.390E-01 \pm 5.257E+00$, $-3.655E-02 \pm 5.566E-01$, $5.316E-03 \pm 8.836E-02$, $-2.552E-02 \pm 9.710E-01$
76, $-1.390E-01 \pm 5.257E+00$, $-4.327E-02 \pm 6.279E-01$, $5.316E-03 \pm 8.836E-02$, $-2.552E-02 \pm 9.710E-01$ - K.
72 (77-76) [l=28 cm] [28 def.]
77, $1.390E-01 \pm 5.258E+00$, $-7.353E+00 \pm 4.113E+00$, $-5.316E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
 i' , $1.390E-01 \pm 5.258E+00$, $-7.353E+00 \pm 4.113E+00$, $-5.316E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.390E-01 \pm 5.257E+00$, $-7.351E+00 \pm 4.106E+00$, $-5.316E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
76, $1.390E-01 \pm 5.257E+00$, $-7.351E+00 \pm 4.106E+00$, $-5.316E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
73 (76-78) [l=28 cm] [28 def.]
76, $1.390E-01 \pm 5.257E+00$, $-7.351E+00 \pm 4.106E+00$, $-5.316E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - M.
 i' , $1.390E-01 \pm 5.257E+00$, $-7.351E+00 \pm 4.106E+00$, $-5.316E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
 j' , $1.389E-01 \pm 5.256E+00$, $-7.350E+00 \pm 4.099E+00$, $-5.315E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
78, $1.389E-01 \pm 5.256E+00$, $-7.350E+00 \pm 4.099E+00$, $-5.315E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
74 (74-77) [l=227 cm] [227 def.]
74, $1.393E-01 \pm 5.269E+00$, $-7.365E+00 \pm 4.169E+00$, $-5.322E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
 i' , $1.393E-01 \pm 5.269E+00$, $-7.365E+00 \pm 4.169E+00$, $-5.322E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.390E-01 \pm 5.258E+00$, $-7.353E+00 \pm 4.113E+00$, $-5.316E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
77, $1.390E-01 \pm 5.258E+00$, $-7.353E+00 \pm 4.113E+00$, $-5.316E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
75 (79-i'-j'-80) [l=480 cm] [Piano XZ: 48 rig.-423 def.-9 rig.]
79, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $1.193E-03 \pm 8.880E-02$, $1.195E-02 \pm 9.519E-01$ - S.
 i' , $0.000E+00 \pm 0.000E+00$, $-5.764E-04 \pm 4.289E-02$, $1.193E-03 \pm 8.880E-02$, $1.195E-02 \pm 9.519E-01$
 j' , $-1.385E-01 \pm 5.241E+00$, $-4.279E-02 \pm 6.225E-01$, $5.307E-03 \pm 8.836E-02$, $-2.553E-02 \pm 9.710E-01$
80, $-1.385E-01 \pm 5.241E+00$, $-4.327E-02 \pm 6.279E-01$, $5.307E-03 \pm 8.836E-02$, $-2.553E-02 \pm 9.710E-01$ - M.
76 (79-81) [l=308 cm] [308 def.]
79, $0.000E+00 \pm 0.000E+00$, $-7.265E+00 \pm 3.950E+00$, $-1.193E-03 \pm 8.880E-02$, $0.000E+00 \pm 0.000E+00$
 i' , $0.000E+00 \pm 0.000E+00$, $-7.265E+00 \pm 3.950E+00$, $-1.193E-03 \pm 8.880E-02$, $0.000E+00 \pm 0.000E+00$ - K.
 j' , $0.000E+00 \pm 0.000E+00$, $-7.262E+00 \pm 3.892E+00$, $-1.196E-03 \pm 8.880E-02$, $0.000E+00 \pm 0.000E+00$
81, $0.000E+00 \pm 0.000E+00$, $-7.262E+00 \pm 3.892E+00$, $-1.196E-03 \pm 8.880E-02$, $0.000E+00 \pm 0.000E+00$
77 (78-80) [l=308 cm] [308 def.]
78, $1.389E-01 \pm 5.256E+00$, $-7.350E+00 \pm 4.099E+00$, $-5.315E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
 i' , $1.389E-01 \pm 5.256E+00$, $-7.350E+00 \pm 4.099E+00$, $-5.315E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
 j' , $1.385E-01 \pm 5.241E+00$, $-7.333E+00 \pm 4.028E+00$, $-5.307E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
80, $1.385E-01 \pm 5.241E+00$, $-7.333E+00 \pm 4.028E+00$, $-5.307E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - M.
78 (80-82) [l=308 cm] [308 def.]
80, $1.385E-01 \pm 5.241E+00$, $-7.333E+00 \pm 4.028E+00$, $-5.307E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
 i' , $1.385E-01 \pm 5.241E+00$, $-7.333E+00 \pm 4.028E+00$, $-5.307E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.380E-01 \pm 5.228E+00$, $-7.317E+00 \pm 3.987E+00$, $-5.301E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
82, $1.380E-01 \pm 5.228E+00$, $-7.317E+00 \pm 3.987E+00$, $-5.301E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
79 (83-i'-j'-84) [l=480 cm] [Piano XZ: 129 rig.-335 def.-16 rig.]
83, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $3.322E-02 \pm 8.861E-02$, $3.955E-01 \pm 1.020E+00$ - K.
 i' , $0.000E+00 \pm 0.000E+00$, $-4.279E-02 \pm 1.141E-01$, $3.322E-02 \pm 8.861E-02$, $3.955E-01 \pm 1.020E+00$
 j' , $-1.374E-01 \pm 5.250E+00$, $-4.240E-02 \pm 6.181E-01$, $5.291E-03 \pm 8.837E-02$, $-2.553E-02 \pm 9.710E-01$
84, $-1.374E-01 \pm 5.250E+00$, $-4.327E-02 \pm 6.279E-01$, $5.291E-03 \pm 8.837E-02$, $-2.553E-02 \pm 9.710E-01$ - S.
80 (85-83) [l=146 cm] [146 def.]
85, $0.000E+00 \pm 0.000E+00$, $-7.213E+00 \pm 3.909E+00$, $-3.322E-02 \pm 8.861E-02$, $0.000E+00 \pm 0.000E+00$
 i' , $0.000E+00 \pm 0.000E+00$, $-7.213E+00 \pm 3.909E+00$, $-3.322E-02 \pm 8.861E-02$, $0.000E+00 \pm 0.000E+00$ - C.
 j' , $0.000E+00 \pm 0.000E+00$, $-7.164E+00 \pm 3.938E+00$, $-3.322E-02 \pm 8.861E-02$, $0.000E+00 \pm 0.000E+00$
83, $0.000E+00 \pm 0.000E+00$, $-7.164E+00 \pm 3.938E+00$, $-3.322E-02 \pm 8.861E-02$, $0.000E+00 \pm 0.000E+00$
81 (86-84) [l=146 cm] [146 def.]
86, $1.377E-01 \pm 5.238E+00$, $-7.305E+00 \pm 4.021E+00$, $-5.295E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
 i' , $1.377E-01 \pm 5.238E+00$, $-7.305E+00 \pm 4.021E+00$, $-5.295E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
 j' , $1.374E-01 \pm 5.250E+00$, $-7.297E+00 \pm 4.055E+00$, $-5.291E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$
84, $1.374E-01 \pm 5.250E+00$, $-7.297E+00 \pm 4.055E+00$, $-5.291E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$ - M.
82 (84-87) [l=146 cm] [146 def.]
84, $1.374E-01 \pm 5.250E+00$, $-7.297E+00 \pm 4.055E+00$, $-5.291E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$
 i' , $1.374E-01 \pm 5.250E+00$, $-7.297E+00 \pm 4.055E+00$, $-5.291E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$ - C.
 j' , $1.372E-01 \pm 5.263E+00$, $-7.290E+00 \pm 4.093E+00$, $-5.286E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$
87, $1.372E-01 \pm 5.263E+00$, $-7.290E+00 \pm 4.093E+00$, $-5.286E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$
83 (81-85) [l=227 cm] [227 def.]
81, $0.000E+00 \pm 0.000E+00$, $-7.262E+00 \pm 3.892E+00$, $-1.196E-03 \pm 8.880E-02$, $0.000E+00 \pm 0.000E+00$ - C.
 i' , $0.000E+00 \pm 0.000E+00$, $-7.262E+00 \pm 3.892E+00$, $-1.196E-03 \pm 8.880E-02$, $0.000E+00 \pm 0.000E+00$
 j' , $0.000E+00 \pm 0.000E+00$, $-7.213E+00 \pm 3.909E+00$, $-3.322E-02 \pm 8.861E-02$, $0.000E+00 \pm 0.000E+00$
85, $0.000E+00 \pm 0.000E+00$, $-7.213E+00 \pm 3.909E+00$, $-3.322E-02 \pm 8.861E-02$, $0.000E+00 \pm 0.000E+00$ - K.
84 (82-86) [l=227 cm] [227 def.]
82, $1.380E-01 \pm 5.228E+00$, $-7.317E+00 \pm 3.987E+00$, $-5.301E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
 i' , $1.380E-01 \pm 5.228E+00$, $-7.317E+00 \pm 3.987E+00$, $-5.301E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - M.
 j' , $1.377E-01 \pm 5.238E+00$, $-7.305E+00 \pm 4.021E+00$, $-5.295E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
86, $1.377E-01 \pm 5.238E+00$, $-7.305E+00 \pm 4.021E+00$, $-5.295E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$
85 (88-j'-89) [l=480 cm] [Piano XZ: 352 def.-128 rig.]
88, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $3.328E-02 \pm 8.859E-02$, $3.957E-01 \pm 1.020E+00$ - K.
 i' , $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $3.328E-02 \pm 8.859E-02$, $3.957E-01 \pm 1.020E+00$

j' , $-1.372E-01 \pm 5.265E+00, -3.648E-02 \pm 5.556E-01, 5.286E-03 \pm 8.837E-02, -2.553E-02 \pm 9.710E-01$
89, $-1.372E-01 \pm 5.265E+00, -4.327E-02 \pm 6.279E-01, 5.286E-03 \pm 8.837E-02, -2.553E-02 \pm 9.710E-01$ - C.
86 (87-89) [l=26 cm][26 def.]
87, $1.372E-01 \pm 5.263E+00, -7.290E+00 \pm 4.093E+00, -5.286E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
 i' , $1.372E-01 \pm 5.263E+00, -7.290E+00 \pm 4.093E+00, -5.286E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.372E-01 \pm 5.265E+00, -7.288E+00 \pm 4.100E+00, -5.286E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
89, $1.372E-01 \pm 5.265E+00, -7.288E+00 \pm 4.100E+00, -5.286E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
87 (89-90) [l=26 cm][26 def.]
89, $1.372E-01 \pm 5.265E+00, -7.288E+00 \pm 4.100E+00, -5.286E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - C.
 i' , $1.372E-01 \pm 5.265E+00, -7.288E+00 \pm 4.100E+00, -5.286E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
 j' , $1.372E-01 \pm 5.267E+00, -7.287E+00 \pm 4.106E+00, -5.285E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
90, $1.372E-01 \pm 5.267E+00, -7.287E+00 \pm 4.106E+00, -5.285E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - K.
88 (91-j'-92) [l=480 cm] [Piano XZ: 354 def.-126 rig.]
91, $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -2.508E-03 \pm 9.222E-02, -7.944E-03 \pm 9.471E-01$
 i' , $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -2.508E-03 \pm 9.222E-02, -7.944E-03 \pm 9.471E-01$ - M.
 j' , $-1.368E-01 \pm 5.290E+00, -3.660E-02 \pm 5.567E-01, 5.277E-03 \pm 8.837E-02, -2.553E-02 \pm 9.710E-01$
92, $-1.368E-01 \pm 5.290E+00, -4.327E-02 \pm 6.279E-01, 5.277E-03 \pm 8.837E-02, -2.553E-02 \pm 9.710E-01$
89 (93-92) [l=28 cm][28 def.]
93, $1.368E-01 \pm 5.287E+00, -7.275E+00 \pm 4.167E+00, -5.278E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - C.
 i' , $1.368E-01 \pm 5.287E+00, -7.275E+00 \pm 4.167E+00, -5.278E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
 j' , $1.368E-01 \pm 5.290E+00, -7.273E+00 \pm 4.174E+00, -5.277E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
92, $1.368E-01 \pm 5.290E+00, -7.273E+00 \pm 4.174E+00, -5.277E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - K.
90 (92-94) [l=28 cm][28 def.]
92, $1.368E-01 \pm 5.290E+00, -7.273E+00 \pm 4.174E+00, -5.277E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
 i' , $1.368E-01 \pm 5.290E+00, -7.273E+00 \pm 4.174E+00, -5.277E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - M.
 j' , $1.367E-01 \pm 5.292E+00, -7.272E+00 \pm 4.182E+00, -5.276E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
94, $1.367E-01 \pm 5.292E+00, -7.272E+00 \pm 4.182E+00, -5.276E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
91 (90-93) [l=227 cm][227 def.]
90, $1.372E-01 \pm 5.267E+00, -7.287E+00 \pm 4.106E+00, -5.285E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - K.
 i' , $1.372E-01 \pm 5.267E+00, -7.287E+00 \pm 4.106E+00, -5.285E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
 j' , $1.368E-01 \pm 5.287E+00, -7.275E+00 \pm 4.167E+00, -5.278E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
93, $1.368E-01 \pm 5.287E+00, -7.275E+00 \pm 4.167E+00, -5.278E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - K.
92 (95-j'-96) [l=480 cm] [Piano XZ: 425 def.-55 rig.]
95, $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -2.428E-03 \pm 9.224E-02, -7.958E-03 \pm 9.472E-01$
 i' , $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -2.428E-03 \pm 9.224E-02, -7.958E-03 \pm 9.472E-01$ - C.
 j' , $-1.365E-01 \pm 5.307E+00, -4.038E-02 \pm 5.955E-01, 5.271E-03 \pm 8.837E-02, -2.553E-02 \pm 9.710E-01$
96, $-1.365E-01 \pm 5.307E+00, -4.327E-02 \pm 6.279E-01, 5.271E-03 \pm 8.837E-02, -2.553E-02 \pm 9.710E-01$
93 (94-96) [l=163 cm][163 def.]
94, $1.367E-01 \pm 5.292E+00, -7.272E+00 \pm 4.182E+00, -5.276E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - K.
 i' , $1.367E-01 \pm 5.292E+00, -7.272E+00 \pm 4.182E+00, -5.276E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
 j' , $1.365E-01 \pm 5.307E+00, -7.263E+00 \pm 4.226E+00, -5.271E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
96, $1.365E-01 \pm 5.307E+00, -7.263E+00 \pm 4.226E+00, -5.271E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - M.
94 (96-97) [l=163 cm][163 def.]
96, $1.365E-01 \pm 5.307E+00, -7.263E+00 \pm 4.226E+00, -5.271E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$
 i' , $1.365E-01 \pm 5.307E+00, -7.263E+00 \pm 4.226E+00, -5.271E-03 \pm 8.837E-02, -1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.363E-01 \pm 5.321E+00, -7.255E+00 \pm 4.271E+00, -5.268E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
97, $1.363E-01 \pm 5.321E+00, -7.255E+00 \pm 4.271E+00, -5.268E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
95 (98-j'-99) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
98, $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 1.469E-02 \pm 8.569E-02, -2.247E-02 \pm 1.130E+00$ - K.
 i' , $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 1.469E-02 \pm 8.569E-02, -2.247E-02 \pm 1.130E+00$
 j' , $-1.358E-01 \pm 5.350E+00, -3.911E-02 \pm 5.819E-01, 5.264E-03 \pm 8.838E-02, -2.554E-02 \pm 9.710E-01$
99, $-1.358E-01 \pm 5.350E+00, -4.327E-02 \pm 6.279E-01, 5.264E-03 \pm 8.838E-02, -2.554E-02 \pm 9.710E-01$ - M.
96 (100-99) [l=96 cm][96 def.]
100, $1.359E-01 \pm 5.341E+00, -7.243E+00 \pm 4.332E+00, -5.265E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
 i' , $1.359E-01 \pm 5.341E+00, -7.243E+00 \pm 4.332E+00, -5.265E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.358E-01 \pm 5.350E+00, -7.238E+00 \pm 4.359E+00, -5.264E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
99, $1.358E-01 \pm 5.350E+00, -7.238E+00 \pm 4.359E+00, -5.264E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
97 (99-101) [l=96 cm][96 def.]
99, $1.358E-01 \pm 5.350E+00, -7.238E+00 \pm 4.359E+00, -5.264E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$ - K.
 i' , $1.358E-01 \pm 5.350E+00, -7.238E+00 \pm 4.359E+00, -5.264E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
 j' , $1.356E-01 \pm 5.358E+00, -7.233E+00 \pm 4.385E+00, -5.263E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
101, $1.356E-01 \pm 5.358E+00, -7.233E+00 \pm 4.385E+00, -5.263E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$ - M.
98 (97-100) [l=227 cm][227 def.]
97, $1.363E-01 \pm 5.321E+00, -7.255E+00 \pm 4.271E+00, -5.268E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
 i' , $1.363E-01 \pm 5.321E+00, -7.255E+00 \pm 4.271E+00, -5.268E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.359E-01 \pm 5.341E+00, -7.243E+00 \pm 4.332E+00, -5.265E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
100, $1.359E-01 \pm 5.341E+00, -7.243E+00 \pm 4.332E+00, -5.265E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
99 (102-j'-103) [l=480 cm] [Piano XZ: 401 def.-79 rig.]
102, $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 1.474E-02 \pm 8.569E-02, -2.247E-02 \pm 1.130E+00$ - K.
 i' , $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, 1.474E-02 \pm 8.569E-02, -2.247E-02 \pm 1.130E+00$
 j' , $-1.355E-01 \pm 5.367E+00, -3.911E-02 \pm 5.819E-01, 5.262E-03 \pm 8.838E-02, -2.554E-02 \pm 9.710E-01$
103, $-1.355E-01 \pm 5.367E+00, -4.327E-02 \pm 6.279E-01, 5.262E-03 \pm 8.838E-02, -2.554E-02 \pm 9.710E-01$ - M.
100 (101-103) [l=96 cm][96 def.]
101, $1.356E-01 \pm 5.358E+00, -7.233E+00 \pm 4.385E+00, -5.263E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
 i' , $1.356E-01 \pm 5.358E+00, -7.233E+00 \pm 4.385E+00, -5.263E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.355E-01 \pm 5.367E+00, -7.228E+00 \pm 4.411E+00, -5.262E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
103, $1.355E-01 \pm 5.367E+00, -7.228E+00 \pm 4.411E+00, -5.262E-03 \pm 8.838E-02, -1.477E-04 \pm 9.255E-03$
101 (105-j'-106) [l=480 cm] [Piano XZ: 391 def.-90 rig.]
105, $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -4.115E-02 \pm 1.314E-01, 1.373E-03 \pm 1.006E+00$ - K.
 i' , $0.000E+00 \pm 0.000E+00, 0.000E+00 \pm 0.000E+00, -4.115E-02 \pm 1.314E-01, 1.373E-03 \pm 1.006E+00$
 j' , $-1.349E-01 \pm 5.402E+00, -3.856E-02 \pm 5.761E-01, 5.261E-03 \pm 8.839E-02, -2.554E-02 \pm 9.710E-01$
106, $-1.349E-01 \pm 5.402E+00, -4.327E-02 \pm 6.279E-01, 5.261E-03 \pm 8.839E-02, -2.554E-02 \pm 9.710E-01$ - M.
102 (106-3) [l=79 cm][79 def.]
106, $1.349E-01 \pm 5.402E+00, -7.206E+00 \pm 4.521E+00, -5.261E-03 \pm 8.839E-02, -1.477E-04 \pm 9.255E-03$
 i' , $1.349E-01 \pm 5.402E+00, -7.206E+00 \pm 4.521E+00, -5.261E-03 \pm 8.839E-02, -1.477E-04 \pm 9.255E-03$ - K.
 j' , $1.348E-01 \pm 5.409E+00, -7.202E+00 \pm 4.543E+00, -5.261E-03 \pm 8.839E-02, -1.477E-04 \pm 9.255E-03$

3, 1.348E-01 ± 5.409E+00, -7.202E+00 ± 4.543E+00, -5.261E-03 ± 8.839E-02, -1.477E-04 ± 9.255E-03
103 (104-107) [l=227 cm][227 def.]
104, 1.354E-01 ± 5.375E+00, -7.223E+00 ± 4.437E+00, -5.262E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03 - K.
i', 1.354E-01 ± 5.375E+00, -7.223E+00 ± 4.437E+00, -5.262E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03
j', 1.350E-01 ± 5.395E+00, -7.211E+00 ± 4.500E+00, -5.261E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03
107, 1.350E-01 ± 5.395E+00, -7.211E+00 ± 4.500E+00, -5.261E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03 - M.
104 (108-109) [l=608 cm][608 def.]
108, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -3.119E-02 ± 9.459E-01, -1.440E-02 ± 9.310E-02
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -3.119E-02 ± 9.459E-01, -1.440E-02 ± 9.310E-02 - K.
j', -4.916E-02 ± 7.085E-01, 1.764E-01 ± 6.531E+00, -2.753E-02 ± 9.469E-01, -5.343E-03 ± 8.844E-02
109, -4.916E-02 ± 7.085E-01, 1.764E-01 ± 6.531E+00, -2.753E-02 ± 9.469E-01, -5.343E-03 ± 8.844E-02
105 (110-109) [l=224 cm][224 def.]
110, -4.440E-02 ± 6.615E-01, -7.045E+00 ± 2.104E+00, -2.753E-02 ± 9.469E-01, -2.125E-03 ± 3.537E-02 - K.
i', -4.440E-02 ± 6.615E-01, -7.045E+00 ± 2.104E+00, -2.753E-02 ± 9.469E-01, -2.125E-03 ± 3.537E-02
j', -4.916E-02 ± 7.085E-01, -6.983E+00 ± 1.733E+00, -2.753E-02 ± 9.469E-01, -2.126E-03 ± 3.538E-02
109, -4.916E-02 ± 7.085E-01, -6.983E+00 ± 1.733E+00, -2.753E-02 ± 9.469E-01, -2.126E-03 ± 3.538E-02 - M.
106 (112-j'-113) [l=420 cm] [Piano XZ: 361 def.-59 rig.]
112, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.943E-03 ± 9.471E-01, 2.500E-03 ± 9.222E-02
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -7.943E-03 ± 9.471E-01, 2.500E-03 ± 9.222E-02 - K.
j', -3.987E-02 ± 5.881E-01, 1.063E-01 ± 4.139E+00, -2.553E-02 ± 9.710E-01, -5.276E-03 ± 8.837E-02
113, -3.987E-02 ± 5.881E-01, 1.214E-01 ± 4.711E+00, -2.553E-02 ± 9.710E-01, -5.276E-03 ± 8.837E-02
107 (114-113) [l=153 cm][153 def.]
114, 4.010E-02 ± 5.925E-01, -7.272E+00 ± 4.182E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - K.
i', 4.010E-02 ± 5.925E-01, -7.272E+00 ± 4.182E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
j', 3.987E-02 ± 5.881E-01, -7.311E+00 ± 2.699E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
113, 3.987E-02 ± 5.881E-01, -7.311E+00 ± 2.699E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - S.
108 (113-115) [l=153 cm][153 def.]
113, 3.987E-02 ± 5.881E-01, -7.311E+00 ± 2.699E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
i', 3.987E-02 ± 5.881E-01, -7.311E+00 ± 2.699E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - S.
j', 3.965E-02 ± 5.850E-01, -7.350E+00 ± 1.219E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
115, 3.965E-02 ± 5.850E-01, -7.350E+00 ± 1.219E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
109 (116-j'-117) [l=420 cm] [Piano XZ: 363 def.-57 rig.]
116, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -4.529E-02 ± 9.500E-01, 8.498E-04 ± 9.174E-02 - M.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -4.529E-02 ± 9.500E-01, 8.498E-04 ± 9.174E-02
j', -3.913E-02 ± 5.906E-01, 1.013E-01 ± 4.156E+00, -3.019E-02 ± 9.707E-01, -5.240E-03 ± 8.849E-02
117, -3.913E-02 ± 5.906E-01, 1.186E-01 ± 4.712E+00, -3.019E-02 ± 9.707E-01, -5.240E-03 ± 8.849E-02 - K.
110 (118-117) [l=163 cm][163 def.]
118, 3.937E-02 ± 5.842E-01, -7.403E+00 ± 1.008E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
i', 3.937E-02 ± 5.842E-01, -7.403E+00 ± 1.008E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - K.
j', 3.913E-02 ± 5.906E-01, -7.452E+00 ± 2.567E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
117, 3.913E-02 ± 5.906E-01, -7.452E+00 ± 2.567E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
111 (117-119) [l=163 cm][163 def.]
117, 3.913E-02 ± 5.906E-01, -7.452E+00 ± 2.567E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - C.
i', 3.913E-02 ± 5.906E-01, -7.452E+00 ± 2.567E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
j', 3.889E-02 ± 5.974E-01, -7.502E+00 ± 4.146E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
119, 3.889E-02 ± 5.974E-01, -7.502E+00 ± 4.146E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - K.
112 (115-118) [l=200 cm][200 def.]
115, 3.965E-02 ± 5.850E-01, -7.350E+00 ± 1.219E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
i', 3.965E-02 ± 5.850E-01, -7.350E+00 ± 1.219E+00, 2.553E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - K.
j', 3.937E-02 ± 5.842E-01, -7.403E+00 ± 1.008E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
118, 3.937E-02 ± 5.842E-01, -7.403E+00 ± 1.008E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
113 (120-j'-121) [l=420 cm] [Piano XZ: 361 def.-59 rig.]
120, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.175E-02 ± 9.516E-01, -9.116E-04 ± 8.870E-02 - C.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 1.175E-02 ± 9.516E-01, -9.116E-04 ± 8.870E-02
j', -3.985E-02 ± 5.881E-01, 1.085E-01 ± 4.106E+00, -2.552E-02 ± 9.710E-01, -5.315E-03 ± 8.836E-02
121, -3.985E-02 ± 5.881E-01, 1.236E-01 ± 4.676E+00, -2.552E-02 ± 9.710E-01, -5.315E-03 ± 8.836E-02 - K.
114 (122-121) [l=153 cm][153 def.]
122, 4.008E-02 ± 5.925E-01, -7.350E+00 ± 4.099E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
i', 4.008E-02 ± 5.925E-01, -7.350E+00 ± 4.099E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - C.
j', 3.985E-02 ± 5.881E-01, -7.389E+00 ± 2.616E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
121, 3.985E-02 ± 5.881E-01, -7.389E+00 ± 2.616E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
115 (121-123) [l=153 cm][153 def.]
121, 3.985E-02 ± 5.881E-01, -7.389E+00 ± 2.616E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - K.
i', 3.985E-02 ± 5.881E-01, -7.389E+00 ± 2.616E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
j', 3.962E-02 ± 5.850E-01, -7.428E+00 ± 1.136E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
123, 3.962E-02 ± 5.850E-01, -7.428E+00 ± 1.136E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - C.
116 (124-j'-125) [l=420 cm] [Piano XZ: 363 def.-57 rig.]
124, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.416E-02 ± 9.533E-01, -1.251E-03 ± 8.939E-02
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -6.416E-02 ± 9.533E-01, -1.251E-03 ± 8.939E-02 - K.
j', -3.910E-02 ± 5.906E-01, 1.035E-01 ± 4.122E+00, -3.019E-02 ± 9.707E-01, -5.299E-03 ± 8.850E-02
125, -3.910E-02 ± 5.906E-01, 1.208E-01 ± 4.676E+00, -3.019E-02 ± 9.707E-01, -5.299E-03 ± 8.850E-02
117 (126-125) [l=163 cm][163 def.]
126, 3.934E-02 ± 5.842E-01, -7.481E+00 ± 9.445E-01, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - K.
i', 3.934E-02 ± 5.842E-01, -7.481E+00 ± 9.445E-01, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
j', 3.910E-02 ± 5.906E-01, -7.530E+00 ± 2.521E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
125, 3.910E-02 ± 5.906E-01, -7.530E+00 ± 2.521E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - C.
118 (125-127) [l=163 cm][163 def.]
125, 3.910E-02 ± 5.906E-01, -7.530E+00 ± 2.521E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
i', 3.910E-02 ± 5.906E-01, -7.530E+00 ± 2.521E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - K.
j', 3.886E-02 ± 5.974E-01, -7.579E+00 ± 4.097E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
127, 3.886E-02 ± 5.974E-01, -7.579E+00 ± 4.097E+00, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
119 (123-126) [l=200 cm][200 def.]
123, 3.962E-02 ± 5.850E-01, -7.428E+00 ± 1.136E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - C.
i', 3.962E-02 ± 5.850E-01, -7.428E+00 ± 1.136E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
j', 3.934E-02 ± 5.842E-01, -7.481E+00 ± 9.445E-01, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
126, 3.934E-02 ± 5.842E-01, -7.481E+00 ± 9.445E-01, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - C.

120 (96-128) [l=45 cm][45 def.]
96, -1.365E-01 ± 5.307E+00, -4.327E-02 ± 6.279E-01, 5.271E-03 ± 8.837E-02, -2.553E-02 ± 9.710E-01
i', -1.365E-01 ± 5.307E+00, -4.327E-02 ± 6.279E-01, 5.271E-03 ± 8.837E-02, -2.553E-02 ± 9.710E-01 - K.
j', -1.490E-01 ± 5.738E+00, -4.567E-02 ± 6.568E-01, 5.275E-03 ± 8.837E-02, -2.757E-02 ± 9.472E-01
128, -1.490E-01 ± 5.738E+00, -4.567E-02 ± 6.568E-01, 5.275E-03 ± 8.837E-02, -2.757E-02 ± 9.472E-01
121 (129-128) [l=163 cm][163 def.]
129, 1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.182E+00, -5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - K.
i', 1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.182E+00, -5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
j', 1.490E-01 ± 5.738E+00, -7.264E+00 ± 4.226E+00, -5.275E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
128, 1.490E-01 ± 5.738E+00, -7.264E+00 ± 4.226E+00, -5.275E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - C.
122 (131-132) [l=45 cm][45 def.]
131, -1.370E-01 ± 5.277E+00, -4.327E-02 ± 6.279E-01, 5.281E-03 ± 8.837E-02, -2.553E-02 ± 9.710E-01
i', -1.370E-01 ± 5.277E+00, -4.327E-02 ± 6.279E-01, 5.281E-03 ± 8.837E-02, -2.553E-02 ± 9.710E-01 - K.
j', -1.495E-01 ± 5.709E+00, -4.567E-02 ± 6.568E-01, 5.284E-03 ± 8.837E-02, -2.757E-02 ± 9.471E-01
132, -1.495E-01 ± 5.709E+00, -4.567E-02 ± 6.568E-01, 5.284E-03 ± 8.837E-02, -2.757E-02 ± 9.471E-01
123 (80-134) [l=45 cm][45 def.]
80, -1.385E-01 ± 5.241E+00, -4.327E-02 ± 6.279E-01, 5.307E-03 ± 8.836E-02, -2.553E-02 ± 9.710E-01 - C.
i', -1.385E-01 ± 5.241E+00, -4.327E-02 ± 6.279E-01, 5.307E-03 ± 8.836E-02, -2.553E-02 ± 9.710E-01
j', -1.510E-01 ± 5.671E+00, -4.567E-02 ± 6.568E-01, 5.320E-03 ± 8.837E-02, -2.755E-02 ± 9.471E-01
134, -1.510E-01 ± 5.671E+00, -4.567E-02 ± 6.568E-01, 5.320E-03 ± 8.837E-02, -2.755E-02 ± 9.471E-01 - K.
124 (19-137) [l=45 cm][45 def.]
19, -1.358E-01 ± 5.350E+00, -4.204E-02 ± 6.327E-01, 5.222E-03 ± 8.848E-02, -3.018E-02 ± 9.707E-01
i', -1.358E-01 ± 5.350E+00, -4.204E-02 ± 6.327E-01, 5.222E-03 ± 8.848E-02, -3.018E-02 ± 9.707E-01 - K.
j', -1.482E-01 ± 5.782E+00, -4.440E-02 ± 6.615E-01, 5.231E-03 ± 8.855E-02, -2.750E-02 ± 9.472E-01
137, -1.482E-01 ± 5.782E+00, -4.440E-02 ± 6.615E-01, 5.231E-03 ± 8.855E-02, -2.750E-02 ± 9.472E-01
125 (138-137) [l=96 cm][96 def.]
138, -1.481E-01 ± 5.790E+00, -7.463E+00 ± 4.328E+00, 5.230E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03 - C.
i', -1.481E-01 ± 5.790E+00, -7.463E+00 ± 4.328E+00, 5.230E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
j', -1.482E-01 ± 5.782E+00, -7.468E+00 ± 4.304E+00, 5.231E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
137, -1.482E-01 ± 5.782E+00, -7.468E+00 ± 4.304E+00, 5.231E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03 - K.
126 (140-141) [l=45 cm][45 def.]
140, -1.370E-01 ± 5.277E+00, -4.204E-02 ± 6.327E-01, 5.248E-03 ± 8.849E-02, -3.019E-02 ± 9.707E-01
i', -1.370E-01 ± 5.277E+00, -4.204E-02 ± 6.327E-01, 5.248E-03 ± 8.849E-02, -3.019E-02 ± 9.707E-01 - C.
j', -1.495E-01 ± 5.709E+00, -4.440E-02 ± 6.615E-01, 5.251E-03 ± 8.853E-02, -2.751E-02 ± 9.472E-01
141, -1.495E-01 ± 5.709E+00, -4.440E-02 ± 6.615E-01, 5.251E-03 ± 8.853E-02, -2.751E-02 ± 9.472E-01
127 (141-143) [l=168 cm][168 def.]
141, -1.495E-01 ± 5.709E+00, -7.511E+00 ± 4.105E+00, 5.251E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03 - K.
i', -1.495E-01 ± 5.709E+00, -7.511E+00 ± 4.105E+00, 5.251E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
j', -1.497E-01 ± 5.694E+00, -7.520E+00 ± 4.066E+00, 5.256E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
143, -1.497E-01 ± 5.694E+00, -7.520E+00 ± 4.066E+00, 5.256E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03 - C.
128 (33-144) [l=45 cm][45 def.]
33, -1.374E-01 ± 5.250E+00, -4.204E-02 ± 6.327E-01, 5.262E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
i', -1.374E-01 ± 5.250E+00, -4.204E-02 ± 6.327E-01, 5.262E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01 - K.
j', -1.500E-01 ± 5.681E+00, -4.440E-02 ± 6.615E-01, 5.262E-03 ± 8.853E-02, -2.751E-02 ± 9.471E-01
144, -1.500E-01 ± 5.681E+00, -4.440E-02 ± 6.615E-01, 5.262E-03 ± 8.853E-02, -2.751E-02 ± 9.471E-01
129 (143-144) [l=146 cm][146 def.]
143, -1.497E-01 ± 5.694E+00, -7.520E+00 ± 4.066E+00, 5.256E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03 - K.
i', -1.497E-01 ± 5.694E+00, -7.520E+00 ± 4.066E+00, 5.256E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
j', -1.500E-01 ± 5.681E+00, -7.527E+00 ± 4.032E+00, 5.262E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
144, -1.500E-01 ± 5.681E+00, -7.527E+00 ± 4.032E+00, 5.262E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03 - M.
130 (146-147) [l=45 cm][45 def.]
146, -1.391E-01 ± 5.262E+00, -4.204E-02 ± 6.327E-01, 5.304E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
i', -1.391E-01 ± 5.262E+00, -4.204E-02 ± 6.327E-01, 5.304E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01 - K.
j', -1.517E-01 ± 5.692E+00, -4.440E-02 ± 6.615E-01, 5.308E-03 ± 8.851E-02, -2.752E-02 ± 9.471E-01
147, -1.517E-01 ± 5.692E+00, -4.440E-02 ± 6.615E-01, 5.308E-03 ± 8.851E-02, -2.752E-02 ± 9.471E-01
131 (147-149) [l=142 cm][142 def.]
147, -1.517E-01 ± 5.692E+00, -7.587E+00 ± 4.136E+00, 5.308E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03 - K.
i', -1.517E-01 ± 5.692E+00, -7.587E+00 ± 4.136E+00, 5.308E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
j', -1.519E-01 ± 5.698E+00, -7.595E+00 ± 4.175E+00, 5.314E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
149, -1.519E-01 ± 5.698E+00, -7.595E+00 ± 4.175E+00, 5.314E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03 - Z.
132 (150-151) [l=45 cm][45 def.]
150, -1.393E-01 ± 5.267E+00, -4.327E-02 ± 6.279E-01, 5.321E-03 ± 8.836E-02, -2.552E-02 ± 9.710E-01
i', -1.393E-01 ± 5.267E+00, -4.327E-02 ± 6.279E-01, 5.321E-03 ± 8.836E-02, -2.552E-02 ± 9.710E-01 - T.
j', -1.518E-01 ± 5.696E+00, -4.567E-02 ± 6.568E-01, 5.336E-03 ± 8.837E-02, -2.755E-02 ± 9.470E-01
151, -1.518E-01 ± 5.696E+00, -4.567E-02 ± 6.568E-01, 5.336E-03 ± 8.837E-02, -2.755E-02 ± 9.470E-01
133 (153-154) [l=45 cm][45 def.]
153, -1.401E-01 ± 5.295E+00, -4.327E-02 ± 6.279E-01, 5.331E-03 ± 8.836E-02, -2.553E-02 ± 9.710E-01 - T.
i', -1.401E-01 ± 5.295E+00, -4.327E-02 ± 6.279E-01, 5.331E-03 ± 8.836E-02, -2.553E-02 ± 9.710E-01
j', -1.527E-01 ± 5.724E+00, -4.567E-02 ± 6.568E-01, 5.348E-03 ± 8.839E-02, -2.754E-02 ± 9.470E-01
154, -1.527E-01 ± 5.724E+00, -4.567E-02 ± 6.568E-01, 5.348E-03 ± 8.839E-02, -2.754E-02 ± 9.470E-01 - T.
134 (154-156) [l=156 cm][156 def.]
154, 1.527E-01 ± 5.724E+00, -7.394E+00 ± 4.305E+00, -5.348E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03
i', 1.527E-01 ± 5.724E+00, -7.394E+00 ± 4.305E+00, -5.348E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03 - T.
j', 1.525E-01 ± 5.716E+00, -7.386E+00 ± 4.266E+00, -5.345E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
156, 1.525E-01 ± 5.716E+00, -7.386E+00 ± 4.266E+00, -5.345E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
135 (157-158) [l=45 cm][45 def.]
157, -1.407E-01 ± 5.310E+00, -4.299E-02 ± 6.307E-01, 5.281E-03 ± 8.834E-02, -2.554E-02 ± 9.710E-01 - T.
i', -1.407E-01 ± 5.310E+00, -4.299E-02 ± 6.307E-01, 5.281E-03 ± 8.834E-02, -2.554E-02 ± 9.710E-01
j', -1.533E-01 ± 5.738E+00, -4.537E-02 ± 6.598E-01, 5.294E-03 ± 8.832E-02, -2.755E-02 ± 9.469E-01
158, -1.533E-01 ± 5.738E+00, -4.537E-02 ± 6.598E-01, 5.294E-03 ± 8.832E-02, -2.755E-02 ± 9.469E-01 - T.
136 (159-158) [l=160 cm][160 def.]
159, 1.536E-01 ± 5.746E+00, -7.419E+00 ± 4.431E+00, -5.280E-03 ± 8.841E-02, -1.535E-04 ± 9.345E-03
i', 1.536E-01 ± 5.746E+00, -7.419E+00 ± 4.431E+00, -5.280E-03 ± 8.841E-02, -1.535E-04 ± 9.345E-03 - T.
j', 1.533E-01 ± 5.738E+00, -7.411E+00 ± 4.387E+00, -5.281E-03 ± 8.841E-02, -1.535E-04 ± 9.345E-03
158, 1.533E-01 ± 5.738E+00, -7.411E+00 ± 4.387E+00, -5.281E-03 ± 8.841E-02, -1.535E-04 ± 9.345E-03
137 (158-155) [l=160 cm][160 def.]

158, 1.533E-01 ± 5.738E+00, -7.411E+00 ± 4.387E+00, -5.281E-03 ± 8.841E-02, -1.535E-04 ± 9.345E-03 - T.
 i', 1.533E-01 ± 5.738E+00, -7.411E+00 ± 4.387E+00, -5.281E-03 ± 8.841E-02, -1.535E-04 ± 9.345E-03
 j', 1.531E-01 ± 5.731E+00, -7.403E+00 ± 4.344E+00, -5.280E-03 ± 8.842E-02, -1.535E-04 ± 9.345E-03
 159, 1.531E-01 ± 5.731E+00, -7.403E+00 ± 4.344E+00, -5.280E-03 ± 8.842E-02, -1.535E-04 ± 9.345E-03 - T.
 138 (160-161) [l=45 cm][45 def.]
 160, -1.401E-01 ± 5.293E+00, -4.204E-02 ± 6.327E-01, 5.319E-03 ± 8.851E-02, -3.019E-02 ± 9.707E-01
 i', -1.401E-01 ± 5.293E+00, -4.204E-02 ± 6.327E-01, 5.319E-03 ± 8.851E-02, -3.019E-02 ± 9.707E-01 - T.
 j', -1.527E-01 ± 5.721E+00, -4.440E-02 ± 6.615E-01, 5.331E-03 ± 8.849E-02, -2.753E-02 ± 9.470E-01
 161, -1.527E-01 ± 5.721E+00, -4.440E-02 ± 6.615E-01, 5.331E-03 ± 8.849E-02, -2.753E-02 ± 9.470E-01
 139 (161-163) [l=166 cm][166 def.]
 161, -1.527E-01 ± 5.721E+00, -7.621E+00 ± 4.310E+00, 5.331E-03 ± 8.849E-02, -1.535E-04 ± 9.345E-03 - T.
 i', -1.527E-01 ± 5.721E+00, -7.621E+00 ± 4.310E+00, 5.331E-03 ± 8.849E-02, -1.535E-04 ± 9.345E-03
 j', -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.356E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 163, -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.356E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03 - T.
 140 (164-165) [l=45 cm][45 def.]
 164, -1.355E-01 ± 5.367E+00, -4.327E-02 ± 6.279E-01, 5.262E-03 ± 8.838E-02, -2.554E-02 ± 9.710E-01
 i', -1.355E-01 ± 5.367E+00, -4.327E-02 ± 6.279E-01, 5.262E-03 ± 8.838E-02, -2.554E-02 ± 9.710E-01 - T.
 j', -1.479E-01 ± 5.799E+00, -4.567E-02 ± 6.568E-01, 5.262E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01
 165, -1.479E-01 ± 5.799E+00, -4.567E-02 ± 6.568E-01, 5.262E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01
 141 (166-165) [l=96 cm][96 def.]
 166, 1.481E-01 ± 5.790E+00, -7.233E+00 ± 4.384E+00, -5.263E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - T.
 i', 1.481E-01 ± 5.790E+00, -7.233E+00 ± 4.384E+00, -5.263E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.479E-01 ± 5.799E+00, -7.228E+00 ± 4.410E+00, -5.262E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 165, 1.479E-01 ± 5.799E+00, -7.228E+00 ± 4.410E+00, -5.262E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - T.
 142 (165-167) [l=96 cm][96 def.]
 165, 1.479E-01 ± 5.799E+00, -7.228E+00 ± 4.410E+00, -5.262E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.479E-01 ± 5.799E+00, -7.228E+00 ± 4.410E+00, -5.262E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - T.
 j', 1.478E-01 ± 5.808E+00, -7.223E+00 ± 4.436E+00, -5.261E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 167, 1.478E-01 ± 5.808E+00, -7.223E+00 ± 4.436E+00, -5.261E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 143 (168-169) [l=45 cm][45 def.]
 168, -1.352E-01 ± 5.385E+00, -4.327E-02 ± 6.279E-01, 5.261E-03 ± 8.838E-02, -2.554E-02 ± 9.710E-01 - T.
 i', -1.352E-01 ± 5.385E+00, -4.327E-02 ± 6.279E-01, 5.261E-03 ± 8.838E-02, -2.554E-02 ± 9.710E-01
 j', -1.476E-01 ± 5.818E+00, -4.567E-02 ± 6.568E-01, 5.260E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01
 169, -1.476E-01 ± 5.818E+00, -4.567E-02 ± 6.568E-01, 5.260E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01 - T.
 144 (167-169) [l=113 cm][113 def.]
 167, 1.478E-01 ± 5.808E+00, -7.223E+00 ± 4.436E+00, -5.261E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.478E-01 ± 5.808E+00, -7.223E+00 ± 4.436E+00, -5.261E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - T.
 j', 1.476E-01 ± 5.818E+00, -7.217E+00 ± 4.467E+00, -5.260E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 169, 1.476E-01 ± 5.818E+00, -7.217E+00 ± 4.467E+00, -5.260E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 145 (169-170) [l=113 cm][113 def.]
 169, 1.476E-01 ± 5.818E+00, -7.217E+00 ± 4.467E+00, -5.260E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - T.
 i', 1.476E-01 ± 5.818E+00, -7.217E+00 ± 4.467E+00, -5.260E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.474E-01 ± 5.828E+00, -7.211E+00 ± 4.497E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 170, 1.474E-01 ± 5.828E+00, -7.211E+00 ± 4.497E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - T.
 146 (171-172) [l=45 cm][45 def.]
 171, -1.349E-01 ± 5.402E+00, -4.327E-02 ± 6.279E-01, 5.261E-03 ± 8.839E-02, -2.554E-02 ± 9.710E-01
 i', -1.349E-01 ± 5.402E+00, -4.327E-02 ± 6.279E-01, 5.261E-03 ± 8.839E-02, -2.554E-02 ± 9.710E-01 - T.
 j', -1.473E-01 ± 5.835E+00, -4.567E-02 ± 6.568E-01, 5.259E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01
 172, -1.473E-01 ± 5.835E+00, -4.567E-02 ± 6.568E-01, 5.259E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01
 147 (170-172) [l=80 cm][80 def.]
 170, 1.474E-01 ± 5.828E+00, -7.211E+00 ± 4.497E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - T.
 i', 1.474E-01 ± 5.828E+00, -7.211E+00 ± 4.497E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.473E-01 ± 5.835E+00, -7.207E+00 ± 4.519E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 172, 1.473E-01 ± 5.835E+00, -7.207E+00 ± 4.519E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - T.
 148 (172-173) [l=80 cm][80 def.]
 172, 1.473E-01 ± 5.835E+00, -7.207E+00 ± 4.519E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.473E-01 ± 5.835E+00, -7.207E+00 ± 4.519E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - T.
 j', 1.472E-01 ± 5.842E+00, -7.203E+00 ± 4.541E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 173, 1.472E-01 ± 5.842E+00, -7.203E+00 ± 4.541E+00, -5.259E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 149 (174-175) [l=45 cm][45 def.]
 174, -1.355E-01 ± 5.367E+00, -4.204E-02 ± 6.327E-01, 5.219E-03 ± 8.848E-02, -3.017E-02 ± 9.707E-01 - T.
 i', -1.355E-01 ± 5.367E+00, -4.204E-02 ± 6.327E-01, 5.219E-03 ± 8.848E-02, -3.017E-02 ± 9.707E-01
 j', -1.479E-01 ± 5.799E+00, -4.440E-02 ± 6.615E-01, 5.229E-03 ± 8.855E-02, -2.750E-02 ± 9.472E-01
 175, -1.479E-01 ± 5.799E+00, -4.440E-02 ± 6.615E-01, 5.229E-03 ± 8.855E-02, -2.750E-02 ± 9.472E-01 - T.
 150 (138-175) [l=96 cm][96 def.]
 138, 1.481E-01 ± 5.790E+00, -7.463E+00 ± 4.328E+00, -5.230E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 i', 1.481E-01 ± 5.790E+00, -7.463E+00 ± 4.328E+00, -5.230E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03 - T.
 j', 1.479E-01 ± 5.799E+00, -7.458E+00 ± 4.351E+00, -5.229E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 175, 1.479E-01 ± 5.799E+00, -7.458E+00 ± 4.351E+00, -5.229E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 151 (175-176) [l=96 cm][96 def.]
 175, 1.479E-01 ± 5.799E+00, -7.458E+00 ± 4.351E+00, -5.229E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03 - T.
 i', 1.479E-01 ± 5.799E+00, -7.458E+00 ± 4.351E+00, -5.229E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 j', 1.478E-01 ± 5.808E+00, -7.453E+00 ± 4.375E+00, -5.228E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 176, 1.478E-01 ± 5.808E+00, -7.453E+00 ± 4.375E+00, -5.228E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03 - T.
 152 (177-178) [l=45 cm][45 def.]
 177, -1.352E-01 ± 5.385E+00, -4.204E-02 ± 6.327E-01, 5.218E-03 ± 8.848E-02, -3.017E-02 ± 9.707E-01
 i', -1.352E-01 ± 5.385E+00, -4.204E-02 ± 6.327E-01, 5.218E-03 ± 8.848E-02, -3.017E-02 ± 9.707E-01 - T.
 j', -1.476E-01 ± 5.818E+00, -4.440E-02 ± 6.615E-01, 5.227E-03 ± 8.855E-02, -2.750E-02 ± 9.472E-01
 178, -1.476E-01 ± 5.818E+00, -4.440E-02 ± 6.615E-01, 5.227E-03 ± 8.855E-02, -2.750E-02 ± 9.472E-01
 153 (176-178) [l=113 cm][113 def.]
 176, 1.478E-01 ± 5.808E+00, -7.453E+00 ± 4.375E+00, -5.228E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03 - T.
 i', 1.478E-01 ± 5.808E+00, -7.453E+00 ± 4.375E+00, -5.228E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 j', 1.476E-01 ± 5.818E+00, -7.447E+00 ± 4.403E+00, -5.227E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 178, 1.476E-01 ± 5.818E+00, -7.447E+00 ± 4.403E+00, -5.227E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03 - T.
 154 (178-179) [l=113 cm][113 def.]
 178, 1.476E-01 ± 5.818E+00, -7.447E+00 ± 4.403E+00, -5.227E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03

i' , $1.476E-01 \pm 5.818E+00, -7.447E+00 \pm 4.403E+00, -5.227E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$ - T.
 j' , $1.474E-01 \pm 5.828E+00, -7.441E+00 \pm 4.430E+00, -5.227E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
179, $1.474E-01 \pm 5.828E+00, -7.441E+00 \pm 4.430E+00, -5.227E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
155 (180-181) [l=45 cm][45 def.]
180, $-1.349E-01 \pm 5.402E+00, -4.204E-02 \pm 6.327E-01, 5.217E-03 \pm 8.848E-02, -3.017E-02 \pm 9.707E-01$ - T.
 i' , $-1.349E-01 \pm 5.402E+00, -4.204E-02 \pm 6.327E-01, 5.217E-03 \pm 8.848E-02, -3.017E-02 \pm 9.707E-01$
 j' , $-1.473E-01 \pm 5.835E+00, -4.440E-02 \pm 6.615E-01, 5.227E-03 \pm 8.855E-02, -2.750E-02 \pm 9.472E-01$
181, $-1.473E-01 \pm 5.835E+00, -4.440E-02 \pm 6.615E-01, 5.227E-03 \pm 8.855E-02, -2.750E-02 \pm 9.472E-01$ - T.
156 (179-181) [l=80 cm][80 def.]
179, $1.474E-01 \pm 5.828E+00, -7.441E+00 \pm 4.430E+00, -5.227E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
 i' , $1.474E-01 \pm 5.828E+00, -7.441E+00 \pm 4.430E+00, -5.227E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$ - T.
 j' , $1.473E-01 \pm 5.835E+00, -7.437E+00 \pm 4.450E+00, -5.227E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
181, $1.473E-01 \pm 5.835E+00, -7.437E+00 \pm 4.450E+00, -5.227E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
157 (181-182) [l=80 cm][80 def.]
181, $1.473E-01 \pm 5.835E+00, -7.437E+00 \pm 4.450E+00, -5.227E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$ - T.
 i' , $1.473E-01 \pm 5.835E+00, -7.437E+00 \pm 4.450E+00, -5.227E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
 j' , $1.472E-01 \pm 5.842E+00, -7.433E+00 \pm 4.470E+00, -5.226E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
182, $1.472E-01 \pm 5.842E+00, -7.433E+00 \pm 4.470E+00, -5.226E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$ - T.
158 (2-183) [l=106 cm][106 def.]
2, $-4.304E-02 \pm 6.239E-01, 1.348E-01 \pm 5.409E+00, -2.554E-02 \pm 9.710E-01, -5.261E-03 \pm 8.839E-02$
 i' , $-4.304E-02 \pm 6.239E-01, 1.348E-01 \pm 5.409E+00, -2.554E-02 \pm 9.710E-01, -5.261E-03 \pm 8.839E-02$ - T.
 j' , $-4.863E-02 \pm 6.927E-01, 1.639E-01 \pm 6.414E+00, -2.758E-02 \pm 9.472E-01, -5.259E-03 \pm 8.837E-02$
183, $-4.863E-02 \pm 6.927E-01, 1.639E-01 \pm 6.414E+00, -2.758E-02 \pm 9.472E-01, -5.259E-03 \pm 8.837E-02$
159 (173-183) [l=163 cm][163 def.]
173, $4.567E-02 \pm 6.568E-01, -6.741E+00 \pm 2.281E+00, 2.758E-02 \pm 9.472E-01, 1.813E-03 \pm 3.487E-02$ - T.
 i' , $4.567E-02 \pm 6.568E-01, -6.741E+00 \pm 2.281E+00, 2.758E-02 \pm 9.472E-01, 1.813E-03 \pm 3.487E-02$
 j' , $4.863E-02 \pm 6.927E-01, -6.786E+00 \pm 1.850E+00, 2.758E-02 \pm 9.472E-01, 1.813E-03 \pm 3.487E-02$
183, $4.863E-02 \pm 6.927E-01, -6.786E+00 \pm 1.850E+00, 2.758E-02 \pm 9.472E-01, 1.813E-03 \pm 3.487E-02$ - T.
160 (183-184) [l=163 cm][163 def.]
183, $4.863E-02 \pm 6.927E-01, -6.788E+00 \pm 1.850E+00, 2.758E-02 \pm 9.472E-01, 1.809E-03 \pm 3.480E-02$
 i' , $4.863E-02 \pm 6.927E-01, -6.788E+00 \pm 1.850E+00, 2.758E-02 \pm 9.472E-01, 1.809E-03 \pm 3.480E-02$ - T.
 j' , $5.158E-02 \pm 7.314E-01, -6.833E+00 \pm 2.273E+00, 2.758E-02 \pm 9.472E-01, 1.809E-03 \pm 3.480E-02$
184, $5.158E-02 \pm 7.314E-01, -6.833E+00 \pm 2.273E+00, 2.758E-02 \pm 9.472E-01, 1.809E-03 \pm 3.480E-02$
161 (184-185) [l=122 cm][122 def.]
184, $5.158E-02 \pm 7.314E-01, -6.832E+00 \pm 2.273E+00, 2.758E-02 \pm 9.472E-01, 1.811E-03 \pm 3.484E-02$ - T.
 i' , $5.158E-02 \pm 7.314E-01, -6.832E+00 \pm 2.273E+00, 2.758E-02 \pm 9.472E-01, 1.811E-03 \pm 3.484E-02$
 j' , $5.451E-02 \pm 7.618E-01, -6.884E+00 \pm 3.251E+00, 2.766E-02 \pm 9.446E-01, 1.973E-03 \pm 3.489E-02$
185, $5.451E-02 \pm 7.618E-01, -6.884E+00 \pm 3.251E+00, 2.766E-02 \pm 9.446E-01, 1.973E-03 \pm 3.489E-02$ - T.
162 (186-185) [l=122 cm][122 def.]
186, $-5.119E-02 \pm 7.315E-01, -6.757E+00 \pm 2.281E+00, -2.749E-02 \pm 9.472E-01, -2.083E-03 \pm 3.535E-02$
 i' , $-5.119E-02 \pm 7.315E-01, -6.757E+00 \pm 2.281E+00, -2.749E-02 \pm 9.472E-01, -2.083E-03 \pm 3.535E-02$ - T.
 j' , $-5.451E-02 \pm 7.618E-01, -6.742E+00 \pm 3.314E+00, -2.766E-02 \pm 9.446E-01, -2.256E-03 \pm 3.539E-02$
185, $-5.451E-02 \pm 7.618E-01, -6.742E+00 \pm 3.314E+00, -2.766E-02 \pm 9.446E-01, -2.256E-03 \pm 3.539E-02$
163 (6-187) [l=106 cm][106 def.]
6, $-4.226E-02 \pm 6.266E-01, 1.348E-01 \pm 5.409E+00, -3.017E-02 \pm 9.707E-01, -5.217E-03 \pm 8.847E-02$ - T.
 i' , $-4.226E-02 \pm 6.266E-01, 1.348E-01 \pm 5.409E+00, -3.017E-02 \pm 9.707E-01, -5.217E-03 \pm 8.847E-02$
 j' , $-4.780E-02 \pm 6.953E-01, 1.638E-01 \pm 6.414E+00, -2.749E-02 \pm 9.472E-01, -5.226E-03 \pm 8.855E-02$
187, $-4.780E-02 \pm 6.953E-01, 1.638E-01 \pm 6.414E+00, -2.749E-02 \pm 9.472E-01, -5.226E-03 \pm 8.855E-02$ - T.
164 (182-187) [l=163 cm][163 def.]
182, $-4.440E-02 \pm 6.615E-01, -6.845E+00 \pm 2.255E+00, -2.749E-02 \pm 9.472E-01, -2.086E-03 \pm 3.539E-02$
 i' , $-4.440E-02 \pm 6.615E-01, -6.845E+00 \pm 2.255E+00, -2.749E-02 \pm 9.472E-01, -2.086E-03 \pm 3.539E-02$ - T.
 j' , $-4.780E-02 \pm 6.953E-01, -6.800E+00 \pm 1.851E+00, -2.749E-02 \pm 9.472E-01, -2.086E-03 \pm 3.539E-02$
187, $-4.780E-02 \pm 6.953E-01, -6.800E+00 \pm 1.851E+00, -2.749E-02 \pm 9.472E-01, -2.086E-03 \pm 3.539E-02$
165 (187-186) [l=163 cm][163 def.]
187, $-4.780E-02 \pm 6.953E-01, -6.802E+00 \pm 1.851E+00, -2.749E-02 \pm 9.472E-01, -2.083E-03 \pm 3.535E-02$ - T.
 i' , $-4.780E-02 \pm 6.953E-01, -6.802E+00 \pm 1.851E+00, -2.749E-02 \pm 9.472E-01, -2.083E-03 \pm 3.535E-02$
 j' , $-5.119E-02 \pm 7.315E-01, -6.757E+00 \pm 2.281E+00, -2.749E-02 \pm 9.472E-01, -2.083E-03 \pm 3.535E-02$
186, $-5.119E-02 \pm 7.315E-01, -6.757E+00 \pm 2.281E+00, -2.749E-02 \pm 9.472E-01, -2.083E-03 \pm 3.535E-02$ - T.
166 (188-189) [l=45 cm][45 def.]
188, $-1.378E-01 \pm 5.228E+00, -4.327E-02 \pm 6.279E-01, 5.298E-03 \pm 8.836E-02, -2.553E-02 \pm 9.710E-01$
 i' , $-1.378E-01 \pm 5.228E+00, -4.327E-02 \pm 6.279E-01, 5.298E-03 \pm 8.836E-02, -2.553E-02 \pm 9.710E-01$ - T.
 j' , $-1.503E-01 \pm 5.659E+00, -4.567E-02 \pm 6.568E-01, 5.304E-03 \pm 8.837E-02, -2.756E-02 \pm 9.471E-01$
189, $-1.503E-01 \pm 5.659E+00, -4.567E-02 \pm 6.568E-01, 5.304E-03 \pm 8.837E-02, -2.756E-02 \pm 9.471E-01$
167 (136-189) [l=113 cm][113 def.]
136, $1.505E-01 \pm 5.659E+00, -7.317E+00 \pm 3.988E+00, -5.308E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$ - T.
 i' , $1.505E-01 \pm 5.659E+00, -7.317E+00 \pm 3.988E+00, -5.308E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 j' , $1.503E-01 \pm 5.659E+00, -7.311E+00 \pm 3.999E+00, -5.304E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
189, $1.503E-01 \pm 5.659E+00, -7.311E+00 \pm 3.999E+00, -5.304E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$ - T.
168 (189-190) [l=113 cm][113 def.]
189, $1.503E-01 \pm 5.659E+00, -7.311E+00 \pm 3.999E+00, -5.304E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 i' , $1.503E-01 \pm 5.659E+00, -7.311E+00 \pm 3.999E+00, -5.304E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$ - T.
 j' , $1.502E-01 \pm 5.669E+00, -7.305E+00 \pm 4.021E+00, -5.300E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
190, $1.502E-01 \pm 5.669E+00, -7.305E+00 \pm 4.021E+00, -5.300E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
169 (84-191) [l=45 cm][45 def.]
84, $-1.374E-01 \pm 5.250E+00, -4.327E-02 \pm 6.279E-01, 5.291E-03 \pm 8.837E-02, -2.553E-02 \pm 9.710E-01$ - T.
 i' , $-1.374E-01 \pm 5.250E+00, -4.327E-02 \pm 6.279E-01, 5.291E-03 \pm 8.837E-02, -2.553E-02 \pm 9.710E-01$
 j' , $-1.500E-01 \pm 5.681E+00, -4.567E-02 \pm 6.568E-01, 5.295E-03 \pm 8.837E-02, -2.756E-02 \pm 9.471E-01$
191, $-1.500E-01 \pm 5.681E+00, -4.567E-02 \pm 6.568E-01, 5.295E-03 \pm 8.837E-02, -2.756E-02 \pm 9.471E-01$ - T.
170 (191-133) [l=146 cm][146 def.]
191, $1.500E-01 \pm 5.681E+00, -7.298E+00 \pm 4.056E+00, -5.295E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 i' , $1.500E-01 \pm 5.681E+00, -7.298E+00 \pm 4.056E+00, -5.295E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$ - T.
 j' , $1.497E-01 \pm 5.694E+00, -7.290E+00 \pm 4.093E+00, -5.290E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
133, $1.497E-01 \pm 5.694E+00, -7.290E+00 \pm 4.093E+00, -5.290E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
171 (192-193) [l=45 cm][45 def.]
192, $-1.398E-01 \pm 5.283E+00, -4.327E-02 \pm 6.279E-01, 5.328E-03 \pm 8.836E-02, -2.553E-02 \pm 9.710E-01$ - T.
 i' , $-1.398E-01 \pm 5.283E+00, -4.327E-02 \pm 6.279E-01, 5.328E-03 \pm 8.836E-02, -2.553E-02 \pm 9.710E-01$

j' , $-1.523E-01 \pm 5.712E+00, -4.567E-02 \pm 6.568E-01, 5.344E-03 \pm 8.838E-02, -2.754E-02 \pm 9.470E-01$
 193, $-1.523E-01 \pm 5.712E+00, -4.567E-02 \pm 6.568E-01, 5.344E-03 \pm 8.838E-02, -2.754E-02 \pm 9.470E-01$ -
 172 (193-152) [l=97 cm][97 def.]
 193, $1.523E-01 \pm 5.712E+00, -7.381E+00 \pm 4.241E+00, -5.344E-03 \pm 8.838E-02, -1.535E-04 \pm 9.345E-03$
 i' , $1.523E-01 \pm 5.712E+00, -7.381E+00 \pm 4.241E+00, -5.344E-03 \pm 8.838E-02, -1.535E-04 \pm 9.345E-03$ -
 j' , $1.522E-01 \pm 5.707E+00, -7.376E+00 \pm 4.217E+00, -5.342E-03 \pm 8.838E-02, -1.535E-04 \pm 9.345E-03$
 152, $1.522E-01 \pm 5.707E+00, -7.376E+00 \pm 4.217E+00, -5.342E-03 \pm 8.838E-02, -1.535E-04 \pm 9.345E-03$
 173 (194-195) [l=45 cm][45 def.]
 194, $-1.361E-01 \pm 5.331E+00, -4.327E-02 \pm 6.279E-01, 5.266E-03 \pm 8.838E-02, -2.553E-02 \pm 9.710E-01$ -
 i' , $-1.361E-01 \pm 5.331E+00, -4.327E-02 \pm 6.279E-01, 5.266E-03 \pm 8.838E-02, -2.553E-02 \pm 9.710E-01$
 j' , $-1.485E-01 \pm 5.763E+00, -4.567E-02 \pm 6.568E-01, 5.268E-03 \pm 8.837E-02, -2.757E-02 \pm 9.472E-01$
 195, $-1.485E-01 \pm 5.763E+00, -4.567E-02 \pm 6.568E-01, 5.268E-03 \pm 8.837E-02, -2.757E-02 \pm 9.472E-01$ - K.
 174 (130-195) [l=113 cm][113 def.]
 130, $1.487E-01 \pm 5.753E+00, -7.255E+00 \pm 4.270E+00, -5.271E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 i' , $1.487E-01 \pm 5.753E+00, -7.255E+00 \pm 4.270E+00, -5.271E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$ - K.
 j' , $1.485E-01 \pm 5.763E+00, -7.249E+00 \pm 4.301E+00, -5.268E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 195, $1.485E-01 \pm 5.763E+00, -7.249E+00 \pm 4.301E+00, -5.268E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 175 (195-196) [l=113 cm][113 def.]
 195, $1.485E-01 \pm 5.763E+00, -7.249E+00 \pm 4.301E+00, -5.268E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$ - W_23957_24_-
 1_-1.
 i' , $1.485E-01 \pm 5.763E+00, -7.249E+00 \pm 4.301E+00, -5.268E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 j' , $1.484E-01 \pm 5.773E+00, -7.243E+00 \pm 4.332E+00, -5.266E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 196, $1.484E-01 \pm 5.773E+00, -7.243E+00 \pm 4.332E+00, -5.266E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$ - K.
 176 (99-197) [l=45 cm][45 def.]
 99, $-1.358E-01 \pm 5.350E+00, -4.327E-02 \pm 6.279E-01, 5.264E-03 \pm 8.838E-02, -2.554E-02 \pm 9.710E-01$
 i' , $-1.358E-01 \pm 5.350E+00, -4.327E-02 \pm 6.279E-01, 5.264E-03 \pm 8.838E-02, -2.554E-02 \pm 9.710E-01$ - K.
 j' , $-1.482E-01 \pm 5.782E+00, -4.567E-02 \pm 6.568E-01, 5.264E-03 \pm 8.837E-02, -2.757E-02 \pm 9.472E-01$
 197, $-1.482E-01 \pm 5.782E+00, -4.567E-02 \pm 6.568E-01, 5.264E-03 \pm 8.837E-02, -2.757E-02 \pm 9.472E-01$
 177 (197-166) [l=96 cm][96 def.]
 197, $1.482E-01 \pm 5.782E+00, -7.238E+00 \pm 4.358E+00, -5.264E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$ - W_23976_24_-
 1_-1.
 i' , $1.482E-01 \pm 5.782E+00, -7.238E+00 \pm 4.358E+00, -5.264E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 j' , $1.481E-01 \pm 5.790E+00, -7.233E+00 \pm 4.384E+00, -5.263E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$
 166, $1.481E-01 \pm 5.790E+00, -7.233E+00 \pm 4.384E+00, -5.263E-03 \pm 8.837E-02, -1.535E-04 \pm 9.345E-03$ - K.
 178 (37-198) [l=45 cm][45 def.]
 37, $-1.385E-01 \pm 5.241E+00, -4.204E-02 \pm 6.327E-01, 5.288E-03 \pm 8.850E-02, -3.019E-02 \pm 9.707E-01$
 i' , $-1.385E-01 \pm 5.241E+00, -4.204E-02 \pm 6.327E-01, 5.288E-03 \pm 8.850E-02, -3.019E-02 \pm 9.707E-01$ - K.
 j' , $-1.510E-01 \pm 5.671E+00, -4.440E-02 \pm 6.615E-01, 5.289E-03 \pm 8.852E-02, -2.752E-02 \pm 9.471E-01$
 198, $-1.510E-01 \pm 5.671E+00, -4.440E-02 \pm 6.615E-01, 5.289E-03 \pm 8.852E-02, -2.752E-02 \pm 9.471E-01$
 179 (200-201) [l=45 cm][45 def.]
 200, $-1.378E-01 \pm 5.228E+00, -4.204E-02 \pm 6.327E-01, 5.273E-03 \pm 8.850E-02, -3.019E-02 \pm 9.707E-01$ - K.
 i' , $-1.378E-01 \pm 5.228E+00, -4.204E-02 \pm 6.327E-01, 5.273E-03 \pm 8.850E-02, -3.019E-02 \pm 9.707E-01$
 j' , $-1.503E-01 \pm 5.659E+00, -4.440E-02 \pm 6.615E-01, 5.272E-03 \pm 8.852E-02, -2.751E-02 \pm 9.471E-01$
 201, $-1.503E-01 \pm 5.659E+00, -4.440E-02 \pm 6.615E-01, 5.272E-03 \pm 8.852E-02, -2.751E-02 \pm 9.471E-01$ - K.
 180 (145-201) [l=113 cm][113 def.]
 145, $-1.502E-01 \pm 5.669E+00, -7.535E+00 \pm 4.001E+00, 5.267E-03 \pm 8.853E-02, -1.535E-04 \pm 9.345E-03$
 i' , $-1.502E-01 \pm 5.669E+00, -7.535E+00 \pm 4.001E+00, 5.267E-03 \pm 8.853E-02, -1.535E-04 \pm 9.345E-03$ - K.
 j' , $-1.503E-01 \pm 5.659E+00, -7.541E+00 \pm 3.982E+00, 5.272E-03 \pm 8.852E-02, -1.535E-04 \pm 9.345E-03$
 201, $-1.503E-01 \pm 5.659E+00, -7.541E+00 \pm 3.982E+00, 5.272E-03 \pm 8.852E-02, -1.535E-04 \pm 9.345E-03$
 181 (201-199) [l=113 cm][113 def.]
 201, $-1.503E-01 \pm 5.659E+00, -7.541E+00 \pm 3.982E+00, 5.272E-03 \pm 8.852E-02, -1.535E-04 \pm 9.345E-03$ - K.
 i' , $-1.503E-01 \pm 5.659E+00, -7.541E+00 \pm 3.982E+00, 5.272E-03 \pm 8.852E-02, -1.535E-04 \pm 9.345E-03$
 j' , $-1.505E-01 \pm 5.659E+00, -7.547E+00 \pm 3.972E+00, 5.276E-03 \pm 8.852E-02, -1.535E-04 \pm 9.345E-03$
 199, $-1.505E-01 \pm 5.659E+00, -7.547E+00 \pm 3.972E+00, 5.276E-03 \pm 8.852E-02, -1.535E-04 \pm 9.345E-03$ - K.
 182 (22-202) [l=45 cm][45 def.]
 22, $-1.365E-01 \pm 5.307E+00, -4.204E-02 \pm 6.327E-01, 5.234E-03 \pm 8.849E-02, -3.018E-02 \pm 9.707E-01$
 i' , $-1.365E-01 \pm 5.307E+00, -4.204E-02 \pm 6.327E-01, 5.234E-03 \pm 8.849E-02, -3.018E-02 \pm 9.707E-01$ - K.
 j' , $-1.490E-01 \pm 5.738E+00, -4.440E-02 \pm 6.615E-01, 5.241E-03 \pm 8.854E-02, -2.750E-02 \pm 9.472E-01$
 202, $-1.490E-01 \pm 5.738E+00, -4.440E-02 \pm 6.615E-01, 5.241E-03 \pm 8.854E-02, -2.750E-02 \pm 9.472E-01$
 183 (202-142) [l=163 cm][163 def.]
 202, $-1.490E-01 \pm 5.738E+00, -7.493E+00 \pm 4.185E+00, 5.241E-03 \pm 8.854E-02, -1.535E-04 \pm 9.345E-03$ - K.
 i' , $-1.490E-01 \pm 5.738E+00, -7.493E+00 \pm 4.185E+00, 5.241E-03 \pm 8.854E-02, -1.535E-04 \pm 9.345E-03$
 j' , $-1.492E-01 \pm 5.724E+00, -7.502E+00 \pm 4.146E+00, 5.246E-03 \pm 8.854E-02, -1.535E-04 \pm 9.345E-03$
 142, $-1.492E-01 \pm 5.724E+00, -7.502E+00 \pm 4.146E+00, 5.246E-03 \pm 8.854E-02, -1.535E-04 \pm 9.345E-03$ - K.
 184 (204-205) [l=45 cm][45 def.]
 204, $-1.361E-01 \pm 5.331E+00, -4.204E-02 \pm 6.327E-01, 5.225E-03 \pm 8.848E-02, -3.018E-02 \pm 9.707E-01$
 i' , $-1.361E-01 \pm 5.331E+00, -4.204E-02 \pm 6.327E-01, 5.225E-03 \pm 8.848E-02, -3.018E-02 \pm 9.707E-01$ - K.
 j' , $-1.485E-01 \pm 5.763E+00, -4.440E-02 \pm 6.615E-01, 5.235E-03 \pm 8.855E-02, -2.750E-02 \pm 9.472E-01$
 205, $-1.485E-01 \pm 5.763E+00, -4.440E-02 \pm 6.615E-01, 5.235E-03 \pm 8.855E-02, -2.750E-02 \pm 9.472E-01$
 185 (139-205) [l=113 cm][113 def.]
 139, $-1.484E-01 \pm 5.773E+00, -7.473E+00 \pm 4.281E+00, 5.233E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$ - K.
 i' , $-1.484E-01 \pm 5.773E+00, -7.473E+00 \pm 4.281E+00, 5.233E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
 j' , $-1.485E-01 \pm 5.763E+00, -7.479E+00 \pm 4.253E+00, 5.235E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
 205, $-1.485E-01 \pm 5.763E+00, -7.479E+00 \pm 4.253E+00, 5.235E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$ - K.
 186 (205-203) [l=113 cm][113 def.]
 205, $-1.485E-01 \pm 5.763E+00, -7.479E+00 \pm 4.253E+00, 5.235E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$
 i' , $-1.485E-01 \pm 5.763E+00, -7.479E+00 \pm 4.253E+00, 5.235E-03 \pm 8.855E-02, -1.535E-04 \pm 9.345E-03$ - K.
 j' , $-1.487E-01 \pm 5.753E+00, -7.485E+00 \pm 4.225E+00, 5.237E-03 \pm 8.854E-02, -1.535E-04 \pm 9.345E-03$
 203, $-1.487E-01 \pm 5.753E+00, -7.485E+00 \pm 4.225E+00, 5.237E-03 \pm 8.854E-02, -1.535E-04 \pm 9.345E-03$
 187 (45-206) [l=45 cm][45 def.]
 45, $-1.396E-01 \pm 5.277E+00, -4.204E-02 \pm 6.327E-01, 5.313E-03 \pm 8.850E-02, -3.019E-02 \pm 9.707E-01$ - K.
 i' , $-1.396E-01 \pm 5.277E+00, -4.204E-02 \pm 6.327E-01, 5.313E-03 \pm 8.850E-02, -3.019E-02 \pm 9.707E-01$
 j' , $-1.522E-01 \pm 5.706E+00, -4.440E-02 \pm 6.615E-01, 5.320E-03 \pm 8.850E-02, -2.752E-02 \pm 9.470E-01$
 206, $-1.522E-01 \pm 5.706E+00, -4.440E-02 \pm 6.615E-01, 5.320E-03 \pm 8.850E-02, -2.752E-02 \pm 9.470E-01$ - K.
 188 (206-162) [l=164 cm][164 def.]
 206, $-1.522E-01 \pm 5.706E+00, -7.603E+00 \pm 4.220E+00, 5.320E-03 \pm 8.850E-02, -1.535E-04 \pm 9.345E-03$

i' , $-1.522E-01 \pm 5.706E+00$, $-7.603E+00 \pm 4.220E+00$, $5.320E-03 \pm 8.850E-02$, $-1.535E-04 \pm 9.345E-03$ - K.
 j' , $-1.524E-01 \pm 5.714E+00$, $-7.612E+00 \pm 4.265E+00$, $5.326E-03 \pm 8.850E-02$, $-1.535E-04 \pm 9.345E-03$
162, $-1.524E-01 \pm 5.714E+00$, $-7.612E+00 \pm 4.265E+00$, $5.326E-03 \pm 8.850E-02$, $-1.535E-04 \pm 9.345E-03$
189 (207-208) [l=45 cm][45 def.]
207, $-1.405E-01 \pm 5.306E+00$, $-4.204E-02 \pm 6.327E-01$, $5.322E-03 \pm 8.851E-02$, $-3.019E-02 \pm 9.707E-01$ - K.
 i' , $-1.405E-01 \pm 5.306E+00$, $-4.204E-02 \pm 6.327E-01$, $5.322E-03 \pm 8.851E-02$, $-3.019E-02 \pm 9.707E-01$
 j' , $-1.531E-01 \pm 5.734E+00$, $-4.440E-02 \pm 6.615E-01$, $5.337E-03 \pm 8.848E-02$, $-2.753E-02 \pm 9.470E-01$
208, $-1.531E-01 \pm 5.734E+00$, $-4.440E-02 \pm 6.615E-01$, $5.337E-03 \pm 8.848E-02$, $-2.753E-02 \pm 9.470E-01$ - K.
190 (208-209) [l=111 cm][111 def.]
208, $-1.531E-01 \pm 5.734E+00$, $-7.636E+00 \pm 4.387E+00$, $5.337E-03 \pm 8.848E-02$, $-1.535E-04 \pm 9.345E-03$
 i' , $-1.531E-01 \pm 5.734E+00$, $-7.636E+00 \pm 4.387E+00$, $5.337E-03 \pm 8.848E-02$, $-1.535E-04 \pm 9.345E-03$ - K.
 j' , $-1.533E-01 \pm 5.740E+00$, $-7.641E+00 \pm 4.418E+00$, $5.339E-03 \pm 8.847E-02$, $-1.535E-04 \pm 9.345E-03$
209, $-1.533E-01 \pm 5.740E+00$, $-7.641E+00 \pm 4.418E+00$, $5.339E-03 \pm 8.847E-02$, $-1.535E-04 \pm 9.345E-03$
191 (53-210) [l=45 cm][45 def.]
53, $-1.407E-01 \pm 5.315E+00$, $-4.204E-02 \pm 6.327E-01$, $5.322E-03 \pm 8.851E-02$, $-3.019E-02 \pm 9.707E-01$ - K.
 i' , $-1.407E-01 \pm 5.315E+00$, $-4.204E-02 \pm 6.327E-01$, $5.322E-03 \pm 8.851E-02$, $-3.019E-02 \pm 9.707E-01$
 j' , $-1.534E-01 \pm 5.743E+00$, $-4.440E-02 \pm 6.615E-01$, $5.339E-03 \pm 8.847E-02$, $-2.753E-02 \pm 9.470E-01$
210, $-1.534E-01 \pm 5.743E+00$, $-4.440E-02 \pm 6.615E-01$, $5.339E-03 \pm 8.847E-02$, $-2.753E-02 \pm 9.470E-01$ - K.
192 (209-210) [l=67 cm][67 def.]
209, $-1.533E-01 \pm 5.740E+00$, $-7.641E+00 \pm 4.418E+00$, $5.339E-03 \pm 8.847E-02$, $-1.535E-04 \pm 9.345E-03$
 i' , $-1.533E-01 \pm 5.740E+00$, $-7.641E+00 \pm 4.418E+00$, $5.339E-03 \pm 8.847E-02$, $-1.535E-04 \pm 9.345E-03$ - K.
 j' , $-1.534E-01 \pm 5.743E+00$, $-7.645E+00 \pm 4.436E+00$, $5.339E-03 \pm 8.847E-02$, $-1.535E-04 \pm 9.345E-03$
210, $-1.534E-01 \pm 5.743E+00$, $-7.645E+00 \pm 4.436E+00$, $5.339E-03 \pm 8.847E-02$, $-1.535E-04 \pm 9.345E-03$
193 (210-110) [l=67 cm][67 def.]
210, $-1.534E-01 \pm 5.743E+00$, $-7.645E+00 \pm 4.436E+00$, $5.339E-03 \pm 8.847E-02$, $-1.535E-04 \pm 9.345E-03$ - K.
 i' , $-1.534E-01 \pm 5.743E+00$, $-7.645E+00 \pm 4.436E+00$, $5.339E-03 \pm 8.847E-02$, $-1.535E-04 \pm 9.345E-03$
 j' , $-1.535E-01 \pm 5.746E+00$, $-7.649E+00 \pm 4.455E+00$, $5.340E-03 \pm 8.846E-02$, $-1.535E-04 \pm 9.345E-03$
110, $-1.535E-01 \pm 5.746E+00$, $-7.649E+00 \pm 4.455E+00$, $5.340E-03 \pm 8.846E-02$, $-1.535E-04 \pm 9.345E-03$ - K.
194 (211-212) [l=608 cm][608 def.]
211, $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $-3.117E-02 \pm 9.459E-01$, $-1.439E-02 \pm 9.285E-02$
 i' , $0.000E+00 \pm 0.000E+00$, $0.000E+00 \pm 0.000E+00$, $-3.117E-02 \pm 9.459E-01$, $-1.439E-02 \pm 9.285E-02$ - K.
 j' , $-4.980E-02 \pm 7.071E-01$, $1.764E-01 \pm 6.531E+00$, $-2.753E-02 \pm 9.469E-01$, $-5.346E-03 \pm 8.842E-02$
212, $-4.980E-02 \pm 7.071E-01$, $1.764E-01 \pm 6.531E+00$, $-2.753E-02 \pm 9.469E-01$, $-5.346E-03 \pm 8.842E-02$
195 (159-212) [l=224 cm][224 def.]
159, $4.567E-02 \pm 6.568E-01$, $-6.947E+00 \pm 2.084E+00$, $2.754E-02 \pm 9.469E-01$, $1.842E-03 \pm 3.483E-02$ - K.
 i' , $4.567E-02 \pm 6.568E-01$, $-6.947E+00 \pm 2.084E+00$, $2.754E-02 \pm 9.469E-01$, $1.842E-03 \pm 3.483E-02$
 j' , $4.980E-02 \pm 7.071E-01$, $-7.008E+00 \pm 1.745E+00$, $2.753E-02 \pm 9.469E-01$, $1.841E-03 \pm 3.484E-02$
212, $4.980E-02 \pm 7.071E-01$, $-7.008E+00 \pm 1.745E+00$, $2.753E-02 \pm 9.469E-01$, $1.841E-03 \pm 3.484E-02$ - K.
196 (212-111) [l=224 cm][224 def.]
212, $4.980E-02 \pm 7.071E-01$, $-7.008E+00 \pm 1.746E+00$, $2.753E-02 \pm 9.469E-01$, $1.842E-03 \pm 3.485E-02$
 i' , $4.980E-02 \pm 7.071E-01$, $-7.008E+00 \pm 1.746E+00$, $2.753E-02 \pm 9.469E-01$, $1.842E-03 \pm 3.485E-02$ - K.
 j' , $5.393E-02 \pm 7.618E-01$, $-7.070E+00 \pm 3.187E+00$, $2.753E-02 \pm 9.469E-01$, $1.842E-03 \pm 3.485E-02$
111, $5.393E-02 \pm 7.618E-01$, $-7.070E+00 \pm 3.187E+00$, $2.753E-02 \pm 9.469E-01$, $1.842E-03 \pm 3.485E-02$
197 (214-215) [l=227 cm][227 def.]
214, $0.000E+00 \pm 0.000E+00$, $-7.152E+00 \pm 2.171E+00$, $-1.426E-03 \pm 1.006E+00$, $0.000E+00 \pm 0.000E+00$ - K.
 i' , $0.000E+00 \pm 0.000E+00$, $-7.152E+00 \pm 2.171E+00$, $-1.426E-03 \pm 1.006E+00$, $0.000E+00 \pm 0.000E+00$
 j' , $0.000E+00 \pm 0.000E+00$, $-7.215E+00 \pm 2.149E+00$, $6.066E-02 \pm 9.982E-01$, $0.000E+00 \pm 0.000E+00$
215, $0.000E+00 \pm 0.000E+00$, $-7.215E+00 \pm 2.149E+00$, $6.066E-02 \pm 9.982E-01$, $0.000E+00 \pm 0.000E+00$ - K.
198 (176-231) [l=448 cm][448 def.]
176, $-4.440E-02 \pm 6.615E-01$, $-6.865E+00 \pm 1.990E+00$, $-2.750E-02 \pm 9.472E-01$, $-2.084E-03 \pm 3.536E-02$
 i' , $-4.440E-02 \pm 6.615E-01$, $-6.865E+00 \pm 1.990E+00$, $-2.750E-02 \pm 9.472E-01$, $-2.084E-03 \pm 3.536E-02$ - K.
 j' , $-5.570E-02 \pm 7.643E-01$, $-7.474E+00 \pm 3.360E+00$, $-2.766E-02 \pm 9.446E-01$, $-2.522E-03 \pm 3.569E-02$
231, $-5.570E-02 \pm 7.643E-01$, $-7.474E+00 \pm 3.360E+00$, $-2.766E-02 \pm 9.446E-01$, $-2.522E-03 \pm 3.569E-02$
199 (232-i'-233) [l=165 cm][8 rig.-157 def.]
232, $-3.466E-02 \pm 3.408E-01$, $-6.330E+00 \pm 2.348E+00$, $-2.409E-02 \pm 9.731E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 i' , $-3.468E-02 \pm 3.411E-01$, $-6.328E+00 \pm 2.426E+00$, $-2.409E-02 \pm 9.731E-01$, $-1.477E-04 \pm 9.255E-03$
 j' , $-3.058E-02 \pm 5.051E-01$, $-7.290E+00 \pm 4.093E+00$, $-2.553E-02 \pm 9.710E-01$, $-1.477E-04 \pm 9.255E-03$
233, $-3.058E-02 \pm 5.051E-01$, $-7.290E+00 \pm 4.093E+00$, $-2.553E-02 \pm 9.710E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
200 (232-i'-j'-234) [l=132 cm][8 rig.-116 def.-8 rig.]
232, $3.466E-02 \pm 3.408E-01$, $-6.330E+00 \pm 2.348E+00$, $2.409E-02 \pm 9.731E-01$, $-1.477E-04 \pm 9.255E-03$
 i' , $3.465E-02 \pm 3.406E-01$, $-6.332E+00 \pm 2.271E+00$, $2.409E-02 \pm 9.731E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $3.523E-02 \pm 3.149E-01$, $-5.853E+00 \pm 1.216E+00$, $2.541E-02 \pm 9.737E-01$, $-1.477E-04 \pm 9.255E-03$
234, $3.522E-02 \pm 3.148E-01$, $-5.855E+00 \pm 1.138E+00$, $2.541E-02 \pm 9.737E-01$, $-1.477E-04 \pm 9.255E-03$
201 (234-i'-j'-235) [l=218 cm][8 rig.-202 def.-8 rig.]
234, $3.522E-02 \pm 3.148E-01$, $-5.855E+00 \pm 1.138E+00$, $2.541E-02 \pm 9.737E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 i' , $3.521E-02 \pm 3.146E-01$, $-5.857E+00 \pm 1.061E+00$, $2.541E-02 \pm 9.737E-01$, $-1.477E-04 \pm 9.255E-03$
 j' , $3.529E-02 \pm 3.079E-01$, $-5.852E+00 \pm 8.625E-01$, $2.958E-02 \pm 9.737E-01$, $-1.477E-04 \pm 9.255E-03$
235, $3.528E-02 \pm 3.082E-01$, $-5.855E+00 \pm 9.401E-01$, $2.958E-02 \pm 9.737E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
202 (235-i'-j'-236) [l=132 cm][8 rig.-116 def.-8 rig.]
235, $3.528E-02 \pm 3.082E-01$, $-5.855E+00 \pm 9.401E-01$, $2.958E-02 \pm 9.737E-01$, $-1.477E-04 \pm 9.255E-03$
 i' , $3.527E-02 \pm 3.085E-01$, $-5.857E+00 \pm 1.018E+00$, $2.958E-02 \pm 9.737E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $3.460E-02 \pm 3.290E-01$, $-6.351E+00 \pm 2.058E+00$, $3.107E-02 \pm 9.731E-01$, $-1.477E-04 \pm 9.255E-03$
236, $3.459E-02 \pm 3.294E-01$, $-6.353E+00 \pm 2.136E+00$, $3.107E-02 \pm 9.731E-01$, $-1.477E-04 \pm 9.255E-03$
203 (236-i'-237) [l=185 cm][8 rig.-177 def.]
236, $3.459E-02 \pm 3.294E-01$, $-6.353E+00 \pm 2.136E+00$, $3.107E-02 \pm 9.731E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 i' , $3.458E-02 \pm 3.297E-01$, $-6.356E+00 \pm 2.213E+00$, $3.107E-02 \pm 9.731E-01$, $-1.477E-04 \pm 9.255E-03$
 j' , $2.942E-02 \pm 5.105E-01$, $-7.519E+00 \pm 4.065E+00$, $3.019E-02 \pm 9.707E-01$, $-1.477E-04 \pm 9.255E-03$
237, $2.942E-02 \pm 5.105E-01$, $-7.519E+00 \pm 4.065E+00$, $3.019E-02 \pm 9.707E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
204 (167-231) [l=448 cm][448 def.]
167, $4.567E-02 \pm 6.568E-01$, $-6.761E+00 \pm 2.048E+00$, $2.758E-02 \pm 9.472E-01$, $1.812E-03 \pm 3.484E-02$
 i' , $4.567E-02 \pm 6.568E-01$, $-6.761E+00 \pm 2.048E+00$, $2.758E-02 \pm 9.472E-01$, $1.812E-03 \pm 3.484E-02$ - K.
 j' , $5.570E-02 \pm 7.643E-01$, $-7.618E+00 \pm 3.302E+00$, $2.766E-02 \pm 9.446E-01$, $2.237E-03 \pm 3.525E-02$
231, $5.570E-02 \pm 7.643E-01$, $-7.618E+00 \pm 3.302E+00$, $2.766E-02 \pm 9.446E-01$, $2.237E-03 \pm 3.525E-02$
205 (240-241) [l=448 cm][448 def.]
240, $4.567E-02 \pm 6.568E-01$, $-6.775E+00 \pm 1.972E+00$, $2.757E-02 \pm 9.472E-01$, $1.813E-03 \pm 3.484E-02$ - K.
 i' , $4.567E-02 \pm 6.568E-01$, $-6.775E+00 \pm 1.972E+00$, $2.757E-02 \pm 9.472E-01$, $1.813E-03 \pm 3.484E-02$

j' , $5.476E-02 \pm 7.671E-01$, $-7.608E+00 \pm 3.192E+00$, $2.764E-02 \pm 9.449E-01$, $2.028E-03 \pm 3.576E-02$
241, $5.476E-02 \pm 7.671E-01$, $-7.608E+00 \pm 3.192E+00$, $2.764E-02 \pm 9.449E-01$, $2.028E-03 \pm 3.576E-02$ - K.
206 (242-241) [l=448 cm][448 def.]
242, $-4.440E-02 \pm 6.615E-01$, $-6.879E+00 \pm 1.921E+00$, $-2.750E-02 \pm 9.472E-01$, $-2.086E-03 \pm 3.537E-02$
 i' , $-4.440E-02 \pm 6.615E-01$, $-6.879E+00 \pm 1.921E+00$, $-2.750E-02 \pm 9.472E-01$, $-2.086E-03 \pm 3.537E-02$ - K.
 j' , $-5.476E-02 \pm 7.671E-01$, $-7.463E+00 \pm 3.242E+00$, $-2.764E-02 \pm 9.449E-01$, $-2.313E-03 \pm 3.612E-02$
241, $-5.476E-02 \pm 7.671E-01$, $-7.463E+00 \pm 3.242E+00$, $-2.764E-02 \pm 9.449E-01$, $-2.313E-03 \pm 3.612E-02$
207 (243-244) [l=448 cm][448 def.]
243, $4.567E-02 \pm 6.568E-01$, $-6.791E+00 \pm 1.886E+00$, $2.757E-02 \pm 9.472E-01$, $1.815E-03 \pm 3.484E-02$ - K.
 i' , $4.567E-02 \pm 6.568E-01$, $-6.791E+00 \pm 1.886E+00$, $2.757E-02 \pm 9.472E-01$, $1.815E-03 \pm 3.484E-02$
 j' , $5.298E-02 \pm 7.697E-01$, $-7.751E+00 \pm 3.087E+00$, $2.763E-02 \pm 9.451E-01$, $1.630E-03 \pm 3.627E-02$
244, $5.298E-02 \pm 7.697E-01$, $-7.751E+00 \pm 3.087E+00$, $2.763E-02 \pm 9.451E-01$, $1.630E-03 \pm 3.627E-02$ - K.
208 (245-244) [l=448 cm][448 def.]
245, $-4.440E-02 \pm 6.615E-01$, $-6.894E+00 \pm 1.843E+00$, $-2.750E-02 \pm 9.472E-01$, $-2.088E-03 \pm 3.537E-02$
 i' , $-4.440E-02 \pm 6.615E-01$, $-6.894E+00 \pm 1.843E+00$, $-2.750E-02 \pm 9.472E-01$, $-2.088E-03 \pm 3.537E-02$ - K.
 j' , $-5.298E-02 \pm 7.697E-01$, $-7.606E+00 \pm 3.131E+00$, $-2.763E-02 \pm 9.451E-01$, $-1.915E-03 \pm 3.655E-02$
244, $-5.298E-02 \pm 7.697E-01$, $-7.606E+00 \pm 3.131E+00$, $-2.763E-02 \pm 9.451E-01$, $-1.915E-03 \pm 3.655E-02$
209 (246-247) [l=448 cm][448 def.]
246, $4.567E-02 \pm 6.568E-01$, $-6.807E+00 \pm 1.801E+00$, $2.757E-02 \pm 9.472E-01$, $1.819E-03 \pm 3.484E-02$ - K.
 i' , $4.567E-02 \pm 6.568E-01$, $-6.807E+00 \pm 1.801E+00$, $2.757E-02 \pm 9.472E-01$, $1.819E-03 \pm 3.484E-02$
 j' , $5.246E-02 \pm 7.703E-01$, $-7.412E+00 \pm 2.957E+00$, $2.764E-02 \pm 9.454E-01$, $1.516E-03 \pm 3.657E-02$
247, $5.246E-02 \pm 7.703E-01$, $-7.412E+00 \pm 2.957E+00$, $2.764E-02 \pm 9.454E-01$, $1.516E-03 \pm 3.657E-02$ - K.
210 (248-247) [l=448 cm][448 def.]
248, $-4.440E-02 \pm 6.615E-01$, $-6.910E+00 \pm 1.767E+00$, $-2.751E-02 \pm 9.472E-01$, $-2.091E-03 \pm 3.537E-02$
 i' , $-4.440E-02 \pm 6.615E-01$, $-6.910E+00 \pm 1.767E+00$, $-2.751E-02 \pm 9.472E-01$, $-2.091E-03 \pm 3.537E-02$ - K.
 j' , $-5.246E-02 \pm 7.703E-01$, $-7.267E+00 \pm 2.989E+00$, $-2.764E-02 \pm 9.454E-01$, $-1.801E-03 \pm 3.684E-02$
247, $-5.246E-02 \pm 7.703E-01$, $-7.267E+00 \pm 2.989E+00$, $-2.764E-02 \pm 9.454E-01$, $-1.801E-03 \pm 3.684E-02$
211 (249- i' - j' -250) [l=132 cm][8 rig.-116 def.-8 rig.]
249, $3.277E-02 \pm 3.087E-01$, $-5.989E+00 \pm 1.031E+00$, $2.968E-02 \pm 9.729E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 i' , $3.276E-02 \pm 3.090E-01$, $-5.991E+00 \pm 1.109E+00$, $2.968E-02 \pm 9.729E-01$, $-1.477E-04 \pm 9.255E-03$
 j' , $3.227E-02 \pm 3.295E-01$, $-6.492E+00 \pm 2.155E+00$, $3.110E-02 \pm 9.724E-01$, $-1.477E-04 \pm 9.255E-03$
250, $3.226E-02 \pm 3.298E-01$, $-6.495E+00 \pm 2.233E+00$, $3.110E-02 \pm 9.724E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
212 (251- i' - j' -249) [l=218 cm][8 rig.-202 def.-8 rig.]
251, $3.304E-02 \pm 3.153E-01$, $-5.943E+00 \pm 1.190E+00$, $2.556E-02 \pm 9.730E-01$, $-1.477E-04 \pm 9.255E-03$
 i' , $3.303E-02 \pm 3.151E-01$, $-5.945E+00 \pm 1.112E+00$, $2.556E-02 \pm 9.730E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $3.278E-02 \pm 3.084E-01$, $-5.987E+00 \pm 9.538E-01$, $2.968E-02 \pm 9.729E-01$, $-1.477E-04 \pm 9.255E-03$
249, $3.277E-02 \pm 3.087E-01$, $-5.989E+00 \pm 1.031E+00$, $2.968E-02 \pm 9.729E-01$, $-1.477E-04 \pm 9.255E-03$
213 (252- i' - j' -251) [l=132 cm][8 rig.-116 def.-8 rig.]
252, $3.283E-02 \pm 3.412E-01$, $-6.400E+00 \pm 2.406E+00$, $2.419E-02 \pm 9.726E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 i' , $3.281E-02 \pm 3.409E-01$, $-6.402E+00 \pm 2.328E+00$, $2.419E-02 \pm 9.726E-01$, $-1.477E-04 \pm 9.255E-03$
 j' , $3.305E-02 \pm 3.154E-01$, $-5.941E+00 \pm 1.268E+00$, $2.556E-02 \pm 9.730E-01$, $-1.477E-04 \pm 9.255E-03$
251, $3.304E-02 \pm 3.153E-01$, $-5.943E+00 \pm 1.190E+00$, $2.556E-02 \pm 9.730E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
214 (250- i' -253) [l=185 cm][8 rig.-177 def.]
250, $3.226E-02 \pm 3.298E-01$, $-6.495E+00 \pm 2.233E+00$, $3.110E-02 \pm 9.724E-01$, $-1.477E-04 \pm 9.255E-03$
 i' , $3.225E-02 \pm 3.301E-01$, $-6.497E+00 \pm 2.311E+00$, $3.110E-02 \pm 9.724E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $2.929E-02 \pm 5.104E-01$, $-7.597E+00 \pm 4.188E+00$, $3.019E-02 \pm 9.707E-01$, $-1.477E-04 \pm 9.255E-03$
253, $2.929E-02 \pm 5.104E-01$, $-7.597E+00 \pm 4.188E+00$, $3.019E-02 \pm 9.707E-01$, $-1.477E-04 \pm 9.255E-03$
215 (252- i' -254) [l=165 cm][8 rig.-157 def.]
252, $-3.283E-02 \pm 3.412E-01$, $-6.400E+00 \pm 2.406E+00$, $-2.419E-02 \pm 9.726E-01$, $-1.477E-04 \pm 9.255E-03$ - K.
 i' , $-3.284E-02 \pm 3.414E-01$, $-6.398E+00 \pm 2.484E+00$, $-2.419E-02 \pm 9.726E-01$, $-1.477E-04 \pm 9.255E-03$
 j' , $-3.049E-02 \pm 5.051E-01$, $-7.368E+00 \pm 4.182E+00$, $-2.553E-02 \pm 9.710E-01$, $-1.477E-04 \pm 9.255E-03$
254, $-3.049E-02 \pm 5.051E-01$, $-7.368E+00 \pm 4.182E+00$, $-2.553E-02 \pm 9.710E-01$, $-1.477E-04 \pm 9.255E-03$ - Z.
216 (255-256) [l=448 cm][448 def.]
255, $4.567E-02 \pm 6.568E-01$, $-6.838E+00 \pm 1.647E+00$, $2.756E-02 \pm 9.471E-01$, $1.826E-03 \pm 3.484E-02$
 i' , $4.567E-02 \pm 6.568E-01$, $-6.838E+00 \pm 1.647E+00$, $2.756E-02 \pm 9.471E-01$, $1.826E-03 \pm 3.484E-02$ - Z.
 j' , $5.545E-02 \pm 7.698E-01$, $-7.532E+00 \pm 2.767E+00$, $3.587E-02 \pm 9.458E-01$, $2.182E-03 \pm 3.667E-02$
256, $5.545E-02 \pm 7.698E-01$, $-7.532E+00 \pm 2.767E+00$, $3.587E-02 \pm 9.458E-01$, $2.182E-03 \pm 3.667E-02$
217 (257-256) [l=448 cm][448 def.]
257, $-4.440E-02 \pm 6.615E-01$, $-6.940E+00 \pm 1.628E+00$, $-2.751E-02 \pm 9.471E-01$, $-2.099E-03 \pm 3.537E-02$ - Z.
 i' , $-4.440E-02 \pm 6.615E-01$, $-6.940E+00 \pm 1.628E+00$, $-2.751E-02 \pm 9.471E-01$, $-2.099E-03 \pm 3.537E-02$
 j' , $-5.545E-02 \pm 7.698E-01$, $-7.376E+00 \pm 2.785E+00$, $-3.587E-02 \pm 9.458E-01$, $-2.467E-03 \pm 3.702E-02$
256, $-5.545E-02 \pm 7.698E-01$, $-7.376E+00 \pm 2.785E+00$, $-3.587E-02 \pm 9.458E-01$, $-2.467E-03 \pm 3.702E-02$ - Z.
218 (258-259) [l=448 cm][448 def.]
258, $4.567E-02 \pm 6.568E-01$, $-6.853E+00 \pm 1.618E+00$, $2.756E-02 \pm 9.471E-01$, $1.830E-03 \pm 3.484E-02$
 i' , $4.567E-02 \pm 6.568E-01$, $-6.853E+00 \pm 1.618E+00$, $2.756E-02 \pm 9.471E-01$, $1.830E-03 \pm 3.484E-02$ - Z.
 j' , $5.508E-02 \pm 7.696E-01$, $-7.636E+00 \pm 2.748E+00$, $2.761E-02 \pm 9.460E-01$, $2.100E-03 \pm 3.666E-02$
259, $5.508E-02 \pm 7.696E-01$, $-7.636E+00 \pm 2.748E+00$, $2.761E-02 \pm 9.460E-01$, $2.100E-03 \pm 3.666E-02$
219 (260-259) [l=448 cm][448 def.]
260, $-4.440E-02 \pm 6.615E-01$, $-6.954E+00 \pm 1.605E+00$, $-2.751E-02 \pm 9.471E-01$, $-2.103E-03 \pm 3.537E-02$ - Z.
 i' , $-4.440E-02 \pm 6.615E-01$, $-6.954E+00 \pm 1.605E+00$, $-2.751E-02 \pm 9.471E-01$, $-2.103E-03 \pm 3.537E-02$
 j' , $-5.508E-02 \pm 7.696E-01$, $-7.490E+00 \pm 2.762E+00$, $-2.761E-02 \pm 9.460E-01$, $-2.385E-03 \pm 3.701E-02$
259, $-5.508E-02 \pm 7.696E-01$, $-7.490E+00 \pm 2.762E+00$, $-2.761E-02 \pm 9.460E-01$, $-2.385E-03 \pm 3.701E-02$ - Z.
220 (261-262) [l=448 cm][448 def.]
261, $4.567E-02 \pm 6.568E-01$, $-6.867E+00 \pm 1.670E+00$, $2.755E-02 \pm 9.471E-01$, $1.834E-03 \pm 3.484E-02$
 i' , $4.567E-02 \pm 6.568E-01$, $-6.867E+00 \pm 1.670E+00$, $2.755E-02 \pm 9.471E-01$, $1.834E-03 \pm 3.484E-02$ - Z.
 j' , $5.363E-02 \pm 7.688E-01$, $-7.731E+00 \pm 2.838E+00$, $2.757E-02 \pm 9.461E-01$, $1.776E-03 \pm 3.652E-02$
262, $5.363E-02 \pm 7.688E-01$, $-7.731E+00 \pm 2.838E+00$, $2.757E-02 \pm 9.461E-01$, $1.776E-03 \pm 3.652E-02$
221 (263-262) [l=448 cm][448 def.]
263, $-4.440E-02 \pm 6.615E-01$, $-6.968E+00 \pm 1.663E+00$, $-2.752E-02 \pm 9.471E-01$, $-2.108E-03 \pm 3.537E-02$ - Z.
 i' , $-4.440E-02 \pm 6.615E-01$, $-6.968E+00 \pm 1.663E+00$, $-2.752E-02 \pm 9.471E-01$, $-2.108E-03 \pm 3.537E-02$
 j' , $-5.363E-02 \pm 7.688E-01$, $-7.585E+00 \pm 2.846E+00$, $-2.757E-02 \pm 9.461E-01$, $-2.061E-03 \pm 3.689E-02$
262, $-5.363E-02 \pm 7.688E-01$, $-7.585E+00 \pm 2.846E+00$, $-2.757E-02 \pm 9.461E-01$, $-2.061E-03 \pm 3.689E-02$ - Z.
222 (264-265) [l=448 cm][448 def.]
264, $4.567E-02 \pm 6.568E-01$, $-6.881E+00 \pm 1.741E+00$, $2.755E-02 \pm 9.471E-01$, $1.838E-03 \pm 3.484E-02$
 i' , $4.567E-02 \pm 6.568E-01$, $-6.881E+00 \pm 1.741E+00$, $2.755E-02 \pm 9.471E-01$, $1.838E-03 \pm 3.484E-02$ - Z.
 j' , $5.351E-02 \pm 7.688E-01$, $-7.455E+00 \pm 2.892E+00$, $2.756E-02 \pm 9.463E-01$, $1.749E-03 \pm 3.637E-02$

265, 5.351E-02 ± 7.688E-01, -7.455E+00 ± 2.892E+00, 2.756E-02 ± 9.463E-01, 1.749E-03 ± 3.637E-02
223 (266-265) [l=448 cm][448 def.]
266, -4.440E-02 ± 6.615E-01, -6.982E+00 ± 1.740E+00, -2.752E-02 ± 9.471E-01, -2.112E-03 ± 3.537E-02 - Z.
i', -4.440E-02 ± 6.615E-01, -6.982E+00 ± 1.740E+00, -2.752E-02 ± 9.471E-01, -2.112E-03 ± 3.537E-02
j', -5.351E-02 ± 7.688E-01, -7.309E+00 ± 2.892E+00, -2.756E-02 ± 9.463E-01, -2.034E-03 ± 3.672E-02
265, -5.351E-02 ± 7.688E-01, -7.309E+00 ± 2.892E+00, -2.756E-02 ± 9.463E-01, -2.034E-03 ± 3.672E-02 - Z.
224 (267-268) [l=448 cm][448 def.]
267, -4.440E-02 ± 6.615E-01, -7.012E+00 ± 1.915E+00, -2.752E-02 ± 9.470E-01, -2.121E-03 ± 3.538E-02
i', -4.440E-02 ± 6.615E-01, -7.012E+00 ± 1.915E+00, -2.752E-02 ± 9.470E-01, -2.121E-03 ± 3.538E-02 - Z.
j', -5.403E-02 ± 7.667E-01, -7.676E+00 ± 3.138E+00, -2.754E-02 ± 9.467E-01, -2.150E-03 ± 3.613E-02
268, -5.403E-02 ± 7.667E-01, -7.676E+00 ± 3.138E+00, -2.754E-02 ± 9.467E-01, -2.150E-03 ± 3.613E-02
225 (269-268) [l=448 cm][448 def.]
269, 4.567E-02 ± 6.568E-01, -6.913E+00 ± 1.902E+00, 2.754E-02 ± 9.470E-01, 1.843E-03 ± 3.485E-02 - Z.
i', 4.567E-02 ± 6.568E-01, -6.913E+00 ± 1.902E+00, 2.754E-02 ± 9.470E-01, 1.843E-03 ± 3.485E-02
j', 5.403E-02 ± 7.667E-01, -7.824E+00 ± 3.152E+00, 2.754E-02 ± 9.467E-01, 1.865E-03 ± 3.575E-02
268, 5.403E-02 ± 7.667E-01, -7.824E+00 ± 3.152E+00, 2.754E-02 ± 9.467E-01, 1.865E-03 ± 3.575E-02 - Z.
226 (270-271) [l=448 cm][448 def.]
270, -4.440E-02 ± 6.615E-01, -7.027E+00 ± 2.002E+00, -2.753E-02 ± 9.470E-01, -2.124E-03 ± 3.538E-02
i', -4.440E-02 ± 6.615E-01, -7.027E+00 ± 2.002E+00, -2.753E-02 ± 9.470E-01, -2.124E-03 ± 3.538E-02 - Z.
j', -5.221E-02 ± 7.636E-01, -7.620E+00 ± 3.236E+00, -2.754E-02 ± 9.468E-01, -1.743E-03 ± 3.566E-02
271, -5.221E-02 ± 7.636E-01, -7.620E+00 ± 3.236E+00, -2.754E-02 ± 9.468E-01, -1.743E-03 ± 3.566E-02
227 (272-271) [l=448 cm][448 def.]
272, 4.567E-02 ± 6.568E-01, -6.928E+00 ± 1.981E+00, 2.754E-02 ± 9.470E-01, 1.844E-03 ± 3.485E-02 - Z.
i', 4.567E-02 ± 6.568E-01, -6.928E+00 ± 1.981E+00, 2.754E-02 ± 9.470E-01, 1.844E-03 ± 3.485E-02
j', 5.221E-02 ± 7.636E-01, -7.767E+00 ± 3.257E+00, 2.754E-02 ± 9.468E-01, 1.458E-03 ± 3.519E-02
271, 5.221E-02 ± 7.636E-01, -7.767E+00 ± 3.257E+00, 2.754E-02 ± 9.468E-01, 1.458E-03 ± 3.519E-02 - Z.
228 (185-231) [l=385 cm][385 def.]
185, -1.932E-01 ± 7.409E+00, -7.338E+00 ± 1.956E+00, 5.693E-03 ± 8.846E-02, -1.535E-04 ± 9.345E-03
i', -1.932E-01 ± 7.409E+00, -7.338E+00 ± 1.956E+00, 5.693E-03 ± 8.846E-02, -1.535E-04 ± 9.345E-03 - Z.
j', -1.938E-01 ± 7.375E+00, -8.128E+00 ± 2.162E+00, 6.407E-03 ± 8.928E-02, -1.535E-04 ± 9.345E-03
231, -1.938E-01 ± 7.375E+00, -8.128E+00 ± 2.162E+00, 6.407E-03 ± 8.928E-02, -1.535E-04 ± 9.345E-03
229 (231-241) [l=290 cm][290 def.]
231, -1.938E-01 ± 7.375E+00, -8.128E+00 ± 2.162E+00, 6.407E-03 ± 8.928E-02, -1.535E-04 ± 9.345E-03 - Z.
i', -1.938E-01 ± 7.375E+00, -8.128E+00 ± 2.162E+00, 6.407E-03 ± 8.928E-02, -1.535E-04 ± 9.345E-03
j', -1.942E-01 ± 7.349E+00, -8.116E+00 ± 1.782E+00, 5.842E-03 ± 9.049E-02, -1.535E-04 ± 9.345E-03
241, -1.942E-01 ± 7.349E+00, -8.116E+00 ± 1.782E+00, 5.842E-03 ± 9.049E-02, -1.535E-04 ± 9.345E-03 - Z.
230 (241-244) [l=325 cm][325 def.]
241, -1.942E-01 ± 7.349E+00, -8.116E+00 ± 1.782E+00, 5.842E-03 ± 9.049E-02, -1.535E-04 ± 9.345E-03
i', -1.942E-01 ± 7.349E+00, -8.116E+00 ± 1.782E+00, 5.842E-03 ± 9.049E-02, -1.535E-04 ± 9.345E-03 - Z.
j', -1.947E-01 ± 7.321E+00, -8.270E+00 ± 1.426E+00, 4.772E-03 ± 9.171E-02, -1.535E-04 ± 9.345E-03
244, -1.947E-01 ± 7.321E+00, -8.270E+00 ± 1.426E+00, 4.772E-03 ± 9.171E-02, -1.535E-04 ± 9.345E-03
231 (244-247) [l=325 cm][325 def.]
244, -1.947E-01 ± 7.321E+00, -8.270E+00 ± 1.426E+00, 4.772E-03 ± 9.171E-02, -1.535E-04 ± 9.345E-03 - Z.
i', -1.947E-01 ± 7.321E+00, -8.270E+00 ± 1.426E+00, 4.772E-03 ± 9.171E-02, -1.535E-04 ± 9.345E-03
j', -1.952E-01 ± 7.292E+00, -7.905E+00 ± 9.752E-01, 4.464E-03 ± 9.251E-02, -1.535E-04 ± 9.345E-03
247, -1.952E-01 ± 7.292E+00, -7.905E+00 ± 9.752E-01, 4.464E-03 ± 9.251E-02, -1.535E-04 ± 9.345E-03 - Z.
232 (247-273) [l=332 cm][332 def.]
247, -1.952E-01 ± 7.292E+00, -7.905E+00 ± 9.752E-01, 4.464E-03 ± 9.251E-02, -1.535E-04 ± 9.345E-03
i', -1.952E-01 ± 7.292E+00, -7.905E+00 ± 9.752E-01, 4.464E-03 ± 9.251E-02, -1.535E-04 ± 9.345E-03 - Z.
j', -2.086E-01 ± 7.271E+00, -7.851E+00 ± 6.339E-01, 5.557E-03 ± 9.286E-02, -1.535E-04 ± 9.345E-03
273, -2.086E-01 ± 7.271E+00, -7.851E+00 ± 6.339E-01, 5.557E-03 ± 9.286E-02, -1.535E-04 ± 9.345E-03
233 (273-256) [l=288 cm][288 def.]
273, -2.086E-01 ± 7.271E+00, -7.851E+00 ± 6.339E-01, 5.557E-03 ± 9.286E-02, -1.535E-04 ± 9.345E-03 - Z.
i', -2.086E-01 ± 7.271E+00, -7.851E+00 ± 6.339E-01, 5.557E-03 ± 9.286E-02, -1.535E-04 ± 9.345E-03
j', -2.099E-01 ± 7.239E+00, -8.029E+00 ± 3.276E-01, 6.257E-03 ± 9.304E-02, -1.535E-04 ± 9.345E-03
256, -2.099E-01 ± 7.239E+00, -8.029E+00 ± 3.276E-01, 6.257E-03 ± 9.304E-02, -1.535E-04 ± 9.345E-03 - Z.
234 (256-259) [l=288 cm][288 def.]
256, -2.099E-01 ± 7.239E+00, -8.029E+00 ± 3.276E-01, 6.257E-03 ± 9.304E-02, -1.535E-04 ± 9.345E-03
i', -2.099E-01 ± 7.239E+00, -8.029E+00 ± 3.276E-01, 6.257E-03 ± 9.304E-02, -1.535E-04 ± 9.345E-03 - Z.
j', -1.966E-01 ± 7.231E+00, -8.146E+00 ± 2.558E-01, 6.038E-03 ± 9.297E-02, -1.535E-04 ± 9.345E-03
259, -1.966E-01 ± 7.231E+00, -8.146E+00 ± 2.558E-01, 6.038E-03 ± 9.297E-02, -1.535E-04 ± 9.345E-03
235 (259-262) [l=288 cm][288 def.]
259, -1.966E-01 ± 7.231E+00, -8.146E+00 ± 2.558E-01, 6.038E-03 ± 9.297E-02, -1.535E-04 ± 9.345E-03 - Z.
i', -1.966E-01 ± 7.231E+00, -8.146E+00 ± 2.558E-01, 6.038E-03 ± 9.297E-02, -1.535E-04 ± 9.345E-03
j', -1.969E-01 ± 7.243E+00, -8.248E+00 ± 5.542E-01, 5.166E-03 ± 9.262E-02, -1.535E-04 ± 9.345E-03
262, -1.969E-01 ± 7.243E+00, -8.248E+00 ± 5.542E-01, 5.166E-03 ± 9.262E-02, -1.535E-04 ± 9.345E-03 - Z.
236 (262-265) [l=288 cm][288 def.]
262, -1.969E-01 ± 7.243E+00, -8.248E+00 ± 5.542E-01, 5.166E-03 ± 9.262E-02, -1.535E-04 ± 9.345E-03
i', -1.969E-01 ± 7.243E+00, -8.248E+00 ± 5.542E-01, 5.166E-03 ± 9.262E-02, -1.535E-04 ± 9.345E-03 - Z.
j', -1.974E-01 ± 7.257E+00, -7.951E+00 ± 7.177E-01, 5.091E-03 ± 9.216E-02, -1.535E-04 ± 9.345E-03
265, -1.974E-01 ± 7.257E+00, -7.951E+00 ± 7.177E-01, 5.091E-03 ± 9.216E-02, -1.535E-04 ± 9.345E-03
237 (265-274) [l=320 cm][320 def.]
265, -1.974E-01 ± 7.257E+00, -7.951E+00 ± 7.177E-01, 5.091E-03 ± 9.216E-02, -1.535E-04 ± 9.345E-03 - Z.
i', -1.974E-01 ± 7.257E+00, -7.951E+00 ± 7.177E-01, 5.091E-03 ± 9.216E-02, -1.535E-04 ± 9.345E-03
j', -1.980E-01 ± 7.280E+00, -8.056E+00 ± 1.092E+00, 5.838E-03 ± 9.156E-02, -1.535E-04 ± 9.345E-03
274, -1.980E-01 ± 7.280E+00, -8.056E+00 ± 1.092E+00, 5.838E-03 ± 9.156E-02, -1.535E-04 ± 9.345E-03 - Z.
238 (274-268) [l=305 cm][305 def.]
274, -1.980E-01 ± 7.280E+00, -8.056E+00 ± 1.092E+00, 5.838E-03 ± 9.156E-02, -1.535E-04 ± 9.345E-03
i', -1.980E-01 ± 7.280E+00, -8.056E+00 ± 1.092E+00, 5.838E-03 ± 9.156E-02, -1.535E-04 ± 9.345E-03 - Z.
j', -1.983E-01 ± 7.286E+00, -8.347E+00 ± 1.599E+00, 5.404E-03 ± 9.051E-02, -1.535E-04 ± 9.345E-03
268, -1.983E-01 ± 7.286E+00, -8.347E+00 ± 1.599E+00, 5.404E-03 ± 9.051E-02, -1.535E-04 ± 9.345E-03
239 (268-271) [l=305 cm][305 def.]
268, -1.983E-01 ± 7.286E+00, -8.347E+00 ± 1.599E+00, 5.404E-03 ± 9.051E-02, -1.535E-04 ± 9.345E-03 - Z.
i', -1.983E-01 ± 7.286E+00, -8.347E+00 ± 1.599E+00, 5.404E-03 ± 9.051E-02, -1.535E-04 ± 9.345E-03
j', -1.988E-01 ± 7.300E+00, -8.287E+00 ± 1.949E+00, 4.309E-03 ± 8.918E-02, -1.535E-04 ± 9.345E-03
271, -1.988E-01 ± 7.300E+00, -8.287E+00 ± 1.949E+00, 4.309E-03 ± 8.918E-02, -1.535E-04 ± 9.345E-03 - Z.

240 (271-275) [l=354 cm][354 def.]
271, -1.988E-01 ± 7.300E+00, -8.287E+00 ± 1.949E+00, 4.309E-03 ± 8.918E-02, -1.535E-04 ± 9.345E-03
i', -1.988E-01 ± 7.300E+00, -8.287E+00 ± 1.949E+00, 4.309E-03 ± 8.918E-02, -1.535E-04 ± 9.345E-03 - Z.
j', -1.993E-01 ± 7.317E+00, -7.534E+00 ± 1.685E+00, 5.344E-03 ± 8.843E-02, -1.535E-04 ± 9.345E-03
275, -1.993E-01 ± 7.317E+00, -7.534E+00 ± 1.685E+00, 5.344E-03 ± 8.843E-02, -1.535E-04 ± 9.345E-03
241 (159-111) [l=448 cm][448 def.]
159, 4.567E-02 ± 6.568E-01, -6.946E+00 ± 2.083E+00, 2.754E-02 ± 9.469E-01, 1.843E-03 ± 3.483E-02 - Z.
i', 4.567E-02 ± 6.568E-01, -6.946E+00 ± 2.083E+00, 2.754E-02 ± 9.469E-01, 1.843E-03 ± 3.483E-02
j', 5.393E-02 ± 7.618E-01, -7.070E+00 ± 3.187E+00, 2.753E-02 ± 9.469E-01, 1.841E-03 ± 3.485E-02
111, 5.393E-02 ± 7.618E-01, -7.070E+00 ± 3.187E+00, 2.753E-02 ± 9.469E-01, 1.841E-03 ± 3.485E-02 - Z.
242 (143-278) [l=199 cm][199 def.]
143, -4.440E-02 ± 6.615E-01, -6.926E+00 ± 1.690E+00, -2.751E-02 ± 9.471E-01, -2.095E-03 ± 3.536E-02
i', -4.440E-02 ± 6.615E-01, -6.926E+00 ± 1.690E+00, -2.751E-02 ± 9.471E-01, -2.095E-03 ± 3.536E-02 - Z.
j', -4.876E-02 ± 7.060E-01, -7.567E+00 ± 8.007E-01, 2.066E-01 ± 9.621E-01, -2.191E-03 ± 3.669E-02
278, -4.876E-02 ± 7.060E-01, -7.567E+00 ± 8.007E-01, 2.066E-01 ± 9.621E-01, -2.191E-03 ± 3.669E-02
243 (278-279) [l=142 cm][142 def.]
278, -4.876E-02 ± 7.060E-01, -7.567E+00 ± 8.007E-01, 2.066E-01 ± 9.621E-01, -2.191E-03 ± 3.669E-02 - Z.
i', -4.876E-02 ± 7.060E-01, -7.567E+00 ± 8.007E-01, 2.066E-01 ± 9.621E-01, -2.191E-03 ± 3.669E-02
j', -5.192E-02 ± 7.407E-01, -7.451E+00 ± 1.863E+00, 4.617E-02 ± 9.527E-01, -2.204E-03 ± 3.691E-02
279, -5.192E-02 ± 7.407E-01, -7.451E+00 ± 1.863E+00, 4.617E-02 ± 9.527E-01, -2.204E-03 ± 3.691E-02 - Z.
244 (279-273) [l=107 cm][107 def.]
279, -5.192E-02 ± 7.407E-01, -7.450E+00 ± 1.865E+00, 4.617E-02 ± 9.527E-01, -2.205E-03 ± 3.694E-02
i', -5.192E-02 ± 7.407E-01, -7.450E+00 ± 1.865E+00, 4.617E-02 ± 9.527E-01, -2.205E-03 ± 3.694E-02 - Z.
j', -5.428E-02 ± 7.697E-01, -7.211E+00 ± 2.865E+00, -3.540E-02 ± 9.515E-01, -2.208E-03 ± 3.699E-02
273, -5.428E-02 ± 7.697E-01, -7.211E+00 ± 2.865E+00, -3.540E-02 ± 9.515E-01, -2.208E-03 ± 3.699E-02
245 (281-282) [l=142 cm][142 def.]
281, 5.059E-02 ± 7.041E-01, -7.379E+00 ± 6.954E-01, 1.857E-01 ± 9.497E-01, 2.467E-03 ± 3.627E-02 - Z.
i', 5.059E-02 ± 7.041E-01, -7.379E+00 ± 6.954E-01, 1.857E-01 ± 9.497E-01, 2.467E-03 ± 3.627E-02
j', 5.258E-02 ± 7.410E-01, -7.429E+00 ± 1.857E+00, 8.738E-02 ± 9.522E-01, 2.021E-03 ± 3.656E-02
282, 5.258E-02 ± 7.410E-01, -7.429E+00 ± 1.857E+00, 8.738E-02 ± 9.522E-01, 2.021E-03 ± 3.656E-02 - Z.
246 (282-283) [l=107 cm][107 def.]
282, 5.258E-02 ± 7.410E-01, -7.428E+00 ± 1.860E+00, 8.738E-02 ± 9.522E-01, 2.023E-03 ± 3.659E-02
i', 5.258E-02 ± 7.410E-01, -7.428E+00 ± 1.860E+00, 8.738E-02 ± 9.522E-01, 2.023E-03 ± 3.659E-02 - Z.
j', 5.428E-02 ± 7.697E-01, -7.366E+00 ± 2.865E+00, 3.540E-02 ± 9.515E-01, 1.923E-03 ± 3.665E-02
283, 5.428E-02 ± 7.697E-01, -7.366E+00 ± 2.865E+00, 3.540E-02 ± 9.515E-01, 1.923E-03 ± 3.665E-02
247 (284-285) [l=199 cm][199 def.]
284, -4.440E-02 ± 6.615E-01, -6.997E+00 ± 1.830E+00, -2.752E-02 ± 9.470E-01, -2.117E-03 ± 3.537E-02 - Z.
i', -4.440E-02 ± 6.615E-01, -6.997E+00 ± 1.830E+00, -2.752E-02 ± 9.470E-01, -2.117E-03 ± 3.537E-02
j', -4.895E-02 ± 7.057E-01, -7.721E+00 ± 1.425E+00, 2.287E-01 ± 1.011E+00, -2.283E-03 ± 3.630E-02
285, -4.895E-02 ± 7.057E-01, -7.721E+00 ± 1.425E+00, 2.287E-01 ± 1.011E+00, -2.283E-03 ± 3.630E-02 - Z.
248 (285-286) [l=142 cm][142 def.]
285, -4.895E-02 ± 7.057E-01, -7.721E+00 ± 1.425E+00, 2.287E-01 ± 1.011E+00, -2.283E-03 ± 3.630E-02
i', -4.895E-02 ± 7.057E-01, -7.721E+00 ± 1.425E+00, 2.287E-01 ± 1.011E+00, -2.283E-03 ± 3.630E-02 - Z.
j', -5.227E-02 ± 7.401E-01, -7.635E+00 ± 2.022E+00, 5.949E-02 ± 9.714E-01, -2.306E-03 ± 3.646E-02
286, -5.227E-02 ± 7.401E-01, -7.635E+00 ± 2.022E+00, 5.949E-02 ± 9.714E-01, -2.306E-03 ± 3.646E-02
249 (286-274) [l=107 cm][107 def.]
286, -5.227E-02 ± 7.401E-01, -7.634E+00 ± 2.024E+00, 5.949E-02 ± 9.714E-01, -2.307E-03 ± 3.649E-02 - Z.
i', -5.227E-02 ± 7.401E-01, -7.634E+00 ± 2.024E+00, 5.949E-02 ± 9.714E-01, -2.307E-03 ± 3.649E-02
j', -5.475E-02 ± 7.688E-01, -7.405E+00 ± 3.002E+00, -2.767E-02 ± 9.534E-01, -2.313E-03 ± 3.652E-02
274, -5.475E-02 ± 7.688E-01, -7.405E+00 ± 3.002E+00, -2.767E-02 ± 9.534E-01, -2.313E-03 ± 3.652E-02 - Z.
250 (287-288) [l=107 cm][107 def.]
287, 5.307E-02 ± 7.406E-01, -7.722E+00 ± 2.029E+00, 1.148E-01 ± 9.712E-01, 2.169E-03 ± 3.621E-02
i', 5.307E-02 ± 7.406E-01, -7.722E+00 ± 2.029E+00, 1.148E-01 ± 9.712E-01, 2.169E-03 ± 3.621E-02 - Z.
j', 5.475E-02 ± 7.688E-01, -7.553E+00 ± 3.006E+00, 2.767E-02 ± 9.534E-01, 2.028E-03 ± 3.620E-02
288, 5.475E-02 ± 7.688E-01, -7.553E+00 ± 3.006E+00, 2.767E-02 ± 9.534E-01, 2.028E-03 ± 3.620E-02
251 (289-287) [l=142 cm][142 def.]
289, 5.125E-02 ± 7.045E-01, -7.730E+00 ± 1.423E+00, 2.836E-01 ± 1.011E+00, 2.799E-03 ± 3.619E-02 - Z.
i', 5.125E-02 ± 7.045E-01, -7.730E+00 ± 1.423E+00, 2.836E-01 ± 1.011E+00, 2.799E-03 ± 3.619E-02
j', 5.307E-02 ± 7.406E-01, -7.723E+00 ± 2.027E+00, 1.148E-01 ± 9.712E-01, 2.167E-03 ± 3.618E-02
287, 5.307E-02 ± 7.406E-01, -7.723E+00 ± 2.027E+00, 1.148E-01 ± 9.712E-01, 2.167E-03 ± 3.618E-02 - Z.
252 (291-j'-292) [l=600 cm][220 def.-380 rig.]
291, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 3.309E-02 ± 8.874E-02, 4.763E-01 ± 9.480E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 3.309E-02 ± 8.874E-02, 4.763E-01 ± 9.480E-01 - Z.
j', -7.459E-02 ± 2.742E+00, -3.397E-02 ± 3.175E-01, 3.483E-03 ± 1.189E-01, -2.409E-02 ± 9.731E-01
292, -1.661E-01 ± 6.429E+00, -4.720E-02 ± 7.657E-01, 3.483E-03 ± 1.189E-01, -2.409E-02 ± 9.731E-01
253 (293-j'-294) [l=650 cm][220 def.-430 rig.]
293, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 3.302E-02 ± 8.874E-02, 2.629E-01 ± 8.769E-01 - Z.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 3.302E-02 ± 8.874E-02, 2.629E-01 ± 8.769E-01
j', -7.116E-02 ± 2.740E+00, -3.459E-02 ± 2.893E-01, 3.169E-03 ± 1.276E-01, -2.541E-02 ± 9.737E-01
294, -1.804E-01 ± 6.916E+00, -4.821E-02 ± 8.378E-01, 3.169E-03 ± 1.276E-01, -2.541E-02 ± 9.737E-01 - Z.
254 (295-j'-296) [l=650 cm][220 def.-430 rig.]
295, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -3.302E-02 ± 8.882E-02, 2.687E-01 ± 8.687E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -3.302E-02 ± 8.882E-02, 2.687E-01 ± 8.687E-01 - Z.
j', 6.033E-02 ± 2.741E+00, 3.468E-02 ± 2.822E-01, -3.011E-03 ± 1.300E-01, 2.958E-02 ± 9.737E-01
296, 1.875E-01 ± 6.915E+00, 4.762E-02 ± 8.414E-01, -3.011E-03 ± 1.300E-01, 2.958E-02 ± 9.737E-01
255 (297-j'-298) [l=600 cm][220 def.-380 rig.]
297, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -3.309E-02 ± 8.900E-02, 5.100E-01 ± 9.353E-01 - Z.
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -3.309E-02 ± 8.900E-02, 5.100E-01 ± 9.353E-01
j', 5.645E-02 ± 2.743E+00, 3.394E-02 ± 3.048E-01, -3.218E-03 ± 1.237E-01, 3.107E-02 ± 9.731E-01
298, 1.745E-01 ± 6.428E+00, 4.617E-02 ± 7.735E-01, -3.218E-03 ± 1.237E-01, 3.107E-02 ± 9.731E-01 - Z.
256 (299-j'-300) [l=600 cm][220 def.-380 rig.]
299, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -2.805E-02 ± 9.239E-02, 5.036E-01 ± 9.453E-01
i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -2.805E-02 ± 9.239E-02, 5.036E-01 ± 9.453E-01 - Z.
j', 5.854E-02 ± 2.759E+00, 3.142E-02 ± 3.053E-01, -4.187E-03 ± 1.234E-01, 3.110E-02 ± 9.724E-01
300, 1.767E-01 ± 6.434E+00, 4.733E-02 ± 7.732E-01, -4.187E-03 ± 1.234E-01, 3.110E-02 ± 9.724E-01
257 (301-j'-302) [l=650 cm][220 def.-430 rig.]

301, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -2.827E-02 ± 9.206E-02, 2.847E-01 ± 8.701E-01 - Z.
 i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, -2.827E-02 ± 9.206E-02, 2.847E-01 ± 8.701E-01
 j', 6.224E-02 ± 2.757E+00, 3.196E-02 ± 2.828E-01, -4.058E-03 ± 1.298E-01, 2.968E-02 ± 9.729E-01
 302, 1.899E-01 ± 6.920E+00, 4.940E-02 ± 8.410E-01, -4.058E-03 ± 1.298E-01, 2.968E-02 ± 9.729E-01 - Z.
 258 (303-j'-304) [l=650 cm][220 def.-430 rig.]
 303, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 2.872E-02 ± 9.144E-02, 2.427E-01 ± 8.772E-01
 i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 2.872E-02 ± 9.144E-02, 2.427E-01 ± 8.772E-01 - Z.
 j', -7.295E-02 ± 2.757E+00, -3.222E-02 ± 2.898E-01, 4.079E-03 ± 1.274E-01, -2.556E-02 ± 9.730E-01
 304, -1.829E-01 ± 6.920E+00, -4.976E-02 ± 8.375E-01, 4.079E-03 ± 1.274E-01, -2.556E-02 ± 9.730E-01
 259 (305-j'-306) [l=600 cm][220 def.-380 rig.]
 305, 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 2.905E-02 ± 9.149E-02, 4.682E-01 ± 9.572E-01 - Z.
 i', 0.000E+00 ± 0.000E+00, 0.000E+00 ± 0.000E+00, 2.905E-02 ± 9.149E-02, 4.682E-01 ± 9.572E-01
 j', -7.650E-02 ± 2.759E+00, -3.198E-02 ± 3.178E-01, 4.248E-03 ± 1.187E-01, -2.419E-02 ± 9.726E-01
 306, -1.684E-01 ± 6.434E+00, -4.812E-02 ± 7.655E-01, 4.248E-03 ± 1.187E-01, -2.419E-02 ± 9.726E-01 - Z.
 260 (307-4) [l=195 cm][195 def.]
 307, -8.497E-02 ± 3.523E+00, -3.256E-02 ± 5.156E-01, 5.261E-03 ± 8.839E-02, -2.555E-02 ± 9.710E-01
 i', -8.497E-02 ± 3.523E+00, -3.256E-02 ± 5.156E-01, 5.261E-03 ± 8.839E-02, -2.555E-02 ± 9.710E-01 - Z.
 j', -1.348E-01 ± 5.409E+00, -4.282E-02 ± 6.208E-01, 5.261E-03 ± 8.839E-02, -2.554E-02 ± 9.710E-01
 4, -1.348E-01 ± 5.409E+00, -4.282E-02 ± 6.208E-01, 5.261E-03 ± 8.839E-02, -2.554E-02 ± 9.710E-01
 261 (308-7) [l=195 cm][195 def.]
 308, -7.596E-02 ± 3.525E+00, -3.231E-02 ± 5.157E-01, 5.217E-03 ± 8.847E-02, -3.017E-02 ± 9.707E-01 - Z.
 i', -7.596E-02 ± 3.525E+00, -3.231E-02 ± 5.157E-01, 5.217E-03 ± 8.847E-02, -3.017E-02 ± 9.707E-01
 j', -1.348E-01 ± 5.409E+00, -4.248E-02 ± 6.208E-01, 5.217E-03 ± 8.847E-02, -3.017E-02 ± 9.707E-01
 7, -1.348E-01 ± 5.409E+00, -4.248E-02 ± 6.208E-01, 5.217E-03 ± 8.847E-02, -3.017E-02 ± 9.707E-01 - Z.
 262 (307-308) [l=227 cm][227 def.]
 307, 3.256E-02 ± 5.156E-01, -7.280E+00 ± 2.242E+00, 2.555E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
 i', 3.256E-02 ± 5.156E-01, -7.280E+00 ± 2.242E+00, 2.555E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - Z.
 j', 3.231E-02 ± 5.157E-01, -7.341E+00 ± 2.222E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
 308, 3.231E-02 ± 5.157E-01, -7.341E+00 ± 2.222E+00, 3.017E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
 263 (309-123) [l=170 cm][170 def.]
 309, -8.021E-02 ± 3.038E+00, -3.059E-02 ± 5.007E-01, 5.315E-03 ± 8.836E-02, -2.552E-02 ± 9.710E-01 - Z.
 i', -8.021E-02 ± 3.038E+00, -3.059E-02 ± 5.007E-01, 5.315E-03 ± 8.836E-02, -2.552E-02 ± 9.710E-01
 j', -1.236E-01 ± 4.676E+00, -3.962E-02 ± 5.850E-01, 5.315E-03 ± 8.836E-02, -2.552E-02 ± 9.710E-01
 123, -1.236E-01 ± 4.676E+00, -3.962E-02 ± 5.850E-01, 5.315E-03 ± 8.836E-02, -2.552E-02 ± 9.710E-01 - Z.
 264 (310-126) [l=170 cm][170 def.]
 310, -6.947E-02 ± 3.038E+00, -3.033E-02 ± 4.998E-01, 5.299E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
 i', -6.947E-02 ± 3.038E+00, -3.033E-02 ± 4.998E-01, 5.299E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01 - Z.
 j', -1.208E-01 ± 4.676E+00, -3.934E-02 ± 5.842E-01, 5.299E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
 126, -1.208E-01 ± 4.676E+00, -3.934E-02 ± 5.842E-01, 5.299E-03 ± 8.850E-02, -3.019E-02 ± 9.707E-01
 265 (309-310) [l=200 cm][200 def.]
 309, 3.059E-02 ± 5.007E-01, -7.428E+00 ± 1.136E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03 - Z.
 i', 3.059E-02 ± 5.007E-01, -7.428E+00 ± 1.136E+00, 2.552E-02 ± 9.710E-01, -1.477E-04 ± 9.255E-03
 j', 3.033E-02 ± 4.998E-01, -7.481E+00 ± 9.445E-01, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03
 310, 3.033E-02 ± 4.998E-01, -7.481E+00 ± 9.445E-01, 3.019E-02 ± 9.707E-01, -1.477E-04 ± 9.255E-03 - Z.
 266 (129-246) [l=3 cm][3 def.]
 129, -1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.182E+00, 5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', -1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.182E+00, 5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - Z.
 j', -1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.181E+00, 5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 246, -1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.181E+00, 5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 267 (130-243) [l=5 cm][5 def.]
 130, -1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.270E+00, 5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - Z.
 i', -1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.270E+00, 5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', -1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.269E+00, 5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 243, -1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.269E+00, 5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - Z.
 268 (203-245) [l=5 cm][5 def.]
 203, -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.225E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 i', -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.225E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03 - Z.
 j', -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.224E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 245, -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.224E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 269 (142-248) [l=3 cm][3 def.]
 142, -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.146E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03 - Z.
 i', -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.146E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 j', -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.145E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 248, -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.145E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03 - Z.
 270 (190-255) [l=4 cm][4 def.]
 190, 1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.021E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.021E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03 - Z.
 j', 1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.022E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 255, 1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.022E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 271 (145-257) [l=4 cm][4 def.]
 145, 1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.001E+00, -5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03 - Z.
 i', 1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.001E+00, -5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 j', 1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.002E+00, -5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 257, 1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.002E+00, -5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03 - Z.
 272 (163-270) [l=3 cm][3 def.]
 163, -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.356E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 i', -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.356E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03 - Z.
 j', -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.357E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 270, -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.357E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 273 (283-273) [l=0 cm][0 def.]
 283, 5.428E-02 ± 7.697E-01, -7.851E+00 ± 6.339E-01, 3.540E-02 ± 9.515E-01, -1.535E-04 ± 9.345E-03 - Z.
 i', 5.428E-02 ± 7.697E-01, -7.851E+00 ± 6.339E-01, 3.540E-02 ± 9.515E-01, -1.535E-04 ± 9.345E-03
 j', 5.428E-02 ± 7.697E-01, -7.851E+00 ± 6.339E-01, 3.540E-02 ± 9.515E-01, -1.535E-04 ± 9.345E-03
 273, 5.428E-02 ± 7.697E-01, -7.851E+00 ± 6.339E-01, 3.540E-02 ± 9.515E-01, -1.535E-04 ± 9.345E-03 - Z.
 274 (288-274) [l=0 cm][0 def.]
 288, 5.475E-02 ± 7.688E-01, -8.056E+00 ± 1.092E+00, 2.767E-02 ± 9.534E-01, -1.535E-04 ± 9.345E-03

i' , $5.475E-02 \pm 7.688E-01$, $-8.056E+00 \pm 1.092E+00$, $2.767E-02 \pm 9.534E-01$, $-1.535E-04 \pm 9.345E-03$ - Z.
 j' , $5.475E-02 \pm 7.688E-01$, $-8.056E+00 \pm 1.092E+00$, $2.767E-02 \pm 9.534E-01$, $-1.535E-04 \pm 9.345E-03$
274, $5.475E-02 \pm 7.688E-01$, $-8.056E+00 \pm 1.092E+00$, $2.767E-02 \pm 9.534E-01$, $-1.535E-04 \pm 9.345E-03$
275 (111-275) [l=0 cm][0 def.]
111, $5.393E-02 \pm 7.618E-01$, $-7.534E+00 \pm 1.684E+00$, $2.753E-02 \pm 9.469E-01$, $-1.535E-04 \pm 9.345E-03$ - Z.
 i' , $5.393E-02 \pm 7.618E-01$, $-7.534E+00 \pm 1.684E+00$, $2.753E-02 \pm 9.469E-01$, $-1.535E-04 \pm 9.345E-03$
 j' , $5.393E-02 \pm 7.618E-01$, $-7.534E+00 \pm 1.685E+00$, $2.753E-02 \pm 9.469E-01$, $-1.535E-04 \pm 9.345E-03$
275, $5.393E-02 \pm 7.618E-01$, $-7.534E+00 \pm 1.685E+00$, $2.753E-02 \pm 9.469E-01$, $-1.535E-04 \pm 9.345E-03$ - Z.
276 (231-311) [l=166 cm][166 def.]
231, $-1.938E-01 \pm 7.375E+00$, $5.570E-02 \pm 7.643E-01$, $6.407E-03 \pm 8.928E-02$, $2.766E-02 \pm 9.446E-01$
 i' , $-1.938E-01 \pm 7.375E+00$, $5.570E-02 \pm 7.643E-01$, $6.407E-03 \pm 8.928E-02$, $2.766E-02 \pm 9.446E-01$ - K.
 j' , $-1.478E-01 \pm 5.808E+00$, $4.504E-02 \pm 6.479E-01$, $6.407E-03 \pm 8.928E-02$, $2.766E-02 \pm 9.446E-01$
311, $-1.478E-01 \pm 5.808E+00$, $4.504E-02 \pm 6.479E-01$, $6.407E-03 \pm 8.928E-02$, $2.766E-02 \pm 9.446E-01$
277 (241-312) [l=166 cm][166 def.]
241, $-1.942E-01 \pm 7.349E+00$, $5.476E-02 \pm 7.671E-01$, $5.842E-03 \pm 9.049E-02$, $2.764E-02 \pm 9.449E-01$ - K.
 i' , $-1.942E-01 \pm 7.349E+00$, $5.476E-02 \pm 7.671E-01$, $5.842E-03 \pm 9.049E-02$, $2.764E-02 \pm 9.449E-01$
 j' , $-1.482E-01 \pm 5.782E+00$, $4.504E-02 \pm 6.479E-01$, $5.842E-03 \pm 9.049E-02$, $2.764E-02 \pm 9.449E-01$
312, $-1.482E-01 \pm 5.782E+00$, $4.504E-02 \pm 6.479E-01$, $5.842E-03 \pm 9.049E-02$, $2.764E-02 \pm 9.449E-01$ - K.
278 (244-313) [l=166 cm][166 def.]
244, $-1.947E-01 \pm 7.321E+00$, $5.298E-02 \pm 7.697E-01$, $4.772E-03 \pm 9.171E-02$, $2.763E-02 \pm 9.451E-01$
 i' , $-1.947E-01 \pm 7.321E+00$, $5.298E-02 \pm 7.697E-01$, $4.772E-03 \pm 9.171E-02$, $2.763E-02 \pm 9.451E-01$ - K.
 j' , $-1.487E-01 \pm 5.753E+00$, $4.504E-02 \pm 6.479E-01$, $4.772E-03 \pm 9.171E-02$, $2.763E-02 \pm 9.451E-01$
313, $-1.487E-01 \pm 5.753E+00$, $4.504E-02 \pm 6.479E-01$, $4.772E-03 \pm 9.171E-02$, $2.763E-02 \pm 9.451E-01$
279 (256-314) [l=166 cm][166 def.]
256, $-2.099E-01 \pm 7.239E+00$, $5.545E-02 \pm 7.698E-01$, $6.257E-03 \pm 9.304E-02$, $3.587E-02 \pm 9.458E-01$ - K.
 i' , $-2.099E-01 \pm 7.239E+00$, $5.545E-02 \pm 7.698E-01$, $6.257E-03 \pm 9.304E-02$, $3.587E-02 \pm 9.458E-01$
 j' , $-1.502E-01 \pm 5.669E+00$, $4.504E-02 \pm 6.479E-01$, $6.257E-03 \pm 9.304E-02$, $3.587E-02 \pm 9.458E-01$
314, $-1.502E-01 \pm 5.669E+00$, $4.504E-02 \pm 6.479E-01$, $6.257E-03 \pm 9.304E-02$, $3.587E-02 \pm 9.458E-01$ - K.
280 (259-315) [l=166 cm][166 def.]
259, $-1.966E-01 \pm 7.231E+00$, $5.508E-02 \pm 7.696E-01$, $6.038E-03 \pm 9.297E-02$, $2.761E-02 \pm 9.460E-01$
 i' , $-1.966E-01 \pm 7.231E+00$, $5.508E-02 \pm 7.696E-01$, $6.038E-03 \pm 9.297E-02$, $2.761E-02 \pm 9.460E-01$ - K.
 j' , $-1.506E-01 \pm 5.661E+00$, $4.504E-02 \pm 6.479E-01$, $6.038E-03 \pm 9.297E-02$, $2.761E-02 \pm 9.460E-01$
315, $-1.506E-01 \pm 5.661E+00$, $4.504E-02 \pm 6.479E-01$, $6.038E-03 \pm 9.297E-02$, $2.761E-02 \pm 9.460E-01$
281 (268-316) [l=166 cm][166 def.]
268, $-1.983E-01 \pm 7.286E+00$, $5.403E-02 \pm 7.667E-01$, $5.404E-03 \pm 9.051E-02$, $2.754E-02 \pm 9.467E-01$ - K.
 i' , $-1.983E-01 \pm 7.286E+00$, $5.403E-02 \pm 7.667E-01$, $5.404E-03 \pm 9.051E-02$, $2.754E-02 \pm 9.467E-01$
 j' , $-1.525E-01 \pm 5.715E+00$, $4.504E-02 \pm 6.479E-01$, $5.404E-03 \pm 9.051E-02$, $2.754E-02 \pm 9.467E-01$
316, $-1.525E-01 \pm 5.715E+00$, $4.504E-02 \pm 6.479E-01$, $5.404E-03 \pm 9.051E-02$, $2.754E-02 \pm 9.467E-01$ - K.
282 (271-317) [l=166 cm][166 def.]
271, $-1.988E-01 \pm 7.300E+00$, $5.221E-02 \pm 7.636E-01$, $4.309E-03 \pm 8.918E-02$, $2.754E-02 \pm 9.468E-01$
 i' , $-1.988E-01 \pm 7.300E+00$, $5.221E-02 \pm 7.636E-01$, $4.309E-03 \pm 8.918E-02$, $2.754E-02 \pm 9.468E-01$ - T.
 j' , $-1.529E-01 \pm 5.729E+00$, $4.504E-02 \pm 6.479E-01$, $4.309E-03 \pm 8.918E-02$, $2.754E-02 \pm 9.468E-01$
317, $-1.529E-01 \pm 5.729E+00$, $4.504E-02 \pm 6.479E-01$, $4.309E-03 \pm 8.918E-02$, $2.754E-02 \pm 9.468E-01$
283 (262-318) [l=166 cm][166 def.]
262, $-1.969E-01 \pm 7.243E+00$, $5.363E-02 \pm 7.688E-01$, $5.166E-03 \pm 9.262E-02$, $2.757E-02 \pm 9.461E-01$ - T.
 i' , $-1.969E-01 \pm 7.243E+00$, $5.363E-02 \pm 7.688E-01$, $5.166E-03 \pm 9.262E-02$, $2.757E-02 \pm 9.461E-01$
 j' , $-1.511E-01 \pm 5.673E+00$, $4.504E-02 \pm 6.479E-01$, $5.166E-03 \pm 9.262E-02$, $2.757E-02 \pm 9.461E-01$
318, $-1.511E-01 \pm 5.673E+00$, $4.504E-02 \pm 6.479E-01$, $5.166E-03 \pm 9.262E-02$, $2.757E-02 \pm 9.461E-01$ - K.
284 (133-319) [l=0 cm][0 def.]
133, $1.497E-01 \pm 5.694E+00$, $-5.122E+00 \pm 3.028E+00$, $-5.290E-03 \pm 8.837E-02$, $1.938E-02 \pm 6.756E-01$
 i' , $1.497E-01 \pm 5.694E+00$, $-5.122E+00 \pm 3.028E+00$, $-5.290E-03 \pm 8.837E-02$, $1.938E-02 \pm 6.756E-01$ - T.
 j' , $1.498E-01 \pm 5.695E+00$, $-5.122E+00 \pm 3.028E+00$, $-5.290E-03 \pm 8.837E-02$, $1.938E-02 \pm 6.756E-01$
319, $1.498E-01 \pm 5.695E+00$, $-5.122E+00 \pm 3.028E+00$, $-5.290E-03 \pm 8.837E-02$, $1.938E-02 \pm 6.756E-01$
285 (131-90) [l=116 cm][116 def.]
131, $-1.370E-01 \pm 5.277E+00$, $-7.281E+00 \pm 4.137E+00$, $5.281E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$ - T.
 i' , $-1.370E-01 \pm 5.277E+00$, $-7.281E+00 \pm 4.137E+00$, $5.281E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$
 j' , $-1.372E-01 \pm 5.267E+00$, $-7.287E+00 \pm 4.106E+00$, $5.285E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$
90, $-1.372E-01 \pm 5.267E+00$, $-7.287E+00 \pm 4.106E+00$, $5.285E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
286 (131-93) [l=111 cm][111 def.]
131, $1.370E-01 \pm 5.277E+00$, $-7.281E+00 \pm 4.137E+00$, $-5.281E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$
 i' , $1.370E-01 \pm 5.277E+00$, $-7.281E+00 \pm 4.137E+00$, $-5.281E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$ - T.
 j' , $1.368E-01 \pm 5.287E+00$, $-7.275E+00 \pm 4.167E+00$, $-5.278E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$
93, $1.368E-01 \pm 5.287E+00$, $-7.275E+00 \pm 4.167E+00$, $-5.278E-03 \pm 8.837E-02$, $-1.477E-04 \pm 9.255E-03$
287 (140-27) [l=111 cm][111 def.]
140, $1.370E-01 \pm 5.277E+00$, $-7.510E+00 \pm 4.105E+00$, $-5.248E-03 \pm 8.849E-02$, $-1.477E-04 \pm 9.255E-03$ - T.
 i' , $1.370E-01 \pm 5.277E+00$, $-7.510E+00 \pm 4.105E+00$, $-5.248E-03 \pm 8.849E-02$, $-1.477E-04 \pm 9.255E-03$
 j' , $1.368E-01 \pm 5.287E+00$, $-7.505E+00 \pm 4.132E+00$, $-5.243E-03 \pm 8.849E-02$, $-1.477E-04 \pm 9.255E-03$
27, $1.368E-01 \pm 5.287E+00$, $-7.505E+00 \pm 4.132E+00$, $-5.243E-03 \pm 8.849E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
288 (140-30) [l=116 cm][116 def.]
140, $-1.370E-01 \pm 5.277E+00$, $-7.510E+00 \pm 4.105E+00$, $5.248E-03 \pm 8.849E-02$, $-1.477E-04 \pm 9.255E-03$
 i' , $-1.370E-01 \pm 5.277E+00$, $-7.510E+00 \pm 4.105E+00$, $5.248E-03 \pm 8.849E-02$, $-1.477E-04 \pm 9.255E-03$ - T.
 j' , $-1.372E-01 \pm 5.267E+00$, $-7.516E+00 \pm 4.077E+00$, $5.253E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$
30, $-1.372E-01 \pm 5.267E+00$, $-7.516E+00 \pm 4.077E+00$, $5.253E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$
289 (146-43) [l=85 cm][85 def.]
146, $1.391E-01 \pm 5.262E+00$, $-7.587E+00 \pm 4.135E+00$, $-5.304E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$ - T.
 i' , $1.391E-01 \pm 5.262E+00$, $-7.587E+00 \pm 4.135E+00$, $-5.304E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$
 j' , $1.390E-01 \pm 5.258E+00$, $-7.582E+00 \pm 4.112E+00$, $-5.301E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$
43, $1.390E-01 \pm 5.258E+00$, $-7.582E+00 \pm 4.112E+00$, $-5.301E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
290 (146-46) [l=142 cm][142 def.]
146, $-1.391E-01 \pm 5.262E+00$, $-7.587E+00 \pm 4.135E+00$, $5.304E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$
 i' , $-1.391E-01 \pm 5.262E+00$, $-7.587E+00 \pm 4.135E+00$, $5.304E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
 j' , $-1.393E-01 \pm 5.269E+00$, $-7.594E+00 \pm 4.174E+00$, $5.308E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$
46, $-1.393E-01 \pm 5.269E+00$, $-7.594E+00 \pm 4.174E+00$, $5.308E-03 \pm 8.850E-02$, $-1.477E-04 \pm 9.255E-03$
291 (150-74) [l=46 cm][46 def.]
150, $-1.393E-01 \pm 5.267E+00$, $-7.362E+00 \pm 4.157E+00$, $5.321E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$ - K.
 i' , $-1.393E-01 \pm 5.267E+00$, $-7.362E+00 \pm 4.157E+00$, $5.321E-03 \pm 8.836E-02$, $-1.477E-04 \pm 9.255E-03$

16, -1.354E-01 ± 5.375E+00, -7.453E+00 ± 4.376E+00, 5.218E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
309 (10-180) [l=0 cm][0 def.]
10, -1.349E-01 ± 5.402E+00, -7.437E+00 ± 4.452E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.349E-01 ± 5.402E+00, -7.437E+00 ± 4.452E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
j', -1.349E-01 ± 5.402E+00, -7.437E+00 ± 4.452E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
180, -1.349E-01 ± 5.402E+00, -7.437E+00 ± 4.452E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - K.
310 (180-12) [l=79 cm][79 def.]
180, -1.349E-01 ± 5.402E+00, -7.437E+00 ± 4.452E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
i', -1.349E-01 ± 5.402E+00, -7.437E+00 ± 4.452E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - K.
j', -1.350E-01 ± 5.395E+00, -7.441E+00 ± 4.432E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
12, -1.350E-01 ± 5.395E+00, -7.441E+00 ± 4.432E+00, 5.217E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
311 (188-82) [l=113 cm][113 def.]
188, -1.378E-01 ± 5.228E+00, -7.311E+00 ± 3.999E+00, 5.298E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.378E-01 ± 5.228E+00, -7.311E+00 ± 3.999E+00, 5.298E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
j', -1.380E-01 ± 5.228E+00, -7.317E+00 ± 3.987E+00, 5.301E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
82, -1.380E-01 ± 5.228E+00, -7.317E+00 ± 3.987E+00, 5.301E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - K.
312 (188-86) [l=113 cm][113 def.]
188, 1.378E-01 ± 5.228E+00, -7.311E+00 ± 3.999E+00, -5.298E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
i', 1.378E-01 ± 5.228E+00, -7.311E+00 ± 3.999E+00, -5.298E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - K.
j', 1.377E-01 ± 5.238E+00, -7.305E+00 ± 4.021E+00, -5.295E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
86, 1.377E-01 ± 5.238E+00, -7.305E+00 ± 4.021E+00, -5.295E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
313 (70-192) [l=95 cm][95 def.]
70, 1.399E-01 ± 5.287E+00, -7.385E+00 ± 4.264E+00, -5.329E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - K.
i', 1.399E-01 ± 5.287E+00, -7.385E+00 ± 4.264E+00, -5.329E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
j', 1.398E-01 ± 5.283E+00, -7.380E+00 ± 4.240E+00, -5.328E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
192, 1.398E-01 ± 5.283E+00, -7.380E+00 ± 4.240E+00, -5.328E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - K.
314 (192-68) [l=1 cm][1 def.]
192, 1.398E-01 ± 5.283E+00, -7.380E+00 ± 4.240E+00, -5.328E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
i', 1.398E-01 ± 5.283E+00, -7.380E+00 ± 4.240E+00, -5.328E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03 - K.
j', 1.398E-01 ± 5.283E+00, -7.380E+00 ± 4.240E+00, -5.328E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
68, 1.398E-01 ± 5.283E+00, -7.380E+00 ± 4.240E+00, -5.328E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
315 (194-97) [l=113 cm][113 def.]
194, -1.361E-01 ± 5.331E+00, -7.249E+00 ± 4.301E+00, 5.266E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03 - K.
i', -1.361E-01 ± 5.331E+00, -7.249E+00 ± 4.301E+00, 5.266E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03
j', -1.363E-01 ± 5.321E+00, -7.255E+00 ± 4.271E+00, 5.268E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03
97, -1.363E-01 ± 5.321E+00, -7.255E+00 ± 4.271E+00, 5.268E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03 - K.
316 (194-100) [l=113 cm][113 def.]
194, 1.361E-01 ± 5.331E+00, -7.249E+00 ± 4.301E+00, -5.266E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03
i', 1.361E-01 ± 5.331E+00, -7.249E+00 ± 4.301E+00, -5.266E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03 - K.
j', 1.359E-01 ± 5.341E+00, -7.243E+00 ± 4.332E+00, -5.265E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03
100, 1.359E-01 ± 5.341E+00, -7.243E+00 ± 4.332E+00, -5.265E-03 ± 8.838E-02, -1.477E-04 ± 9.255E-03
317 (200-35) [l=113 cm][113 def.]
200, 1.378E-01 ± 5.228E+00, -7.541E+00 ± 3.981E+00, -5.273E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - T.
i', 1.378E-01 ± 5.228E+00, -7.541E+00 ± 3.981E+00, -5.273E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
j', 1.377E-01 ± 5.238E+00, -7.535E+00 ± 4.001E+00, -5.269E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
35, 1.377E-01 ± 5.238E+00, -7.535E+00 ± 4.001E+00, -5.269E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - T.
318 (200-39) [l=113 cm][113 def.]
200, -1.378E-01 ± 5.228E+00, -7.541E+00 ± 3.981E+00, 5.273E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
i', -1.378E-01 ± 5.228E+00, -7.541E+00 ± 3.981E+00, 5.273E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03 - T.
j', -1.380E-01 ± 5.228E+00, -7.546E+00 ± 3.972E+00, 5.277E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
39, -1.380E-01 ± 5.228E+00, -7.546E+00 ± 3.972E+00, 5.277E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
319 (204-20) [l=113 cm][113 def.]
204, 1.361E-01 ± 5.331E+00, -7.479E+00 ± 4.253E+00, -5.225E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - T.
i', 1.361E-01 ± 5.331E+00, -7.479E+00 ± 4.253E+00, -5.225E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
j', 1.359E-01 ± 5.341E+00, -7.473E+00 ± 4.281E+00, -5.223E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
20, 1.359E-01 ± 5.341E+00, -7.473E+00 ± 4.281E+00, -5.223E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - T.
320 (204-23) [l=113 cm][113 def.]
204, -1.361E-01 ± 5.331E+00, -7.479E+00 ± 4.253E+00, 5.225E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03
i', -1.361E-01 ± 5.331E+00, -7.479E+00 ± 4.253E+00, 5.225E-03 ± 8.848E-02, -1.477E-04 ± 9.255E-03 - T.
j', -1.363E-01 ± 5.321E+00, -7.485E+00 ± 4.225E+00, 5.228E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
23, -1.363E-01 ± 5.321E+00, -7.485E+00 ± 4.225E+00, 5.228E-03 ± 8.849E-02, -1.477E-04 ± 9.255E-03
321 (207-51) [l=115 cm][115 def.]
207, 1.405E-01 ± 5.306E+00, -7.635E+00 ± 4.387E+00, -5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03 - T.
i', 1.405E-01 ± 5.306E+00, -7.635E+00 ± 4.387E+00, -5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
j', 1.403E-01 ± 5.300E+00, -7.629E+00 ± 4.355E+00, -5.321E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
51, 1.403E-01 ± 5.300E+00, -7.629E+00 ± 4.355E+00, -5.321E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03 - T.
322 (207-55) [l=111 cm][111 def.]
207, -1.405E-01 ± 5.306E+00, -7.635E+00 ± 4.387E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
i', -1.405E-01 ± 5.306E+00, -7.635E+00 ± 4.387E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03 - T.
j', -1.406E-01 ± 5.311E+00, -7.641E+00 ± 4.418E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
55, -1.406E-01 ± 5.311E+00, -7.641E+00 ± 4.418E+00, 5.322E-03 ± 8.851E-02, -1.477E-04 ± 9.255E-03
323 (213-1) [l=151 cm][151 def.]
213, 0.000E+00 ± 0.000E+00, -7.156E+00 ± 4.570E+00, -1.376E-03 ± 1.006E+00, 0.000E+00 ± 0.000E+00 - T.
i', 0.000E+00 ± 0.000E+00, -7.156E+00 ± 4.570E+00, -1.376E-03 ± 1.006E+00, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.154E+00 ± 3.053E+00, -1.390E-03 ± 1.006E+00, 0.000E+00 ± 0.000E+00
1, 0.000E+00 ± 0.000E+00, -7.154E+00 ± 3.053E+00, -1.390E-03 ± 1.006E+00, 0.000E+00 ± 0.000E+00 - T.
324 (1-214) [l=151 cm][151 def.]
1, 0.000E+00 ± 0.000E+00, -7.154E+00 ± 3.053E+00, -1.390E-03 ± 1.006E+00, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.154E+00 ± 3.053E+00, -1.390E-03 ± 1.006E+00, 0.000E+00 ± 0.000E+00 - T.
j', 0.000E+00 ± 0.000E+00, -7.152E+00 ± 2.171E+00, -1.426E-03 ± 1.006E+00, 0.000E+00 ± 0.000E+00
214, 0.000E+00 ± 0.000E+00, -7.152E+00 ± 2.171E+00, -1.426E-03 ± 1.006E+00, 0.000E+00 ± 0.000E+00
325 (215-5) [l=151 cm][151 def.]
215, 0.000E+00 ± 0.000E+00, -7.215E+00 ± 2.149E+00, 6.066E-02 ± 9.982E-01, 0.000E+00 ± 0.000E+00 - T.
i', 0.000E+00 ± 0.000E+00, -7.215E+00 ± 2.149E+00, 6.066E-02 ± 9.982E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.306E+00 ± 2.967E+00, 6.062E-02 ± 9.983E-01, 0.000E+00 ± 0.000E+00
5, 0.000E+00 ± 0.000E+00, -7.306E+00 ± 2.967E+00, 6.062E-02 ± 9.983E-01, 0.000E+00 ± 0.000E+00 - T.

344	(34-38)	[l=227 cm][227 def.]	32,	0.000E+00 ±	0.000E+00,	-7.387E+00 ±	3.917E+00,	3.324E-02 ±	8.907E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.387E+00 ±	3.917E+00,	3.324E-02 ±	8.907E-02,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-7.436E+00 ±	3.889E+00,	3.323E-02 ±	8.907E-02,	0.000E+00 ±	0.000E+00
			34,	0.000E+00 ±	0.000E+00,	-7.436E+00 ±	3.889E+00,	3.323E-02 ±	8.907E-02,	0.000E+00 ±	0.000E+00
345	(38-36)	[l=308 cm][308 def.]	34,	0.000E+00 ±	0.000E+00,	-7.436E+00 ±	3.889E+00,	3.323E-02 ±	8.907E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.436E+00 ±	3.889E+00,	3.323E-02 ±	8.907E-02,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-7.485E+00 ±	3.878E+00,	1.539E-03 ±	8.949E-02,	0.000E+00 ±	0.000E+00
			38,	0.000E+00 ±	0.000E+00,	-7.485E+00 ±	3.878E+00,	1.539E-03 ±	8.949E-02,	0.000E+00 ±	0.000E+00
346	(36-220)	[l=308 cm][308 def.]	38,	0.000E+00 ±	0.000E+00,	-7.485E+00 ±	3.878E+00,	1.539E-03 ±	8.949E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.485E+00 ±	3.878E+00,	1.539E-03 ±	8.949E-02,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-7.490E+00 ±	3.942E+00,	1.537E-03 ±	8.949E-02,	0.000E+00 ±	0.000E+00
			36,	0.000E+00 ±	0.000E+00,	-7.490E+00 ±	3.942E+00,	1.537E-03 ±	8.949E-02,	0.000E+00 ±	0.000E+00
347	(220-41)	[l=28 cm][28 def.]	36,	0.000E+00 ±	0.000E+00,	-7.490E+00 ±	3.942E+00,	1.537E-03 ±	8.949E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.490E+00 ±	3.942E+00,	1.537E-03 ±	8.949E-02,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-7.494E+00 ±	4.041E+00,	1.251E-03 ±	8.939E-02,	0.000E+00 ±	0.000E+00
			220,	0.000E+00 ±	0.000E+00,	-7.494E+00 ±	4.041E+00,	1.251E-03 ±	8.939E-02,	0.000E+00 ±	0.000E+00
348	(41-324)	[l=28 cm][28 def.]	220,	0.000E+00 ±	0.000E+00,	-7.494E+00 ±	4.041E+00,	1.251E-03 ±	8.939E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.494E+00 ±	4.041E+00,	1.251E-03 ±	8.939E-02,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-7.495E+00 ±	4.050E+00,	1.241E-03 ±	8.939E-02,	0.000E+00 ±	0.000E+00
			41,	0.000E+00 ±	0.000E+00,	-7.495E+00 ±	4.050E+00,	1.241E-03 ±	8.939E-02,	0.000E+00 ±	0.000E+00
349	(324-325)	[l=227 cm][227 def.]	41,	0.000E+00 ±	0.000E+00,	-7.495E+00 ±	4.050E+00,	1.241E-03 ±	8.939E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.495E+00 ±	4.050E+00,	1.241E-03 ±	8.939E-02,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-7.495E+00 ±	4.060E+00,	1.234E-03 ±	8.938E-02,	0.000E+00 ±	0.000E+00
			324,	0.000E+00 ±	0.000E+00,	-7.495E+00 ±	4.060E+00,	1.234E-03 ±	8.938E-02,	0.000E+00 ±	0.000E+00
350	(44-221)	[l=164 cm][164 def.]	324,	0.000E+00 ±	0.000E+00,	-7.495E+00 ±	4.060E+00,	1.234E-03 ±	8.938E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.495E+00 ±	4.060E+00,	1.234E-03 ±	8.938E-02,	0.000E+00 ±	0.000E+00
			j',	0.000E+00 ±	0.000E+00,	-7.402E+00 ±	4.057E+00,	2.781E-02 ±	9.282E-02,	0.000E+00 ±	0.000E+00
			325,	0.000E+00 ±	0.000E+00,	-7.402E+00 ±	4.057E+00,	2.781E-02 ±	9.282E-02,	0.000E+00 ±	0.000E+00
351	(221-48)	[l=164 cm][164 def.]	44,	0.000E+00 ±	0.000E+00,	-7.447E+00 ±	4.114E+00,	2.777E-02 ±	9.283E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.447E+00 ±	4.1				

378	(331-91)	[l=28 cm][28 def.]	j',	0.000E+00 ±	0.000E+00,	-7.157E+00 ±	4.111E+00,	2.514E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
			331,	0.000E+00 ±	0.000E+00,	-7.157E+00 ±	4.111E+00,	2.514E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
			[l=28 cm][28 def.]								
			331,	0.000E+00 ±	0.000E+00,	-7.157E+00 ±	4.111E+00,	2.514E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.157E+00 ±	4.111E+00,	2.514E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
379	(91-228)	[l=28 cm][28 def.]	j',	0.000E+00 ±	0.000E+00,	-7.158E+00 ±	4.115E+00,	2.508E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
			91,	0.000E+00 ±	0.000E+00,	-7.158E+00 ±	4.115E+00,	2.508E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
			[l=28 cm][28 def.]								
			91,	0.000E+00 ±	0.000E+00,	-7.158E+00 ±	4.115E+00,	2.508E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.158E+00 ±	4.115E+00,	2.508E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
380	(228-95)	[l=163 cm][163 def.]	j',	0.000E+00 ±	0.000E+00,	-7.159E+00 ±	4.119E+00,	2.501E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
			228,	0.000E+00 ±	0.000E+00,	-7.159E+00 ±	4.119E+00,	2.501E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
			[l=163 cm][163 def.]								
			228,	0.000E+00 ±	0.000E+00,	-7.159E+00 ±	4.119E+00,	2.501E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.159E+00 ±	4.119E+00,	2.501E-03 ±	9.222E-02,	0.000E+00 ±	0.000E+00
381	(95-332)	[l=163 cm][163 def.]	j',	0.000E+00 ±	0.000E+00,	-7.163E+00 ±	4.143E+00,	2.428E-03 ±	9.224E-02,	0.000E+00 ±	0.000E+00
			95,	0.000E+00 ±	0.000E+00,	-7.163E+00 ±	4.143E+00,	2.428E-03 ±	9.224E-02,	0.000E+00 ±	0.000E+00
			[l=163 cm][163 def.]								
			95,	0.000E+00 ±	0.000E+00,	-7.163E+00 ±	4.143E+00,	2.428E-03 ±	9.224E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.163E+00 ±	4.143E+00,	2.428E-03 ±	9.224E-02,	0.000E+00 ±	0.000E+00
382	(332-333)	[l=226 cm][226 def.]	j',	0.000E+00 ±	0.000E+00,	-7.167E+00 ±	4.169E+00,	2.382E-03 ±	9.223E-02,	0.000E+00 ±	0.000E+00
			332,	0.000E+00 ±	0.000E+00,	-7.167E+00 ±	4.169E+00,	2.382E-03 ±	9.223E-02,	0.000E+00 ±	0.000E+00
			[l=226 cm][226 def.]								
			332,	0.000E+00 ±	0.000E+00,	-7.167E+00 ±	4.169E+00,	2.382E-03 ±	9.223E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.167E+00 ±	4.169E+00,	2.382E-03 ±	9.223E-02,	0.000E+00 ±	0.000E+00
383	(333-98)	[l=96 cm][96 def.]	j',	0.000E+00 ±	0.000E+00,	-7.154E+00 ±	4.220E+00,	-1.467E-02 ±	8.569E-02,	0.000E+00 ±	0.000E+00
			333,	0.000E+00 ±	0.000E+00,	-7.154E+00 ±	4.220E+00,	-1.467E-02 ±	8.569E-02,	0.000E+00 ±	0.000E+00
			[l=96 cm][96 def.]								
			333,	0.000E+00 ±	0.000E+00,	-7.154E+00 ±	4.220E+00,	-1.467E-02 ±	8.569E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.154E+00 ±	4.220E+00,	-1.467E-02 ±	8.569E-02,	0.000E+00 ±	0.000E+00
384	(98-229)	[l=96 cm][96 def.]	j',	0.000E+00 ±	0.000E+00,	-7.140E+00 ±	4.239E+00,	-1.469E-02 ±	8.569E-02,	0.000E+00 ±	0.000E+00
			98,	0.000E+00 ±	0.000E+00,	-7.140E+00 ±	4.239E+00,	-1.469E-02 ±	8.569E-02,	0.000E+00 ±	0.000E+00
			[l=96 cm][96 def.]								
			98,	0.000E+00 ±	0.000E+00,	-7.140E+00 ±	4.239E+00,	-1.469E-02 ±	8.569E-02,	0.000E+00 ±	0.000E+00
			i',	0.000E+00 ±	0.000E+00,	-7.140E+00 ±	4.239E+00,	-1.469E-02 ±	8.569E-02,	0.000E+00 ±	0.000E+00
385	(229-102)	[l=96 cm][96 def.]	j',	0.000E+							

116, 0.000E+00 ± 0.000E+00, -7.310E+00 ± 2.540E+00, -4.529E-02 ± 9.500E-01, 0.000E+00 ± 0.000E+00
395 (337-336) [l=200 cm][200 def.]
337, 0.000E+00 ± 0.000E+00, -7.236E+00 ± 9.976E-01, -4.530E-02 ± 9.499E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.236E+00 ± 9.976E-01, -4.530E-02 ± 9.499E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.183E+00 ± 1.230E+00, -7.929E-03 ± 9.471E-01, 0.000E+00 ± 0.000E+00
336, 0.000E+00 ± 0.000E+00, -7.183E+00 ± 1.230E+00, -7.929E-03 ± 9.471E-01, 0.000E+00 ± 0.000E+00
396 (116-337) [l=163 cm][163 def.]
116, 0.000E+00 ± 0.000E+00, -7.310E+00 ± 2.540E+00, -4.529E-02 ± 9.500E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.310E+00 ± 2.540E+00, -4.529E-02 ± 9.500E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.236E+00 ± 9.976E-01, -4.530E-02 ± 9.499E-01, 0.000E+00 ± 0.000E+00
337, 0.000E+00 ± 0.000E+00, -7.236E+00 ± 9.976E-01, -4.530E-02 ± 9.499E-01, 0.000E+00 ± 0.000E+00
397 (226-120) [l=153 cm][153 def.]
226, 0.000E+00 ± 0.000E+00, -7.268E+00 ± 4.041E+00, -1.176E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.268E+00 ± 4.041E+00, -1.176E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.250E+00 ± 2.593E+00, -1.175E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
120, 0.000E+00 ± 0.000E+00, -7.250E+00 ± 2.593E+00, -1.175E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
398 (120-338) [l=153 cm][153 def.]
120, 0.000E+00 ± 0.000E+00, -7.250E+00 ± 2.593E+00, -1.175E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.250E+00 ± 2.593E+00, -1.175E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.232E+00 ± 1.147E+00, -1.176E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
338, 0.000E+00 ± 0.000E+00, -7.232E+00 ± 1.147E+00, -1.176E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
399 (338-339) [l=200 cm][200 def.]
338, 0.000E+00 ± 0.000E+00, -7.232E+00 ± 1.147E+00, -1.176E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.232E+00 ± 1.147E+00, -1.176E-02 ± 9.516E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.285E+00 ± 9.514E-01, 6.418E-02 ± 9.532E-01, 0.000E+00 ± 0.000E+00
339, 0.000E+00 ± 0.000E+00, -7.285E+00 ± 9.514E-01, 6.418E-02 ± 9.532E-01, 0.000E+00 ± 0.000E+00
400 (339-124) [l=163 cm][163 def.]
339, 0.000E+00 ± 0.000E+00, -7.285E+00 ± 9.514E-01, 6.418E-02 ± 9.532E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.285E+00 ± 9.514E-01, 6.418E-02 ± 9.532E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.390E+00 ± 2.496E+00, 6.416E-02 ± 9.533E-01, 0.000E+00 ± 0.000E+00
124, 0.000E+00 ± 0.000E+00, -7.390E+00 ± 2.496E+00, 6.416E-02 ± 9.533E-01, 0.000E+00 ± 0.000E+00
401 (124-220) [l=163 cm][163 def.]
124, 0.000E+00 ± 0.000E+00, -7.390E+00 ± 2.496E+00, 6.416E-02 ± 9.533E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.390E+00 ± 2.496E+00, 6.416E-02 ± 9.533E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.494E+00 ± 4.041E+00, 6.417E-02 ± 9.533E-01, 0.000E+00 ± 0.000E+00
220, 0.000E+00 ± 0.000E+00, -7.494E+00 ± 4.041E+00, 6.417E-02 ± 9.533E-01, 0.000E+00 ± 0.000E+00
402 (230-211) [l=208 cm][208 def.]
230, 0.000E+00 ± 0.000E+00, -7.497E+00 ± 1.648E+00, -3.118E-02 ± 9.457E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.497E+00 ± 1.648E+00, -3.118E-02 ± 9.457E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.432E+00 ± 2.446E+00, -3.117E-02 ± 9.459E-01, 0.000E+00 ± 0.000E+00
211, 0.000E+00 ± 0.000E+00, -7.432E+00 ± 2.446E+00, -3.117E-02 ± 9.459E-01, 0.000E+00 ± 0.000E+00
403 (211-223) [l=208 cm][208 def.]
211, 0.000E+00 ± 0.000E+00, -7.432E+00 ± 2.446E+00, -3.117E-02 ± 9.459E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.432E+00 ± 2.446E+00, -3.117E-02 ± 9.459E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.367E+00 ± 4.414E+00, -3.118E-02 ± 9.458E-01, 0.000E+00 ± 0.000E+00
223, 0.000E+00 ± 0.000E+00, -7.367E+00 ± 4.414E+00, -3.118E-02 ± 9.458E-01, 0.000E+00 ± 0.000E+00
404 (291-227) [l=165 cm][165 def.]
291, 0.000E+00 ± 0.000E+00, -6.326E+00 ± 2.341E+00, 4.763E-01 ± 9.480E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.326E+00 ± 2.341E+00, 4.763E-01 ± 9.480E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.116E+00 ± 3.974E+00, 3.957E-01 ± 1.020E+00, 0.000E+00 ± 0.000E+00
227, 0.000E+00 ± 0.000E+00, -7.116E+00 ± 3.974E+00, 3.957E-01 ± 1.020E+00, 0.000E+00 ± 0.000E+00
405 (293-291) [l=132 cm][132 def.]
293, 0.000E+00 ± 0.000E+00, -5.820E+00 ± 1.139E+00, 2.629E-01 ± 8.769E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -5.820E+00 ± 1.139E+00, 2.629E-01 ± 8.769E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.326E+00 ± 2.341E+00, 4.763E-01 ± 9.480E-01, 0.000E+00 ± 0.000E+00
291, 0.000E+00 ± 0.000E+00, -6.326E+00 ± 2.341E+00, 4.763E-01 ± 9.480E-01, 0.000E+00 ± 0.000E+00
406 (295-293) [l=218 cm][218 def.]
295, 0.000E+00 ± 0.000E+00, -5.821E+00 ± 9.418E-01, -2.687E-01 ± 8.687E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -5.821E+00 ± 9.418E-01, -2.687E-01 ± 8.687E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -5.820E+00 ± 1.139E+00, 2.629E-01 ± 8.769E-01, 0.000E+00 ± 0.000E+00
293, 0.000E+00 ± 0.000E+00, -5.820E+00 ± 1.139E+00, 2.629E-01 ± 8.769E-01, 0.000E+00 ± 0.000E+00
407 (219-297) [l=185 cm][185 def.]
219, 0.000E+00 ± 0.000E+00, -7.339E+00 ± 3.949E+00, -4.531E-01 ± 1.020E+00, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.339E+00 ± 3.949E+00, -4.531E-01 ± 1.020E+00, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.351E+00 ± 2.129E+00, -5.100E-01 ± 9.353E-01, 0.000E+00 ± 0.000E+00
297, 0.000E+00 ± 0.000E+00, -6.351E+00 ± 2.129E+00, -5.100E-01 ± 9.353E-01, 0.000E+00 ± 0.000E+00
408 (297-295) [l=132 cm][132 def.]
297, 0.000E+00 ± 0.000E+00, -6.351E+00 ± 2.129E+00, -5.100E-01 ± 9.353E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.351E+00 ± 2.129E+00, -5.100E-01 ± 9.353E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -5.821E+00 ± 9.418E-01, -2.687E-01 ± 8.687E-01, 0.000E+00 ± 0.000E+00
295, 0.000E+00 ± 0.000E+00, -5.821E+00 ± 9.418E-01, -2.687E-01 ± 8.687E-01, 0.000E+00 ± 0.000E+00
409 (299-239) [l=185 cm][185 def.]
299, 0.000E+00 ± 0.000E+00, -6.494E+00 ± 2.226E+00, 5.036E-01 ± 9.453E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -6.494E+00 ± 2.226E+00, 5.036E-01 ± 9.453E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.416E+00 ± 4.075E+00, 3.813E-01 ± 1.050E+00, 0.000E+00 ± 0.000E+00
239, 0.000E+00 ± 0.000E+00, -7.416E+00 ± 4.075E+00, 3.813E-01 ± 1.050E+00, 0.000E+00 ± 0.000E+00
410 (301-299) [l=132 cm][132 def.]
301, 0.000E+00 ± 0.000E+00, -5.956E+00 ± 1.033E+00, 2.847E-01 ± 8.701E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -5.956E+00 ± 1.033E+00, 2.847E-01 ± 8.701E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -6.494E+00 ± 2.226E+00, 5.036E-01 ± 9.453E-01, 0.000E+00 ± 0.000E+00
299, 0.000E+00 ± 0.000E+00, -6.494E+00 ± 2.226E+00, 5.036E-01 ± 9.453E-01, 0.000E+00 ± 0.000E+00
411 (303-301) [l=218 cm][218 def.]
303, 0.000E+00 ± 0.000E+00, -5.909E+00 ± 1.191E+00, -2.427E-01 ± 8.772E-01, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -5.909E+00 ± 1.191E+00, -2.427E-01 ± 8.772E-01, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -5.956E+00 ± 1.033E+00, 2.847E-01 ± 8.701E-01, 0.000E+00 ± 0.000E+00
301, 0.000E+00 ± 0.000E+00, -5.956E+00 ± 1.033E+00, 2.847E-01 ± 8.701E-01, 0.000E+00 ± 0.000E+00

412 (238-305) [l=165 cm][165 def.]
 238, 0.000E+00 ± 0.000E+00, -7.192E+00 ± 4.058E+00, -4.142E-01 ± 1.051E+00, 0.000E+00 ± 0.000E+00
 i', 0.000E+00 ± 0.000E+00, -7.192E+00 ± 4.058E+00, -4.142E-01 ± 1.051E+00, 0.000E+00 ± 0.000E+00
 j', 0.000E+00 ± 0.000E+00, -6.395E+00 ± 2.398E+00, -4.682E-01 ± 9.572E-01, 0.000E+00 ± 0.000E+00
 305, 0.000E+00 ± 0.000E+00, -6.395E+00 ± 2.398E+00, -4.682E-01 ± 9.572E-01, 0.000E+00 ± 0.000E+00

413 (305-303) [l=132 cm][132 def.]
 305, 0.000E+00 ± 0.000E+00, -6.395E+00 ± 2.398E+00, -4.682E-01 ± 9.572E-01, 0.000E+00 ± 0.000E+00
 i', 0.000E+00 ± 0.000E+00, -6.395E+00 ± 2.398E+00, -4.682E-01 ± 9.572E-01, 0.000E+00 ± 0.000E+00
 j', 0.000E+00 ± 0.000E+00, -5.909E+00 ± 1.191E+00, -2.427E-01 ± 8.772E-01, 0.000E+00 ± 0.000E+00
 303, 0.000E+00 ± 0.000E+00, -5.909E+00 ± 1.191E+00, -2.427E-01 ± 8.772E-01, 0.000E+00 ± 0.000E+00

414 (24-119) [l=60 cm][60 def.]
 24, -1.367E-01 ± 5.292E+00, 4.204E-02 ± 6.327E-01, 5.240E-03 ± 8.849E-02, 3.019E-02 ± 9.707E-01
 i', -1.367E-01 ± 5.292E+00, 4.204E-02 ± 6.327E-01, 5.240E-03 ± 8.849E-02, 3.019E-02 ± 9.707E-01
 j', -1.186E-01 ± 4.712E+00, 3.889E-02 ± 5.974E-01, 5.240E-03 ± 8.849E-02, 3.019E-02 ± 9.707E-01
 119, -1.186E-01 ± 4.712E+00, 3.889E-02 ± 5.974E-01, 5.240E-03 ± 8.849E-02, 3.019E-02 ± 9.707E-01

415 (31-237) [l=240 cm][240 def.]
 31, -1.372E-01 ± 5.263E+00, 4.204E-02 ± 6.327E-01, 5.255E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01
 i', -1.372E-01 ± 5.263E+00, 4.204E-02 ± 6.327E-01, 5.255E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01
 j', -6.478E-02 ± 2.943E+00, 2.942E-02 ± 5.105E-01, 5.255E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01
 237, -6.478E-02 ± 2.943E+00, 2.942E-02 ± 5.105E-01, 5.255E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01

416 (40-127) [l=60 cm][60 def.]
 40, -1.389E-01 ± 5.256E+00, 4.204E-02 ± 6.327E-01, 5.299E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01
 i', -1.389E-01 ± 5.256E+00, 4.204E-02 ± 6.327E-01, 5.299E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01
 j', -1.208E-01 ± 4.676E+00, 3.886E-02 ± 5.974E-01, 5.299E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01
 127, -1.208E-01 ± 4.676E+00, 3.886E-02 ± 5.974E-01, 5.299E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01

417 (340-253) [l=240 cm][240 def.]
 340, -1.394E-01 ± 5.272E+00, 4.204E-02 ± 6.327E-01, 5.310E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01
 i', -1.394E-01 ± 5.272E+00, 4.204E-02 ± 6.327E-01, 5.310E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01
 j', -6.695E-02 ± 2.958E+00, 2.929E-02 ± 5.104E-01, 5.310E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01
 253, -6.695E-02 ± 2.958E+00, 2.929E-02 ± 5.104E-01, 5.310E-03 ± 8.850E-02, 3.019E-02 ± 9.707E-01

418 (341-254) [l=240 cm][240 def.]
 341, -1.394E-01 ± 5.272E+00, 4.327E-02 ± 6.279E-01, 5.323E-03 ± 8.836E-02, 2.553E-02 ± 9.710E-01
 i', -1.394E-01 ± 5.272E+00, 4.327E-02 ± 6.279E-01, 5.323E-03 ± 8.836E-02, 2.553E-02 ± 9.710E-01
 j', -7.814E-02 ± 2.958E+00, 3.049E-02 ± 5.051E-01, 5.323E-03 ± 8.836E-02, 2.553E-02 ± 9.710E-01
 254, -7.814E-02 ± 2.958E+00, 3.049E-02 ± 5.051E-01, 5.323E-03 ± 8.836E-02, 2.553E-02 ± 9.710E-01

419 (78-122) [l=60 cm][60 def.]
 78, -1.389E-01 ± 5.256E+00, 4.327E-02 ± 6.279E-01, 5.315E-03 ± 8.836E-02, 2.552E-02 ± 9.710E-01
 i', -1.389E-01 ± 5.256E+00, 4.327E-02 ± 6.279E-01, 5.315E-03 ± 8.836E-02, 2.552E-02 ± 9.710E-01
 j', -1.236E-01 ± 4.676E+00, 4.008E-02 ± 5.925E-01, 5.315E-03 ± 8.836E-02, 2.552E-02 ± 9.710E-01
 122, -1.236E-01 ± 4.676E+00, 4.008E-02 ± 5.925E-01, 5.315E-03 ± 8.836E-02, 2.552E-02 ± 9.710E-01

420 (87-233) [l=240 cm][240 def.]
 87, -1.372E-01 ± 5.263E+00, 4.327E-02 ± 6.279E-01, 5.286E-03 ± 8.837E-02, 2.553E-02 ± 9.710E-01
 i', -1.372E-01 ± 5.263E+00, 4.327E-02 ± 6.279E-01, 5.286E-03 ± 8.837E-02, 2.553E-02 ± 9.710E-01
 j', -7.597E-02 ± 2.941E+00, 3.058E-02 ± 5.051E-01, 5.286E-03 ± 8.837E-02, 2.553E-02 ± 9.710E-01
 233, -7.597E-02 ± 2.941E+00, 3.058E-02 ± 5.051E-01, 5.286E-03 ± 8.837E-02, 2.553E-02 ± 9.710E-01

421 (94-114) [l=60 cm][60 def.]
 94, -1.367E-01 ± 5.292E+00, 4.327E-02 ± 6.279E-01, 5.276E-03 ± 8.837E-02, 2.553E-02 ± 9.710E-01
 i', -1.367E-01 ± 5.292E+00, 4.327E-02 ± 6.279E-01, 5.276E-03 ± 8.837E-02, 2.553E-02 ± 9.710E-01
 j', -1.214E-01 ± 4.711E+00, 4.010E-02 ± 5.925E-01, 5.276E-03 ± 8.837E-02, 2.553E-02 ± 9.710E-01
 114, -1.214E-01 ± 4.711E+00, 4.010E-02 ± 5.925E-01, 5.276E-03 ± 8.837E-02, 2.553E-02 ± 9.710E-01

422 (342-275) [l=0 cm][0 def.]
 342, -1.992E-01 ± 7.315E+00, -5.392E-02 ± 7.616E-01, 5.344E-03 ± 8.843E-02, -2.753E-02 ± 9.469E-01
 i', -1.992E-01 ± 7.315E+00, -5.392E-02 ± 7.616E-01, 5.344E-03 ± 8.843E-02, -2.753E-02 ± 9.469E-01
 j', -1.993E-01 ± 7.317E+00, -5.393E-02 ± 7.618E-01, 5.344E-03 ± 8.843E-02, -2.753E-02 ± 9.469E-01
 275, -1.993E-01 ± 7.317E+00, -5.393E-02 ± 7.618E-01, 5.344E-03 ± 8.843E-02, -2.753E-02 ± 9.469E-01

423 (280-319) [l=0 cm][0 def.]
 280, 4.567E-02 ± 6.568E-01, -6.963E+00 ± 2.110E+00, 2.756E-02 ± 9.471E-01, 1.527E-03 ± 3.006E-02
 i', 4.567E-02 ± 6.568E-01, -6.963E+00 ± 2.110E+00, 2.756E-02 ± 9.471E-01, 1.527E-03 ± 3.006E-02
 j', 4.568E-02 ± 6.568E-01, -6.963E+00 ± 2.107E+00, 2.756E-02 ± 9.471E-01, 1.527E-03 ± 3.006E-02
 319, 4.568E-02 ± 6.568E-01, -6.963E+00 ± 2.107E+00, 2.756E-02 ± 9.471E-01, 1.527E-03 ± 3.006E-02

424 (319-281) [l=199 cm][199 def.]
 319, 4.560E-02 ± 6.577E-01, -6.824E+00 ± 1.716E+00, 2.757E-02 ± 9.471E-01, 1.817E-03 ± 3.479E-02
 i', 4.560E-02 ± 6.577E-01, -6.824E+00 ± 1.716E+00, 2.757E-02 ± 9.471E-01, 1.817E-03 ± 3.479E-02
 j', 5.043E-02 ± 7.037E-01, -7.379E+00 ± 6.954E-01, 1.857E-01 ± 9.497E-01, 2.430E-03 ± 3.623E-02
 281, 5.043E-02 ± 7.037E-01, -7.379E+00 ± 6.954E-01, 1.857E-01 ± 9.497E-01, 2.430E-03 ± 3.623E-02

425 (343-319) [l=0 cm][0 def.]
 343, -1.497E-01 ± 5.694E+00, -4.567E-02 ± 6.568E-01, 5.290E-03 ± 8.837E-02, -2.756E-02 ± 9.471E-01
 i', -1.497E-01 ± 5.694E+00, -4.567E-02 ± 6.568E-01, 5.290E-03 ± 8.837E-02, -2.756E-02 ± 9.471E-01
 j', -1.498E-01 ± 5.695E+00, -4.568E-02 ± 6.568E-01, 5.290E-03 ± 8.837E-02, -2.756E-02 ± 9.471E-01
 319, -1.498E-01 ± 5.695E+00, -4.568E-02 ± 6.568E-01, 5.290E-03 ± 8.837E-02, -2.756E-02 ± 9.471E-01

426 (290-344) [l=0 cm][0 def.]
 290, 4.567E-02 ± 6.568E-01, -7.038E+00 ± 2.215E+00, 2.755E-02 ± 9.470E-01, 1.543E-03 ± 3.006E-02
 i', 4.567E-02 ± 6.568E-01, -7.038E+00 ± 2.215E+00, 2.755E-02 ± 9.470E-01, 1.543E-03 ± 3.006E-02
 j', 4.568E-02 ± 6.568E-01, -7.038E+00 ± 2.212E+00, 2.755E-02 ± 9.470E-01, 1.543E-03 ± 3.006E-02
 344, 4.568E-02 ± 6.568E-01, -7.038E+00 ± 2.212E+00, 2.755E-02 ± 9.470E-01, 1.543E-03 ± 3.006E-02

427 (344-289) [l=199 cm][199 def.]
 344, 4.560E-02 ± 6.577E-01, -6.897E+00 ± 1.822E+00, 2.755E-02 ± 9.470E-01, 1.835E-03 ± 3.479E-02
 i', 4.560E-02 ± 6.577E-01, -6.897E+00 ± 1.822E+00, 2.755E-02 ± 9.470E-01, 1.835E-03 ± 3.479E-02
 j', 5.106E-02 ± 7.040E-01, -7.729E+00 ± 1.423E+00, 2.836E-01 ± 1.011E+00, 2.743E-03 ± 3.613E-02
 289, 5.106E-02 ± 7.040E-01, -7.729E+00 ± 1.423E+00, 2.836E-01 ± 1.011E+00, 2.743E-03 ± 3.613E-02

428 (345-344) [l=0 cm][0 def.]
 345, -1.520E-01 ± 5.701E+00, -4.567E-02 ± 6.568E-01, 5.339E-03 ± 8.838E-02, -2.755E-02 ± 9.470E-01
 i', -1.520E-01 ± 5.701E+00, -4.567E-02 ± 6.568E-01, 5.339E-03 ± 8.838E-02, -2.755E-02 ± 9.470E-01
 j', -1.520E-01 ± 5.702E+00, -4.568E-02 ± 6.568E-01, 5.339E-03 ± 8.838E-02, -2.755E-02 ± 9.470E-01
 344, -1.520E-01 ± 5.702E+00, -4.568E-02 ± 6.568E-01, 5.339E-03 ± 8.838E-02, -2.755E-02 ± 9.470E-01

429 (276-346) [l=0 cm][0 def.]

276, 4.567E-02 ± 6.568E-01, -6.508E+00 ± 2.053E+00, 2.758E-02 ± 9.472E-01, 2.215E-03 ± 4.140E-02
 i', 4.567E-02 ± 6.568E-01, -6.508E+00 ± 2.053E+00, 2.758E-02 ± 9.472E-01, 2.215E-03 ± 4.140E-02
 j', 4.568E-02 ± 6.569E-01, -6.508E+00 ± 2.052E+00, 2.758E-02 ± 9.472E-01, 2.215E-03 ± 4.140E-02
 346, 4.568E-02 ± 6.569E-01, -6.508E+00 ± 2.052E+00, 2.758E-02 ± 9.472E-01, 2.215E-03 ± 4.140E-02
 430 (346-185) [l=448 cm][448 def.]
 346, 4.568E-02 ± 6.569E-01, -6.743E+00 ± 2.283E+00, 2.758E-02 ± 9.472E-01, 1.809E-03 ± 3.480E-02
 i', 4.568E-02 ± 6.569E-01, -6.743E+00 ± 2.283E+00, 2.758E-02 ± 9.472E-01, 1.809E-03 ± 3.480E-02
 j', 5.451E-02 ± 7.618E-01, -6.885E+00 ± 3.248E+00, 2.766E-02 ± 9.446E-01, 1.970E-03 ± 3.485E-02
 185, 5.451E-02 ± 7.618E-01, -6.885E+00 ± 3.248E+00, 2.766E-02 ± 9.446E-01, 1.970E-03 ± 3.485E-02
 431 (173-346) [l=0 cm][0 def.]
 173, -1.472E-01 ± 5.842E+00, -4.567E-02 ± 6.568E-01, 5.259E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01
 i', -1.472E-01 ± 5.842E+00, -4.567E-02 ± 6.568E-01, 5.259E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01
 j', -1.472E-01 ± 5.844E+00, -4.568E-02 ± 6.569E-01, 5.259E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01
 346, -1.472E-01 ± 5.844E+00, -4.568E-02 ± 6.569E-01, 5.259E-03 ± 8.837E-02, -2.758E-02 ± 9.472E-01
 432 (277-347) [l=0 cm][0 def.]
 277, -4.440E-02 ± 6.615E-01, -6.582E+00 ± 2.026E+00, -2.749E-02 ± 9.472E-01, -2.475E-03 ± 4.184E-02
 i', -4.440E-02 ± 6.615E-01, -6.582E+00 ± 2.026E+00, -2.749E-02 ± 9.472E-01, -2.475E-03 ± 4.184E-02
 j', -4.441E-02 ± 6.616E-01, -6.582E+00 ± 2.025E+00, -2.749E-02 ± 9.472E-01, -2.475E-03 ± 4.184E-02
 347, -4.441E-02 ± 6.616E-01, -6.582E+00 ± 2.025E+00, -2.749E-02 ± 9.472E-01, -2.475E-03 ± 4.184E-02
 433 (347-185) [l=448 cm][448 def.]
 347, -4.441E-02 ± 6.616E-01, -6.847E+00 ± 2.257E+00, -2.749E-02 ± 9.472E-01, -2.082E-03 ± 3.533E-02
 i', -4.441E-02 ± 6.616E-01, -6.847E+00 ± 2.257E+00, -2.749E-02 ± 9.472E-01, -2.082E-03 ± 3.533E-02
 j', -5.451E-02 ± 7.618E-01, -6.742E+00 ± 3.313E+00, -2.766E-02 ± 9.446E-01, -2.255E-03 ± 3.538E-02
 185, -5.451E-02 ± 7.618E-01, -6.742E+00 ± 3.313E+00, -2.766E-02 ± 9.446E-01, -2.255E-03 ± 3.538E-02
 434 (182-347) [l=0 cm][0 def.]
 182, -1.472E-01 ± 5.842E+00, -4.440E-02 ± 6.615E-01, 5.226E-03 ± 8.855E-02, -2.749E-02 ± 9.472E-01
 i', -1.472E-01 ± 5.842E+00, -4.440E-02 ± 6.615E-01, 5.226E-03 ± 8.855E-02, -2.749E-02 ± 9.472E-01
 j', -1.472E-01 ± 5.844E+00, -4.441E-02 ± 6.616E-01, 5.226E-03 ± 8.855E-02, -2.749E-02 ± 9.472E-01
 347, -1.472E-01 ± 5.844E+00, -4.441E-02 ± 6.616E-01, 5.226E-03 ± 8.855E-02, -2.749E-02 ± 9.472E-01
 435 (196-240) [l=94 cm][94 def.]
 196, 1.484E-01 ± 5.773E+00, -7.243E+00 ± 4.332E+00, -5.266E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.484E-01 ± 5.773E+00, -7.243E+00 ± 4.332E+00, -5.266E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.482E-01 ± 5.782E+00, -7.238E+00 ± 4.357E+00, -5.264E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 240, 1.482E-01 ± 5.782E+00, -7.238E+00 ± 4.357E+00, -5.264E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 436 (240-197) [l=2 cm][2 def.]
 240, 1.482E-01 ± 5.782E+00, -7.238E+00 ± 4.357E+00, -5.264E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.482E-01 ± 5.782E+00, -7.238E+00 ± 4.357E+00, -5.264E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.482E-01 ± 5.782E+00, -7.238E+00 ± 4.358E+00, -5.264E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 197, 1.482E-01 ± 5.782E+00, -7.238E+00 ± 4.358E+00, -5.264E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 437 (137-242) [l=2 cm][2 def.]
 137, -1.482E-01 ± 5.782E+00, -7.468E+00 ± 4.304E+00, 5.231E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 i', -1.482E-01 ± 5.782E+00, -7.468E+00 ± 4.304E+00, 5.231E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 j', -1.482E-01 ± 5.782E+00, -7.468E+00 ± 4.304E+00, 5.231E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 242, -1.482E-01 ± 5.782E+00, -7.468E+00 ± 4.304E+00, 5.231E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 438 (242-139) [l=94 cm][94 def.]
 242, -1.482E-01 ± 5.782E+00, -7.468E+00 ± 4.304E+00, 5.231E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 i', -1.482E-01 ± 5.782E+00, -7.468E+00 ± 4.304E+00, 5.231E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 j', -1.484E-01 ± 5.773E+00, -7.473E+00 ± 4.281E+00, 5.233E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 139, -1.484E-01 ± 5.773E+00, -7.473E+00 ± 4.281E+00, 5.233E-03 ± 8.855E-02, -1.535E-04 ± 9.345E-03
 439 (128-243) [l=159 cm][159 def.]
 128, 1.490E-01 ± 5.738E+00, -7.264E+00 ± 4.226E+00, -5.275E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.490E-01 ± 5.738E+00, -7.264E+00 ± 4.226E+00, -5.275E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.269E+00, -5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 243, 1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.269E+00, -5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 440 (243-130) [l=5 cm][5 def.]
 243, 1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.269E+00, -5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.269E+00, -5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.270E+00, -5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 130, 1.487E-01 ± 5.753E+00, -7.255E+00 ± 4.270E+00, -5.271E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 441 (203-245) [l=5 cm][5 def.]
 203, -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.225E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 i', -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.225E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 j', -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.224E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 245, -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.224E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 442 (245-202) [l=159 cm][159 def.]
 245, -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.224E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 i', -1.487E-01 ± 5.753E+00, -7.485E+00 ± 4.224E+00, 5.237E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 j', -1.490E-01 ± 5.738E+00, -7.493E+00 ± 4.185E+00, 5.241E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 202, -1.490E-01 ± 5.738E+00, -7.493E+00 ± 4.185E+00, 5.241E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 443 (132-246) [l=165 cm][165 def.]
 132, 1.495E-01 ± 5.709E+00, -7.281E+00 ± 4.137E+00, -5.284E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.495E-01 ± 5.709E+00, -7.281E+00 ± 4.137E+00, -5.284E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.181E+00, -5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 246, 1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.181E+00, -5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 444 (246-129) [l=3 cm][3 def.]
 246, 1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.181E+00, -5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.181E+00, -5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.182E+00, -5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 129, 1.492E-01 ± 5.724E+00, -7.272E+00 ± 4.182E+00, -5.279E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 445 (142-248) [l=3 cm][3 def.]
 142, -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.146E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 i', -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.146E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 j', -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.145E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 248, -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.145E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 446 (248-141) [l=165 cm][165 def.]
 248, -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.145E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03

i', -1.492E-01 ± 5.724E+00, -7.502E+00 ± 4.145E+00, 5.246E-03 ± 8.854E-02, -1.535E-04 ± 9.345E-03
 j', -1.495E-01 ± 5.709E+00, -7.511E+00 ± 4.105E+00, 5.251E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 141, -1.495E-01 ± 5.709E+00, -7.511E+00 ± 4.105E+00, 5.251E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 447 (46-340) [l=52 cm][52 def.]
 46, -1.393E-01 ± 5.269E+00, -7.594E+00 ± 4.174E+00, 5.308E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
 i', -1.393E-01 ± 5.269E+00, -7.594E+00 ± 4.174E+00, 5.308E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
 j', -1.394E-01 ± 5.272E+00, -7.597E+00 ± 4.188E+00, 5.310E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
 340, -1.394E-01 ± 5.272E+00, -7.597E+00 ± 4.188E+00, 5.310E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
 448 (340-45) [l=112 cm][112 def.]
 340, -1.394E-01 ± 5.272E+00, -7.597E+00 ± 4.188E+00, 5.310E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
 i', -1.394E-01 ± 5.272E+00, -7.597E+00 ± 4.188E+00, 5.310E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
 j', -1.396E-01 ± 5.277E+00, -7.603E+00 ± 4.219E+00, 5.313E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
 45, -1.396E-01 ± 5.277E+00, -7.603E+00 ± 4.219E+00, 5.313E-03 ± 8.850E-02, -1.477E-04 ± 9.255E-03
 449 (73-341) [l=44 cm][44 def.]
 73, -1.395E-01 ± 5.274E+00, -7.370E+00 ± 4.192E+00, -5.324E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
 i', -1.395E-01 ± 5.274E+00, -7.370E+00 ± 4.192E+00, -5.324E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
 j', -1.394E-01 ± 5.272E+00, -7.368E+00 ± 4.182E+00, -5.323E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
 341, -1.394E-01 ± 5.272E+00, -7.368E+00 ± 4.182E+00, -5.323E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
 450 (341-74) [l=52 cm][52 def.]
 341, -1.394E-01 ± 5.272E+00, -7.368E+00 ± 4.182E+00, -5.323E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
 i', -1.394E-01 ± 5.272E+00, -7.368E+00 ± 4.182E+00, -5.323E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
 j', -1.393E-01 ± 5.269E+00, -7.365E+00 ± 4.169E+00, -5.322E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
 74, -1.393E-01 ± 5.269E+00, -7.365E+00 ± 4.169E+00, -5.322E-03 ± 8.836E-02, -1.477E-04 ± 9.255E-03
 451 (190-255) [l=4 cm][4 def.]
 190, -1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.021E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', -1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.021E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', -1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.022E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 255, -1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.022E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 452 (255-191) [l=142 cm][142 def.]
 255, -1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.022E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', -1.502E-01 ± 5.669E+00, -7.305E+00 ± 4.022E+00, -5.300E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', -1.500E-01 ± 5.681E+00, -7.298E+00 ± 4.056E+00, -5.295E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 191, -1.500E-01 ± 5.681E+00, -7.298E+00 ± 4.056E+00, -5.295E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 453 (144-257) [l=142 cm][142 def.]
 144, -1.500E-01 ± 5.681E+00, -7.527E+00 ± 4.032E+00, 5.262E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 i', -1.500E-01 ± 5.681E+00, -7.527E+00 ± 4.032E+00, 5.262E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 j', -1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.002E+00, 5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 257, -1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.002E+00, 5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 454 (257-145) [l=4 cm][4 def.]
 257, -1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.002E+00, 5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 i', -1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.002E+00, 5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 j', -1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.001E+00, 5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 145, -1.502E-01 ± 5.669E+00, -7.535E+00 ± 4.001E+00, 5.267E-03 ± 8.853E-02, -1.535E-04 ± 9.345E-03
 455 (134-258) [l=252 cm][252 def.]
 134, -1.510E-01 ± 5.671E+00, -7.334E+00 ± 4.028E+00, -5.320E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', -1.510E-01 ± 5.671E+00, -7.334E+00 ± 4.028E+00, -5.320E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', -1.506E-01 ± 5.661E+00, -7.320E+00 ± 3.989E+00, -5.310E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 258, -1.506E-01 ± 5.661E+00, -7.320E+00 ± 3.989E+00, -5.310E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 456 (258-136) [l=57 cm][57 def.]
 258, -1.506E-01 ± 5.661E+00, -7.320E+00 ± 3.989E+00, -5.310E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', -1.506E-01 ± 5.661E+00, -7.320E+00 ± 3.989E+00, -5.310E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', -1.505E-01 ± 5.659E+00, -7.317E+00 ± 3.988E+00, -5.308E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 136, -1.505E-01 ± 5.659E+00, -7.317E+00 ± 3.988E+00, -5.308E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 457 (199-260) [l=57 cm][57 def.]
 199, -1.505E-01 ± 5.659E+00, -7.547E+00 ± 3.972E+00, 5.276E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 i', -1.505E-01 ± 5.659E+00, -7.547E+00 ± 3.972E+00, 5.276E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 j', -1.506E-01 ± 5.661E+00, -7.550E+00 ± 3.974E+00, 5.279E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 260, -1.506E-01 ± 5.661E+00, -7.550E+00 ± 3.974E+00, 5.279E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 458 (260-198) [l=252 cm][252 def.]
 260, -1.506E-01 ± 5.661E+00, -7.550E+00 ± 3.974E+00, 5.279E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 i', -1.506E-01 ± 5.661E+00, -7.550E+00 ± 3.974E+00, 5.279E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 j', -1.510E-01 ± 5.671E+00, -7.563E+00 ± 4.018E+00, 5.289E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 198, -1.510E-01 ± 5.671E+00, -7.563E+00 ± 4.018E+00, 5.289E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 459 (135-261) [l=273 cm][273 def.]
 135, -1.515E-01 ± 5.685E+00, -7.350E+00 ± 4.100E+00, -5.330E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', -1.515E-01 ± 5.685E+00, -7.350E+00 ± 4.100E+00, -5.330E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', -1.511E-01 ± 5.673E+00, -7.336E+00 ± 4.036E+00, -5.321E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 261, -1.511E-01 ± 5.673E+00, -7.336E+00 ± 4.036E+00, -5.321E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 460 (261-134) [l=36 cm][36 def.]
 261, -1.511E-01 ± 5.673E+00, -7.336E+00 ± 4.036E+00, -5.321E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', -1.511E-01 ± 5.673E+00, -7.336E+00 ± 4.036E+00, -5.321E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', -1.510E-01 ± 5.671E+00, -7.334E+00 ± 4.028E+00, -5.320E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 134, -1.510E-01 ± 5.671E+00, -7.334E+00 ± 4.028E+00, -5.320E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 461 (198-263) [l=36 cm][36 def.]
 198, -1.510E-01 ± 5.671E+00, -7.563E+00 ± 4.018E+00, 5.289E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 i', -1.510E-01 ± 5.671E+00, -7.563E+00 ± 4.018E+00, 5.289E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 j', -1.511E-01 ± 5.673E+00, -7.565E+00 ± 4.027E+00, 5.291E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 263, -1.511E-01 ± 5.673E+00, -7.565E+00 ± 4.027E+00, 5.291E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 462 (263-148) [l=273 cm][273 def.]
 263, -1.511E-01 ± 5.673E+00, -7.565E+00 ± 4.027E+00, 5.291E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 i', -1.511E-01 ± 5.673E+00, -7.565E+00 ± 4.027E+00, 5.291E-03 ± 8.852E-02, -1.535E-04 ± 9.345E-03
 j', -1.515E-01 ± 5.685E+00, -7.579E+00 ± 4.098E+00, 5.303E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 148, -1.515E-01 ± 5.685E+00, -7.579E+00 ± 4.098E+00, 5.303E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 463 (151-264) [l=223 cm][223 def.]
 151, -1.518E-01 ± 5.696E+00, -7.363E+00 ± 4.158E+00, -5.336E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', -1.518E-01 ± 5.696E+00, -7.363E+00 ± 4.158E+00, -5.336E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

j', 1.515E-01 ± 5.686E+00, -7.351E+00 ± 4.104E+00, -5.330E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 264, 1.515E-01 ± 5.686E+00, -7.351E+00 ± 4.104E+00, -5.330E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 464 (264-135) [l=15 cm][15 def.]
 264, 1.515E-01 ± 5.686E+00, -7.351E+00 ± 4.104E+00, -5.330E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 i', 1.515E-01 ± 5.686E+00, -7.351E+00 ± 4.104E+00, -5.330E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 j', 1.515E-01 ± 5.685E+00, -7.350E+00 ± 4.100E+00, -5.330E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 135, 1.515E-01 ± 5.685E+00, -7.350E+00 ± 4.100E+00, -5.330E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
 465 (148-266) [l=15 cm][15 def.]
 148, -1.515E-01 ± 5.685E+00, -7.579E+00 ± 4.098E+00, 5.303E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 i', -1.515E-01 ± 5.685E+00, -7.579E+00 ± 4.098E+00, 5.303E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 j', -1.515E-01 ± 5.686E+00, -7.580E+00 ± 4.102E+00, 5.303E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 266, -1.515E-01 ± 5.686E+00, -7.580E+00 ± 4.102E+00, 5.303E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 466 (266-147) [l=127 cm][127 def.]
 266, -1.515E-01 ± 5.686E+00, -7.580E+00 ± 4.102E+00, 5.303E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 i', -1.515E-01 ± 5.686E+00, -7.580E+00 ± 4.102E+00, 5.303E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 j', -1.517E-01 ± 5.692E+00, -7.587E+00 ± 4.136E+00, 5.308E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 147, -1.517E-01 ± 5.692E+00, -7.587E+00 ± 4.136E+00, 5.308E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
 467 (162-267) [l=30 cm][30 def.]
 162, -1.524E-01 ± 5.714E+00, -7.612E+00 ± 4.265E+00, 5.326E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
 i', -1.524E-01 ± 5.714E+00, -7.612E+00 ± 4.265E+00, 5.326E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
 j', -1.525E-01 ± 5.715E+00, -7.614E+00 ± 4.273E+00, 5.327E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
 267, -1.525E-01 ± 5.715E+00, -7.614E+00 ± 4.273E+00, 5.327E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
 468 (267-161) [l=136 cm][136 def.]
 267, -1.525E-01 ± 5.715E+00, -7.614E+00 ± 4.273E+00, 5.327E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
 i', -1.525E-01 ± 5.715E+00, -7.614E+00 ± 4.273E+00, 5.327E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
 j', -1.527E-01 ± 5.721E+00, -7.621E+00 ± 4.310E+00, 5.331E-03 ± 8.849E-02, -1.535E-04 ± 9.345E-03
 161, -1.527E-01 ± 5.721E+00, -7.621E+00 ± 4.310E+00, 5.331E-03 ± 8.849E-02, -1.535E-04 ± 9.345E-03
 469 (156-269) [l=28 cm][28 def.]
 156, 1.525E-01 ± 5.716E+00, -7.386E+00 ± 4.266E+00, -5.345E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
 i', 1.525E-01 ± 5.716E+00, -7.386E+00 ± 4.266E+00, -5.345E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
 j', 1.525E-01 ± 5.715E+00, -7.384E+00 ± 4.259E+00, -5.345E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
 269, 1.525E-01 ± 5.715E+00, -7.384E+00 ± 4.259E+00, -5.345E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
 470 (269-193) [l=68 cm][68 def.]
 269, 1.525E-01 ± 5.715E+00, -7.384E+00 ± 4.259E+00, -5.345E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
 i', 1.525E-01 ± 5.715E+00, -7.384E+00 ± 4.259E+00, -5.345E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
 j', 1.523E-01 ± 5.712E+00, -7.381E+00 ± 4.241E+00, -5.344E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
 193, 1.523E-01 ± 5.712E+00, -7.381E+00 ± 4.241E+00, -5.344E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
 471 (163-270) [l=3 cm][3 def.]
 163, -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.356E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 i', -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.356E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 j', -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.357E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 270, -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.357E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 472 (270-208) [l=108 cm][108 def.]
 270, -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.357E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 i', -1.529E-01 ± 5.729E+00, -7.630E+00 ± 4.357E+00, 5.335E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 j', -1.531E-01 ± 5.734E+00, -7.636E+00 ± 4.387E+00, 5.337E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 208, -1.531E-01 ± 5.734E+00, -7.636E+00 ± 4.387E+00, 5.337E-03 ± 8.848E-02, -1.535E-04 ± 9.345E-03
 473 (155-272) [l=35 cm][35 def.]
 155, 1.530E-01 ± 5.731E+00, -7.403E+00 ± 4.344E+00, -5.349E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03
 i', 1.530E-01 ± 5.731E+00, -7.403E+00 ± 4.344E+00, -5.349E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03
 j', 1.529E-01 ± 5.729E+00, -7.401E+00 ± 4.335E+00, -5.349E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03
 272, 1.529E-01 ± 5.729E+00, -7.401E+00 ± 4.335E+00, -5.349E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03
 474 (272-154) [l=121 cm][121 def.]
 272, 1.529E-01 ± 5.729E+00, -7.401E+00 ± 4.335E+00, -5.349E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03
 i', 1.529E-01 ± 5.729E+00, -7.401E+00 ± 4.335E+00, -5.349E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03
 j', 1.527E-01 ± 5.724E+00, -7.394E+00 ± 4.305E+00, -5.348E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03
 154, 1.527E-01 ± 5.724E+00, -7.394E+00 ± 4.305E+00, -5.348E-03 ± 8.839E-02, -1.535E-04 ± 9.345E-03
 475 (176-311) [l=416 cm][416 def.]
 176, -4.440E-02 ± 6.615E-01, -7.453E+00 ± 4.375E+00, -2.750E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 i', -4.440E-02 ± 6.615E-01, -7.453E+00 ± 4.375E+00, -2.750E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 j', -4.504E-02 ± 6.479E-01, -8.128E+00 ± 2.162E+00, -2.766E-02 ± 9.446E-01, -1.535E-04 ± 9.345E-03
 311, -4.504E-02 ± 6.479E-01, -8.128E+00 ± 2.162E+00, -2.766E-02 ± 9.446E-01, -1.535E-04 ± 9.345E-03
 476 (311-167) [l=416 cm][416 def.]
 311, -4.504E-02 ± 6.479E-01, -8.128E+00 ± 2.162E+00, -2.766E-02 ± 9.446E-01, -1.535E-04 ± 9.345E-03
 i', -4.504E-02 ± 6.479E-01, -8.128E+00 ± 2.162E+00, -2.766E-02 ± 9.446E-01, -1.535E-04 ± 9.345E-03
 j', -4.567E-02 ± 6.568E-01, -7.223E+00 ± 4.436E+00, -2.758E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 167, -4.567E-02 ± 6.568E-01, -7.223E+00 ± 4.436E+00, -2.758E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 477 (242-312) [l=416 cm][416 def.]
 242, -4.440E-02 ± 6.615E-01, -7.468E+00 ± 4.304E+00, -2.750E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 i', -4.440E-02 ± 6.615E-01, -7.468E+00 ± 4.304E+00, -2.750E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 j', -4.504E-02 ± 6.479E-01, -8.116E+00 ± 1.782E+00, -2.764E-02 ± 9.449E-01, -1.535E-04 ± 9.345E-03
 312, -4.504E-02 ± 6.479E-01, -8.116E+00 ± 1.782E+00, -2.764E-02 ± 9.449E-01, -1.535E-04 ± 9.345E-03
 478 (312-240) [l=416 cm][416 def.]
 312, -4.504E-02 ± 6.479E-01, -8.116E+00 ± 1.782E+00, -2.764E-02 ± 9.449E-01, -1.535E-04 ± 9.345E-03
 i', -4.504E-02 ± 6.479E-01, -8.116E+00 ± 1.782E+00, -2.764E-02 ± 9.449E-01, -1.535E-04 ± 9.345E-03
 j', -4.567E-02 ± 6.568E-01, -7.238E+00 ± 4.357E+00, -2.757E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 240, -4.567E-02 ± 6.568E-01, -7.238E+00 ± 4.357E+00, -2.757E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 479 (245-313) [l=416 cm][416 def.]
 245, -4.440E-02 ± 6.615E-01, -7.485E+00 ± 4.224E+00, -2.750E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 i', -4.440E-02 ± 6.615E-01, -7.485E+00 ± 4.224E+00, -2.750E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
 j', -4.504E-02 ± 6.479E-01, -8.270E+00 ± 1.426E+00, -2.763E-02 ± 9.451E-01, -1.535E-04 ± 9.345E-03
 313, -4.504E-02 ± 6.479E-01, -8.270E+00 ± 1.426E+00, -2.763E-02 ± 9.451E-01, -1.535E-04 ± 9.345E-03
 480 (313-243) [l=416 cm][416 def.]
 313, -4.504E-02 ± 6.479E-01, -8.270E+00 ± 1.426E+00, -2.763E-02 ± 9.451E-01, -1.535E-04 ± 9.345E-03
 i', -4.504E-02 ± 6.479E-01, -8.270E+00 ± 1.426E+00, -2.763E-02 ± 9.451E-01, -1.535E-04 ± 9.345E-03
 j', -4.567E-02 ± 6.568E-01, -7.255E+00 ± 4.269E+00, -2.757E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03

243, -4.567E-02 ± 6.568E-01, -7.255E+00 ± 4.269E+00, -2.757E-02 ± 9.472E-01, -1.535E-04 ± 9.345E-03
481 (257-314) [l=416 cm][416 def.]
257, -4.440E-02 ± 6.615E-01, -7.535E+00 ± 4.002E+00, -2.751E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
i', -4.440E-02 ± 6.615E-01, -7.535E+00 ± 4.002E+00, -2.751E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
j', -4.504E-02 ± 6.479E-01, -8.029E+00 ± 3.276E-01, -3.587E-02 ± 9.458E-01, -1.535E-04 ± 9.345E-03
314, -4.504E-02 ± 6.479E-01, -8.029E+00 ± 3.276E-01, -3.587E-02 ± 9.458E-01, -1.535E-04 ± 9.345E-03
482 (314-255) [l=416 cm][416 def.]
314, -4.504E-02 ± 6.479E-01, -8.029E+00 ± 3.276E-01, -3.587E-02 ± 9.458E-01, -1.535E-04 ± 9.345E-03
i', -4.504E-02 ± 6.479E-01, -8.029E+00 ± 3.276E-01, -3.587E-02 ± 9.458E-01, -1.535E-04 ± 9.345E-03
j', -4.567E-02 ± 6.568E-01, -7.305E+00 ± 4.022E+00, -2.756E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
255, -4.567E-02 ± 6.568E-01, -7.305E+00 ± 4.022E+00, -2.756E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
483 (260-315) [l=416 cm][416 def.]
260, -4.440E-02 ± 6.615E-01, -7.550E+00 ± 3.974E+00, -2.751E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
i', -4.440E-02 ± 6.615E-01, -7.550E+00 ± 3.974E+00, -2.751E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
j', -4.504E-02 ± 6.479E-01, -8.146E+00 ± 2.558E-01, -2.761E-02 ± 9.460E-01, -1.535E-04 ± 9.345E-03
315, -4.504E-02 ± 6.479E-01, -8.146E+00 ± 2.558E-01, -2.761E-02 ± 9.460E-01, -1.535E-04 ± 9.345E-03
484 (315-258) [l=416 cm][416 def.]
315, -4.504E-02 ± 6.479E-01, -8.146E+00 ± 2.558E-01, -2.761E-02 ± 9.460E-01, -1.535E-04 ± 9.345E-03
i', -4.504E-02 ± 6.479E-01, -8.146E+00 ± 2.558E-01, -2.761E-02 ± 9.460E-01, -1.535E-04 ± 9.345E-03
j', -4.567E-02 ± 6.568E-01, -7.320E+00 ± 3.989E+00, -2.756E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
258, -4.567E-02 ± 6.568E-01, -7.320E+00 ± 3.989E+00, -2.756E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
485 (263-318) [l=416 cm][416 def.]
263, -4.440E-02 ± 6.615E-01, -7.565E+00 ± 4.027E+00, -2.752E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
i', -4.440E-02 ± 6.615E-01, -7.565E+00 ± 4.027E+00, -2.752E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
j', -4.504E-02 ± 6.479E-01, -8.248E+00 ± 5.542E-01, -2.757E-02 ± 9.461E-01, -1.535E-04 ± 9.345E-03
318, -4.504E-02 ± 6.479E-01, -8.248E+00 ± 5.542E-01, -2.757E-02 ± 9.461E-01, -1.535E-04 ± 9.345E-03
486 (318-261) [l=416 cm][416 def.]
318, -4.504E-02 ± 6.479E-01, -8.248E+00 ± 5.542E-01, -2.757E-02 ± 9.461E-01, -1.535E-04 ± 9.345E-03
i', -4.504E-02 ± 6.479E-01, -8.248E+00 ± 5.542E-01, -2.757E-02 ± 9.461E-01, -1.535E-04 ± 9.345E-03
j', -4.567E-02 ± 6.568E-01, -7.336E+00 ± 4.036E+00, -2.755E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
261, -4.567E-02 ± 6.568E-01, -7.336E+00 ± 4.036E+00, -2.755E-02 ± 9.471E-01, -1.535E-04 ± 9.345E-03
487 (267-316) [l=416 cm][416 def.]
267, -4.440E-02 ± 6.615E-01, -7.614E+00 ± 4.273E+00, -2.752E-02 ± 9.470E-01, -1.535E-04 ± 9.345E-03
i', -4.440E-02 ± 6.615E-01, -7.614E+00 ± 4.273E+00, -2.752E-02 ± 9.470E-01, -1.535E-04 ± 9.345E-03
j', -4.504E-02 ± 6.479E-01, -8.347E+00 ± 1.599E+00, -2.754E-02 ± 9.467E-01, -1.535E-04 ± 9.345E-03
316, -4.504E-02 ± 6.479E-01, -8.347E+00 ± 1.599E+00, -2.754E-02 ± 9.467E-01, -1.535E-04 ± 9.345E-03
488 (316-269) [l=416 cm][416 def.]
316, -4.504E-02 ± 6.479E-01, -8.347E+00 ± 1.599E+00, -2.754E-02 ± 9.467E-01, -1.535E-04 ± 9.345E-03
i', -4.504E-02 ± 6.479E-01, -8.347E+00 ± 1.599E+00, -2.754E-02 ± 9.467E-01, -1.535E-04 ± 9.345E-03
j', -4.567E-02 ± 6.568E-01, -7.384E+00 ± 4.259E+00, -2.754E-02 ± 9.470E-01, -1.535E-04 ± 9.345E-03
269, -4.567E-02 ± 6.568E-01, -7.384E+00 ± 4.259E+00, -2.754E-02 ± 9.470E-01, -1.535E-04 ± 9.345E-03
489 (270-317) [l=416 cm][416 def.]
270, -4.440E-02 ± 6.615E-01, -7.630E+00 ± 4.357E+00, -2.753E-02 ± 9.470E-01, -1.535E-04 ± 9.345E-03
i', -4.440E-02 ± 6.615E-01, -7.630E+00 ± 4.357E+00, -2.753E-02 ± 9.470E-01, -1.535E-04 ± 9.345E-03
j', -4.504E-02 ± 6.479E-01, -8.287E+00 ± 1.949E+00, -2.754E-02 ± 9.468E-01, -1.535E-04 ± 9.345E-03
317, -4.504E-02 ± 6.479E-01, -8.287E+00 ± 1.949E+00, -2.754E-02 ± 9.468E-01, -1.535E-04 ± 9.345E-03
490 (317-272) [l=416 cm][416 def.]
317, -4.504E-02 ± 6.479E-01, -8.287E+00 ± 1.949E+00, -2.754E-02 ± 9.468E-01, -1.535E-04 ± 9.345E-03
i', -4.504E-02 ± 6.479E-01, -8.287E+00 ± 1.949E+00, -2.754E-02 ± 9.468E-01, -1.535E-04 ± 9.345E-03
j', -4.567E-02 ± 6.568E-01, -7.401E+00 ± 4.335E+00, -2.754E-02 ± 9.470E-01, -1.535E-04 ± 9.345E-03
272, -4.567E-02 ± 6.568E-01, -7.401E+00 ± 4.335E+00, -2.754E-02 ± 9.470E-01, -1.535E-04 ± 9.345E-03
491 (109-342) [l=224 cm][224 def.]
109, -4.916E-02 ± 7.085E-01, -6.984E+00 ± 1.733E+00, -2.753E-02 ± 9.469E-01, -2.124E-03 ± 3.535E-02
i', -4.916E-02 ± 7.085E-01, -6.984E+00 ± 1.733E+00, -2.753E-02 ± 9.469E-01, -2.124E-03 ± 3.535E-02
j', -5.392E-02 ± 7.616E-01, -6.923E+00 ± 3.156E+00, -2.753E-02 ± 9.469E-01, -2.125E-03 ± 3.536E-02
342, -5.392E-02 ± 7.616E-01, -6.923E+00 ± 3.156E+00, -2.753E-02 ± 9.469E-01, -2.125E-03 ± 3.536E-02
492 (110-342) [l=448 cm][448 def.]
110, -4.440E-02 ± 6.615E-01, -7.046E+00 ± 2.105E+00, -2.753E-02 ± 9.469E-01, -2.124E-03 ± 3.536E-02
i', -4.440E-02 ± 6.615E-01, -7.046E+00 ± 2.105E+00, -2.753E-02 ± 9.469E-01, -2.124E-03 ± 3.536E-02
j', -5.392E-02 ± 7.616E-01, -6.922E+00 ± 3.157E+00, -2.753E-02 ± 9.469E-01, -2.126E-03 ± 3.537E-02
342, -5.392E-02 ± 7.616E-01, -6.922E+00 ± 3.157E+00, -2.753E-02 ± 9.469E-01, -2.126E-03 ± 3.537E-02
493 (342-111) [l=0 cm][0 def.]
342, -5.392E-02 ± 7.616E-01, -6.650E+00 ± 3.695E+00, -2.753E-02 ± 9.469E-01, -2.527E-03 ± 4.189E-02
i', -5.392E-02 ± 7.616E-01, -6.650E+00 ± 3.695E+00, -2.753E-02 ± 9.469E-01, -2.527E-03 ± 4.189E-02
j', -5.393E-02 ± 7.618E-01, -6.650E+00 ± 3.700E+00, -2.753E-02 ± 9.469E-01, -2.527E-03 ± 4.189E-02
111, -5.393E-02 ± 7.618E-01, -6.650E+00 ± 3.700E+00, -2.753E-02 ± 9.469E-01, -2.527E-03 ± 4.189E-02
494 (149-284) [l=52 cm][52 def.]
149, -1.519E-01 ± 5.698E+00, -7.595E+00 ± 4.175E+00, 5.314E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
i', -1.519E-01 ± 5.698E+00, -7.595E+00 ± 4.175E+00, 5.314E-03 ± 8.851E-02, -1.535E-04 ± 9.345E-03
j', -1.520E-01 ± 5.701E+00, -7.597E+00 ± 4.189E+00, 5.316E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
284, -1.520E-01 ± 5.701E+00, -7.597E+00 ± 4.189E+00, 5.316E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
495 (284-206) [l=112 cm][112 def.]
284, -1.520E-01 ± 5.701E+00, -7.597E+00 ± 4.189E+00, 5.316E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
i', -1.520E-01 ± 5.701E+00, -7.597E+00 ± 4.189E+00, 5.316E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
j', -1.522E-01 ± 5.706E+00, -7.603E+00 ± 4.220E+00, 5.320E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
206, -1.522E-01 ± 5.706E+00, -7.603E+00 ± 4.220E+00, 5.320E-03 ± 8.850E-02, -1.535E-04 ± 9.345E-03
496 (325-239) [l=52 cm][52 def.]
325, 0.000E+00 ± 0.000E+00, -7.402E+00 ± 4.057E+00, 2.781E-02 ± 9.282E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.402E+00 ± 4.057E+00, 2.781E-02 ± 9.282E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.416E+00 ± 4.075E+00, 2.782E-02 ± 9.283E-02, 0.000E+00 ± 0.000E+00
239, 0.000E+00 ± 0.000E+00, -7.416E+00 ± 4.075E+00, 2.782E-02 ± 9.283E-02, 0.000E+00 ± 0.000E+00
497 (239-44) [l=112 cm][112 def.]
239, 0.000E+00 ± 0.000E+00, -7.416E+00 ± 4.075E+00, 2.782E-02 ± 9.283E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.416E+00 ± 4.075E+00, 2.782E-02 ± 9.283E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.447E+00 ± 4.114E+00, 2.777E-02 ± 9.283E-02, 0.000E+00 ± 0.000E+00
44, 0.000E+00 ± 0.000E+00, -7.447E+00 ± 4.114E+00, 2.777E-02 ± 9.283E-02, 0.000E+00 ± 0.000E+00

498 (72-238) [l=44 cm][44 def.]
72, 0.000E+00 ± 0.000E+00, -7.205E+00 ± 4.071E+00, -2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.205E+00 ± 4.071E+00, -2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.192E+00 ± 4.058E+00, -2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00
238, 0.000E+00 ± 0.000E+00, -7.192E+00 ± 4.058E+00, -2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00

499 (238-328) [l=52 cm][52 def.]
238, 0.000E+00 ± 0.000E+00, -7.192E+00 ± 4.058E+00, -2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00
i', 0.000E+00 ± 0.000E+00, -7.192E+00 ± 4.058E+00, -2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00
j', 0.000E+00 ± 0.000E+00, -7.176E+00 ± 4.043E+00, -2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00
328, 0.000E+00 ± 0.000E+00, -7.176E+00 ± 4.043E+00, -2.954E-02 ± 9.211E-02, 0.000E+00 ± 0.000E+00

500 (133-343) [l=0 cm][0 def.]
133, 1.497E-01 ± 5.694E+00, -7.290E+00 ± 4.093E+00, -5.290E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
i', 1.497E-01 ± 5.694E+00, -7.290E+00 ± 4.093E+00, -5.290E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
j', 1.497E-01 ± 5.694E+00, -7.290E+00 ± 4.093E+00, -5.290E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
343, 1.497E-01 ± 5.694E+00, -7.290E+00 ± 4.093E+00, -5.290E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

501 (343-132) [l=167 cm][167 def.]
343, 1.497E-01 ± 5.694E+00, -7.290E+00 ± 4.093E+00, -5.290E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
i', 1.497E-01 ± 5.694E+00, -7.290E+00 ± 4.093E+00, -5.290E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
j', 1.495E-01 ± 5.709E+00, -7.281E+00 ± 4.137E+00, -5.284E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
132, 1.495E-01 ± 5.709E+00, -7.281E+00 ± 4.137E+00, -5.284E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

502 (152-345) [l=140 cm][140 def.]
152, 1.522E-01 ± 5.707E+00, -7.376E+00 ± 4.217E+00, -5.342E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
i', 1.522E-01 ± 5.707E+00, -7.376E+00 ± 4.217E+00, -5.342E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
j', 1.520E-01 ± 5.701E+00, -7.368E+00 ± 4.182E+00, -5.339E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
345, 1.520E-01 ± 5.701E+00, -7.368E+00 ± 4.182E+00, -5.339E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03

503 (345-151) [l=97 cm][97 def.]
345, 1.520E-01 ± 5.701E+00, -7.368E+00 ± 4.182E+00, -5.339E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
i', 1.520E-01 ± 5.701E+00, -7.368E+00 ± 4.182E+00, -5.339E-03 ± 8.838E-02, -1.535E-04 ± 9.345E-03
j', 1.518E-01 ± 5.696E+00, -7.363E+00 ± 4.158E+00, -5.336E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03
151, 1.518E-01 ± 5.696E+00, -7.363E+00 ± 4.158E+00, -5.336E-03 ± 8.837E-02, -1.535E-04 ± 9.345E-03

504 (292-232) [l=360 cm][360 def.]
292, -1.661E-01 ± 6.429E+00, 4.720E-02 ± 7.657E-01, 3.483E-03 ± 1.189E-01, 2.409E-02 ± 9.731E-01
i', -1.661E-01 ± 6.429E+00, 4.720E-02 ± 7.657E-01, 3.483E-03 ± 1.189E-01, 2.409E-02 ± 9.731E-01
j', -7.941E-02 ± 2.935E+00, 3.466E-02 ± 3.408E-01, 3.483E-03 ± 1.189E-01, 2.409E-02 ± 9.731E-01
232, -7.941E-02 ± 2.935E+00, 3.466E-02 ± 3.408E-01, 3.483E-03 ± 1.189E-01, 2.409E-02 ± 9.731E-01

505 (294-234) [l=410 cm][410 def.]
294, -1.804E-01 ± 6.916E+00, 4.821E-02 ± 8.378E-01, 3.169E-03 ± 1.276E-01, 2.541E-02 ± 9.737E-01
i', -1.804E-01 ± 6.916E+00, 4.821E-02 ± 8.378E-01, 3.169E-03 ± 1.276E-01, 2.541E-02 ± 9.737E-01
j', -7.624E-02 ± 2.934E+00, 3.522E-02 ± 3.148E-01, 3.169E-03 ± 1.276E-01, 2.541E-02 ± 9.737E-01
234, -7.624E-02 ± 2.934E+00, 3.522E-02 ± 3.148E-01, 3.169E-03 ± 1.276E-01, 2.541E-02 ± 9.737E-01

506 (296-235) [l=410 cm][410 def.]
296, -1.875E-01 ± 6.915E+00, 4.762E-02 ± 8.414E-01, 3.011E-03 ± 1.300E-01, 2.958E-02 ± 9.737E-01
i', -1.875E-01 ± 6.915E+00, 4.762E-02 ± 8.414E-01, 3.011E-03 ± 1.300E-01, 2.958E-02 ± 9.737E-01
j', -6.625E-02 ± 2.934E+00, 3.528E-02 ± 3.082E-01, 3.011E-03 ± 1.300E-01, 2.958E-02 ± 9.737E-01
235, -6.625E-02 ± 2.934E+00, 3.528E-02 ± 3.082E-01, 3.011E-03 ± 1.300E-01, 2.958E-02 ± 9.737E-01

507 (298-236) [l=360 cm][360 def.]
298, -1.745E-01 ± 6.428E+00, 4.617E-02 ± 7.735E-01, 3.218E-03 ± 1.237E-01, 3.107E-02 ± 9.731E-01
i', -1.745E-01 ± 6.428E+00, 4.617E-02 ± 7.735E-01, 3.218E-03 ± 1.237E-01, 3.107E-02 ± 9.731E-01
j', -6.266E-02 ± 2.936E+00, 3.459E-02 ± 3.294E-01, 3.218E-03 ± 1.237E-01, 3.107E-02 ± 9.731E-01
236, -6.266E-02 ± 2.936E+00, 3.459E-02 ± 3.294E-01, 3.218E-03 ± 1.237E-01, 3.107E-02 ± 9.731E-01

508 (300-250) [l=360 cm][360 def.]
300, -1.767E-01 ± 6.434E+00, 4.733E-02 ± 7.732E-01, 4.187E-03 ± 1.234E-01, 3.110E-02 ± 9.724E-01
i', -1.767E-01 ± 6.434E+00, 4.733E-02 ± 7.732E-01, 4.187E-03 ± 1.234E-01, 3.110E-02 ± 9.724E-01
j', -6.476E-02 ± 2.952E+00, 3.226E-02 ± 3.298E-01, 4.187E-03 ± 1.234E-01, 3.110E-02 ± 9.724E-01
250, -6.476E-02 ± 2.952E+00, 3.226E-02 ± 3.298E-01, 4.187E-03 ± 1.234E-01, 3.110E-02 ± 9.724E-01

509 (302-249) [l=410 cm][410 def.]
302, -1.899E-01 ± 6.920E+00, 4.940E-02 ± 8.410E-01, 4.058E-03 ± 1.298E-01, 2.968E-02 ± 9.729E-01
i', -1.899E-01 ± 6.920E+00, 4.940E-02 ± 8.410E-01, 4.058E-03 ± 1.298E-01, 2.968E-02 ± 9.729E-01
j', -6.818E-02 ± 2.950E+00, 3.277E-02 ± 3.087E-01, 4.058E-03 ± 1.298E-01, 2.968E-02 ± 9.729E-01
249, -6.818E-02 ± 2.950E+00, 3.277E-02 ± 3.087E-01, 4.058E-03 ± 1.298E-01, 2.968E-02 ± 9.729E-01

510 (304-251) [l=410 cm][410 def.]
304, -1.829E-01 ± 6.920E+00, 4.976E-02 ± 8.375E-01, 4.079E-03 ± 1.274E-01, 2.556E-02 ± 9.730E-01
i', -1.829E-01 ± 6.920E+00, 4.976E-02 ± 8.375E-01, 4.079E-03 ± 1.274E-01, 2.556E-02 ± 9.730E-01
j', -7.806E-02 ± 2.950E+00, 3.304E-02 ± 3.153E-01, 4.079E-03 ± 1.274E-01, 2.556E-02 ± 9.730E-01
251, -7.806E-02 ± 2.950E+00, 3.304E-02 ± 3.153E-01, 4.079E-03 ± 1.274E-01, 2.556E-02 ± 9.730E-01

511 (306-252) [l=360 cm][360 def.]
306, -1.684E-01 ± 6.434E+00, 4.812E-02 ± 7.655E-01, 4.248E-03 ± 1.187E-01, 2.419E-02 ± 9.726E-01
i', -1.684E-01 ± 6.434E+00, 4.812E-02 ± 7.655E-01, 4.248E-03 ± 1.187E-01, 2.419E-02 ± 9.726E-01
j', -8.134E-02 ± 2.952E+00, 3.283E-02 ± 3.412E-01, 4.248E-03 ± 1.187E-01, 2.419E-02 ± 9.726E-01
252, -8.134E-02 ± 2.952E+00, 3.283E-02 ± 3.412E-01, 4.248E-03 ± 1.187E-01, 2.419E-02 ± 9.726E-01

--> Reazioni Vincolari (RX, RY, RZ, MX, MY, MZ) [kN, kN m]

1, -2.92 ± 0.88, 25.17 ± 25.83, 231.72 ± 8.55, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.06
2, 2.88 ± 0.78, -22.83 ± 26.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.06
3, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
4, 0.00 ± 0.93, -2.74 ± 0.73, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
5, -0.72 ± 0.80, -27.04 ± 27.09, 220.58 ± 10.02, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.06
6, 0.69 ± 0.70, 23.99 ± 28.14, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.06
7, 0.00 ± 0.94, 2.74 ± 0.64, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
8, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
9, -8.94 ± 8.33, -0.98 ± 0.83, 99.17 ± 6.14, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.03
10, 8.94 ± 8.33, 0.98 ± 0.83, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.03
11, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
12, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
13, -13.78 ± 11.06, -0.57 ± 0.63, 148.63 ± 11.10, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.04

14, 13.78 ± 11.06, 0.57 ± 0.63, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.04
15, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
16, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
17, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
18, -5.42 ± 5.95, -0.56 ± 0.61, 141.55 ± 11.71, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.03
19, 5.19 ± 3.56, -11.93 ± 3.68, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.05
20, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
21, -11.67 ± 15.39, -1.09 ± 1.70, 284.29 ± 13.84, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.06
22, 11.52 ± 11.58, -19.21 ± 3.98, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.09
23, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
24, 0.11 ± 0.16, -28.65 ± 5.88, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
25, -0.25 ± 0.36, -0.19 ± 0.29, 54.57 ± 2.12, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
26, 0.25 ± 0.36, 0.19 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
27, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
28, 0.23 ± 0.28, -3.95 ± 0.21, 70.38 ± 3.66, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
29, -0.23 ± 0.28, 3.95 ± 0.21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
30, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
31, 0.00 ± 0.02, -0.85 ± 0.09, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
32, 32.00 ± 17.37, -22.25 ± 1.17, 343.38 ± 18.76, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.06
33, -31.67 ± 13.89, 5.37 ± 2.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.08
34, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
35, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
36, -26.64 ± 39.17, -4.07 ± 3.00, 442.18 ± 23.58, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.13
37, 28.41 ± 31.98, -28.84 ± 3.14, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.05 ± 0.18
38, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
39, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
40, 0.09 ± 0.05, -25.30 ± 6.28, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
41, -0.22 ± 0.37, -0.37 ± 0.28, 43.77 ± 2.10, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
42, 0.22 ± 0.37, 0.37 ± 0.28, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
43, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
44, 12.30 ± 15.16, -20.70 ± 1.25, 368.13 ± 18.64, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.06
45, -10.78 ± 11.40, 4.91 ± 3.66, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.09
46, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
48, 26.15 ± 20.33, -20.66 ± 1.29, 271.24 ± 15.15, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.07
49, -26.15 ± 20.33, 20.66 ± 1.29, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.07
50, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
51, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
52, 2.71 ± 7.05, -0.07 ± 0.74, 75.00 ± 5.21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
53, -1.99 ± 5.57, -5.71 ± 2.77, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.03
54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
55, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
56, -1.03 ± 6.93, 0.04 ± 0.73, 81.95 ± 4.68, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
57, 1.03 ± 6.93, -0.04 ± 0.73, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
58, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
59, -1.01 ± 3.65, 3.41 ± 0.32, 60.24 ± 3.46, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
60, 1.01 ± 3.65, -3.41 ± 0.32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
61, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
62, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
63, -0.02 ± 4.47, 3.42 ± 0.32, 77.07 ± 4.34, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
64, 0.02 ± 4.47, -3.42 ± 0.32, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
65, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
66, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
67, 18.00 ± 10.87, 15.34 ± 0.77, 213.00 ± 12.57, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.04
68, -18.00 ± 10.87, -15.34 ± 0.77, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.04
69, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
70, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
71, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
72, 4.80 ± 5.84, 15.35 ± 0.76, 228.28 ± 12.34, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.03
73, -4.80 ± 5.84, -15.35 ± 0.76, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.03
74, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
75, -0.24 ± 0.36, 0.45 ± 0.29, 42.63 ± 2.16, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
76, 0.24 ± 0.36, -0.45 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
77, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
78, 0.09 ± 0.05, 20.02 ± 5.40, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
79, -28.74 ± 38.32, 4.87 ± 3.03, 426.79 ± 23.98, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.13
80, 27.23 ± 31.37, 39.71 ± 4.10, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.05 ± 0.18
81, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
82, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
83, 31.41 ± 17.18, 22.32 ± 1.17, 331.88 ± 19.06, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.06
84, -32.50 ± 13.78, -2.70 ± 1.64, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.08
85, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
87, -0.01 ± 0.02, 1.14 ± 0.09, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
88, 0.23 ± 0.27, 3.96 ± 0.21, 68.35 ± 3.74, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
89, -0.23 ± 0.27, -3.96 ± 0.21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
90, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
91, -0.29 ± 0.35, 0.24 ± 0.29, 53.22 ± 2.21, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
92, 0.29 ± 0.35, -0.24 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
93, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
94, 0.11 ± 0.14, 23.86 ± 5.14, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
95, -13.49 ± 14.75, 1.37 ± 1.72, 271.51 ± 13.78, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.06
96, 11.85 ± 11.05, 19.08 ± 3.45, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.09
97, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
98, 0.14 ± 6.03, 0.29 ± 0.44, 157.66 ± 11.50, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.03
99, -1.21 ± 3.89, 11.00 ± 3.50, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.05

100, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
101, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
102, 0.16 ± 6.03, 0.29 ± 0.47, 176.60 ± 12.96, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.03
103, -0.16 ± 6.03, -0.29 ± 0.47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.03
104, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
105, -11.72 ± 4.29, 0.91 ± 0.78, 118.56 ± 5.29, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
106, 11.72 ± 4.29, -0.91 ± 0.78, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
107, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
108, 0.17 ± 0.55, -0.71 ± 25.44, 215.36 ± 9.64, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.06
109, -35.44 ± 122.36, 54.50 ± 34.30, 0.00 ± 0.00, 45.34 ± 28.54, 29.49 ± 101.81, 122.36 ± 423.78
110, -59.21 ± 204.86, 139.25 ± 11.11, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 141.46 ± 489.45
111, 4.39 ± 15.12, 2.69 ± 10.04, 0.00 ± 0.00, 4.47 ± 16.71, -7.31 ± 25.16, 56.31 ± 193.91
112, -0.40 ± 0.44, 17.86 ± 26.47, 261.59 ± 5.62, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
113, 0.01 ± 0.07, -56.01 ± 1.85, 0.00 ± 0.00, 33.60 ± 1.11, 0.00 ± 0.04, 0.29 ± 0.38
114, 0.28 ± 0.36, 9.00 ± 16.34, 0.00 ± 0.00, -5.40 ± 9.80, 0.17 ± 0.22, 0.30 ± 0.39
115, 0.00 ± 0.00, 0.51 ± 6.60, 0.00 ± 0.00, -0.31 ± 3.96, 0.00 ± 0.00, 0.00 ± 0.00
116, -0.37 ± 0.48, -15.18 ± 28.81, 282.14 ± 5.73, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
117, 0.00 ± 0.07, 64.55 ± 2.33, 0.00 ± 0.00, -38.73 ± 1.40, 0.00 ± 0.04, -0.31 ± 0.44
118, 0.00 ± 0.00, -2.27 ± 6.93, 0.00 ± 0.00, 1.36 ± 4.16, 0.00 ± 0.00, 0.00 ± 0.00
119, 0.26 ± 0.39, -13.66 ± 18.31, 0.00 ± 0.00, 8.20 ± 10.99, 0.16 ± 0.23, -0.30 ± 0.45
120, -0.31 ± 0.45, 32.52 ± 25.70, 259.21 ± 5.28, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.02
121, -0.01 ± 0.07, -61.99 ± 2.54, 0.00 ± 0.00, 37.19 ± 1.53, 0.00 ± 0.04, 0.24 ± 0.18
122, 0.23 ± 0.11, -0.48 ± 16.55, 0.00 ± 0.00, 0.29 ± 9.93, 0.14 ± 0.07, 0.24 ± 0.12
123, 0.00 ± 0.02, 1.44 ± 6.45, 0.00 ± 0.00, -0.86 ± 3.87, 0.00 ± 0.01, 0.00 ± 0.28
124, -0.32 ± 0.48, -28.88 ± 28.15, 278.92 ± 5.54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.03
125, 0.00 ± 0.07, 72.08 ± 3.20, 0.00 ± 0.00, -43.25 ± 1.92, 0.00 ± 0.04, -0.27 ± 0.17
126, 0.00 ± 0.02, -3.45 ± 6.72, 0.00 ± 0.00, 2.07 ± 4.03, 0.00 ± 0.01, 0.00 ± 0.30
127, 0.23 ± 0.13, -5.96 ± 18.77, 0.00 ± 0.00, 3.58 ± 11.26, 0.14 ± 0.08, -0.26 ± 0.15
128, 1.65 ± 4.34, -20.44 ± 5.14, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.04 ± 0.05
129, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
130, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
131, -0.18 ± 0.55, 2.70 ± 0.52, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
132, 0.18 ± 0.55, -2.70 ± 0.52, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
133, -9.87 ± 1.07, 0.02 ± 0.01, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -25.34 ± 13.68
134, 1.50 ± 8.15, -44.58 ± 2.44, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.07 ± 0.11
135, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
136, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
137, 0.22 ± 2.49, 12.50 ± 4.28, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.03
138, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
139, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
140, 0.01 ± 0.54, -2.49 ± 0.58, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
141, -0.01 ± 0.54, 2.49 ± 0.58, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
142, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
143, 0.00 ± 0.00, 15.97 ± 0.91, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
144, -0.32 ± 3.83, 16.87 ± 3.16, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.03 ± 0.05
145, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
146, 1.12 ± 3.71, -14.26 ± 1.31, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.03 ± 0.04
147, -1.12 ± 3.71, 14.26 ± 1.31, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.03 ± 0.04
148, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
149, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
150, -0.08 ± 0.77, 4.49 ± 0.43, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.01
151, 0.08 ± 0.77, -4.49 ± 0.43, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.01
152, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
153, -0.24 ± 4.09, 25.05 ± 4.08, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.03 ± 0.05
154, 0.24 ± 4.09, -25.05 ± 4.08, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.03 ± 0.05
155, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
156, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
157, -0.03 ± 0.52, 3.28 ± 0.64, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
158, 0.03 ± 0.52, -3.28 ± 0.64, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.01
159, 59.49 ± 205.03, -133.77 ± 6.56, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 142.14 ± 489.90
160, 1.72 ± 4.36, -15.23 ± 3.55, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.04 ± 0.05
161, -1.72 ± 4.36, 15.23 ± 3.55, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.04 ± 0.05
162, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
163, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
164, -0.13 ± 0.31, 1.37 ± 0.54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
165, 0.13 ± 0.31, -1.37 ± 0.54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
166, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
167, 0.00 ± 0.00, -23.29 ± 3.08, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
168, -0.16 ± 0.37, 1.56 ± 0.69, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
169, 0.16 ± 0.37, -1.56 ± 0.69, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
170, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
171, -0.11 ± 0.26, 1.07 ± 0.52, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
172, 0.11 ± 0.26, -1.07 ± 0.52, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
173, -0.11 ± 0.01, -0.15 ± 3.37, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.26 ± 0.03
174, -0.03 ± 0.31, -1.58 ± 0.58, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
175, 0.03 ± 0.31, 1.58 ± 0.58, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
176, 0.00 ± 0.00, 23.29 ± 3.08, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
177, -0.04 ± 0.36, -1.89 ± 0.74, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
178, 0.04 ± 0.36, 1.89 ± 0.74, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
179, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
180, -0.03 ± 0.25, -1.36 ± 0.56, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
181, 0.03 ± 0.25, 1.36 ± 0.56, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
182, -0.11 ± 0.01, -0.09 ± 3.27, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.28 ± 0.03
183, -0.07 ± 0.10, -3.45 ± 3.79, 0.00 ± 0.00, -2.09 ± 2.30, 0.04 ± 0.06, -0.18 ± 0.02
184, -0.09 ± 0.01, -15.51 ± 0.93, 0.00 ± 0.00, -18.78 ± 1.13, 0.11 ± 0.01, -0.21 ± 0.02
185, 0.53 ± 0.05, -0.25 ± 0.75, 0.00 ± 0.00, -0.41 ± 1.25, -0.88 ± 0.08, 0.01 ± 0.04

186, -0.10 ± 0.01, 15.18 ± 0.96, 0.00 ± 0.00, 18.38 ± 1.17, 0.12 ± 0.01, 0.22 ± 0.02
187, -0.09 ± 0.10, 5.00 ± 3.64, 0.00 ± 0.00, 3.03 ± 2.21, 0.05 ± 0.06, 0.19 ± 0.02
188, -0.73 ± 2.97, 15.67 ± 1.54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.03
189, 0.73 ± 2.97, -15.67 ± 1.54, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.03
190, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
191, 1.10 ± 3.85, -19.63 ± 2.73, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.03 ± 0.05
192, -0.19 ± 2.51, 15.21 ± 2.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.03
193, 0.19 ± 2.51, -15.21 ± 2.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.03
194, -1.22 ± 2.99, 13.69 ± 4.18, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.03
195, 1.22 ± 2.99, -13.69 ± 4.18, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.03
196, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
197, 1.07 ± 2.52, -11.29 ± 3.94, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.03
198, -1.77 ± 8.12, 32.91 ± 2.47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.07 ± 0.11
199, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
200, 0.40 ± 2.95, -12.71 ± 1.86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.03
201, -0.40 ± 2.95, 12.71 ± 1.86, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.03
202, 0.15 ± 4.30, 20.29 ± 5.67, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.04 ± 0.05
203, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
204, -0.21 ± 2.96, -14.46 ± 4.57, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.03
205, 0.21 ± 2.96, 14.46 ± 4.57, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.03
206, -1.52 ± 4.30, 15.79 ± 2.47, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.04 ± 0.05
207, 1.21 ± 2.92, -9.81 ± 2.98, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.03
208, -1.21 ± 2.92, 9.81 ± 2.98, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.03
209, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
210, -0.72 ± 1.73, 5.78 ± 2.04, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.01 ± 0.02
211, 0.16 ± 0.55, -0.69 ± 25.44, 240.29 ± 8.81, 0.00 ± 0.00, 0.00 ± 0.00, 0.01 ± 0.06
212, 35.31 ± 121.82, -59.54 ± 31.71, 0.00 ± 0.00, -49.54 ± 26.38, -29.38 ± 101.36, 123.19 ± 424.24
213, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
214, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
215, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
216, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
217, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
218, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
219, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
220, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
221, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
222, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
223, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
224, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
225, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
226, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
227, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
228, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
229, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
230, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
231, 0.24 ± 0.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.40 ± 0.06, 0.00 ± 0.00
232, 0.00 ± 0.01, -1.80 ± 0.04, 0.00 ± 0.00, 4.33 ± 0.11, 0.01 ± 0.03, -0.01 ± 0.04
233, 0.00 ± 0.01, -0.44 ± 0.03, 0.00 ± 0.00, 1.06 ± 0.08, -0.01 ± 0.03, -0.01 ± 0.03
234, 0.00 ± 0.01, -0.78 ± 0.03, 0.00 ± 0.00, 1.88 ± 0.08, 0.01 ± 0.02, 0.00 ± 0.01
235, 0.00 ± 0.01, 0.66 ± 0.03, 0.00 ± 0.00, -1.57 ± 0.08, 0.01 ± 0.02, 0.00 ± 0.01
236, 0.00 ± 0.01, 1.59 ± 0.04, 0.00 ± 0.00, -3.80 ± 0.09, 0.01 ± 0.02, 0.01 ± 0.03
237, 0.00 ± 0.01, 0.46 ± 0.04, 0.00 ± 0.00, -1.12 ± 0.09, -0.01 ± 0.02, 0.01 ± 0.02
238, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
239, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
240, 0.00 ± 0.00, -22.49 ± 2.41, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
241, 0.09 ± 0.04, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.14 ± 0.07, 0.00 ± 0.00
242, 0.00 ± 0.00, 22.49 ± 2.41, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
243, 0.00 ± 0.00, -26.54 ± 1.82, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
244, -0.15 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.25 ± 0.09, 0.00 ± 0.00
245, 0.00 ± 0.00, 26.54 ± 1.82, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
246, 0.00 ± 0.00, -15.27 ± 0.99, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
247, -0.27 ± 0.04, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.45 ± 0.06, 0.01 ± 0.00
248, 0.00 ± 0.00, 15.27 ± 0.99, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
249, 0.00 ± 0.01, 0.69 ± 0.03, 0.00 ± 0.00, -1.65 ± 0.08, 0.00 ± 0.02, 0.00 ± 0.01
250, 0.00 ± 0.01, 1.55 ± 0.05, 0.00 ± 0.00, -3.72 ± 0.11, 0.00 ± 0.02, 0.00 ± 0.03
251, 0.00 ± 0.01, -0.73 ± 0.04, 0.00 ± 0.00, 1.76 ± 0.09, 0.00 ± 0.02, 0.00 ± 0.01
252, 0.00 ± 0.01, -1.78 ± 0.05, 0.00 ± 0.00, 4.27 ± 0.12, 0.00 ± 0.03, -0.01 ± 0.04
253, 0.00 ± 0.01, 0.43 ± 0.04, 0.00 ± 0.00, -1.02 ± 0.09, 0.00 ± 0.02, 0.00 ± 0.02
254, 0.00 ± 0.01, -0.47 ± 0.04, 0.00 ± 0.00, 1.12 ± 0.08, 0.00 ± 0.03, 0.00 ± 0.03
255, 0.00 ± 0.00, -16.93 ± 0.22, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
256, 0.20 ± 0.02, -1.61 ± 0.00, 0.00 ± 0.00, -2.69 ± 0.00, -0.34 ± 0.04, -0.01 ± 0.00
257, 0.00 ± 0.00, 18.96 ± 0.22, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
258, 0.00 ± 0.00, -20.96 ± 0.46, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
259, 0.15 ± 0.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.24 ± 0.04, -0.01 ± 0.00
260, 0.00 ± 0.00, 20.96 ± 0.46, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
261, 0.00 ± 0.00, -23.52 ± 1.13, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
262, -0.18 ± 0.03, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.29 ± 0.04, 0.00 ± 0.00
263, 0.00 ± 0.00, 23.52 ± 1.13, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
264, 0.00 ± 0.00, -14.31 ± 0.73, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
265, -0.17 ± 0.01, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.28 ± 0.02, 0.00 ± 0.00
266, 0.00 ± 0.00, 14.31 ± 0.73, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
267, 0.00 ± 0.00, 25.01 ± 2.67, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
268, 0.14 ± 0.04, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, -0.23 ± 0.06, 0.00 ± 0.00
269, 0.00 ± 0.00, -25.01 ± 2.67, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
270, 0.00 ± 0.00, 22.74 ± 3.23, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
271, -0.42 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.69 ± 0.08, 0.00 ± 0.00

272, 0.00 ± 0.00, -22.74 ± 3.23, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 273, 0.05 ± 0.02, -4.04 ± 0.22, 0.00 ± 0.00, -6.72 ± 0.37, -0.09 ± 0.04, 0.01 ± 0.00
 274, 0.24 ± 0.06, -4.81 ± 0.48, 0.00 ± 0.00, -8.00 ± 0.80, -0.40 ± 0.10, 0.00 ± 0.00
 275, -26.90 ± 91.90, 51.39 ± 1.18, 0.00 ± 0.00, 85.52 ± 1.96, 44.75 ± 152.92, 0.20 ± 0.68
 276, 0.00 ± 0.00, 0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 277, 0.00 ± 0.00, -0.01 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 278, 0.00 ± 0.00, -1.40 ± 0.11, 0.00 ± 0.00, -1.04 ± 0.08, 0.00 ± 0.00, 0.00 ± 0.00
 279, 0.00 ± 0.00, -2.85 ± 0.21, 0.00 ± 0.00, -3.61 ± 0.26, 0.00 ± 0.00, 0.00 ± 0.00
 280, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 281, 0.00 ± 0.00, 0.37 ± 0.05, 0.00 ± 0.00, 0.28 ± 0.04, 0.00 ± 0.00, 0.00 ± 0.00
 282, 0.00 ± 0.00, 1.44 ± 0.11, 0.00 ± 0.00, 1.83 ± 0.13, 0.00 ± 0.00, 0.00 ± 0.00
 283, 0.00 ± 0.00, 3.42 ± 0.17, 0.00 ± 0.00, 5.70 ± 0.29, 0.00 ± 0.00, 0.00 ± 0.00
 284, 0.00 ± 0.00, 18.65 ± 1.94, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 285, 0.00 ± 0.00, -1.20 ± 0.21, 0.00 ± 0.00, -0.89 ± 0.16, 0.00 ± 0.00, 0.00 ± 0.00
 286, 0.00 ± 0.00, -2.83 ± 0.37, 0.00 ± 0.00, -3.58 ± 0.47, 0.00 ± 0.00, 0.00 ± 0.00
 287, 0.00 ± 0.00, 2.82 ± 0.37, 0.00 ± 0.00, 3.58 ± 0.47, 0.00 ± 0.00, 0.01 ± 0.00
 288, 0.00 ± 0.00, 4.81 ± 0.48, 0.00 ± 0.00, 8.00 ± 0.80, 0.00 ± 0.00, 0.00 ± 0.00
 289, 0.00 ± 0.00, 1.19 ± 0.21, 0.00 ± 0.00, 0.88 ± 0.16, 0.00 ± 0.00, 0.00 ± 0.00
 290, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 291, 0.01 ± 0.01, 0.43 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 292, -0.01 ± 0.01, -0.21 ± 0.02, 0.00 ± 0.00, -0.25 ± 0.03, 0.01 ± 0.01, 0.00 ± 0.00
 293, 0.01 ± 0.01, 0.25 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 294, -0.01 ± 0.01, -0.18 ± 0.04, 0.00 ± 0.00, -0.30 ± 0.06, 0.01 ± 0.01, 0.00 ± 0.00
 295, 0.01 ± 0.01, -0.20 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 296, -0.01 ± 0.01, 0.14 ± 0.04, 0.00 ± 0.00, 0.24 ± 0.06, 0.01 ± 0.01, 0.00 ± 0.00
 297, 0.01 ± 0.01, -0.41 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 298, -0.01 ± 0.01, 0.19 ± 0.02, 0.00 ± 0.00, 0.23 ± 0.03, 0.01 ± 0.01, 0.00 ± 0.00
 299, 0.00 ± 0.01, -0.40 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 300, 0.00 ± 0.01, 0.19 ± 0.02, 0.00 ± 0.00, 0.23 ± 0.03, 0.00 ± 0.01, 0.00 ± 0.00
 301, 0.00 ± 0.01, -0.21 ± 0.06, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 302, 0.00 ± 0.01, 0.15 ± 0.04, 0.00 ± 0.00, 0.26 ± 0.06, 0.01 ± 0.01, 0.00 ± 0.00
 303, 0.00 ± 0.01, 0.24 ± 0.06, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 304, 0.00 ± 0.01, -0.16 ± 0.04, 0.00 ± 0.00, -0.28 ± 0.06, 0.01 ± 0.01, 0.00 ± 0.00
 305, 0.01 ± 0.01, 0.43 ± 0.05, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 306, 0.00 ± 0.01, -0.20 ± 0.02, 0.00 ± 0.00, -0.24 ± 0.03, 0.01 ± 0.01, 0.00 ± 0.00
 311, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 312, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 313, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 314, 0.00 ± 0.00, -0.43 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 315, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 316, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 317, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 318, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 319, 9.94 ± 1.06, -12.93 ± 0.67, 0.00 ± 0.00, -0.01 ± 0.00, -0.01 ± 0.00, 25.34 ± 13.68
 320, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 321, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 322, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 323, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 324, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 325, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 326, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 327, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 328, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 329, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 330, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 331, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 332, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 333, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 334, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 335, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 336, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 337, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 338, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 339, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 340, 0.00 ± 0.02, -0.82 ± 0.09, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 341, 0.00 ± 0.02, 1.12 ± 0.10, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 342, 22.21 ± 76.91, -53.12 ± 11.22, 0.00 ± 0.00, -88.28 ± 18.65, -36.92 ± 127.83, 55.70 ± 192.87
 343, -0.06 ± 0.01, -0.01 ± 0.01, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 344, 0.01 ± 0.00, -18.63 ± 1.94, 0.00 ± 0.00, -0.02 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 345, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00
 346, -0.01 ± 0.00, -9.92 ± 0.53, 0.00 ± 0.00, -0.02 ± 0.00, 0.00 ± 0.00, -0.02 ± 0.00
 347, -0.01 ± 0.00, 9.89 ± 0.53, 0.00 ± 0.00, 0.02 ± 0.00, 0.00 ± 0.00, 0.02 ± 0.00
 348, 0.00 ± 177.40, 0.00 ± 145.79, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 400.24
 349, 0.00 ± 72.82, 0.00 ± 63.02, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 0.00, 0.00 ± 191.17

12. SPOSTAMENTI DI INTERPIANO [SLD] (§7.3.7.2)

- Massimo rapporto (d,r/H): 0.151 < 2 (per mille)

H e d,r sono calcolati per ogni asta verticale (=parete) del piano; H è l'altezza della parete.

Nei risultati, si riporta per ogni piano l'asta corrispondente al massimo rapporto d,r/H.

H può non coincidere con l'altezza di piano: nel caso di quote sfalsate,

o nel caso di aste definite tra piani non consecutivi.

Lo spostamento d,r include per SLD l'amplificazione per il fattore di comportamento q [§7.3.6.1].

N.piano	H (m)	Asta	Spost. d,r (mm)	(d,r / H) (per mille)
1	4.200	106	0.6	0.151
2	6.082	104	0.9	0.146

13. DATI GEOMETRICI ELEMENTI IN MURATURA

Edificio Esistente

Coefficiente parziale di sicurezza dei materiali γ_M : analisi statica [§4.5.6.1] = 3.00
- analisi sismica [§7.8.1.1] = 2.40

N.	p.no	M/A	S/F	lungh. l(base)	Piano Complanare (m)				Piano Ortogonale (m)				Xg (m)	Yg (m)	N° mat
					alt. H	alt. def.h	h/l	l/h	spess. t	alt. def.h	ho= r*h	ho/t			
1	1	X		3.03	4.80	4.01	1.327	0.754	0.60	4.80	4.80	8.000	0.000	6.809	3
4	1	X		3.03	4.80	4.01	1.327	0.754	0.60	4.80	4.80	8.000	0.000	1.517	3
7	1		X	1.95	2.27	2.27	1.162	0.861	0.60						3
8	1	X		1.59	4.80	2.67	1.684	0.594	0.60	4.80	4.80	8.000	0.794	0.004	3
11	1	X		1.92	4.80	2.87	1.496	0.668	0.60	4.80	4.80	8.000	4.811	0.004	3
14	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
15	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
16	1	X		1.92	4.80	4.01	2.091	0.478	0.60	4.80	4.80	8.000	6.729	0.004	3
19	1	X		3.27	4.80	4.25	1.301	0.769	0.60	4.80	4.80	8.000	11.586	0.004	3
22	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
23	1	X		0.57	4.80	3.54	6.238	0.160	0.60	4.80	4.80	8.000	13.504	0.004	3
26	1	X		0.52	4.80	3.52	6.790	0.147	0.60	4.80	4.80	8.000	16.311	0.004	3
29	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
30	1	X		2.92	4.80	3.35	1.148	0.871	0.60	4.80	4.80	8.000	18.029	0.004	3
34	1	X		6.17	4.80	4.23	0.685	1.459	0.60	4.80	4.80	8.000	24.836	0.004	3
38	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
39	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
40	1	X		0.57	4.80	3.54	6.227	0.161	0.60	4.80	4.80	8.000	28.204	0.004	3
43	1	X		3.27	4.80	4.25	1.299	0.770	0.60	4.80	4.80	8.000	32.389	0.004	3
45	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
46	1	X		3.27	4.80	3.49	1.065	0.939	0.60	4.80	4.80	8.000	35.662	0.004	3
49	1	X		1.35	4.80	2.52	1.869	0.535	0.60	4.80	4.80	8.000	40.236	0.004	3
52	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
53	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
54	1	X		1.33	4.80	2.61	1.966	0.509	0.60	4.80	4.80	8.000	40.245	8.328	3
56	1	X		0.86	4.80	2.31	2.672	0.374	0.60	4.80	4.80	8.000	38.148	8.323	3
59	1		X	2.60	1.00	1.00	0.385	2.600	0.60						3
60	1	X		0.86	4.80	2.13	2.469	0.405	0.60	4.80	4.80	8.000	37.285	8.322	3
64	1	X		1.92	4.80	2.87	1.496	0.668	0.60	4.80	4.80	8.000	33.629	8.322	3
67	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
68	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
69	1	X		1.92	4.80	4.01	2.091	0.478	0.60	4.80	4.80	8.000	31.711	8.322	3
71	1	X		0.57	4.80	3.54	6.227	0.161	0.60	4.80	4.80	8.000	28.204	8.322	3
74	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
75	1	X		6.17	4.80	4.23	0.685	1.459	0.60	4.80	4.80	8.000	24.836	8.322	3
79	1	X		2.92	4.80	3.35	1.148	0.871	0.60	4.80	4.80	8.000	18.029	8.322	3
83	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
84	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
85	1	X		0.52	4.80	3.52	6.790	0.147	0.60	4.80	4.80	8.000	16.311	8.322	3
88	1	X		0.57	4.80	3.54	6.238	0.160	0.60	4.80	4.80	8.000	13.504	8.322	3
91	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
92	1	X		3.27	4.80	4.25	1.301	0.769	0.60	4.80	4.80	8.000	11.586	8.322	3
95	1	X		1.92	4.80	4.01	2.091	0.478	0.60	4.80	4.80	8.000	6.729	8.322	3
98	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
99	1	X		1.92	4.80	4.01	2.091	0.478	0.60	4.80	4.80	8.000	4.811	8.322	3
101	1	X		1.59	4.80	3.90	2.459	0.407	0.60	4.80	4.80	8.000	0.794	8.322	3
103	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
104	2	X		4.16	6.08	6.08	1.461	0.684	0.60	6.08	6.08	10.137	40.910	2.085	3
106	1	X		3.06	4.20	3.61	1.180	0.848	0.38	4.20	4.20	11.053	13.220	6.792	4
109	1	X		3.26	4.20	3.63	1.113	0.899	0.38	4.20	4.20	11.053	13.220	1.633	4
112	1		X	1.70	2.00	2.00	1.176	0.850	0.38						4
113	1	X		3.06	4.20	3.61	1.180	0.848	0.38	4.20	4.20	11.053	27.920	6.792	4
116	1	X		3.26	4.20	3.63	1.113	0.899	0.38	4.20	4.20	11.053	27.920	1.633	4
119	1		X	1.70	2.00	2.00	1.176	0.850	0.38						4
122	2	X		3.35	0.45	0.45	0.134	7.444	0.60	0.45	0.45	0.750	14.895	8.322	3
126	2	X		3.35	0.45	0.45	0.134	7.444	0.60	0.45	0.45	0.750	14.895	0.004	3
132	2	X		4.75	0.45	0.45	0.095	10.556	0.60	0.45	0.45	0.750	30.295	8.322	3
135	2	X		3.19	0.45	0.45	0.141	7.096	0.60	0.45	0.45	0.750	39.313	8.326	3
140	2	X		1.92	0.45	0.45	0.234	4.273	0.60	0.45	0.45	0.750	4.809	8.322	3
143	2	X		2.25	0.45	0.45	0.200	5.007	0.60	0.45	0.45	0.750	2.720	8.322	3
146	2	X		1.59	0.45	0.45	0.282	3.540	0.60	0.45	0.45	0.750	0.797	8.322	3
149	2	X		1.92	0.45	0.45	0.234	4.273	0.60	0.45	0.45	0.750	4.809	0.004	3
152	2	X		2.25	0.45	0.45	0.200	5.007	0.60	0.45	0.45	0.750	2.720	0.004	3
155	2	X		1.59	0.45	0.45	0.282	3.540	0.60	0.45	0.45	0.750	0.797	0.004	3
158	2	X		3.03	1.06	1.06	0.349	2.866	0.60	1.06	1.06	1.760	0.000	6.809	3
161	2		X	1.75	1.22	1.22	0.696	1.437	0.60						3
162	2		X	1.75	1.22	1.22	0.696	1.436	0.60						3

163	2	X		3.03	1.06	1.06	0.349	2.866	0.60	1.06	1.06	1.760	0.000	1.517	3
194	2	X		4.16	6.08	6.08	1.461	0.684	0.60	6.08	6.08	10.137	40.910	6.248	3

14. DATI GEOMETRICI ELEMENTI IN C.A.

N.	p.no	C/R	T/Z	lunghezza l(base)	Piano Complanare (m)				Piano Ortogonale (m)			Xg (m)	Yg (m)	N° mat
					alt. H	alt. def.h	h/l	l/h	spess. t	alt. def.h	h/t			
120	2	X		3.27	0.45	0.45	0.138	7.262	0.60	0.45	0.750	11.586	8.322	1
123	2	X		6.17	0.45	0.45	0.073	13.707	0.60	0.45	0.750	24.836	8.322	1
124	2	X		1.92	0.45	0.45	0.235	4.262	0.60	0.45	0.750	6.729	0.004	1
128	2	X		2.92	0.45	0.45	0.154	6.482	0.60	0.45	0.750	18.029	0.004	1
130	2	X		2.83	0.45	0.45	0.159	6.293	0.60	0.45	0.750	29.336	0.004	1
133	2	X		3.11	0.45	0.45	0.145	6.918	0.60	0.45	0.750	36.160	8.322	1
138	2	X		3.31	0.45	0.45	0.136	7.362	0.60	0.45	0.750	35.682	0.004	1
166	2	X		2.27	0.45	0.45	0.199	5.033	0.60	0.45	0.750	20.620	8.322	1
169	2	X		2.92	0.45	0.45	0.154	6.482	0.60	0.45	0.750	18.029	8.322	1
171	2	X		1.93	0.45	0.45	0.233	4.298	0.60	0.45	0.750	33.637	8.322	1
173	2	X		2.27	0.45	0.45	0.199	5.033	0.60	0.45	0.750	8.820	8.322	1
176	2	X		1.92	0.45	0.45	0.235	4.262	0.60	0.45	0.750	6.729	8.322	1
178	2	X		6.17	0.45	0.45	0.073	13.707	0.60	0.45	0.750	24.836	0.004	1
179	2	X		2.27	0.45	0.45	0.199	5.033	0.60	0.45	0.750	20.620	0.004	1
182	2	X		3.27	0.45	0.45	0.138	7.262	0.60	0.45	0.750	11.586	0.004	1
184	2	X		2.27	0.45	0.45	0.199	5.033	0.60	0.45	0.750	8.820	0.004	1
187	2	X		3.27	0.45	0.45	0.137	7.273	0.60	0.45	0.750	32.389	0.004	1
189	2	X		2.22	0.45	0.45	0.202	4.944	0.60	0.45	0.750	38.451	0.004	1
191	2	X		1.35	0.45	0.45	0.334	2.991	0.60	0.45	0.750	40.236	0.004	1
241	2		X	0.35	4.48	4.48	12.809	0.078	0.60					1
395	0		X	0.80	2.00	2.00	2.500	0.400	0.60					1
399	0		X	0.80	2.00	2.00	2.500	0.400	0.60					1
404	0		X	0.80	1.65	1.65	2.062	0.485	0.60					1
405	0		X	0.80	1.32	1.32	1.650	0.606	0.60					1
406	0		X	0.80	2.18	2.18	2.722	0.367	0.60					1
407	0		X	0.80	1.85	1.85	2.312	0.432	0.60					1
408	0		X	0.80	1.32	1.32	1.650	0.606	0.60					1
409	0		X	0.80	1.85	1.85	2.312	0.432	0.60					1
410	0		X	0.80	1.32	1.32	1.650	0.606	0.60					1
411	0		X	0.80	2.18	2.18	2.722	0.367	0.60					1
412	0		X	0.80	1.65	1.65	2.062	0.485	0.60					1
413	0		X	0.80	1.32	1.32	1.650	0.606	0.60					1
429	2		X	0.35	0.00	0.00	0.011	87.500	0.60					1
430	2		X	0.35	4.48	4.48	12.797	0.078	0.60					1
432	2		X	0.35	0.00	0.00	0.011	87.500	0.60					1
433	2		X	0.35	4.48	4.48	12.797	0.078	0.60					1
492	2		X	0.35	4.48	4.48	12.797	0.078	0.60					1
493	2		X	0.35	0.00	0.00	0.011	87.500	0.60					1

VERIFICHE SISMICHE DEGLI ELEMENTI IN MURATURA: VERIFICA A PRESSOFLESSIONE NEL PIANO

(D.M.17.1.2018 (NTC18), §7.8.2.2.1, §7.8.2.2.4)

Per i **maschi murari**, la verifica a pressoflessione di una sezione di un elemento strutturale si effettua confrontando il momento agente di calcolo con il momento ultimo resistente calcolato assumendo la muratura non reagente a trazione ed una opportuna distribuzione non lineare delle compressioni. Nel caso di una sezione rettangolare tale momento ultimo può essere calcolato come:

$M_u = (l^2 t \sigma_o / 2) (1 - \sigma_o / 0.85 f_d)$, dove:

M_u = momento corrispondente al collasso per pressoflessione;

l = larghezza complessiva della parete (inclusiva della zona tesa);

t = spessore della zona compressa della parete;

σ_o = tensione normale media, riferita all'area totale della sezione ($= P / lt$, con P forza assiale agente positiva se di compressione).

Se P è di trazione, $M_u = 0$.

In alternativa, PCM prevede la possibilità di adottare per la muratura la legge di comportamento parabolico-rettangolare: il momento ultimo viene quindi calcolato attraverso l'elaborazione del dominio di resistenza N-M. Attraverso questa opzione è possibile definire con esattezza la zona reagente, ai fini della verifica a Taglio per Scorrimento, assicurando coerenza fra Taglio e Pressoflessione (N,M e T agiscono contemporaneamente sulla sezione trasversale). Per gli elementi in muratura armata (sia in edifici nuovi, sia in murature esistenti rinforzate con armature), per fasce con elementi resistenti a trazione, e per elementi consolidati con sistemi FRP / CAM / Reticolatus viene sempre utilizzato il diagramma parabola-rettangolo. Oltre ai risultati riportati in tabella, specifiche rappresentazioni grafiche di PCM evidenziano il dominio di resistenza ed i punti rappresentativi degli stati di sollecitazione sottoposti a verifica di sicurezza.

$f_d = f_k / \gamma_M$ è la resistenza a compressione di calcolo della muratura.

Per le verifiche sismiche viene utilizzato il coefficiente parziale di sicurezza γ_M definito in §7.8.1.1 dove si indica $\gamma_M \geq 2.0$.

In Analisi Non Lineare la resistenza di calcolo è data da: $f_d = f_m$, dove f_m è il valore medio della resistenza a compressione della muratura (se f_m non è nota, in via approssimata, seguendo le relazioni che legano i valori medi ai caratteristici, si può porre: $f_m = f_k / 0.7$); inoltre, non si applica il coefficiente γ_M .

La formulazione riportata in §7.8.2.2.1 fa diretto riferimento a muratura nuova.

Per la muratura esistente, il parametro descrittivo del materiale è la resistenza a compressione media f_m , definita in base alla tipologia della muratura e ad opportuni fattori correttivi riguardanti le caratteristiche dell'organizzazione strutturale e degli eventuali interventi (§8.5.3.1, Tab.C8.5.II). f_m sostituisce f_k nella formulazione di f_d ; inoltre, γ_M deve essere moltiplicato per il Fattore di Confidenza F_C (§8.5.4, §C.8.5.4), specificato in input nei Parametri di Calcolo; normalmente: $F_C = 1.35, 1.20, 1.00$ in corrispondenza dei livelli di conoscenza LC1,LC2,LC3 (si osservi che dal livello di conoscenza dipende anche il valore adottato per f_m).

In Analisi Non Lineare, non si applica γ_M (§C8.7.1.3.1.1) e la resistenza di calcolo è data da: $f_d = f_m / F_C$.

Si ha pertanto il seguente schema di valutazione della resistenza di calcolo (o: di progetto) f_d :

Muratura nuova: f_k : è certamente nota; f_m : se non è nota, si pone: $f_m = f_k / 0.7$.

in Analisi Lineare: $f_d = f_k / \gamma_m$; in Analisi Non Lineare: $f_d = f_m$.

Muratura esistente: è nota f_m (dipendente, fra l'altro, dal livello di conoscenza).

in Analisi Lineare: $f_d = f_m / \gamma_m / F_C$; in Analisi Non Lineare: $f_d = f_m / F_C$.

Per le **fasce murarie** (elementi striscia, sottofinestra), qualificati in NTC18 come 'Travi in muratura' (§7.8.2.2.4), la verifica a pressoflessione si esegue in modo analogo ai pannelli verticali. Le fasce in muratura ordinaria possono essere dotate di resistenza a trazione in intradosso e/o estradosso fornita dalla presenza di architrave e/o cordolo. Tale resistenza a trazione viene definita nei dati dei singoli elementi. Per le fasce murarie viene eseguito il controllo che la capacità a trazione dell'elemento teso non sia superiore a $0.4 f_{hd} \cdot ht$ (§7.8.2.2.4), essendo: t = spessore, h = altezza, f_{hd} = resistenza di calcolo a compressione della muratura in direzione orizzontale (nel piano della parete). Per quanto riguarda i valori di f_{hk} , f_{hm} di murature esistenti, se non noti possono essere assunti pari alla metà dei corrispondenti valori f_k , f_m . In assenza di un elemento resistente a trazione per le fasce in muratura ordinaria è comunque possibile tener conto di una certa resistenza a trazione del materiale che si genera nelle sezioni di estremità per effetto dell'ingranamento con le porzioni di muratura adiacenti. I meccanismi di rottura possono coinvolgere la resistenza per trazione dei blocchi o avvenire per scorrimento lungo i giunti orizzontali ([C8.7.1.15] in §C8.7.1.3.1.1).

Simbologia utilizzata nel software PCM per i risultati dell'Analisi Lineare:

N. = numero progressivo dell'elemento murario

Tip. = tipologia: maschio in muratura ordinaria (M), maschio in muratura armata (A), striscia (S), sottofinestra (F), asta di cerchiatura in acciaio (W), asta in acciaio (B), pilastro in acciaio (H)

n/e = parete in muratura nuova (n) o esistente (e)

Sez. / comb. = indica la sezione di verifica (per i maschi: B=base, S=sommità; per le fasce: I=sezione iniziale, J=sezione finale; le sezioni sono in ogni caso riferite alla luce deformabile nel piano complanare), e la combinazione di azioni derivanti dall'analisi sismica. Più in dettaglio, le combinazioni eseguite nelle sezioni di verifica sono identificate, ad es. per i maschi, dalle seguenti sigle:

B.1 = sezione di base, combinazione N+, T/M+

B.2 = sezione di base, combinazione N+, T/M-

B.3 = sezione di base, combinazione N-, T/M+

B.4 = sezione di base, combinazione N-, T/M-

e analogamente per la sezione S di sommità.

Le combinazioni B.2 e B.3 (N+, T/M-) e (N-, T/M+), vengono eseguite solo se il corrispondente parametro di calcolo è stato selezionato (finestra Parametri di Calcolo: scheda: Edifici in Muratura: Per Analisi Lineare: Considerare anche le combinazioni (N_{min} , T/M_{max}), (N_{max} , T/M_{min})).

Le combinazioni che generano risultati identici non vengono riportate. Un esempio di questo tipo è il caso di strutture con vincolamento shear-type, quindi composte da pareti con sforzo normale costante: le verifiche per le diverse combinazioni sono identiche, in quanto varia solamente il segno del momento e conseguentemente si inverte la zona reagente, ma i risultati sono invariati. In questo caso, nella tabella viene riportata, ad es. nella sezione di base, la sola verifica B.1

P = forza assiale positiva se di compressione

p = σ_o = tensione normale media riferita all'intera sezione

f_k/f_m = per i **maschi**: resistenza a compressione: f_k (caratteristica) per muratura nuova, f_m (media) per muratura esistente. Per le **fasce**, il parametro corrisponde a: f_{hk} (f_{hm}).

Edificio nuovo: **γ_m** = coefficiente parziale di sicurezza dei materiali γ_m

Edificio esistente: **$\gamma_m \cdot FC$** = prodotto del coefficiente parziale di sicurezza dei materiali γ_m per il fattore di confidenza (dipendente dal livello di conoscenza LC1, LC2 o LC3)

fd = valore di calcolo (o: di progetto) della resistenza a compressione. Per le fasce, corrisponde a f_{hd} .

Nu = sforzo normale ultimo per compressione semplice: $N_u = 0.85 f_d \cdot l \cdot t$. Per le fasce: $l=h$: l'altezza della sezione trasversale dell'elemento murario è infatti indicata in Normativa con: l per il maschio murario, e con: h per la fascia (per le fasce, l indica la luce dell'elemento).

Mu = momento di collasso per pressoflessione

M = momento di calcolo. Il momento può essere posto convenzionalmente pari a 0 nel caso di parete tozza, qualora sia attiva la limitazione della verifica a pressoflessione alle sole pareti snelle. In tal caso, la verifica si riconduce alla sola compressione.

C.Sic. = coefficiente di sicurezza dato dal rapporto M_u / M . La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

VERIFICHE SISMICHE DEGLI ELEMENTI IN CALCESTRUZZO ARMATO: VERIFICA A PRESSOFLESSIONE

(D.M.17.1.2018 (NTC18), §4.1.2.1, §7.4.4)

In strutture miste, gli elementi in c.a. (pareti e/o travi) possono essere soggetti a verifica di resistenza, in particolare nel caso in cui siano considerati collaboranti con gli elementi murari sotto azioni orizzontali. La legge di comportamento del calcestruzzo è di tipo parabolico-rettangolare (§4.1.2.1.2.1, Fig. 4.1.1(a)), mentre per l'acciaio si adotta la legge elastica-perfettamente plastica (§4.1.2.1.2.2, Fig. 4.1.3(b)). La deformazione ultima dell'acciaio, teoricamente indefinita, viene fissata dal valore scelto in input: la deformazione ϵ_{uk} dell'acciaio di classe C vale 0.075 (75 per mille); seguendo quanto indicato in EC2 (§3.2.7(2)), la massima deformazione di progetto dell'acciaio può essere assunta pari a: $\epsilon_{ud} = 0.9 \epsilon_{uk} = 0.0675$ (67.5 per mille) (le verifiche a stato limite ultimo del c.a. vengono spesso eseguite adottando come deformazione ultima 10 per mille; i momenti resistenti, tuttavia, non si modificano significativamente in dipendenza dalla deformazione ultima scelta). I valori di resistenza, i coefficienti parziali di sicurezza e i fattori di confidenza per edifici esistenti, sia per l'acciaio sia per il calcestruzzo, sono specificati nei dati sui materiali e nei parametri di calcolo.

Per gli elementi verticali (**pareti e pilastri**) viene eseguita la verifica a pressoflessione deviata, tenendo conto delle sollecitazioni flessionali in entrambi i piani locali xy e xz . Le verifiche vengono eseguite nelle sezioni di estremità della luce deformabile.

La sezione è armata secondo i dati specificati in input. Nel caso di strutture esistenti, saranno stati inseriti i valori di armatura stimati o rilevati; nel caso di strutture nuove, le armature progettate. Per i nuovi elementi in c.a. il rispetto delle armature minime di regolamento e delle eventuali condizioni sulle gerarchie delle resistenze, secondo le indicazioni normative, deve essere assicurato a priori. PCM esegue le verifiche di sicurezza utilizzando le armature in input e le sollecitazioni derivanti dal calcolo, indipendentemente dai controlli sulla conformità alla Normativa delle armature adottate.

La verifica a pressoflessione deviata viene svolta elaborando un dominio di resistenza tridimensionale e calcolando il momento resistente M_u in base allo sforzo normale N .

Per edifici esistenti, per la costruzione del dominio di resistenza nei campi a rottura fragile (crisi per compressione del calcestruzzo), diversamente dai campi a rottura duttile, le resistenze di calcolo (ottenute dai valori medi divisi per il fattore di confidenza) vengono ridotte applicando i coefficienti parziali di sicurezza γ_c e γ_s , conformemente a quanto indicato in Normativa (§C8.7.2.2). Nel caso degli edifici nuovi, le resistenze di progetto sono calcolate con riferimento alle formulazioni di Normativa (§4.1.2.1.1.1, §4.1.2.1.1.3) applicando sempre i coefficienti parziali di sicurezza γ_c e γ_s .

Il momento sollecitante M e il momento resistente M_u sono espressi per mezzo delle due componenti ortogonali, come segue: $M = \sqrt{(M_{uy}^2 + M_{uz}^2)}$,

$M_u = \sqrt{(M_{uy}^2 + M_{uz}^2)}$

Il coefficiente di sicurezza è direttamente espresso dal rapporto M_u/M .

Per gli elementi orizzontali (**travi in elevazione e di fondazione**) viene eseguita la verifica a pressoflessione semplice ($M=M_y$) nel piano locale xz, costruendo il dominio di resistenza N-M in base ai dati specificati in input. Le verifiche vengono eseguite nelle sezioni di estremità della luce deformabile (per eseguire verifiche di resistenza in mezzera o in altre sezioni intermedie poste lungo la luce della trave, è necessario che in fase di modellazione l'elemento sia stato suddiviso in più tratti inserendo nodi aggiuntivi in corrispondenza delle sezioni intermedie considerate; in tal modo tutte le verifiche sono comunque ricondotte alle estremità di ogni singolo tratto di trave). Il coefficiente di sicurezza è direttamente esprimibile dalla relazione: (M_u / M) .

Per quanto riguarda le travi di fondazione, viene controllato se permangono in fase elastica (§7.2.5), cioè se presentano comportamento non dissipativo. Pertanto, il dominio di resistenza di questi elementi viene elaborato assumendo che la deformazione ultima dei materiali sia pari al limite elastico: $\epsilon_{cu} = \epsilon_{cy}$.

$\epsilon_{su} = \epsilon_{sy}$.

Simbologia utilizzata nel software PCM per i risultati dell'Analisi Lineare Sismica per elementi in cemento armato:

N. = numero progressivo dell'elemento

Tip. = tipologia: parete o pilastro (C), trave in elevazione (T), trave di fondazione (Z)

fcd = resistenza a compressione di progetto. I valori sono i seguenti:

Edifici nuovi: Calcestruzzo: $f_{cd} = 0.85 \cdot f_{ck} / \gamma_c$, Acciaio: $f_{yd} = f_{yk} / \gamma_s$;

Edifici esistenti: Calcestruzzo: $f_{cd} = f_{cm} / F_c$, Acciaio: $f_{yd} = f_{ym} / F_c$ (γ_c) (ai fini del calcolo del momento ultimo nei campi fragili, le resistenze sono ridotte dividendo anche per γ_c e γ_s)

P = forza assiale positiva se di compressione

Nu = sforzo normale ultimo per compressione semplice. Negli edifici nuovi si applicano le limitazioni fornite dal §7.4.4.2.1. secondo cui $N_u = 0.65 f_{cd} I_t$ (ipotesi di struttura in CD "B")

My = componente y del momento sollecitante M (piano di flessione xz). Il valore è riportato con segno positivo o negativo secondo la convenzione di PCM

Muy = componente y del momento resistente (piano di flessione xz)

Mz = componente z del momento sollecitante M (piano di flessione xy). Il valore è riportato con segno positivo o negativo secondo la convenzione di PCM

Muz = componente z del momento resistente (piano di flessione xy)

C.Sic. = coefficiente di sicurezza dato dal rapporto M_u/M . Nel caso di elementi soggetti a compressione semplice il coefficiente di sicurezza è dato dal rapporto N_u/P

15. VERIFICA A PRESSOFLESSIONE NEL PIANO (§7.8.2.2.1) [SLV] - C.Sic: 1.424

(Analisi Sismica Dinamica Modale)

N.	Tip.	n/e	Sez.	P	p	f _k / f _m	γ , m	f _d	Nu	Mu	M	C.Sic.
			comb.	(kN)	(N/mm ²)	(N/mm ²)	* F _C	(N/mm ²)	(kN)	(kN m)	(kN m)	
1	M	e	B.1	240.27	0.130	2.500	2.88	0.868	1339.64	298.33	135.35	2.204
1	M	e	B.4	223.17	0.120	2.500	2.88	0.868	1339.64	281.41	40.06	7.025
4	M	e	B.1	230.60	0.130	2.500	2.88	0.868	1339.64	288.84	-148.04	1.951
4	M	e	B.4	210.56	0.120	2.500	2.88	0.868	1339.64	268.50	-44.59	6.022
8	M	e	B.1	65.15	0.070	2.500	2.88	0.868	703.02	46.94	-24.18	1.941
8	M	e	B.4	52.87	0.060	2.500	2.88	0.868	703.02	38.82	-3.33	>> 1
11	M	e	B.1	115.84	0.100	2.500	2.88	0.868	849.11	95.94	-39.10	2.454
11	M	e	B.4	93.64	0.080	2.500	2.88	0.868	849.11	79.90	-9.13	8.751
16	M	e	B.1	153.26	0.130	2.500	2.88	0.868	849.11	120.45	-25.30	4.761
16	M	e	B.4	129.85	0.110	2.500	2.88	0.868	849.11	105.48	-2.69	>> 1
19	M	e	B.1	298.13	0.150	2.500	2.88	0.868	1446.77	386.76	-65.50	5.905
19	M	e	B.4	270.45	0.140	2.500	2.88	0.868	1446.77	359.31	-3.84	>> 1
23	M	e	B.1	56.69	0.170	2.500	2.88	0.868	251.02	12.44	-1.14	>> 1
23	M	e	B.4	52.46	0.150	2.500	2.88	0.868	251.02	11.76	0.12	>> 1
26	M	e	B.1	74.04	0.240	2.500	2.88	0.868	229.32	12.99	1.10	>> 1
26	M	e	B.4	66.71	0.210	2.500	2.88	0.868	229.32	12.25	0.16	>> 1
30	M	e	B.1	312.54	0.180	2.500	2.88	0.868	1291.38	345.52	121.17	2.852
30	M	e	B.4	275.02	0.160	2.500	2.88	0.868	1291.38	315.69	68.90	4.582
34	M	e	B.1	426.44	0.120	2.500	2.88	0.868	2730.63	1109.76	0.00	6.403
34	M	e	B.4	379.27	0.100	2.500	2.88	0.868	2730.63	1007.21	0.00	7.200
40	M	e	B.1	45.87	0.130	2.500	2.88	0.868	251.46	10.65	-1.07	9.954
40	M	e	B.4	41.67	0.120	2.500	2.88	0.868	251.46	9.87	0.21	>> 1
43	M	e	B.1	386.77	0.200	2.500	2.88	0.868	1448.98	464.00	92.98	4.990
43	M	e	B.4	349.49	0.180	2.500	2.88	0.868	1448.98	433.99	33.41	>> 1
46	M	e	B.1	236.28	0.120	2.500	2.88	0.868	1448.98	323.62	122.69	2.638
46	M	e	B.4	205.99	0.100	2.500	2.88	0.868	1448.98	289.18	57.83	5.001
49	M	e	B.1	43.52	0.050	2.500	2.88	0.868	595.89	27.15	13.70	1.982
49	M	e	B.4	33.10	0.040	2.500	2.88	0.868	595.89	21.04	-3.36	6.262
54	M	e	B.1	86.63	0.110	2.500	2.88	0.868	588.36	49.09	9.01	5.448
54	M	e	B.4	77.27	0.100	2.500	2.88	0.868	588.36	44.60	-8.46	5.272
56	M	e	B.1	63.70	0.120	2.500	2.88	0.868	382.50	22.94	-5.08	4.515
56	M	e	B.4	56.77	0.110	2.500	2.88	0.868	382.50	20.88	3.37	6.197
60	M	e	B.1	54.23	0.100	2.500	2.88	0.868	382.50	20.11	5.06	3.973
60	M	e	B.4	45.55	0.090	2.500	2.88	0.868	382.50	17.33	-4.50	3.852
64	M	e	B.1	181.68	0.160	2.500	2.88	0.868	849.11	136.95	52.45	2.611
64	M	e	B.4	156.54	0.140	2.500	2.88	0.868	849.11	122.45	22.95	5.335
69	M	e	B.1	240.62	0.210	2.500	2.88	0.868	849.11	165.36	29.25	5.653
69	M	e	B.4	215.94	0.190	2.500	2.88	0.868	849.11	154.42	7.05	>> 1
71	M	e	B.1	44.79	0.130	2.500	2.88	0.868	251.46	10.45	-1.09	9.591
71	M	e	B.4	40.46	0.120	2.500	2.88	0.868	251.46	9.64	0.16	>> 1
75	M	e	B.1	411.45	0.110	2.500	2.88	0.868	2730.63	1077.71	0.00	6.637
75	M	e	B.4	363.50	0.100	2.500	2.88	0.868	2730.63	971.80	0.00	7.512
79	M	e	B.1	301.34	0.170	2.500	2.88	0.868	1291.38	336.95	119.90	2.810
79	M	e	B.4	263.22	0.150	2.500	2.88	0.868	1291.38	305.66	68.09	4.489
85	M	e	B.1	72.10	0.230	2.500	2.88	0.868	229.32	12.80	1.08	>> 1
85	M	e	B.4	64.61	0.210	2.500	2.88	0.868	229.32	12.02	0.15	>> 1
88	M	e	B.1	55.44	0.160	2.500	2.88	0.868	251.02	12.25	-1.20	>> 1
88	M	e	B.4	51.01	0.150	2.500	2.88	0.868	251.02	11.52	0.01	>> 1
92	M	e	B.1	285.30	0.150	2.500	2.88	0.868	1446.77	374.25	-70.05	5.343

92	M	e	B.4	257.73	0.130	2.500	2.88	0.868	1446.77	346.11	-12.61	>> 1
95	M	e	B.1	169.16	0.150	2.500	2.88	0.868	849.11	129.91	15.31	8.485
95	M	e	B.4	146.16	0.130	2.500	2.88	0.868	849.11	116.04	-8.12	>> 1
99	M	e	B.1	189.56	0.160	2.500	2.88	0.868	849.11	141.20	15.37	9.187
99	M	e	B.4	163.65	0.140	2.500	2.88	0.868	849.11	126.69	-8.07	>> 1
101	M	e	B.1	123.85	0.130	2.500	2.88	0.868	703.02	81.01	-40.64	1.993
101	M	e	B.4	113.27	0.120	2.500	2.88	0.868	703.02	75.45	-24.16	3.123
104	M	e	B.1	225.00	0.090	2.500	2.88	0.868	1842.99	411.16	-87.20	4.715
104	M	e	B.4	205.72	0.080	2.500	2.88	0.868	1842.99	380.41	65.55	5.803
106	M	n	B.1	267.21	0.230	5.300	2.40	2.208	2181.96	358.65	106.32	3.373
106	M	n	B.4	255.97	0.220	5.300	2.40	2.208	2181.96	345.58	4.93	>> 1
109	M	n	B.1	287.87	0.230	5.300	2.40	2.208	2324.62	410.99	-106.58	3.856
109	M	n	B.4	276.41	0.220	5.300	2.40	2.208	2324.62	396.85	3.15	>> 1
113	M	n	B.1	264.49	0.230	5.300	2.40	2.208	2181.96	355.50	157.44	2.258
113	M	n	B.4	253.92	0.220	5.300	2.40	2.208	2181.96	343.17	59.17	5.800
116	M	n	B.1	284.45	0.230	5.300	2.40	2.208	2324.62	406.79	-160.49	2.535
116	M	n	B.4	273.38	0.220	5.300	2.40	2.208	2324.62	393.08	-53.07	7.407
122	M	e	B.1	17.84	0.010	2.500	2.88	0.868	1483.07	29.52	0.00	>> 1
122	M	e	B.4	16.93	0.010	2.500	2.88	0.868	1483.07	28.03	0.00	>> 1
126	M	e	B.1	17.38	0.010	2.500	2.88	0.868	1483.07	28.77	0.00	>> 1
126	M	e	B.4	16.60	0.010	2.500	2.88	0.868	1483.07	27.49	0.00	>> 1
132	M	e	B.1	30.53	0.010	2.500	2.88	0.868	2102.86	71.46	0.00	>> 1
132	M	e	B.4	25.78	0.010	2.500	2.88	0.868	2102.86	60.48	0.00	>> 1
135	M	e	B.1	22.23	0.010	2.500	2.88	0.868	1413.57	34.93	0.00	>> 1
135	M	e	B.4	20.40	0.010	2.500	2.88	0.868	1413.57	32.10	0.00	>> 1
140	M	e	B.1	11.40	0.010	2.500	2.88	0.868	851.33	10.81	0.00	>> 1
140	M	e	B.4	8.12	0.010	2.500	2.88	0.868	851.33	7.73	0.00	>> 1
143	M	e	B.1	13.95	0.010	2.500	2.88	0.868	997.42	15.49	0.00	>> 1
143	M	e	B.4	8.95	0.010	2.500	2.88	0.868	997.42	9.99	0.00	>> 1
146	M	e	B.1	10.28	0.010	2.500	2.88	0.868	705.23	8.07	0.00	>> 1
146	M	e	B.4	5.97	0.010	2.500	2.88	0.868	705.23	4.71	0.00	>> 1
149	M	e	B.1	10.45	0.010	2.500	2.88	0.868	851.33	9.92	0.00	>> 1
149	M	e	B.4	7.36	0.010	2.500	2.88	0.868	851.33	7.02	0.00	>> 1
152	M	e	B.1	12.53	0.010	2.500	2.88	0.868	997.42	13.94	0.00	>> 1
152	M	e	B.4	7.84	0.010	2.500	2.88	0.868	997.42	8.76	0.00	>> 1
155	M	e	B.1	9.07	0.010	2.500	2.88	0.868	705.23	7.13	0.00	>> 1
155	M	e	B.4	5.02	0.010	2.500	2.88	0.868	705.23	3.97	0.00	>> 1
158	M	e	B.1	69.02	0.040	2.500	2.88	0.868	1339.64	99.05	0.00	>> 1
158	M	e	B.4	21.05	0.010	2.500	2.88	0.868	1339.64	31.35	0.00	>> 1
163	M	e	B.1	74.00	0.040	2.500	2.88	0.868	1339.64	105.78	0.00	>> 1
163	M	e	B.4	27.42	0.020	2.500	2.88	0.868	1339.64	40.64	0.00	>> 1
194	M	e	B.1	249.10	0.100	2.500	2.88	0.868	1842.99	448.42	-87.10	5.148
194	M	e	B.4	231.48	0.090	2.500	2.88	0.868	1842.99	421.31	65.63	6.419
262	W		I.1	2.87	0.880	-	1.05	261.905	859.05	40.48	5.70	7.102
262	W		I.4	2.61	0.800	-	1.05	261.905	859.05	40.48	5.59	7.242
262	W		J.1	2.87	0.880	-	1.05	261.905	859.05	40.48	5.71	7.090
262	W		J.4	2.61	0.800	-	1.05	261.905	859.05	40.48	5.60	7.229
265	W		I.1	3.88	1.180	-	1.05	261.905	859.05	40.48	2.12	>> 1
265	W		I.4	3.52	1.070	-	1.05	261.905	859.05	40.48	1.99	>> 1
265	W		J.1	3.88	1.180	-	1.05	261.905	859.05	40.48	2.14	>> 1
265	W		J.4	3.52	1.070	-	1.05	261.905	859.05	40.48	2.01	>> 1

16. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.424
(Analisi Sismica Dinamica Modale)

N.	Tip.	P	Nu	My	Mz	Mu,y	Mu,z	C.Sic.
		(kN)			(kN m)			
120	C	70.53	30763.71	-2.94	21.90	-14.74	109.83	5.015
120	C	60.89	30763.71	1.41	3.83	38.91	105.70	>> 1
120	C	48.47	30763.71	-1.75	14.79	-12.24	103.42	6.993
120	C	38.84	30763.71	1.70	-7.47	22.76	-100.02	>> 1
123	C	162.05	57830.37	-13.88	44.53	-42.58	136.59	3.067
123	C	120.05	57830.37	-6.30	6.58	-115.65	120.79	>> 1
123	C	120.42	57830.37	-13.03	24.70	-64.98	123.18	4.987
123	C	78.42	57830.37	-5.80	-13.71	-47.16	-111.47	8.130
124	C	41.50	18163.71	-0.98	-14.01	-7.05	-100.76	7.192
124	C	23.61	18163.71	0.42	-4.35	9.21	-95.37	>> 1
124	C	28.55	18163.71	-0.84	-10.17	-8.00	-96.89	9.527
124	C	10.67	18163.71	0.48	3.07	14.27	91.26	>> 1
128	C	62.77	27487.71	1.13	-21.58	5.65	-107.85	4.998
128	C	52.52	27487.71	-0.91	-5.38	-17.62	-104.17	>> 1
128	C	43.07	27487.71	-1.00	-15.22	-6.70	-101.96	6.699
128	C	32.83	27487.71	0.92	3.45	26.10	97.89	>> 1
130	C	64.51	26694.37	-0.85	-21.19	-4.35	-108.39	5.115
130	C	48.39	26694.37	0.67	-3.99	17.28	-102.92	>> 1
130	C	45.40	26694.37	-1.54	-14.54	-10.84	-102.38	7.041
130	C	29.27	26694.37	0.35	2.20	15.49	97.36	>> 1
133	C	103.82	29317.04	-2.99	23.83	-15.01	119.61	5.019
133	C	83.22	29317.04	-0.63	3.00	-23.74	113.06	>> 1
133	C	82.81	29317.04	-3.38	11.07	-34.31	112.38	>> 1
133	C	62.21	29317.04	-0.03	-6.79	-0.48	-108.05	>> 1
138	C	79.48	31183.71	-2.20	-24.90	-9.96	-112.75	4.528
138	C	65.20	31183.71	0.19	-3.82	5.41	-108.76	>> 1

138	C	57.12	31183.71	-3.54	-16.85	-22.16	-105.48	6.260
138	C	42.84	31183.71	-0.01	1.84	-0.56	102.39	>> 1
166	C	54.38	21402.37	-1.12	15.98	-7.35	104.85	6.561
166	C	42.34	21402.37	0.32	2.49	12.98	100.97	>> 1
166	C	39.10	21402.37	-0.74	9.45	-7.86	100.32	>> 1
166	C	27.05	21402.37	0.59	-5.08	11.22	-96.57	>> 1
169	C	67.04	27487.71	-1.70	20.28	-9.13	108.92	5.371
169	C	55.14	27487.71	0.58	3.27	18.61	104.89	>> 1
169	C	47.35	27487.71	-1.08	12.46	-8.94	103.11	8.275
169	C	35.45	27487.71	0.94	-6.57	14.21	-99.31	>> 1
171	C	62.15	18313.04	-0.97	14.62	-7.09	106.84	7.308
171	C	47.73	18313.04	0.11	1.91	5.91	102.67	>> 1
171	C	49.09	18313.04	-0.98	7.07	-14.22	102.57	>> 1
171	C	34.68	18313.04	0.28	-4.23	6.54	-98.80	>> 1
173	C	52.16	21402.37	-1.38	14.92	-9.63	104.06	6.975
173	C	37.23	21402.37	0.68	2.70	24.88	98.78	>> 1
173	C	36.87	21402.37	1.02	10.50	9.67	99.55	9.481
173	C	21.95	21402.37	-0.63	-5.21	-11.49	-95.05	>> 1
176	C	47.13	18163.71	-1.01	12.47	-8.29	102.33	8.206
176	C	28.23	18163.71	0.51	2.31	21.19	96.00	>> 1
176	C	34.19	18163.71	0.89	9.05	9.68	98.45	>> 1
176	C	15.28	18163.71	-0.43	-4.43	-9.02	-92.93	>> 1
178	C	136.60	57830.37	-3.05	-45.94	-8.67	-130.54	2.841
178	C	102.53	57830.37	2.01	-9.76	24.64	-119.67	>> 1
178	C	94.97	57830.37	-4.36	-31.87	-16.12	-117.80	3.696
178	C	60.89	57830.37	1.73	5.78	32.00	106.93	>> 1
179	C	49.39	21402.37	0.86	-16.80	5.30	-103.50	6.161
179	C	39.11	21402.37	-0.57	-3.95	-14.42	-99.94	>> 1
179	C	34.10	21402.37	-0.69	-11.77	-5.80	-98.96	8.408
179	C	23.82	21402.37	0.62	2.46	23.91	94.88	>> 1
182	C	66.55	30763.71	-2.93	-24.02	-13.26	-108.73	4.526
182	C	56.86	30763.71	1.03	-6.83	15.94	-105.71	>> 1
182	C	44.49	30763.71	-2.52	-17.22	-14.94	-102.10	5.929
182	C	34.81	30763.71	0.75	4.63	16.07	99.18	>> 1
184	C	47.45	21402.37	-1.36	-16.59	-8.42	-102.74	6.193
184	C	33.18	21402.37	0.52	-4.96	10.32	-98.43	>> 1
184	C	32.16	21402.37	-1.15	-11.98	-9.42	-98.18	8.195
184	C	17.89	21402.37	0.50	3.44	13.62	93.73	>> 1
187	C	76.37	30810.37	-1.38	-24.54	-6.30	-112.00	4.564
187	C	58.90	30810.37	0.32	-4.20	8.13	-106.73	>> 1
187	C	54.28	30810.37	-2.57	-16.72	-16.13	-104.94	6.276
187	C	36.81	30810.37	0.14	2.19	6.41	100.28	>> 1
189	C	55.10	21029.04	-0.95	-16.77	-5.95	-105.11	6.268
189	C	48.72	21029.04	0.34	-2.32	15.05	-102.70	>> 1
189	C	40.09	21029.04	-1.78	-11.27	-15.81	-100.12	8.883
189	C	33.70	21029.04	0.09	1.02	8.70	98.65	>> 1
191	C	35.39	12825.04	0.38	-10.16	3.68	-98.39	9.684
191	C	30.81	12825.04	-0.34	-1.31	-24.85	-95.74	>> 1
191	C	26.30	12825.04	-0.77	-6.80	-10.79	-95.30	>> 1
191	C	21.72	12825.04	0.15	0.53	26.32	92.99	>> 1
241	T	5.52	3529.04	-10.32		-48.86		4.735
241	T	-5.52	3529.04	-10.32		-47.11		4.565
395	Z	0.00	8253.79	22.22		338.83		>> 1
395	Z	0.00	8253.79	-12.87		-338.83		>> 1
395	Z	0.00	8253.79	21.65		338.83		>> 1
395	Z	0.00	8253.79	-12.46		-338.83		>> 1
399	Z	0.00	8253.79	-29.80		-338.83		>> 1
399	Z	0.00	8253.79	5.06		338.83		>> 1
399	Z	0.00	8253.79	-29.48		-338.83		>> 1
399	Z	0.00	8253.79	6.00		338.83		>> 1
404	Z	0.00	8253.79	-83.96		-338.83		4.035
404	Z	0.00	8253.79	-74.38		-338.83		4.555
404	Z	0.00	8253.79	193.08		338.83		1.755
404	Z	0.00	8253.79	188.32		338.83		1.799
405	Z	0.00	8253.79	-192.53		-338.83		1.760
405	Z	0.00	8253.79	-185.68		-338.83		1.825
405	Z	0.00	8253.79	-83.33		-338.83		4.066
405	Z	0.00	8253.79	-73.63		-338.83		4.602
406	Z	0.00	8253.79	-203.31		-338.83		1.667
406	Z	0.00	8253.79	-197.27		-338.83		1.718
406	Z	0.00	8253.79	-192.19		-338.83		1.763
406	Z	0.00	8253.79	-185.21		-338.83		1.829
407	Z	0.00	8253.79	194.25		338.83		1.744
407	Z	0.00	8253.79	189.32		338.83		1.790
407	Z	0.00	8253.79	-109.13		-338.83		3.105
407	Z	0.00	8253.79	-99.61		-338.83		3.402
408	Z	0.00	8253.79	-108.54		-338.83		3.122
408	Z	0.00	8253.79	-98.90		-338.83		3.426
408	Z	0.00	8253.79	-203.57		-338.83		1.664
408	Z	0.00	8253.79	-197.67		-338.83		1.714
409	Z	0.00	8253.79	-89.19		-338.83		3.799
409	Z	0.00	8253.79	-77.92		-338.83		4.348
409	Z	0.00	8253.79	237.89		338.83		1.424
409	Z	0.00	8253.79	229.13		338.83		1.479
410	Z	0.00	8253.79	-195.05		-338.83		1.737
410	Z	0.00	8253.79	-187.87		-338.83		1.804

410	Z	0.00	8253.79	-88.61	-338.83	3.824
410	Z	0.00	8253.79	-77.22	-338.83	4.388
411	Z	0.00	8253.79	-197.64	-338.83	1.714
411	Z	0.00	8253.79	-189.48	-338.83	1.788
411	Z	0.00	8253.79	-194.77	-338.83	1.740
411	Z	0.00	8253.79	-187.45	-338.83	1.808
412	Z	0.00	8253.79	177.82	338.83	1.906
412	Z	0.00	8253.79	169.70	338.83	1.997
412	Z	0.00	8253.79	-95.79	-338.83	3.537
412	Z	0.00	8253.79	-84.34	-338.83	4.018
413	Z	0.00	8253.79	-95.16	-338.83	3.561
413	Z	0.00	8253.79	-83.60	-338.83	4.053
413	Z	0.00	8253.79	-197.95	-338.83	1.712
413	Z	0.00	8253.79	-189.92	-338.83	1.784
429	T	-0.01	3529.04	0.00	0.00	>> 1
429	T	-0.02	3529.04	0.00	0.00	>> 1
430	T	16.91	3529.04	-10.84	-50.68	4.675
430	T	15.76	3529.04	-10.78	-50.49	4.684
430	T	5.72	3529.04	-10.10	-48.89	4.841
430	T	4.57	3529.04	-10.06	-48.71	4.842
432	T	-0.01	3529.04	0.00	0.00	>> 1
432	T	-0.02	3529.04	0.00	0.00	>> 1
433	T	16.88	3529.04	-10.83	-50.67	4.679
433	T	15.72	3529.04	-10.77	-50.49	4.688
433	T	5.69	3529.04	-10.11	-48.89	4.836
433	T	4.53	3529.04	-10.07	-48.71	4.837
492	T	5.52	3529.04	-10.30	-48.86	4.744
492	T	-5.51	3529.04	-10.30	-47.11	4.574
493	T	0.01	3529.04	0.00	0.00	>> 1
493	T	0.00	3529.04	0.00	0.00	>> 1

VERIFICHE SISMICHE DEGLI ELEMENTI IN MURATURA: VERIFICA A TAGLIO PER SCORRIMENTO

(D.M.17.1.2018 (NTC18), §7.8.2.2.2)

La resistenza a taglio di ciascun elemento strutturale deve essere valutata per mezzo della relazione seguente:

$V_t = l' t f_{vd}$, dove:

l' = lunghezza della parte compressa della parete;

t = spessore della parete;

$f_{vd} = f_{vk} / \gamma_M$ è definito in §4.5.6.1: $f_{vk} = f_{vko} + 0.4 \sigma_n$, calcolando la tensione normale media sulla parte compressa della sezione: $\sigma_n = P / (l' \cdot t)$.

In Analisi Non Lineare, la resistenza di calcolo è data da: $f_{vd} = f_{vmo} + 0.4 \sigma_n$, dove f_{vmo} è la resistenza media a taglio della muratura (se f_{vmo} non è nota, si pone: $f_{vmo} = f_{vko} / 0.7$); inoltre, non si applica il coefficiente γ_M .

Per le verifiche sismiche viene utilizzato il coefficiente parziale di sicurezza γ_M definito in §7.8.1.1 dove si indica $\gamma_M \geq 2.0$.

La formulazione riportata in §7.8.2.2.2 fa diretto riferimento a muratura nuova.

Per la muratura esistente, il parametro descrittivo del comportamento a taglio del materiale è il valore medio f_{vo} , definito in base alla tipologia della muratura e ad opportuni fattori correttivi riguardanti le caratteristiche dell'organizzazione strutturale e degli eventuali interventi (§C8.5.3.1, Tab.C8.5.II). Pertanto, la formulazione del taglio resistente per scorrimento per la muratura esistente può essere ottenuta definendo un valore medio pari a: $f_{vm} = f_{vo} + 0.4 \sigma_n$. Al valore medio della resistenza a taglio deve inoltre essere applicato il coefficiente parziale di sicurezza dei materiali γ_M (solo per l'Analisi Lineare), ed il fattore di confidenza F_C (§8.5.4, §C.8.5.4); normalmente: $F_C = 1.35, 1.20, 1.00$ in corrispondenza dei livelli di conoscenza LC1, LC2, LC3 (si osservi che dal livello di conoscenza dipende anche il valore adottato per f_{vo}).

Si ha pertanto il seguente schema di valutazione della resistenza di calcolo (o: di progetto) f_{vd} :

Muratura nuova: f_{vko} è certamente nota; f_{vmo} : se non è nota, si pone: $f_{vmo} = f_{vko} / 0.7$.

in Analisi Lineare: $f_{vd} = f_{vk} / \gamma_M = (f_{vko} + 0.4 \sigma_n) / \gamma_M$ con $f_{vk} \leq f_{vk,lim} = 0.65 f_b$ (§7.8.2.2.2, §11.10.3.3);

in Analisi Non Lineare: $f_{vd} = f_{vm} = (f_{vmo} + 0.4 \sigma_n)$ con $f_{vm} \leq f_{v,lim} = 0.65 f_b / 0.7$ (§7.8.2.2.2, §11.10.3.3);

Muratura esistente: è nota f_{vo} ($=f_{vmo}$) (dipendente, fra l'altro, dal livello di conoscenza).

In Analisi Lineare: $f_{vd} = f_{vm} / \gamma_M / F_C = (f_{vmo} + 0.4 \sigma_n) / \gamma_M / F_C$ con $f_{vm} \leq f_{v,lim} = 0.065 f_b / 0.7$ [§C8.7.1.14],

in Analisi Non Lineare: $f_{vd} = f_{vm} / F_C = (f_{vmo} + 0.4 \sigma_n) / F_C$ con $f_{vm} \leq f_{v,lim} = 0.065 f_b / 0.7$ [§C8.7.1.14].

Nelle espressioni del calcolo di f_{vd} , si osservi che i coefficienti γ_M e F_C vengono applicati all'espressione completa della resistenza, cioè sia al termine di taglio puro sia a quello dovuto alla tensione normale. Infatti 0.4 è il coefficiente di attrito del materiale murario: è quindi un parametro caratteristico del materiale, e pertanto anche ad esso vanno applicati i coefficienti di sicurezza γ_M e F_C .

Muratura rinforzata:

Rinforzo a taglio di muratura ordinaria o armata: il rinforzo consiste in un'armatura trasversale (es. tralicci) posta nei giunti orizzontali. Per la resistenza a taglio V_t è possibile considerare un incremento rispetto alla muratura ordinaria (qualora nei Parametri di Calcolo sia stata selezionata, nei Dati per Muratura Armata, la corrispondente opzione) (§7.8.3.2.2):

$V_t = V_{tm}$ (contributo muratura) + V_{ts} (contributo armatura) = $(d t f_{vd}) + (0.6 d A_{sw} f_{yd}) / s$,

con la limitazione, nel caso di muratura con armature verticali: $V_t \leq V_{t,lim} = 0.3 f_d t d$,

dove: d = distanza tra lembo compresso e baricentro dell'armatura tesa;

t = spessore della parete;

s = distanza verticale tra i livelli di armatura;

A_{sw} = area dell'armatura a taglio disposta in direzione parallela alla forza di taglio (armatura orizzontale) nel singolo corso orizzontale;

f_{yd} = resistenza di calcolo dell'acciaio, pari a: f_{yk} / γ_s (analisi lineare) ($\gamma_s = 1.15$);

f_d = resistenza a compressione di calcolo della muratura, pari a: f_d / γ_M (analisi lineare).

Analoga formulazione viene applicata nel caso di muratura esistente rinforzata con **CAM** o **Reticolatus** (per questi casi, il contributo V_{ts} è sempre considerato).

Per muratura esistente rinforzata con **FRP**:

- il contributo della muratura V_{tm} viene calcolato sulla zona reagente; per il calcolo della resistenza a taglio dipendente dalla compressione viene considerata la tensione σ_n determinata dalla risultante delle compressioni sulla zona reagente (cfr. §5.4.1.2.2 CNR DT 200);

- il contributo del rinforzo V_{ts} ha le seguenti formulazioni (cfr. §5.4.1.2.2 CNR DT 200) ($V_{ts} = V_{Rd,t}$).

a) Nel caso di pannello murario (maschio o fascia) rinforzato con nastri verticali e orizzontali, cioè con nastri a pressoflessione e con nastri ad essi ortogonali orientati secondo la direzione dello sforzo di taglio:

$V_{IS} = (1/\gamma_{Rd}) \cdot 0.6 \cdot d \cdot (E_f \cdot \epsilon_{fd}) \cdot 2 \cdot t_f \cdot b_f / p_f$, dove:

E_f = modulo di elasticità del composito nella direzione delle fibre;

ϵ_{fd} = deformazione di progetto del rinforzo in FRP = minima fra la deformazione di distacco ϵ_{fdd} (se specificata in input) e la deformazione di rottura: $\eta_a \cdot \epsilon_{fkr} / \gamma_f$;

t_f = spessore del rinforzo (considerando il numero di nastri sovrapposti; il fattore 2 corrisponde al rinforzo su entrambe le facce del pannello);

b_f , p_f = larghezza e passo delle strisce;

γ_{Rd} = coefficiente parziale, pari a 1.20.

Il valore di V_{IS} viene inoltre ridotto mediante il fattore moltiplicativo $\cotg(90^\circ - \varphi)$, dove φ è l'angolo d'attrito dei corsi di malta.

La resistenza a taglio massima, corrispondente allo stato limite di compressione delle diagonali del traliccio, è data da: $V_{t,lim} = 0.3 \cdot f_{nd} \cdot t \cdot d$, dove f_{nd} è la resistenza a compressione di progetto nella direzione del taglio (per i maschi: parallela ai letti di malta; per le fasce si considera f_d).

b) Se invece il rinforzo a taglio è effettuato mediante nastri diagonali:

$V_{IS} = (\delta_{Rd}/H) \cdot (\sin \alpha \cdot \cos^2 \alpha \cdot E_f \cdot A_f)$, dove:

$\delta_{Rd}/H = \min \{ 0.005, \epsilon_{fdd} / (\sin \alpha \cdot \cos \alpha) \}$, con: α =angolo di inclinazione del rinforzo a taglio diagonale; ϵ_{fdd} =deformazione di progetto;

$A_f = 2 \cdot t_f \cdot b_f$, con t_f che tiene conto dei nastri sovrapposti.

Il coefficiente: $[(\delta_{Rd}/H)/0.005]$ moltiplica inoltre il contributo della muratura V_{tm} . Nel caso in cui la correzione di V_{tm} comporti un taglio resistente ($V_{tm} + V_{IS}$) minore della resistenza V_{tm} senza nastri, si trascura il contributo di FRP assumendo come resistenza a taglio la resistenza del pannello senza nastri.

Le verifiche sismiche a taglio per scorrimento, come le altre verifiche di resistenza, sono condotte, per tutti gli edifici in muratura, allo **stato limite ultimo di salvaguardia della vita (SLV)**. Sono richieste verifiche sismiche di resistenza anche per **SLD** nel caso di costruzioni di **Classe III e IV (§7.3.6)**.

Simbologia utilizzata nel software PCM (risultati analisi lineare):

N. = numero progressivo dell'elemento murario

n/e = parete in muratura nuova (n) o esistente (e)

Sez. comb. = indica la sezione di verifica (B=base, S=sommità), e la combinazione di azioni derivanti dall'analisi sismica. Più in dettaglio, le combinazioni eseguite nelle sezioni di verifica sono identificate dalle seguenti sigle:

B.1 = sezione di base, combinazione N+, T/M+

B.2 = sezione di base, combinazione N+, T/M-

B.3 = sezione di base, combinazione N-, T/M+

B.4 = sezione di base, combinazione N-, T/M-

e analogamente per la sezione S di sommità.

Le combinazioni .2 e .3 (N+, T/M-) e (N-, T/M+), vengono eseguite solo se il corrispondente parametro di calcolo è stato selezionato (finestra Parametri di Calcolo: scheda: Edifici in Muratura: Per Analisi Lineare: Considerare anche le combinazioni (N_{min} , T/M_{max}), (N_{max} , T/M_{min})).

Le combinazioni che generano risultati identici non vengono riportate. Un esempio di questo tipo è il caso di strutture con vincolamento shear-type, quindi composte da pareti con sforzo normale costante: le verifiche per le diverse combinazioni sono identiche, in quanto varia solamente il segno del momento e conseguentemente si inverte la zona reagente, ma i risultati sono invariati. In questo caso, nella tabella viene riportata, ad es. nella sezione di base, la sola verifica B.1

P = forza assiale positiva se di compressione

M = momento di calcolo

Ecc = eccentricità (= M / P)

Beta = coefficiente di parzializzazione della sezione = l'/l , essendo l' la zona compressa.

Per muratura ordinaria: la zona reagente (parte della sezione soggetta a compressione) può essere determinata ipotizzando la distribuzione triangolare delle tensioni (**EC6, §4.5.3.(6)**), oppure (nell'ipotesi di comportamento della muratura parabolico-rettangolare) calcolando l'effettiva zona reagente a pressoflessione attraverso lo studio del punto di sollecitazione contenuto nel dominio di resistenza. In caso di distribuzione triangolare: $Beta=1$ se $(Ecc/l) \leq 1/6$, altrimenti: $Beta=(3 \cdot (0.5-Ecc/l))$ [$Beta=0$ se $Ecc \geq l/2$].

Per muratura armata o consolidata con FRP / CAM / Reticolatus, il dominio di resistenza è sempre disponibile e quindi in tali casi è sempre possibile fare riferimento all'effettiva zona reagente a pressoflessione.

Si osservi che il riferimento all'effettiva zona reagente a pressoflessione garantisce la coerenza fra Taglio e PressoFlessione (N,M e T agiscono contemporaneamente sulla sezione trasversale). Lo studio della sezione nel dominio di resistenza fornisce inoltre la risultante delle compressioni C relativa alla zona reagente: tale risultante è maggiore dello sforzo normale N di compressione agente sulla sezione quando sia presente un elemento in grado di fornire resistenza a trazione T ($C=N+T$). Più in dettaglio:

- per la muratura armata e per i sistemi CAM / Reticolatus, la zona resistente a taglio per scorrimento è pari a d (cfr. **§7.8.3.2.2**) e quindi non corrisponde in realtà alla sola zona compressa. La tensione normale σ_n ai fini della verifica a taglio per scorrimento è fornita da: $N/(dt)$, con t =spessore della parete;

- per la muratura ordinaria non rinforzata non esiste un elemento reagente a trazione, e quindi $C=N$. σ_n è pari a $N/(l't)$;

- per la muratura rinforzata con FRP, si fa riferimento all'effettiva zona compressa e alla tensione normale media prodotta dalla risultante degli sforzi di compressione: $\sigma_n = C/(l't)$ (**DT200 R1/2012, §5.4.1.1.2**).

C = risultante degli sforzi di compressione sulla zona reagente, calcolata in caso di comportamento meccanico della muratura secondo il modello parabolico-rettangolare

σ_n = tensione normale media riferita alla parte compressa della sezione

f_{vko}/f_{vmo} = resistenza a taglio per fessurazione diagonale in assenza di compressione: f_{vko} (caratteristica) per muratura nuova, f_{vmo}

(media) per muratura esistente ($f_{vmo} = f_{vko}$).

f_{vd} = valore di calcolo (o: di progetto) della resistenza a taglio per scorrimento, che tiene conto dei limiti sopra citati

Edificio nuovo: **γ_m** = coefficiente parziale di sicurezza dei materiali γ_m

Edificio esistente: **$\gamma_m \cdot FC$** = prodotto del coefficiente parziale di sicurezza dei materiali γ_m per il fattore di confidenza (dipendente dal livello di conoscenza LC1, LC2 o LC3)

V_t = taglio resistente

V = taglio di calcolo. Per gli edifici nuovi in muratura armata progettata secondo la gerarchia delle resistenze (**§7.8.1.7**), il taglio di calcolo viene amplificato per il fattore (M_u/M) , dove M è il momento di calcolo corrispondente a V e M_u è il momento resistente, in modo da ottenere l'azione di taglio corrispondente alla resistenza a collasso per flessione; V è inoltre amplificato per $\gamma_{Rd}=1.5$

C.Sic. = coefficiente di sicurezza dato dal rapporto V_t / V . La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

Nel caso di muratura rinforzata, compaiono inoltre i seguenti parametri:

% arm. tag. = percentuale di armatura a taglio (definita da: $A_{sw} / (s \cdot t) \cdot 100$).

Nel caso di rinforzo con armatura trasversale posta nei giunti, si adottano i limiti normativi indicati in **§4.5.7**: la percentuale non può essere inferiore allo 0.04% né superiore allo 0.5%, e in caso contrario il dato viene posto in evidenza (grassetto in colore blu)

V_{tm} = contributo della muratura al taglio resistente

V_{ts} = contributo dell'armatura orizzontale al taglio resistente

V_{tlim} = valore limite del taglio resistente

VERIFICHE SISMICHE DEGLI ELEMENTI IN CALCESTRUZZO ARMATO: VERIFICA A TAGLIO

(D.M.17.1.2018 (NTC18), §4.1.2.1.3)

In strutture miste, gli elementi in c.a. (pareti e/o travi) possono essere soggetti a verifica di resistenza, in particolare nel caso in cui siano considerati collaboranti con gli elementi murari sotto azioni orizzontali. La legge di comportamento del calcestruzzo è di tipo parabolico-rettangolare (§4.1.2.1.2.1, Fig. 4.1.1(a)), mentre per l'acciaio si adotta la legge elastica-perfettamente plastica (§4.1.2.1.2.2, Fig. 4.1.3(b)).

Per gli elementi verticali (**pareti e pilastri**) viene eseguita la verifica a taglio considerando separatamente i due piani locali di sollecitazione xy (taglio V_y) e xz (taglio V_z). Per gli elementi orizzontali (**travi in elevazione e di fondazione**) viene eseguita la verifica a taglio nel piano locale xz (V_z). Le verifiche a taglio vengono eseguite nelle sezioni di estremità della luce deformabile.

La staffatura è supposta uguale nelle due sezioni di estremità (in caso di differenza, si sarà fatto riferimento alla staffatura minore). Nel caso di strutture esistenti, saranno stati inseriti i valori di armatura stimati o rilevati; nel caso di strutture nuove, le armature progettate. Per i nuovi elementi in c.a. il rispetto delle armature minime di regolamento e delle eventuali condizioni sulle gerarchie delle resistenze, secondo le indicazioni normative, deve essere assicurato a priori. PCM esegue le verifiche di sicurezza utilizzando le armature in input e le sollecitazioni derivanti dal calcolo, indipendentemente dai controlli sulla conformità alla Normativa delle armature adottate.

La resistenza a taglio viene espressa sulla base della schematizzazione a traliccio (§4.1.2.3.5.2); gli elementi resistenti dell'ideale traliccio sono: le armature trasversali (di area A_{sw} , interasse 's' fra due armature trasversali consecutive, e inclinazione α rispetto all'asse della trave; nel caso delle staffe: $\alpha=90^\circ$), le armature longitudinali, il corrente compresso di calcestruzzo, e i puntoni d'anima inclinati (caratterizzati dall'inclinazione θ rispetto all'asse della trave).

L'inclinazione θ deve rispettare i seguenti limiti: $1 \leq \cotg \theta \leq 2.5$.

Per la verifica di resistenza si può adottare il criterio di uguaglianza della resistenza di calcolo a "taglio trazione" con quella a "taglio compressione", corrispondente a ipotizzare il cedimento simultaneo delle bielle di calcestruzzo e dell'armatura a taglio: si uguagliano i secondi membri delle espressioni V_{Rsd} (4.1.27) e V_{Rcd} (4.1.28):

$$0.9 d (A_{sw}/s) f_{yd} \cdot (\cotg \alpha + \cotg \theta) \cdot \sin \alpha = 0.9 d b_w \alpha_c v f_{cd} \cdot (\cotg \alpha + \cotg \theta) / (1 + \cotg^2 \theta)$$

da cui, essendo $\sin \alpha = 1$ (per le staffe) e $[1/(1 + \cotg^2 \theta)] = \sin^2 \theta$, si ottiene:

$$(A_{sw} f_{yd}) / (b_w s \alpha_c v f_{cd}) = \sin^2 \theta$$

relazione da cui si ottiene θ ; segue il controllo su $\cotg \theta$. A questo punto il taglio resistente si può calcolare equivalentemente con l'espressione di V_{Rsd} o di V_{Rcd} , si ha:

$$V_{Rd} = V_{Rsd} = 0.9 d (A_{sw}/s) f_{yd} \cdot \cotg \theta. \text{ La verifica di resistenza è soddisfatta quando risulta } V_{Ed} < V_{Rd}.$$

Simbologia utilizzata nel software PCM per i risultati dell'Analisi Sismica Lineare per elementi in cemento armato:

N. = numero progressivo dell'elemento

Tip. = tipologia: parete o pilastro (C), trave in elevazione (T), trave di fondazione (Z)

fcd = resistenza a compressione di progetto. I valori sono i seguenti:

Edifici nuovi: Calcestruzzo: $f_{cd} = 0.85 \cdot f_{ck} / \gamma_c$, Acciaio: $f_{yd} = f_{yk} / \gamma_s$;

Edifici esistenti: Calcestruzzo: $f_{cd} = f_{cm} / F_c / \gamma_c$, Acciaio: $f_{yd} = f_{ym} / F_c / \gamma_s$

v fcd = resistenza di progetto a compressione ridotta per il calcestruzzo d'anima ($v = 0.5$) (§4.1.2.3.5.2)

I seguenti parametri sono elencati per ognuno dei due piani di sollecitazione xy (taglio V_y) e xz (taglio V_z):

cotg.th = cotangente dell'angolo θ . Se non sono rispettati i limiti: $1 \leq \cotg \theta \leq 2.5$, il coefficiente di sicurezza a taglio si annulla

Vu = taglio resistente ($=V_{Rd}$) in direzione y e z

V = taglio di calcolo ($=V_{Ed}$) in direzione y e z

C.Sic. = coefficiente di sicurezza, dato dal rapporto (V_u/V) in direzione y e z

Infine si riporta il coefficiente di sicurezza **C.Sic.** pari al valore minimo fra i coefficienti relativi ai due piani di sollecitazione

17. VERIFICA A TAGLIO PER SCORRIMENTO (§7.8.2.2.2) [SLV] - C.Sic: 1.579

(Analisi Sismica Dinamica Modale)

N.	n/e	Sez.	P	M	Ecc.	Beta	C	σ_n	f _{vk0} /f _{vm0}	γ_m	f _{vd}	V _t	V	C.Sic.
		comb	(kN)	(kN m)	(m)		(kN)	(N/mm ²)		* FC	(N/mm ²)	(kN)	(kN)	
106	n	B.1	267.21	106.32	0.40	1.000	267.21	0.230	0.300	2.40	0.163	189.84	44.32	4.283
106	n	B.4	255.97	4.93	0.02	1.000	255.97	0.220	0.300	2.40	0.162	187.96	8.61	>> 1
109	n	B.1	287.87	-106.58	0.37	1.000	287.87	0.232	0.300	2.40	0.164	202.78	43.98	4.611
109	n	B.4	276.41	3.15	0.01	1.000	276.41	0.223	0.300	2.40	0.162	200.87	13.63	>> 1
113	n	B.1	264.49	157.44	0.60	0.920	264.49	0.248	0.300	2.40	0.166	177.21	58.22	3.044
113	n	B.4	253.92	59.17	0.23	1.000	253.92	0.218	0.300	2.40	0.161	187.62	6.82	>> 1
116	n	B.1	284.45	-160.49	0.56	0.980	284.45	0.234	0.300	2.40	0.164	199.21	57.02	3.494
116	n	B.4	273.38	-53.07	0.19	1.000	273.38	0.221	0.300	2.40	0.162	200.37	0.73	>> 1

18. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.579

(Analisi Sismica Dinamica Modale)

N.	Tip.	fcd	v fcd	cotg.th	Vu,y	Vy	C.Sic.	cotg.th	Vu,Z	Vz	C.Sic.	C.Sic.
		(N/mm ²)		(y)	(kN)		y	(Z)	(kN)		Z	
120	C	15.556	7.778	2.500	276.35	25.58	>> 1	2.500	1588.28	5.98	>> 1	>> 1
120	C	15.556	7.778	2.500	276.35	15.31	>> 1	2.500	1588.28	-2.69	>> 1	>> 1
123	C	15.556	7.778	2.500	276.35	47.03	5.876	2.500	3014.29	9.66	>> 1	5.876
123	C	15.556	7.778	2.500	276.35	42.14	6.558	2.500	3014.29	-6.65	>> 1	6.558
124	C	15.556	7.778	2.500	276.35	-16.78	>> 1	2.500	924.45	2.72	>> 1	>> 1
124	C	15.556	7.778	2.500	276.35	-8.21	>> 1	2.500	924.45	-2.27	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-20.03	>> 1	2.500	1415.68	-4.15	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-13.71	>> 1	2.500	1415.68	3.50	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-15.57	>> 1	2.500	1373.89	-4.83	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-12.95	>> 1	2.500	1373.89	2.58	>> 1	>> 1

133	C	15.556	7.778	2.500	276.35	29.13	9.487	2.500	1512.06	4.33	>> 1	9.487
133	C	15.556	7.778	2.500	276.35	20.97	>> 1	2.500	1512.06	-3.86	>> 1	>> 1
138	C	15.556	7.778	2.500	276.35	-18.78	>> 1	2.500	1610.41	-6.08	>> 1	>> 1
138	C	15.556	7.778	2.500	276.35	-11.68	>> 1	2.500	1610.41	2.64	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	17.21	>> 1	2.500	1095.08	3.69	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	14.13	>> 1	2.500	1095.08	-2.24	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	22.36	>> 1	2.500	1415.68	4.95	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	16.90	>> 1	2.500	1415.68	-2.75	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	17.26	>> 1	2.500	932.32	2.70	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	13.17	>> 1	2.500	932.32	-2.32	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	17.88	>> 1	2.500	1095.08	4.21	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	9.51	>> 1	2.500	1095.08	-1.77	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	15.24	>> 1	2.500	924.45	3.58	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	7.35	>> 1	2.500	924.45	-1.45	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-35.38	7.811	2.500	3014.29	-9.89	>> 1	7.811
178	C	15.556	7.778	2.500	276.35	-30.43	9.082	2.500	3014.29	6.35	>> 1	9.082
179	C	15.556	7.778	2.500	276.35	-14.58	>> 1	2.500	1095.08	-3.36	>> 1	>> 1
179	C	15.556	7.778	2.500	276.35	-10.85	>> 1	2.500	1095.08	2.55	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-25.97	>> 1	2.500	1588.28	4.45	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-14.62	>> 1	2.500	1588.28	-4.15	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-19.03	>> 1	2.500	1095.08	3.17	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-9.88	>> 1	2.500	1095.08	-2.75	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-18.26	>> 1	2.500	1590.74	-5.82	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-13.32	>> 1	2.500	1590.74	2.78	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-12.80	>> 1	2.500	1075.41	-4.12	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-6.83	>> 1	2.500	1075.41	1.71	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-7.81	>> 1	2.500	643.18	-2.45	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-3.74	>> 1	2.500	643.18	1.00	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	13.81	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	-13.81	>> 1	>> 1
395	Z	15.556	7.778					2.500	369.78	-80.19	4.611	4.611
395	Z	15.556	7.778					2.500	369.78	-45.79	8.075	8.075
395	Z	15.556	7.778					2.500	369.78	79.75	4.637	4.637
395	Z	15.556	7.778					2.500	369.78	45.68	8.094	8.094
399	Z	15.556	7.778					2.500	369.78	-79.94	4.626	4.626
399	Z	15.556	7.778					2.500	369.78	-45.85	8.065	8.065
399	Z	15.556	7.778					2.500	369.78	80.93	4.569	4.569
399	Z	15.556	7.778					2.500	369.78	46.49	7.955	7.955
404	Z	15.556	7.778					2.500	369.78	117.99	3.134	3.134
404	Z	15.556	7.778					2.500	369.78	115.96	3.189	3.189
404	Z	15.556	7.778					2.500	369.78	217.59	1.699	1.699
404	Z	15.556	7.778					2.500	369.78	207.37	1.783	1.783
405	Z	15.556	7.778					2.500	369.78	53.22	6.948	6.948
405	Z	15.556	7.778					2.500	369.78	48.69	7.595	7.595
405	Z	15.556	7.778					2.500	369.78	118.84	3.111	3.111
405	Z	15.556	7.778					2.500	369.78	116.85	3.164	3.164
406	Z	15.556	7.778					2.500	369.78	-48.59	7.611	7.611
406	Z	15.556	7.778					2.500	369.78	-43.64	8.474	8.474
406	Z	15.556	7.778					2.500	369.78	59.05	6.262	6.262
406	Z	15.556	7.778					2.500	369.78	54.45	6.791	6.791
407	Z	15.556	7.778					2.500	369.78	-221.49	1.670	1.670
407	Z	15.556	7.778					2.500	369.78	-211.41	1.749	1.749
407	Z	15.556	7.778					2.500	369.78	-108.03	3.423	3.423
407	Z	15.556	7.778					2.500	369.78	-105.96	3.490	3.490
408	Z	15.556	7.778					2.500	369.78	-108.55	3.407	3.407
408	Z	15.556	7.778					2.500	369.78	-106.56	3.470	3.470
408	Z	15.556	7.778					2.500	369.78	-42.94	8.611	8.611
408	Z	15.556	7.778					2.500	369.78	-38.08	9.710	9.710
409	Z	15.556	7.778					2.500	369.78	118.79	3.113	3.113
409	Z	15.556	7.778					2.500	369.78	115.25	3.209	3.209
409	Z	15.556	7.778					2.500	369.78	234.16	1.579	1.579
409	Z	15.556	7.778					2.500	369.78	223.49	1.655	1.655
410	Z	15.556	7.778					2.500	369.78	51.18	7.225	7.225
410	Z	15.556	7.778					2.500	369.78	45.54	8.120	8.120
410	Z	15.556	7.778					2.500	369.78	119.10	3.105	3.105
410	Z	15.556	7.778					2.500	369.78	115.63	3.198	3.198
411	Z	15.556	7.778					2.500	369.78	-54.21	6.821	6.821
411	Z	15.556	7.778					2.500	369.78	-48.82	7.575	7.575
411	Z	15.556	7.778					2.500	369.78	56.80	6.510	6.510
411	Z	15.556	7.778					2.500	369.78	51.06	7.242	7.242
412	Z	15.556	7.778					2.500	369.78	-214.61	1.723	1.723
412	Z	15.556	7.778					2.500	369.78	-204.24	1.811	1.811
412	Z	15.556	7.778					2.500	369.78	-114.35	3.234	3.234
412	Z	15.556	7.778					2.500	369.78	-111.08	3.329	3.329
413	Z	15.556	7.778					2.500	369.78	-115.37	3.205	3.205
413	Z	15.556	7.778					2.500	369.78	-112.16	3.297	3.297
413	Z	15.556	7.778					2.500	369.78	-48.43	7.635	7.635
413	Z	15.556	7.778					2.500	369.78	-43.13	8.573	8.573
429	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	14.17	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	14.15	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	-13.84	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	-13.82	>> 1	>> 1
432	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1

433	T	15.556	7.778				2.500	153.42	14.16	>> 1	>> 1
433	T	15.556	7.778				2.500	153.42	14.14	>> 1	>> 1
433	T	15.556	7.778				2.500	153.42	-13.85	>> 1	>> 1
433	T	15.556	7.778				2.500	153.42	-13.83	>> 1	>> 1
492	T	15.556	7.778				2.500	153.42	13.80	>> 1	>> 1
492	T	15.556	7.778				2.500	153.42	-13.80	>> 1	>> 1
493	T	15.556	7.778				2.500	153.42	0.01	>> 1	>> 1
493	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1
493	T	15.556	7.778				2.500	153.42	-0.01	>> 1	>> 1

VERIFICHE SISMICHE DEGLI ELEMENTI IN MURATURA: VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE

(D.M.17.1.2018 (NTC18), §C8.7.1.5)

I criteri di resistenza per la verifica a taglio per fessurazione diagonale nelle murature a tessitura irregolare e nelle murature a tessitura regolare sono indicati nella Circolare in §C8.7.1.3.1.1 per le verifiche sismiche e, per analogia, vengono estese alle verifiche statiche.

Le verifiche statiche, originariamente nate per edifici di nuova costruzione, possono essere svolte anche per gli edifici esistenti, utilizzando resistenze di progetto ottenute dividendo i valori medi divisi per il fattore di confidenza e per il coefficiente parziale di sicurezza dei materiali (per γ_M : §4.5.6.1, per F_C : §C8.5.4).

Per muratura con tessitura irregolare:

$$V_t = l \cdot t \cdot \frac{1.5 \tau_{od}}{b} \sqrt{1 + \frac{\sigma_0}{1.5 \tau_{od}}} = l \cdot t \cdot \frac{f_{td}}{b} \sqrt{1 + \frac{\sigma_0}{f_{td}}} \quad [C8.7.1.16]$$

per muratura con tessitura regolare:

$$V_t = \frac{l \cdot t}{b} \left(\tilde{f}_{td} + \mu \sigma_0 \right) = \frac{l \cdot t}{b} \left(\frac{f_{td}}{1 + \mu \phi} + \frac{\mu}{1 + \mu \phi} \sigma_0 \right) \leq V_{t,lim} \quad [C8.7.1.17]$$

dove: l = lunghezza del pannello, t = spessore del pannello,

σ_0 = tensione normale media, riferita all'area totale della sezione ($= P / It$, con P forza assiale agente positiva se di compressione);

b = coefficiente correttivo legato alla distribuzione degli sforzi sulla sezione, dipendente dalla snellezza della parete. Si può assumere $b = \lambda(=h/l)$, essendo λ la snellezza della parete, comunque non superiore a 1.5 e non inferiore a 1, dove h è l'altezza della parete.

Per tessitura irregolare:

f_{td} = valore di calcolo della resistenza a trazione per fessurazione diagonale $= 1.5 \tau_{od}$

τ_{od} = valore di calcolo della resistenza a taglio di riferimento (=resistenza a taglio puro, cioè in assenza di sforzo normale)

Per tessitura regolare:

μ (coefficiente di attrito locale del giunto) e ϕ (coefficiente di ingranamento murario - muratura regolare): cfr. Dati Materiali;

\tilde{f}_{td} = valore di calcolo della resistenza a taglio di riferimento (=resistenza a taglio puro, cioè in assenza di sforzo normale);

per il taglio resistente la Normativa fornisce la limitazione massima $V_{t,lim}$ [C8.7.1.18].

I valori di calcolo delle resistenze sono ottenuti dividendo i valori medi per i rispettivi fattori di confidenza F_C (§8.5.4, §C8.5.4) e, in analisi lineare, per il coefficiente parziale di sicurezza sui materiali γ_M . Normalmente: $F_C = 1.35, 1.20, 1.00$ in corrispondenza dei livelli di conoscenza LC1, LC2, LC3 (si osservi che dal livello di conoscenza dipende anche il valore adottato per τ_0 e per f_{td}).

Per le verifiche sismiche viene utilizzato il coefficiente parziale di sicurezza γ_M definito in §7.8.1.1 dove si indica $\gamma_M \geq 2.0$.

Muratura rinforzata:

Rinforzo a taglio di muratura ordinaria o armata: il rinforzo consiste in un'armatura trasversale (es. tralicci) posta nei giunti orizzontali. Per la resistenza a taglio V_t è possibile considerare un incremento rispetto alla muratura ordinaria (qualora nei Parametri di Calcolo sia stata selezionata, nei Dati per Muratura Armata, la corrispondente opzione) (§7.8.3.2.2):

$$V_t = V_{tm} (\text{contributo muratura}) + V_{ts} (\text{contributo armatura}) = (l \cdot t \cdot f_{td}) + (0.6 \cdot l \cdot A_{sw} \cdot f_{yd}) / s,$$

dove:

s = distanza verticale tra i livelli di armatura;

A_{sw} = area dell'armatura a taglio disposta in direzione parallela alla forza di taglio (armatura orizzontale) nel singolo corso orizzontale;

f_{yd} = resistenza di calcolo dell'acciaio, pari a: f_{yk} / γ_s (analisi lineare) ($\gamma_s = 1.15$);

f_d = resistenza a compressione di calcolo della muratura, pari a: f_d / γ_M (analisi lineare).

Analogia formulazione viene applicata nel caso di muratura esistente rinforzata con **CAM o Reticolatus** (per questi casi, il contributo V_{ts} è sempre considerato; al posto della lunghezza del pannello l viene considerata la distanza d tra lembo compresso e baricentro dell'armatura tesa).

Per muratura esistente rinforzata con **FRP**, il contributo del rinforzo ha le seguenti formulazioni (cfr. §5.4.1.2.2 CNR DT 200) ($V_{ts} = V_{Rd,t}$).

a) Nel caso di pannello murario (maschio o fascia) rinforzato con nastri verticali e orizzontali, cioè con nastri a pressoflessione e con nastri ad essi ortogonali orientati secondo la direzione dello sforzo di taglio:

$$V_{ts} = (1/\gamma_{Rd}) \cdot 0.6 \cdot d \cdot (E_f \cdot \epsilon_{fd}) \cdot 2 \cdot t_f \cdot b_f / p_f, \text{ dove:}$$

E_f = modulo di elasticità del composito nella direzione delle fibre;

ϵ_{fd} = deformazione di progetto del rinforzo in FRP = minima fra la deformazione di distacco ϵ_{fdd} (se specificata in input) e la deformazione di rottura: $\eta_a \cdot \epsilon_{fk} / \gamma_f$;

t_f = spessore del rinforzo (considerando il numero di nastri sovrapposti; il fattore 2 corrisponde al rinforzo su entrambe le facce del pannello);

b_f, p_f = larghezza e passo delle strisce;

γ_{Rd} = coefficiente parziale, pari a 1.20.

Il valore di V_{ts} viene inoltre ridotto mediante il fattore moltiplicativo $\cotg(90^\circ - \phi)$, dove ϕ è l'angolo d'attrito dei corsi di malta.

La resistenza a taglio massima, corrispondente allo stato limite di compressione delle diagonali del traliccio, è data da: $V_{t,lim} = 0.3 \cdot f_{hd} \cdot t \cdot d$, dove f_{hd} è la resistenza a compressione di progetto nella direzione del taglio (per i maschi: parallela ai letti di malta; per le fasce si considera f_d).

b) Se invece il rinforzo a taglio è effettuato mediante nastri diagonali:

$$V_{ts} = (\delta_{Rd}/H) \cdot (\sin \alpha \cdot \cos^2 \alpha \cdot E_f \cdot A_f), \text{ dove:}$$

$\delta_{Rd}/H = \min \{ 0.005, \epsilon_{fdd} / (\sin \alpha \cdot \cos \alpha) \}$, con: α = angolo di inclinazione del rinforzo a taglio diagonale; ϵ_{fdd} = deformazione di progetto;

$A_f = 2 \cdot t_f \cdot b_f$, con t_f che tiene conto dei nastri sovrapposti.

Il coefficiente: $[(\delta_{Rd}/H)/0.005]$ moltiplica inoltre il contributo della muratura V_{tm} . Nel caso in cui la correzione di V_{tm} comporti un taglio resistente ($V_{tm} + V_{ts}$) minore della resistenza V_{tm} senza nastri, si trascura il contributo di FRP assumendo come resistenza a taglio la resistenza del pannello senza nastri.

Le verifiche sismiche a taglio per fessurazione diagonale, come le altre verifiche di resistenza, sono condotte, per tutti gli edifici in muratura, allo **stato limite ultimo di salvaguardia della vita (SLV)**. Sono richieste verifiche sismiche di resistenza anche per **SLD** nel caso di costruzioni di **Classe III e IV** (§7.3.6).

Simbologia adottata dal software PCM (risultati analisi lineare):

N. = numero progressivo dell'elemento murario

n/e = parete in muratura nuova (n) o esistente (e)

Sez. comb. = indica la sezione di verifica (M=mezzeria, con riferimento alla luce deformabile nel piano complanare), e la combinazione di azioni derivanti dall'analisi sismica. Più in dettaglio, le combinazioni eseguite sono identificate dalle seguenti sigle:

M.1 = combinazione N+, T/M+

M.2 = combinazione N+, T/M-

M.3 = combinazione N-, T/M+

M.4 = combinazione N-, T/M-

Le combinazioni .2 e .3 (N+, T/M-) e (N-, T/M+), vengono eseguite solo se il corrispondente parametro di calcolo è stato selezionato (finestra Parametri di Calcolo: scheda: Edifici in Muratura: Per Analisi Lineare: Considerare anche le combinazioni (N_{min}, T/M_{max}), (N_{max}, T/M_{min})).

Le combinazioni che generano risultati identici non vengono riportate. Un esempio di questo tipo è il caso di strutture con vincolamento shear-type, quindi composte da pareti con sforzo normale costante: le verifiche per le diverse combinazioni sono identiche, in quanto varia solamente il segno del momento e conseguentemente si inverte la zona reagente, ma i risultati sono invariati. In questo caso, nella tabella viene riportata la sola verifica M.1

Coeff. b = coefficiente correttivo b

P = forza assiale positiva se di compressione

p = σ_o = tensione normale media riferita all'intera sezione

tauo = resistenza media a taglio per fessurazione diagonale in assenza di compressione, per tessitura irregolare

fvd = resistenza di progetto a taglio in assenza di compressione, per tessitura regolare

Edificio nuovo: **γ_m** = coefficiente parziale di sicurezza dei materiali γ_m

Edificio esistente: **$\gamma_m \cdot FC$** = prodotto del coefficiente parziale di sicurezza dei materiali γ_m per il fattore di confidenza (dipendente dal livello di conoscenza LC1, LC2 o LC3)

fvd = valore di calcolo (o: di progetto) della resistenza a taglio per fessurazione diagonale

Vt,lim = valore limite per il taglio resistente per tessitura regolare

Vt = taglio resistente

V = taglio di calcolo. Per gli edifici nuovi in muratura armata progettata secondo la gerarchia delle resistenze (§7.8.1.7), il taglio di calcolo viene amplificato per il fattore (M_u/M), dove M è il momento di calcolo corrispondente a V e M_u è il momento resistente, in modo da ottenere l'azione di taglio corrispondente alla resistenza a collasso per flessione; V è inoltre amplificato per $\gamma_{Rd}=1.5$

C.Sic. = coefficiente di sicurezza dato dal rapporto V_t / V . La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

Nel caso di muratura rinforzata, compaiono inoltre i seguenti parametri:

% arm. tag. = percentuale di armatura a taglio (definita da: $A_{sw} / (s \cdot t) \cdot 100$).

Nel caso di rinforzo con armatura trasversale posta nei giunti, si adottano i limiti normativi indicati in §4.5.7: la percentuale non può essere inferiore allo 0.04% né superiore allo 0.5%, e in caso contrario il dato viene posto in evidenza (grassetto in colore blu)

Vtm = contributo della muratura al taglio resistente

Vts = contributo dell'armatura orizzontale al taglio resistente

19. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§C8.7.1.3.1) [SLV] - C.Sic: 1.227
(Analisi Sismica Dinamica Modale)

N.	n/e	Sez. comb.	Coeff. b	P (kN)	p (N/mm ²)	tau0	γ_m * FC	fvd (N/mm ²)	Vt (kN)	V (kN)	C.Sic.
1	e	M.1	1.330	160.07	0.088	0.043	2.88	0.038	68.09	51.00	1.335
1	e	M.4	1.330	142.97	0.079	0.043	2.88	0.036	65.13	0.66	>> 1
4	e	M.1	1.330	150.40	0.083	0.043	2.88	0.037	66.43	54.12	1.227
4	e	M.4	1.330	130.36	0.072	0.043	2.88	0.035	62.85	0.05	>> 1
8	e	M.1	1.500	37.13	0.039	0.043	2.88	0.025	23.55	17.27	1.364
8	e	M.4	1.500	24.85	0.026	0.043	2.88	0.022	20.93	0.61	>> 1
11	e	M.1	1.500	79.52	0.069	0.043	2.88	0.030	34.81	24.83	1.402
11	e	M.4	1.500	57.32	0.050	0.043	2.88	0.027	30.93	2.72	>> 1
16	e	M.1	1.500	102.50	0.089	0.043	2.88	0.033	38.33	11.37	3.371
16	e	M.4	1.500	79.09	0.069	0.043	2.88	0.030	34.66	0.53	>> 1
19	e	M.1	1.300	206.44	0.105	0.043	2.88	0.041	80.59	27.06	2.978
19	e	M.4	1.300	178.75	0.091	0.043	2.88	0.039	76.00	3.73	>> 1
23	e	M.1	1.500	43.44	0.128	0.043	2.88	0.039	13.15	0.62	>> 1
23	e	M.4	1.500	39.21	0.115	0.043	2.88	0.037	12.59	0.11	>> 1
26	e	M.1	1.500	62.03	0.200	0.043	2.88	0.047	14.61	0.51	>> 1
26	e	M.4	1.500	54.70	0.176	0.043	2.88	0.044	13.81	0.04	>> 1
30	e	M.1	1.150	248.05	0.142	0.043	2.88	0.053	92.42	49.36	1.872
30	e	M.4	1.150	210.53	0.120	0.043	2.88	0.049	86.18	14.63	5.890
34	e	M.1	1.000	254.38	0.069	0.043	2.88	0.045	167.19	65.81	2.541
34	e	M.4	1.000	207.21	0.056	0.043	2.88	0.042	155.06	12.53	>> 1
40	e	M.1	1.500	32.62	0.096	0.043	2.88	0.034	11.69	0.59	>> 1
40	e	M.4	1.500	28.42	0.083	0.043	2.88	0.032	11.06	0.15	>> 1
43	e	M.1	1.300	294.93	0.150	0.043	2.88	0.048	93.98	27.46	3.422
43	e	M.4	1.300	257.64	0.131	0.043	2.88	0.045	88.66	2.86	>> 1
46	e	M.1	1.070	160.98	0.082	0.043	2.88	0.045	89.14	46.47	1.918
46	e	M.4	1.070	130.69	0.067	0.043	2.88	0.042	82.29	5.82	>> 1
49	e	M.1	1.500	21.17	0.026	0.043	2.88	0.022	17.76	9.76	1.820
49	e	M.4	1.500	10.75	0.013	0.043	2.88	0.019	15.23	4.34	3.508
54	e	M.1	1.500	63.70	0.080	0.043	2.88	0.032	25.44	7.96	3.196
54	e	M.4	1.500	54.35	0.068	0.043	2.88	0.030	23.94	5.90	4.058
56	e	M.1	1.500	50.54	0.097	0.043	2.88	0.035	17.91	4.65	3.851
56	e	M.4	1.500	43.61	0.084	0.043	2.88	0.033	16.88	2.64	6.394
60	e	M.1	1.500	42.08	0.081	0.043	2.88	0.032	16.64	4.49	3.707
60	e	M.4	1.500	33.40	0.064	0.043	2.88	0.029	15.24	4.45	3.425
64	e	M.1	1.500	145.36	0.126	0.043	2.88	0.039	44.38	28.87	1.537

64	e	M.4	1.500	120.22	0.104	0.043	2.88	0.036	40.99	7.13	5.749
69	e	M.1	1.500	189.86	0.165	0.043	2.88	0.043	49.70	10.64	4.671
69	e	M.4	1.500	165.18	0.144	0.043	2.88	0.041	46.77	1.04	>> 1
71	e	M.1	1.500	31.55	0.093	0.043	2.88	0.034	11.53	0.60	>> 1
71	e	M.4	1.500	27.22	0.080	0.043	2.88	0.032	10.87	0.12	>> 1
75	e	M.1	1.000	239.38	0.065	0.043	2.88	0.044	163.43	67.06	2.437
75	e	M.4	1.000	191.43	0.052	0.043	2.88	0.041	150.78	9.58	>> 1
79	e	M.1	1.150	236.85	0.135	0.043	2.88	0.052	90.60	48.59	1.865
79	e	M.4	1.150	198.73	0.114	0.043	2.88	0.048	84.11	14.23	5.911
85	e	M.1	1.500	60.08	0.193	0.043	2.88	0.046	14.40	0.50	>> 1
85	e	M.4	1.500	52.59	0.169	0.043	2.88	0.044	13.57	0.05	>> 1
88	e	M.1	1.500	42.19	0.124	0.043	2.88	0.038	12.99	0.64	>> 1
88	e	M.4	1.500	37.76	0.111	0.043	2.88	0.036	12.40	0.06	>> 1
92	e	M.1	1.300	193.60	0.099	0.043	2.88	0.040	78.49	28.24	2.780
92	e	M.4	1.300	166.03	0.085	0.043	2.88	0.038	73.80	1.26	>> 1
95	e	M.1	1.500	118.40	0.103	0.043	2.88	0.035	40.64	6.17	6.586
95	e	M.4	1.500	95.40	0.083	0.043	2.88	0.032	37.26	5.89	6.325
99	e	M.1	1.500	138.80	0.121	0.043	2.88	0.038	43.42	6.19	7.014
99	e	M.4	1.500	112.89	0.098	0.043	2.88	0.035	39.85	5.88	6.778
101	e	M.1	1.500	82.93	0.087	0.043	2.88	0.033	31.45	16.01	1.964
101	e	M.4	1.500	72.35	0.076	0.043	2.88	0.031	29.81	7.43	4.012
104	e	M.1	1.460	57.89	0.023	0.043	2.88	0.022	54.62	26.15	2.089
104	e	M.4	1.460	38.62	0.015	0.043	2.88	0.020	49.78	24.74	2.012
122	e	M.1	1.000	7.89	0.004	0.043	2.88	0.024	48.80	0.73	>> 1
122	e	M.4	1.000	6.98	0.003	0.043	2.88	0.024	48.38	0.36	>> 1
126	e	M.1	1.000	7.43	0.004	0.043	2.88	0.024	48.59	0.56	>> 1
126	e	M.4	1.000	6.65	0.003	0.043	2.88	0.024	48.23	0.53	>> 1
132	e	M.1	1.000	16.42	0.006	0.043	2.88	0.025	71.57	0.86	>> 1
132	e	M.4	1.000	11.67	0.004	0.043	2.88	0.024	69.42	0.69	>> 1
135	e	M.1	1.000	12.75	0.007	0.043	2.88	0.026	48.87	0.54	>> 1
135	e	M.4	1.000	10.91	0.006	0.043	2.88	0.025	48.05	0.50	>> 1
140	e	M.1	1.000	5.69	0.005	0.043	2.88	0.025	28.54	0.45	>> 1
140	e	M.4	1.000	2.40	0.002	0.043	2.88	0.023	27.01	0.18	>> 1
143	e	M.1	1.000	7.26	0.005	0.043	2.88	0.025	33.71	0.53	>> 1
143	e	M.4	1.000	2.26	0.002	0.043	2.88	0.023	31.38	0.21	>> 1
146	e	M.1	1.000	5.55	0.006	0.043	2.88	0.025	24.02	0.37	>> 1
146	e	M.4	1.000	1.23	0.001	0.043	2.88	0.023	22.01	0.14	>> 1
149	e	M.1	1.000	4.74	0.004	0.043	2.88	0.024	28.11	0.34	>> 1
149	e	M.4	1.000	1.64	0.001	0.043	2.88	0.023	26.65	0.28	>> 1
152	e	M.1	1.000	5.84	0.004	0.043	2.88	0.024	33.07	0.40	>> 1
152	e	M.4	1.000	1.14	0.001	0.043	2.88	0.023	30.84	0.32	>> 1
155	e	M.1	1.000	4.34	0.005	0.043	2.88	0.025	23.48	0.28	>> 1
155	e	M.4	1.000	0.28	0.000	0.043	2.88	0.023	21.55	0.22	>> 1
158	e	M.1	1.000	47.92	0.026	0.043	2.88	0.033	60.02	3.52	>> 1
158	e	M.4	1.000	-0.04	0.000	0.043	2.88	0.022	40.66	1.16	>> 1
163	e	M.1	1.000	52.90	0.029	0.043	2.88	0.034	61.68	4.16	>> 1
163	e	M.4	1.000	6.33	0.003	0.043	2.88	0.024	43.71	1.94	>> 1
194	e	M.1	1.460	81.99	0.033	0.043	2.88	0.024	60.12	26.13	2.301
194	e	M.4	1.460	64.38	0.026	0.043	2.88	0.022	56.16	24.75	2.269

20. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§C8.7.1.3.1) [SLV] - C.Sic: 1.227 (Analisi Sismica Dinamica Modale)

N.	n/e	Sez.	Coeff.	P	p	fvd0	γ, m	fvd	Vt, lim	Vt	V	C.Sic.
		comb.	b	(kN)	(N/mm ²)		* FC	(N/mm ²)	(kN)	(kN)	(kN)	
106	n	M.1	1.180	229.45	0.197	0.300	2.40	0.128	216.68	149.26	44.32	3.368
106	n	M.4	1.180	218.22	0.188	0.300	2.40	0.125	214.97	145.77	8.61	>> 1
109	n	M.1	1.110	247.45	0.200	0.300	2.40	0.137	245.27	169.60	43.98	3.856
109	n	M.4	1.110	236.00	0.191	0.300	2.40	0.134	243.43	165.84	13.63	>> 1
113	n	M.1	1.180	226.74	0.195	0.300	2.40	0.128	216.27	148.41	58.22	2.549
113	n	M.4	1.180	216.17	0.186	0.300	2.40	0.125	214.66	145.14	6.82	>> 1
116	n	M.1	1.110	244.04	0.197	0.300	2.40	0.136	244.72	168.48	57.02	2.955
116	n	M.4	1.110	232.97	0.188	0.300	2.40	0.133	242.94	164.84	0.73	>> 1

VERIFICHE SISMICHE DEGLI ELEMENTI IN MURATURA: VERIFICA A PRESSOFLESSIONE ORTOGONALE (azioni ortogonali convenzionali secondo §7.2.3) (D.M.14.1.2008 (NTC08), §7.8.2.2.3)

§7.8.2.2.3: Il valore del momento di collasso per azioni perpendicolari al piano della parete sarà calcolato assumendo un diagramma delle compressioni rettangolare, un valore della resistenza pari a $0.85 f_d$ e trascurando la resistenza a trazione della muratura.

In alternativa, PCM prevede la possibilità di adottare per la muratura la legge di comportamento parabolico-rettangolare: il momento ultimo viene quindi calcolato attraverso l'elaborazione del dominio di resistenza N-M. Per gli elementi in muratura armata (sia in edifici nuovi, sia in murature esistenti rinforzate con armature), viene sempre utilizzato il diagramma parabola-rettangolo. Oltre ai risultati riportati in tabella, specifiche rappresentazioni grafiche di PCM evidenziano il dominio di resistenza ed i punti rappresentativi degli stati di sollecitazione sottoposti a verifica di sicurezza.

§7.8.1.5.2 **Analisi statica lineare:** Per le verifiche fuori piano, potranno essere adottate le forze equivalenti indicate al punto §7.2.3 per gli elementi strutturali secondari e non strutturali. Più precisamente, l'azione sismica ortogonale alla parete potrà essere rappresentata da una forza orizzontale distribuita, pari a S_d/q_a volte il peso della parete e da forze orizzontali concentrate pari a S_d/q_a volte il peso trasmesso dagli orizzontamenti che si appoggiano su di essa, se queste non sono efficacemente trasmesse a muri trasversali disposti parallelamente alla direzione del sisma.

Per le pareti resistenti al sisma che rispettano i limiti della [Tab.7.8.II](#) (§7.8.1.4) si può assumere che il periodo T_a indicato al punto §7.2.3 sia pari a 0.

§7.8.1.5.3 Analisi dinamica modale: Le verifiche fuori piano potranno essere effettuate separatamente, adottando le forze equivalenti indicate al punto §7.8.1.5.2 per l'analisi statica lineare.

§7.2.3: L'effetto dell'azione sismica potrà essere valutato considerando un sistema di forze proporzionali alle masse (concentrate o distribuite) dell'elemento, la cui forza risultante (F_a) valutata al baricentro dell'elemento stesso, è calcolata secondo la relazione seguente:

$F_a = S_a W_a / q_a$, dove:

W_a = peso dell'elemento

S_a = accelerazione massima, adimensionalizzata rispetto a quella di gravità, che l'elemento subisce durante il sisma, e corrispondente allo stato limite in esame (SLD o SLV, §3.2.1)

q_a = fattore di struttura dell'elemento. Secondo §7.8.1.5.2, si può assumere $q_a=3$

S_a può essere calcolato nel seguente modo:

$S_a = \alpha S \cdot [1.5 \cdot (1 + Z/H_f) - 0.5] \geq \alpha S$, dove:

α = rapporto tra l'accelerazione massima del terreno a_g su sottosuolo di tipo A da considerare nello stato limite in esame e l'accelerazione di gravità g ;

S = coefficiente che tiene conto della categoria di sottosuolo e delle condizioni topografiche secondo quanto riportato nel §3.2.3.2.1

T_a = periodo fondamentale di vibrazione dell'elemento nella direzione considerata, T_1 = periodo fondamentale di vibrazione della struttura nella direzione considerata (le verifiche secondo NTC18 non prevedono l'utilizzo di T_a e T_1 nella formula delle forze ortogonali sulle pareti considerate come elementi non strutturali o secondari secondo §7.2.3)

Z = quota del baricentro dell'elemento misurata a partire dal piano di fondazione

H_f = altezza della costruzione misurata a partire dal piano di fondazione.

Ponendo H = luce deformabile nel piano di flessione ortogonale al piano medio della parete, si ha che:

Z = quota della base della parete + zona rigida iniziale in direzione ortogonale + $H/2$

g = accelerazione di gravità

In PCM la verifica a pressoflessione ortogonale viene eseguita nella sezione di mezzeria della luce deformabile nel piano ortogonale dei maschi murari, sotto le seguenti ipotesi:

- la parete è soggetta allo sforzo normale statico, senza incremento o diminuzione dovuti all'effetto sismico sul modello globale; tale sforzo normale può essere caratterizzato da eccentricità di tipo strutturale (dovuta ai carichi di solaio e alla posizione delle pareti sovrastanti);

- non sono considerate forze ribaltanti in sommità derivanti dall'orizzontamento. Ciò equivale a ipotizzare che le forze sismiche siano efficacemente trasmesse a pareti di controvento (parallele alla direzione sismica). Per edifici nuovi, questo requisito può essere considerato intrinseco nelle modalità costruttive; per edifici esistenti in assenza di efficace connessione fra pareti, questa ipotesi trova giustificazione nel fatto che la verifica a meccanismo di collasso (ribaltamento di corpo rigido) può essere considerata maggiormente rappresentativa del comportamento fuori piano della parete mal connessa, rispetto alla verifica a pressoflessione ortogonale;

- i requisiti della [Tab.7.8.II](#) vengono direttamente considerati, per la verifica a pressoflessione ortogonale, per ogni parete in muratura nuova, quindi anche se inserita in un edificio esistente (p.es. in caso di aggiunta di nuove pareti nell'ambito del progetto di consolidamento). Per murature esistenti, qualora sia stato selezionato il corrispondente parametro di calcolo, è possibile fare riferimento ai requisiti della [Tab.7.8.II](#) per adottare periodo $T_a=0$, con le seguenti posizioni. Per murature con le tipologie: pietrame disordinato, conci sbazzati, pietre a spacco con buona tessitura, conci di pietra tenera, si adottano i requisiti di muratura ordinaria con elementi in pietra squadrata (requisiti più severi fra quelli indicati in [Tab.7.8.II](#)); per murature a blocchi lapidei squadrati, si utilizza lo stesso riferimento, con l'aggiunta di parametri più favorevoli per le zone 3 e 4; per elementi artificiali pieni o semipieni si adottano le prescrizioni corrispondenti;

- i dati geometrici delle pareti riportano sia la snellezza complanare, sia la snellezza nel piano ortogonale (h_o/t). Nel computo di h_o , si assume per default: $\rho = 1$ (fattore laterale di vincolo). L'altezza libera di inflessione della parete fa riferimento alla luce deformabile nel piano ortogonale (depurata quindi delle eventuali zone rigide agli estremi per flessione nel piano ortogonale al piano della parete);

- la parete viene considerata appoggiata. Se l'interesse di irrigidimento 'a' (=distanza fra muri trasversali per la specchiatura entro cui si trova confinata la parete) è >0 , viene considerato un comportamento a piastra (parete ben ammassata nei muri trasversali). Se $a=B$, con B =base (dimensione complanare) della parete, ciò equivale a considerare che la parete sia vincolata esattamente ai suoi bordi laterali; se $a>B$, la parete appartiene ad una specchiatura più ampia definita dai muri trasversali. $a=0$ equivale a considerare un comportamento a trave, con parete libera quindi da vincoli laterali. In entrambi i casi, le formule per il momento agente ed il periodo proprio sono tratte dal Manuale Ingegneria Civile, Ed.Cremonese.

- Comportamento a trave: il periodo proprio è dato da: $T_a = 2\pi / \omega$, con: $\omega = \pi^2 \cdot (1/H^2) \cdot t \cdot \sqrt{[(E/12) / (\text{peso sp.}) / g]}$, dove: t = spessore della parete; E = modulo di elasticità longitudinale; (peso sp.) = peso specifico medio della muratura. L'azione sismica produce un momento in mezzeria $M = qH^2/8$, essendo q il carico sismico distribuito lungo l'altezza ($q = F_a / H$).

- Comportamento a piastra: il periodo proprio è pari a: $T_a = 2\pi / \omega$, con: $\omega = \pi^2 \cdot (1/a^2 + 1/H^2) \cdot t \cdot \sqrt{[(E/12) / (\text{peso sp.}) / g] / (1-\nu^2)}$, dove: ν =coefficiente di Poisson: $G=E/2(1+\nu)$. L'azione sismica produce un momento in mezzeria il cui valore massimo è pari a $q' H^2/8 \cdot c$, essendo: $q' = q / (1+\lambda^4)$ con $\lambda=H/a$, con q =carico sismico di superficie ($q = F_a / H / a$); $c=1 - 5/6 \lambda^2 / (1+\lambda^4)$. Per eseguire la verifica sulla sezione trasversale, il momento massimo si estende, a favore di sicurezza, all'intera sezione trasversale prescindendo dalla diminuzione verso gli appoggi laterali verticali della piastra: si ha così: $M = q / (1+\lambda^4) \cdot H^2/8 \cdot c$, con $q = F_a / H$.

Per la verifica della sezione muraria, viene effettuato il confronto fra il momento agente di calcolo M e il momento ultimo resistente M_u , definito come momento di collasso per pressoflessione ortogonale: $M_u = (N t / 2) \cdot (1 - N / N_u)$, dove N_u è lo sforzo normale ultimo dato da: $N_u = 0.85 f_d l t$, essendo l e t le dimensioni della sezione trasversale della parete, e f_d resistenza di progetto:

$f_d = f_k / \gamma_M$ è la resistenza di progetto per la verifica a compressione (§4.5.6.1). Per la muratura esistente, il parametro descrittivo del materiale è la resistenza a compressione media f_m , definita in base alla tipologia della muratura e ad opportuni fattori correttivi riguardanti le caratteristiche dell'organizzazione strutturale e degli eventuali interventi (§C8.5.3.1, [Tab.C8.5.II](#)). f_m sostituisce f_k nella formulazione di f_d ; inoltre, γ_M deve essere moltiplicato per il Fattore di Confidenza F_C (§8.5.4, §C.8.5.4) che normalmente assume i valori 1.35, 1.20, 1.00 rispettivamente per i livelli di conoscenza LC1, LC2, LC3 (si osservi che dal livello di conoscenza dipende anche il valore adottato per f_m).

Per le verifiche sismiche viene utilizzato il coefficiente parziale di sicurezza γ_M definito in §7.8.1.1 dove si indica $\gamma_M \geq 2.0$.

Si ha pertanto il seguente schema di valutazione della resistenza di calcolo (ϕ : di progetto) f_d (analisi lineare):

Muratura nuova: da §7.8.2.2.1: $f_d = f_k / \gamma_M$.

Muratura esistente: è nota f_m (dipendente, fra l'altro, dal livello di conoscenza); si ha: $f_d = f_m / \gamma_M / F_C$ (§C8.7.1.3.1.1).

Le verifiche sismiche a pressoflessione ortogonale, come le altre verifiche di resistenza, sono condotte, per tutti gli edifici in muratura, allo **stato limite ultimo di salvaguardia della vita (SLV)**; in SLV le sollecitazioni di progetto si ottengono combinando gli sforzi normali di tipo statico con i momenti dovuti alle azioni convenzionali, determinati come sopra descritto. Sono richieste verifiche sismiche di resistenza anche per **SLD** nel caso di costruzioni di **Classe III e IV** (§7.3.6).

Alla verifica di resistenza può essere affiancata, se scelta nei parametri di calcolo, la verifica di stabilità. E' così possibile considerare gli effetti del secondo ordine riconducibili all'instabilizzazione fuori piano di una parete in muratura ordinaria.

La **verifica di stabilità** viene svolta applicando le formulazioni proposte nei seguenti riferimenti bibliografici:

Schultz, A.E., J.G. Mueffelman, and N.J. Ojard: "Critical Axial Loads for Transverse Loaded Masonry Walls", Proceedings, 12th International Brick/Block Masonry Conference, 2000, pp. 1633-1646;

Masonry Standards Joint Committee: "Building Code Requirements for Masonry Structures", ACI 530-99/ASCE 5-99/TMS 402-99, American Concrete Institute, Farmington Hills, MI, American Society of Civil Engineers, Reston, VA, The Masonry Society, Boulder, CO, 1999.

Il **carico critico** viene calcolato tenendo conto dell'influenza dell'eccentricità dello sforzo normale e della flessione dovuta alle azioni trasversali, attraverso la seguente relazione:

$$(P_{crit} / P_E) = [1 - 2 (e_a + \lambda e_f) / t]^3 = [1 - 2 e_a / t - 2 \lambda e_f / t]^3$$

dove P_E è il carico critico euleriano: $P_E = \pi^2 EJ / l_0^2$

essendo: EJ la rigidità flessionale dell'intera sezione trasversale della parete valutata nel piano ortogonale (il piano di minima inerzia), l_0 è la lunghezza libera di inflessione, assunta inizialmente pari all'altezza della parete nello schema di riferimento (asta incernierata). Il carico critico viene poi corretto utilizzando le relazioni proposte in letteratura tecnica per i diversi tipi di vincolamento interno, tenendo conto anche del carico assiale variabile (determinato, per le pareti in muratura, dagli effetti del peso proprio).

Inoltre: e_a e e_f sono le eccentricità corrispondenti rispettivamente al carico sovrastante e al momento flettente; λ è un coefficiente pari a 0.813

per il momento lineare e a 0.905 per il momento parabolico dovuto a carico distribuito, t è lo spessore della parete.

Il calcolo di verifica determina il minimo ed il massimo valore del carico critico entro i quali deve essere compreso il carico verticale affinché lo stato di sollecitazione resti compreso nel **dominio di stabilità** (i dettagli sul metodo sono riportati nella manualistica associata al software PCM).

La verifica di stabilità si riferisce all'asta nel suo complesso. Se la verifica di stabilità è più sfavorevole rispetto alla verifica di resistenza, il valore dello sforzo normale ultimo N_u viene sostituito dal Carico critico, ed è preceduto da un asterisco *. In tal caso, il corrispondente coefficiente di sicurezza fa riferimento alla verifica di stabilità.

Simbologia utilizzata nel software PCM:

N. = numero progressivo dell'elemento murario

fd = valore di calcolo (o: di progetto) della resistenza a compressione

Nu = sforzo normale ultimo = $0.85 f_d$ lt. La presenza di * indica il valore del Carico critico (la verifica si riferisce alla stabilità)

Mu = momento di collasso per pressoflessione = $(N t / 2) \cdot (1 - N / N_u)$

P = forza assiale positiva se di compressione

M = momento di calcolo ortogonale, definito dall'azione sismica distribuita in elevazione e dal comportamento a trave ($a=0$) o a piastra ($a>0$). Il momento di calcolo può inoltre essere incrementato nel caso che sia stata scelta l'opzione di considerare l'eccentricità minima pari a $(h/200)$ ed il corrispondente momento sia superiore al momento di calcolo. Viene infine considerato il contributo degli eventuali momenti flettenti ortogonali al piano della parete agenti in fase statica (in fase sismica la sollecitazione ortogonale è identificata con il carico sismico distribuito applicato sulla parete)

Z = altezza del baricentro dell'elemento rispetto alla fondazione

Hf = altezza della costruzione misurata a partire dal piano di fondazione

H = altezza dell'elemento murario (= luce deformabile nel piano di flessione ortogonale al piano medio della parete)

a = interasse di irrigidimento

Ta = primo periodo di vibrazione della parete, definito dal comportamento a trave ($a=0$) o a piastra ($a>0$)

T1 = primo periodo di vibrazione della struttura nella direzione considerata, derivante dall'analisi modale o stimato secondo la relazione: $T_1 = C_1 \cdot H^{3/4}$

(§7.3.3.2, con $C_1 = 0.050$)

(le verifiche secondo NTC18 non prevedono l'utilizzo di Ta e $T1$ nella formula delle forze ortogonali sulle pareti considerate come elementi non strutturali o secondari secondo §7.2.3)

Sa = coefficiente sismico

W = peso dell'elemento

Fa/H = carico distribuito lungo l'altezza H della parete con risultante Fa applicata al baricentro della parete, ortogonalmente al piano della parete stessa

C.Sic. = coefficiente di sicurezza dato dal rapporto M_u / M . La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

21. VERIFICA A PRESSOFLESSIONE ORTOGONALE (§7.2.3, §7.8.1.5.2, §7.8.3.2.3) [SLV] - C.Sic: 1.983

(Analisi Sismica Dinamica Modale)

(alfa) $S = 0.051 \cdot 1.500 = 0.076$

Fattore di Comportamento dell'elemento $q, a = 3$ (§7.8.1.5.2)

Applicazione requisiti Tab.7.8.I anche a pareti in muratura esistente: 7.8.I

N.	fd (N/mm ²)	Nu (kN)	Mu (kN m)	P (kN)	M (kN m)	Z (m)	Hf (m)	H (m)	a (m)	Ta (sec)	T1 (sec)	Sa	W (kN/m)	Fa/H (kN/m)	C.Sic.
1	0.868	1339.64	36.62	135.84	6.35	2.400	8.042	4.800	0.000	0.000	0.050	0.110	191.75	1.47	5.765
4	0.868	1339.64	33.93	124.71	4.52	2.400	8.042	4.800	0.000	0.000	0.050	0.110	191.75	1.47	7.503
8	0.868	703.02	14.01	50.30	2.95	2.400	8.042	4.800	0.000	0.000	0.210	0.110	100.60	0.77	4.744
11	0.868	849.11	23.63	87.88	3.06	2.400	8.042	4.800	0.000	0.000	0.210	0.110	121.49	0.93	7.734
16	0.868	849.11	21.94	80.81	3.06	2.400	8.042	4.800	0.000	0.000	0.210	0.110	121.49	0.93	7.178
19	0.868	1446.77	47.46	180.78	5.33	2.400	8.042	4.800	0.000	0.000	0.210	0.110	207.03	1.59	8.911
23	0.868	251.02	9.38	36.60	1.01	2.400	8.042	4.800	0.000	0.000	0.210	0.110	35.96	0.28	9.301
26	0.868	229.32	12.38	53.98	4.58	2.400	8.042	4.800	0.000	0.000	0.210	0.110	32.79	0.25	2.703
30	0.868	1291.38	60.66	250.96	24.52	2.400	8.042	4.800	0.000	0.000	0.210	0.110	184.85	1.42	2.474
34	0.868	2730.63	67.35	246.80	11.82	2.400	8.042	4.800	0.000	0.000	0.210	0.110	390.77	3.01	5.698
40	0.868	251.46	6.94	25.79	1.09	2.400	8.042	4.800	0.000	0.000	0.210	0.110	35.96	0.28	6.391
43	0.868	1448.98	64.86	264.45	23.57	2.400	8.042	4.800	0.000	0.000	0.210	0.110	207.36	1.59	2.751
46	0.868	1448.98	44.45	167.56	21.79	2.400	8.042	4.800	0.000	0.000	0.210	0.110	207.36	1.59	2.040
49	0.868	595.89	11.88	42.66	1.91	2.400	8.042	4.800	0.000	0.000	0.210	0.110	85.31	0.66	6.222
54	0.868	588.36	11.73	42.11	1.98	2.400	8.042	4.800	0.000	0.000	0.210	0.110	84.22	0.65	5.937
56	0.868	382.50	9.02	32.88	3.98	2.400	8.042	4.800	0.000	0.000	0.210	0.110	54.72	0.42	2.267
60	0.868	382.50	12.98	49.71	3.98	2.400	8.042	4.800	0.000	0.000	0.210	0.110	54.72	0.42	3.263
64	0.868	849.11	37.48	152.25	16.30	2.400	8.042	4.800	0.000	0.000	0.210	0.110	121.49	0.93	2.300
69	0.868	849.11	40.34	167.54	16.67	2.400	8.042	4.800	0.000	0.000	0.210	0.110	121.49	0.93	2.420
71	0.868	251.46	6.67	24.65	1.12	2.400	8.042	4.800	0.000	0.000	0.210	0.110	35.96	0.28	5.974
75	0.868	2730.63	63.54	231.41	12.12	2.400	8.042	4.800	0.000	0.000	0.210	0.110	390.77	3.01	5.242
79	0.868	1291.38	58.52	239.45	24.17	2.400	8.042	4.800	0.000	0.000	0.210	0.110	184.85	1.42	2.421
85	0.868	229.32	12.06	51.96	4.52	2.400	8.042	4.800	0.000	0.000	0.210	0.110	32.80	0.25	2.666
88	0.868	251.02	9.09	35.25	1.00	2.400	8.042	4.800	0.000	0.000	0.210	0.110	35.96	0.28	9.126
92	0.868	1446.77	44.55	168.00	5.45	2.400	8.042	4.800	0.000	0.000	0.210	0.110	207.03	1.59	8.173
95	0.868	849.11	25.76	96.92	2.78	2.400	8.042	4.800	0.000	0.000	0.210	0.110	121.49	0.93	9.278
99	0.868	849.11	30.01	115.86	2.87	2.400	8.042	4.800	0.000	0.000	0.210	0.110	121.49	0.93	>> 1
101	0.868	703.02	18.49	68.26	2.87	2.400	8.042	4.800	0.000	0.000	0.210	0.110	100.60	0.77	6.446

104	0.868	1842.99	45.59	167.10	10.60	3.041	8.042	6.082	0.000	0.000	0.050	0.120	334.21	2.20	4.301
106	2.208	2181.96	37.23	217.65	4.71	2.100	8.042	4.200	0.000	0.000	0.050	0.110	87.88	0.74	7.903
109	2.208	2324.62	40.19	235.33	5.06	2.100	8.042	4.200	0.000	0.000	0.050	0.110	93.62	0.79	7.947
113	2.208	2181.96	36.87	215.27	4.60	2.100	8.042	4.200	0.000	0.000	0.050	0.110	87.88	0.74	8.013
116	2.208	2324.62	39.70	232.10	4.95	2.100	8.042	4.200	0.000	0.000	0.050	0.110	93.62	0.79	8.021
122	0.868	1483.07	2.96	9.95	1.15	5.025	8.042	0.450	0.000	0.000	0.210	0.150	19.90	2.18	2.589
126	0.868	1483.07	2.96	9.95	1.50	5.025	8.042	0.450	0.000	0.000	0.210	0.150	19.90	2.18	1.983
132	0.868	2102.86	4.20	14.11	1.62	5.025	8.042	0.450	0.000	0.000	0.210	0.150	28.22	3.10	2.598
135	0.868	1413.57	3.52	11.83	1.08	5.025	8.042	0.450	0.000	0.000	0.210	0.150	18.97	2.08	3.267
140	0.868	851.33	1.70	5.71	0.66	5.025	8.042	0.450	0.000	0.000	0.210	0.150	11.43	1.25	2.572
143	0.868	997.42	1.99	6.69	0.77	5.025	8.042	0.450	0.000	0.000	0.210	0.150	13.39	1.47	2.583
146	0.868	705.23	1.41	4.73	0.55	5.025	8.042	0.450	0.000	0.000	0.210	0.150	9.46	1.04	2.581
158	0.868	1339.64	7.05	23.94	0.28	5.328	8.042	1.056	0.000	0.000	0.050	0.150	42.19	2.03	>> 1
163	0.868	1339.64	8.69	29.61	0.29	5.328	8.042	1.056	0.000	0.000	0.050	0.150	42.19	2.03	>> 1
194	0.868	1842.99	45.59	167.10	10.60	3.041	8.042	6.082	0.000	0.000	0.050	0.120	334.21	2.20	4.301

**VERIFICHE SISMICHE A STATO LIMITE DI TIPO GEOTECNICO (GEO):
CAPACITÀ PORTANTE DEL TERRENO E SCORRIMENTO SUL PIANO DI POSA**
(D.M.17.1.2018 (NTC18), §6.4.2.1, §7.2.5, §7.11.5.3)

PCM esegue automaticamente le verifiche allo stato limite ultimo di tipo geotecnico (GEO) (verifica di capacità portante del terreno e di scorrimento sul piano di posa) utilizzando l'**Approccio 2** (§2.6.1), dove i coefficienti parziali definiti per le azioni (A), per la resistenza dei materiali (M) e la resistenza globale del sistema (R) assumono i valori (§6.4.2.1):

$A1 + M1 + R3$

Con questo approccio, sono incrementate le azioni (A), invariati i parametri geotecnici (M) e ridotta la resistenza (R).

A1 (tab. 6.2.I) definisce i coefficienti parziali per le azioni γ_F (distinti in: γ_{G1} , γ_{G2} , γ_P e γ_Q) già applicati nella generazione delle combinazioni di carico delle quali si esamineranno i risultati. Il campo di tensioni sul terreno generato da ognuna delle combinazioni di carico risulta quindi coerente con i valori dei γ_F indicati dalla Norma.

M1 (tab. 6.2.II) indica il coefficiente parziale per i materiali γ_M che deve essere applicato ai parametri geotecnici del terreno: tangente dell'angolo di resistenza al taglio, coesione efficace, resistenza non drenata, peso dell'unità di volume. Si ha: $\gamma_M=1.0$ (cioè: nessuna variazione dei parametri).

R3 (tab. 6.4.I) definisce il coefficiente parziale per la resistenza, pari a 2.3 per la capacità portante, e ad 1.1 per lo scorrimento sul piano di posa. Per la verifica di resistenza strutturale della trave di fondazione (stato limite STR) il coefficiente γ_R non deve essere portato in conto.

Si ipotizza che il modello globale dell'edificio contenga sia le travi di fondazione sia la struttura in elevazione, e le sollecitazioni sono calcolate tenendo conto dell'interazione fra fondazioni e struttura sovrastante; le fondazioni sono schematizzate come aste su suolo elastico, e normalmente considerate rigide sotto i maschi e deformabili in corrispondenza delle aperture.

Per l'**analisi sismica**, si fa riferimento a §7.2.5; si ricorda che la combinazione di carico sismica è unica ed è data da: $G_1 + G_2 + E + \sum_j \psi_{2j} Q_{kj}$ (i coefficienti γ_F sono unitari).

Nella verifica delle fondazioni devono essere assunte come azioni di progetto trasmesse dalla struttura **le minori tra:**

(a) la **forza assiale** (N) negli elementi strutturali verticali soprastanti, derivante dalla combinazione delle azioni di cui sopra, associata al concomitante **valore resistente del momento flettente** (M) e **del taglio** (V);

(b) le azioni trasferite dagli elementi soprastanti (N, M, V) **amplificate** con un coefficiente γ_{Rd} pari a **1,1 in CD "B"** (N.B. CD "B" può essere considerata la situazione degli edifici in muratura, caratterizzati da bassa duttilità) e 1,3 in CD "A"; si ritiene ragionevole ritenere che l'amplificazione riguardi le sole componenti sismiche (il valore di ogni sollecitazione è dato dalla composizione della componente statica con quella sismica) (in alternativa, l'amplificazione viene applicata alle sollecitazioni complessive);

(c) le azioni derivanti da una analisi elastica della struttura in elevazione eseguita con un fattore di struttura q pari a 1.

Per applicare l'opzione (a) è indispensabile seguire una modalità di modellazione che separa il graticcio di fondazione dalla sovrastruttura; al graticcio si applicano puntualmente (nei nodi di base degli elementi verticali soprastanti) le azioni assiali di calcolo e i valori resistenti delle azioni tagliante e flettente. Nel caso di modello unitario fondazioni+sovrastuttura, l'opzione (a) non può essere utilizzata, perchè non esiste una configurazione di analisi che produca contemporaneamente le sollecitazioni richieste.

L'opzione (b) è invece sempre applicabile in entrambi i casi; nel caso di modello unitario, l'amplificazione verrà attribuita direttamente alle tensioni di contatto fondazione-terreno (ai fini della verifica geotecnica GEO) e alle sollecitazioni nelle travi di fondazione (ai fini della loro verifica di resistenza strutturale STR).

L'opzione (c) può essere considerata poco significativa per le normali strutture (è ragionevole ritenerla pensata per le strutture che in elevazione sono calcolate con $q=1$). Infatti: la componente sismica valutata con il reale fattore di struttura (≥ 2.25 per gli edifici in muratura esistenti; ≥ 2.80 per gli edifici nuovi in muratura ordinaria; ≥ 3.25 per gli edifici nuovi in muratura armata) è comunque inferiore a quella valutata con $q=1$ e quindi, potendo scegliere le sollecitazioni minori fra (a) (b) (c), l'opzione (c) appare superflua.

Comunque, potendo scegliere le azioni minori fra (a) (b) (c), considerando un solo caso o due casi si opera favore di sicurezza (i restanti due casi o un caso potrebbero solo ridurre le azioni e quindi non corrisponderebbero a situazioni più sfavorevoli).

In analisi sismica, PCM segue l'opzione (b). Per la verifica di capacità portante: si amplificano di 1.1 le tensioni sul terreno corrispondenti all'unica combinazione sismica prevista (effetto statico + effetto sismico); l'amplificazione viene applicata, a favore di sicurezza, alle componenti globali: in alternativa potrebbe infatti applicarsi alla sola componente sismica; infine si confrontano con la capacità portante (ridotta di 2.3). Per la verifica a scorrimento, si confronta il taglio complessivo agente sul piano di posa, cioè sulla superficie di appoggio completa dell'edificio, amplificato di 1.1, con la resistenza a scorrimento (ridotta di 1.1).

I seguenti parametri: K Winkler, Base di appoggio, Capacità portante (q_{lim}): sono proprietà di ogni singola trave di fondazione e vengono definiti nei Dati Aste. Sia il coefficiente di sottofondo che la capacità portante possono infatti variare a causa delle diverse dimensioni geometriche delle travi di fondazioni. Dato comune a tutte le fondazioni è invece l'angolo d'attrito fondazione-terreno: δ_k , da cui: il coefficiente d'attrito ($tg \delta_k$).

La combinazione sismica è la seguente :

$G_1 + G_2 + E + \sum_j \psi_{2j} Q_{kj}$ (i coefficienti γ_F sono unitari) (§3.2.4).

Le verifiche sismiche di tipo geotecnico, come le altre verifiche di resistenza, sono condotte, per tutti gli edifici in muratura, allo **stato limite ultimo di salvaguardia della vita (SLV)**. Per alcuni tipi di edifici sono richieste verifiche sismiche di resistenza anche per **stati limite di esercizio** (in particolare: **SLD**): si tratta delle costruzioni di **Classe III e IV** qualora si vogliano limitare i danneggiamenti strutturali (§7.3.7.1).

Simbologia utilizzata nel software PCM:

Verifica di capacità portante del terreno

N.asta = numero progressivo dell'asta (trave di fondazione, o trave su suolo elastico)

K Winkler = coefficiente di sottofondo della trave su suolo elastico

q_{lim} = capacità portante corrispondente all'asta, calcolata ad esempio con la formulazione di Terzaghi:

$$q_{lim} = c N_c + q_0 N_q + \frac{1}{2} \gamma B N_\gamma$$

essendo:

$c N_c$ = contributo della coesione lungo le superfici di rottura;

$q_0 N_q$ = effetto stabilizzante del terreno ai lati della fondazione sul piano di posa;

$\frac{1}{2} \gamma B N_\gamma$ = contributo della resistenza di attrito dovuta al peso del terreno del terreno all'interno delle superfici di scorrimento.

Rd = valore di progetto della resistenza = q_{lim} / γ_R

Nodo i = nodo iniziale dell'asta

sZ,i = spostamento verticale del nodo i

sT,i = tensione di contatto nel nodo i

Ed,i = valore di progetto dell'azione in corrispondenza del nodo i. La tensione sul terreno risultante dal calcolo deve essere amplificata di 1.1 (opzione **(b)**); l'amplificazione 1.1 si applica, a favore di sicurezza, alla tensione complessiva, che include sia la parte statica sia la parte sismica)

C.Sic. i = coefficiente di sicurezza, fornito dal rapporto: $Rd / Ed,i$. La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

Nodo j = nodo finale dell'asta

sZ,j = spostamento verticale del nodo j

sT,j = tensione di contatto nel nodo j

Ed,j = valore di progetto dell'azione in corrispondenza del nodo j. Analogamente a Ed,i , la tensione sul terreno risultante dal calcolo deve essere amplificata per 1.1

C.Sic. j = coefficiente di sicurezza, fornito dal rapporto: $Rd / Ed,j$. La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

Verifica di scorrimento sul piano di posa

In corrispondenza di tutti i nodi di fondazione (nodi vincolati su suolo elastico), vengono rilevate le seguenti azioni (forze):

F orizz.X, F orizz. Y = reazioni orizzontali competenti al nodo.

F vert. = carico verticale corrispondente al nodo. Avendo risolto la struttura nel suo insieme (fondazioni+sovrastuttura), poiché il nodo su suolo elastico alla Winkler non fornisce la reazione verticale, è comunque possibile fare riferimento allo sforzo normale alla base del maschio; questa azione interna contiene già il contributo del peso proprio delle travi di fondazione, regolarmente considerato nelle condizioni di carico.

Per ognuna delle due direzioni orizzontali del sistema globale di riferimento X,Y vengono infine riportati i seguenti parametri:

Direz. = direzione di riferimento (X o Y)

F.orizz.tot. = taglio globale agente lungo la direzione di riferimento

F.vert.tot. = carico verticale complessivo agente sul piano di posa delle fondazioni

R = valore di calcolo della resistenza. La resistenza di progetto si ottiene moltiplicando il carico verticale totale per $tg \delta_k$

Ed = valore di progetto dell'azione, coincidente con il taglio globale nella direzione di riferimento amplificato per 1.1 (opzione **(b)**)

Rd = valore di progetto della resistenza. Il coefficiente d'attrito di progetto è dato da: $tg \delta_d = tg \delta_k / \gamma_\phi$, dove: $\gamma_\phi = 1$ (da tab. 6.2.II, colonna M1), applicando a $tg \delta_k$ il coefficiente parziale per $tg \phi'$. Risulta quindi: $tg \delta_d = tg \delta_k$. La resistenza di progetto si ottiene moltiplicando il carico verticale totale per $tg \delta_d$ e dividendo per 1.1

C.Sic. = coefficiente di sicurezza, fornito dal rapporto: Rd / Ed . La verifica è soddisfatta quando il coefficiente di sicurezza è ≥ 1

22. VERIFICHE PER STATO LIMITE ULTIMO DI TIPO GEOTECNICO (§6.4.2.1, §7.2.5) [SLV] - C.Sic: 1.046

(Analisi Sismica Dinamica Modale)

VERIFICA DI CAPACITA' PORTANTE DEL TERRENO (§6.4.2.1, §7.2.5) [SLV]

(Analisi Sismica Dinamica Modale)

N.asta	K Winkler (N/mm ³)	q _{lim} (N/mm ²)	Rd	Nodo i	sZ,i (mm)	sT,i (N/mm ²)	Ed,i	C.Sic. i	Nodo j	sZ,j (mm)	sT,j (N/mm ²)	Ed,j	C.Sic. j
197	0.016	0.511	0.222	214	-9.32	0.149	0.164	1.354	215	-9.36	0.150	0.165	1.348
323	0.016	0.511	0.222	213	-11.73	0.188	0.206	1.077	1	-10.21	0.163	0.180	1.237
324	0.016	0.511	0.222	1	-10.21	0.163	0.180	1.237	214	-9.32	0.149	0.164	1.354
325	0.016	0.511	0.222	215	-9.36	0.150	0.165	1.348	5	-10.27	0.164	0.181	1.229
326	0.016	0.511	0.222	5	-10.27	0.164	0.181	1.229	216	-11.87	0.190	0.209	1.064
327	0.016	0.511	0.222	216	-11.87	0.190	0.209	1.064	9	-11.83	0.189	0.208	1.067
328	0.016	0.511	0.222	9	-11.83	0.189	0.208	1.067	11	-11.78	0.189	0.207	1.071
329	0.016	0.511	0.222	11	-11.78	0.189	0.207	1.071	15	-11.68	0.187	0.206	1.081
330	0.016	0.511	0.222	15	-11.68	0.187	0.206	1.081	13	-11.65	0.186	0.205	1.084
331	0.016	0.511	0.222	13	-11.65	0.186	0.205	1.084	217	-11.61	0.186	0.204	1.087
332	0.016	0.511	0.222	217	-11.61	0.186	0.204	1.087	18	-11.58	0.185	0.204	1.090
333	0.016	0.511	0.222	18	-11.58	0.185	0.204	1.090	320	-11.54	0.185	0.203	1.094
334	0.016	0.511	0.222	320	-11.54	0.185	0.203	1.094	321	-11.51	0.184	0.202	1.097
335	0.016	0.511	0.222	321	-11.51	0.184	0.202	1.097	21	-11.49	0.184	0.202	1.099
336	0.016	0.511	0.222	21	-11.49	0.184	0.202	1.099	218	-11.47	0.184	0.202	1.101
337	0.016	0.511	0.222	218	-11.47	0.184	0.202	1.101	25	-11.47	0.183	0.202	1.101
338	0.016	0.511	0.222	25	-11.47	0.183	0.202	1.101	322	-11.46	0.183	0.202	1.101
339	0.016	0.511	0.222	322	-11.46	0.183	0.202	1.101	323	-11.28	0.181	0.199	1.119
340	0.016	0.511	0.222	323	-11.28	0.181	0.199	1.119	28	-11.28	0.181	0.199	1.119
341	0.016	0.511	0.222	28	-11.28	0.181	0.199	1.119	219	-11.29	0.181	0.199	1.118
342	0.016	0.511	0.222	219	-11.29	0.181	0.199	1.118	32	-11.30	0.181	0.199	1.117
343	0.016	0.511	0.222	32	-11.30	0.181	0.199	1.117	34	-11.32	0.181	0.199	1.115
344	0.016	0.511	0.222	34	-11.32	0.181	0.199	1.115	38	-11.36	0.182	0.200	1.111
345	0.016	0.511	0.222	38	-11.36	0.182	0.200	1.111	36	-11.43	0.183	0.201	1.104
346	0.016	0.511	0.222	36	-11.43	0.183	0.201	1.104	220	-11.53	0.185	0.203	1.094
347	0.016	0.511	0.222	220	-11.53	0.185	0.203	1.094	41	-11.55	0.185	0.203	1.093
348	0.016	0.511	0.222	41	-11.55	0.185	0.203	1.093	324	-11.56	0.185	0.203	1.092
349	0.016	0.511	0.222	324	-11.56	0.185	0.203	1.092	325	-11.46	0.183	0.202	1.102
350	0.016	0.511	0.222	44	-11.56	0.185	0.203	1.092	221	-11.66	0.187	0.205	1.082
351	0.016	0.511	0.222	221	-11.66	0.187	0.205	1.082	48	-11.77	0.188	0.207	1.073
352	0.016	0.511	0.222	48	-11.77	0.188	0.207	1.073	50	-11.87	0.190	0.209	1.064
353	0.016	0.511	0.222	50	-11.87	0.190	0.209	1.064	54	-12.00	0.192	0.211	1.052
354	0.016	0.511	0.222	54	-12.00	0.192	0.211	1.052	52	-12.03	0.193	0.212	1.049
355	0.016	0.511	0.222	52	-12.03	0.193	0.212	1.049	222	-12.07	0.193	0.212	1.046

356	0.016	0.511	0.222	223	-11.78	0.189	0.207	1.071	56	-11.76	0.188	0.207	1.074
357	0.016	0.511	0.222	56	-11.76	0.188	0.207	1.074	326	-11.73	0.188	0.206	1.076
358	0.016	0.511	0.222	326	-11.73	0.188	0.206	1.076	327	-11.67	0.187	0.205	1.082
359	0.016	0.511	0.222	327	-11.67	0.187	0.205	1.082	59	-11.64	0.186	0.205	1.084
360	0.016	0.511	0.222	59	-11.64	0.186	0.205	1.084	224	-11.61	0.186	0.204	1.087
361	0.016	0.511	0.222	224	-11.61	0.186	0.204	1.087	63	-11.59	0.185	0.204	1.089
362	0.016	0.511	0.222	63	-11.59	0.185	0.204	1.089	65	-11.56	0.185	0.204	1.092
363	0.016	0.511	0.222	65	-11.56	0.185	0.204	1.092	69	-11.44	0.183	0.201	1.103
364	0.016	0.511	0.222	69	-11.44	0.183	0.201	1.103	67	-11.39	0.182	0.200	1.109
365	0.016	0.511	0.222	67	-11.39	0.182	0.200	1.109	225	-11.33	0.181	0.199	1.114
366	0.016	0.511	0.222	225	-11.33	0.181	0.199	1.114	72	-11.28	0.180	0.198	1.120
367	0.016	0.511	0.222	328	-11.22	0.180	0.197	1.125	329	-11.33	0.181	0.199	1.114
368	0.016	0.511	0.222	329	-11.33	0.181	0.199	1.114	75	-11.32	0.181	0.199	1.115
369	0.016	0.511	0.222	75	-11.32	0.181	0.199	1.115	226	-11.31	0.181	0.199	1.116
370	0.016	0.511	0.222	226	-11.31	0.181	0.199	1.116	79	-11.22	0.179	0.197	1.126
371	0.016	0.511	0.222	79	-11.22	0.179	0.197	1.126	81	-11.15	0.178	0.196	1.132
372	0.016	0.511	0.222	81	-11.15	0.178	0.196	1.132	85	-11.12	0.178	0.196	1.135
373	0.016	0.511	0.222	85	-11.12	0.178	0.196	1.135	83	-11.10	0.178	0.195	1.137
374	0.016	0.511	0.222	83	-11.10	0.178	0.195	1.137	227	-11.09	0.177	0.195	1.138
375	0.016	0.511	0.222	227	-11.09	0.177	0.195	1.138	88	-11.09	0.177	0.195	1.139
376	0.016	0.511	0.222	88	-11.09	0.177	0.195	1.139	330	-11.09	0.177	0.195	1.139
377	0.016	0.511	0.222	330	-11.09	0.177	0.195	1.139	331	-11.27	0.180	0.198	1.120
378	0.016	0.511	0.222	331	-11.27	0.180	0.198	1.120	91	-11.27	0.180	0.198	1.120
379	0.016	0.511	0.222	91	-11.27	0.180	0.198	1.120	228	-11.28	0.180	0.198	1.119
380	0.016	0.511	0.222	228	-11.28	0.180	0.198	1.119	95	-11.31	0.181	0.199	1.117
381	0.016	0.511	0.222	95	-11.31	0.181	0.199	1.117	332	-11.34	0.181	0.200	1.114
382	0.016	0.511	0.222	332	-11.34	0.181	0.200	1.114	333	-11.38	0.182	0.200	1.110
383	0.016	0.511	0.222	333	-11.38	0.182	0.200	1.110	98	-11.38	0.182	0.200	1.109
384	0.016	0.511	0.222	98	-11.38	0.182	0.200	1.109	229	-11.38	0.182	0.200	1.109
385	0.016	0.511	0.222	229	-11.38	0.182	0.200	1.109	102	-11.39	0.182	0.200	1.109
386	0.016	0.511	0.222	102	-11.39	0.182	0.200	1.109	334	-11.39	0.182	0.201	1.108
387	0.016	0.511	0.222	334	-11.39	0.182	0.201	1.108	335	-11.49	0.184	0.202	1.099
388	0.016	0.511	0.222	335	-11.49	0.184	0.202	1.099	105	-11.61	0.186	0.204	1.087
389	0.016	0.511	0.222	105	-11.61	0.186	0.204	1.087	213	-11.73	0.188	0.206	1.077
390	0.016	0.511	0.222	222	-12.07	0.193	0.212	1.046	108	-10.04	0.161	0.177	1.258
391	0.016	0.511	0.222	108	-10.04	0.161	0.177	1.258	230	-9.15	0.146	0.161	1.380
392	0.016	0.520	0.226	336	-8.41	0.135	0.148	1.527	112	-9.84	0.157	0.173	1.305
393	0.016	0.520	0.226	112	-9.84	0.157	0.173	1.305	228	-11.28	0.180	0.198	1.139
394	0.016	0.520	0.226	218	-11.47	0.184	0.202	1.120	116	-9.85	0.158	0.173	1.304
395	0.016	0.520	0.226	337	-8.23	0.132	0.145	1.560	336	-8.41	0.135	0.148	1.527
396	0.016	0.520	0.226	116	-9.85	0.158	0.173	1.304	337	-8.23	0.132	0.145	1.560
397	0.016	0.520	0.226	226	-11.31	0.181	0.199	1.136	120	-9.84	0.157	0.173	1.305
398	0.016	0.520	0.226	120	-9.84	0.157	0.173	1.305	338	-8.38	0.134	0.147	1.533
399	0.016	0.520	0.226	338	-8.38	0.134	0.147	1.533	339	-8.24	0.132	0.145	1.560
400	0.016	0.520	0.226	339	-8.24	0.132	0.145	1.560	124	-9.89	0.158	0.174	1.299
401	0.016	0.520	0.226	124	-9.89	0.158	0.174	1.299	220	-11.53	0.185	0.203	1.114
402	0.016	0.511	0.222	230	-9.15	0.146	0.161	1.380	211	-9.88	0.158	0.174	1.278
403	0.016	0.511	0.222	211	-9.88	0.158	0.174	1.278	223	-11.78	0.189	0.207	1.071
404	0.016	0.520	0.226	291	-8.67	0.139	0.153	1.482	227	-11.09	0.177	0.195	1.158
405	0.016	0.520	0.226	293	-6.96	0.111	0.122	1.846	291	-8.67	0.139	0.153	1.482
406	0.016	0.520	0.226	295	-6.76	0.108	0.119	1.899	293	-6.96	0.111	0.122	1.846
407	0.016	0.520	0.226	219	-11.29	0.181	0.199	1.138	297	-8.48	0.136	0.149	1.515
408	0.016	0.520	0.226	297	-8.48	0.136	0.149	1.515	295	-6.76	0.108	0.119	1.899
409	0.016	0.520	0.226	299	-8.72	0.140	0.153	1.473	239	-11.49	0.184	0.202	1.118
410	0.016	0.520	0.226	301	-6.99	0.112	0.123	1.838	299	-8.72	0.140	0.153	1.473
411	0.016	0.520	0.226	303	-7.10	0.114	0.125	1.809	301	-6.99	0.112	0.123	1.838
412	0.016	0.520	0.226	238	-11.25	0.180	0.198	1.142	305	-8.79	0.141	0.155	1.461
413	0.016	0.520	0.226	305	-8.79	0.141	0.155	1.461	303	-7.10	0.114	0.125	1.809
496	0.016	0.511	0.222	325	-11.46	0.183	0.202	1.102	239	-11.49	0.184	0.202	1.099
497	0.016	0.511	0.222	239	-11.49	0.184	0.202	1.099	44	-11.56	0.185	0.203	1.092
498	0.016	0.511	0.222	72	-11.28	0.180	0.198	1.120	238	-11.25	0.180	0.198	1.122
499	0.016	0.511	0.222	238	-11.25	0.180	0.198	1.122	328	-11.22	0.180	0.197	1.125

VERIFICA DI SCORRIMENTO SUL PIANO DI POSA (§6.4.2.1, §7.2.5) [SLV]
(Analisi Sismica Dinamica Modale)

N.nodo	F orizz.X (kN)	F orizz.Y (kN)	F vert. (kN)
1	-2.03	51.00	223.17
5	0.08	0.05	210.56
9	-0.61	-0.16	93.02
13	-2.72	0.06	137.53
18	0.53	0.04	129.85
21	3.73	0.61	270.45
25	0.11	0.10	52.46
28	0.51	-3.74	66.71
32	49.36	-21.08	324.62
36	12.53	-1.07	418.60
41	0.15	-0.09	41.67
44	27.46	-19.45	349.49
48	46.47	-19.37	256.10
52	9.76	0.67	69.79
56	5.89	0.78	77.27
59	2.64	3.74	56.77

63	4.45	3.73	72.73
67	28.87	16.12	200.43
72	10.64	16.11	215.94
75	0.12	0.73	40.46
79	9.58	7.90	402.82
83	48.59	23.49	312.82
88	0.50	4.18	64.61
91	0.06	0.53	51.01
95	1.26	3.09	257.73
98	6.17	0.74	146.16
102	6.19	0.76	163.65
105	-7.43	1.70	113.27
108	0.72	24.74	205.72
112	0.04	44.32	255.97
116	0.11	13.63	276.41
120	0.14	58.22	253.92
124	0.17	-0.73	273.38
211	0.71	24.75	231.48

Angolo d'attrito fondazione-terreno (°) = 24

Direz.	F.orizz.tot. (kN)	F.vert.tot. (kN)	R (kN)	Ed (kN)	Rd (kN)	C.Sic.
X	264.73	6316.56	2812.31	291.21	2556.65	8.780
Y	236.10	6316.56	2812.31	259.71	2556.65	9.840

23. SPOSTAMENTI DI INTERPIANO [SLV]

- Massimo rapporto (d,r/H): 1.161 < 2 (per mille)

H e d,r sono calcolati per ogni asta verticale (=parete) del piano; H è l'altezza della parete.

Nei risultati, si riporta per ogni piano l'asta corrispondente al massimo rapporto d,r/H.

H può non coincidere con l'altezza di piano: nel caso di quote sfalsate,

o nel caso di aste definite tra piani non consecutivi.

Lo spostamento d,r include per SLV l'amplificazione per il fattore di duttilità in spostamento [§7.3.3.3].

N.piano	H (m)	Asta	Spost. d,r (mm)	(d,r / H) (per mille)
1	4.800	4	5.6	1.161
2	6.082	104	6.7	1.108

24. CONTROLLO EFFETTI DEL SECONDO ORDINE [SLV] (§7.3.1, EC8-1: §4.4.2.2)

H e d,r sono calcolati per ogni asta verticale (=parete) del piano; H è l'altezza della parete.

Nei risultati, si riporta per ogni piano l'asta corrispondente al massimo rapporto d,r/H.

P è il carico verticale totale della parte di struttura sovrastante il piano (=orizzontamento) considerato;

V è la forza sismica orizzontale totale in corrispondenza dell'orizzontamento in esame.

Il controllo consiste nel calcolo di Theta e nel confronto con 0.1:

trascurare l'effetto P-Delta (non linearità geometrica) è lecito quando Theta ≤ 0.1

N.piano	P (kN)	V (kN)	H (m)	d,r (mm)	Asta	Theta
1	2052.72	251.96	4.800	5.6	4	0.00946
2	591.36	72.57	6.082	6.7	104	0.00903

VERIFICHE STATICHE

RELAZIONE DI CALCOLO

Indice

1. DATI GEOMETRICI ELEMENTI IN MURATURA

2. DATI GEOMETRICI ELEMENTI IN C.A.

3. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

4. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

5. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

6. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

7. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))

8. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))

9. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))

10. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))

11. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

12. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

13. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))

14. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))

15. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))

16. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))

17. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))

18. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))

19. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°9:)

20. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°9:)

21. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)

22. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)

23. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

24. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

25. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

26. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))
27. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))
28. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))
29. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))
30. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))
31. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))
32. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))
33. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))
34. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))
35. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))
36. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))
37. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))
38. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))
39. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°9:)
40. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329
(Analisi Statica Lineare NON Sismica: CCC n°9:)
41. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329 (CCC ID 44)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)
42. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329 (CCC ID 44)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)
43. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))
44. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))
45. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))
46. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))
47. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))
48. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))
49. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))
50. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))
51. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

52. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))
53. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))
54. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))
55. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))
56. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))
57. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))
58. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))
59. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°9:)
60. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°9:)
61. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)
62. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)
63. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))
64. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))
65. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))
66. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))
67. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))
68. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))
69. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))
70. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))
71. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°9:)
72. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062 (CCC ID 46)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC)
73. VERIFICHE PER STATO LIMITE ULTIMO DI TIPO GEOTECNICO (§6.4.2.1) [SLV] - C.Sic: 1.342 (CCC ID 44)
(Analisi Statica Lineare NON Sismica: Inviluppo CCC SLU)

1. DATI GEOMETRICI ELEMENTI IN MURATURA

Edificio Esistente

Coefficiente parziale di sicurezza dei materiali γ_M : analisi statica [§4.5.6.1] = 3.00

- analisi sismica [§7.8.1.1] = 2.40

N.	p.no	M/A	S/F	lungh. l(base)	Piano Complanare (m)				Piano Ortogonale (m)				Xg (m)	Yg (m)	N° mat
					alt. H	alt. def.h	h/l	l/h	spess. t	alt. def.h	ho= r*h	ho/t			
1	1	X		3.03	4.80	4.01	1.327	0.754	0.60	4.80	4.80	8.000	0.000	6.809	3
4	1	X		3.03	4.80	4.01	1.327	0.754	0.60	4.80	4.80	8.000	0.000	1.517	3
7	1		X	1.95	2.27	2.27	1.162	0.861	0.60						3
8	1	X		1.59	4.80	2.67	1.684	0.594	0.60	4.80	4.80	8.000	0.794	0.004	3
11	1	X		1.92	4.80	2.87	1.496	0.668	0.60	4.80	4.80	8.000	4.811	0.004	3
14	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
15	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
16	1	X		1.92	4.80	4.01	2.091	0.478	0.60	4.80	4.80	8.000	6.729	0.004	3
19	1	X		3.27	4.80	4.25	1.301	0.769	0.60	4.80	4.80	8.000	11.586	0.004	3
22	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
23	1	X		0.57	4.80	3.54	6.238	0.160	0.60	4.80	4.80	8.000	13.504	0.004	3
26	1	X		0.52	4.80	3.52	6.790	0.147	0.60	4.80	4.80	8.000	16.311	0.004	3
29	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
30	1	X		2.92	4.80	3.35	1.148	0.871	0.60	4.80	4.80	8.000	18.029	0.004	3
34	1	X		6.17	4.80	4.23	0.685	1.459	0.60	4.80	4.80	8.000	24.836	0.004	3
38	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
39	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
40	1	X		0.57	4.80	3.54	6.227	0.161	0.60	4.80	4.80	8.000	28.204	0.004	3
43	1	X		3.27	4.80	4.25	1.299	0.770	0.60	4.80	4.80	8.000	32.389	0.004	3
45	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
46	1	X		3.27	4.80	3.49	1.065	0.939	0.60	4.80	4.80	8.000	35.662	0.004	3
49	1	X		1.35	4.80	2.52	1.869	0.535	0.60	4.80	4.80	8.000	40.236	0.004	3
52	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
53	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
54	1	X		1.33	4.80	2.61	1.966	0.509	0.60	4.80	4.80	8.000	40.245	8.328	3
56	1	X		0.86	4.80	2.31	2.672	0.374	0.60	4.80	4.80	8.000	38.148	8.323	3
59	1		X	2.60	1.00	1.00	0.385	2.600	0.60						3
60	1	X		0.86	4.80	2.13	2.469	0.405	0.60	4.80	4.80	8.000	37.285	8.322	3
64	1	X		1.92	4.80	2.87	1.496	0.668	0.60	4.80	4.80	8.000	33.629	8.322	3
67	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
68	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
69	1	X		1.92	4.80	4.01	2.091	0.478	0.60	4.80	4.80	8.000	31.711	8.322	3
71	1	X		0.57	4.80	3.54	6.227	0.161	0.60	4.80	4.80	8.000	28.204	8.322	3
74	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
75	1	X		6.17	4.80	4.23	0.685	1.459	0.60	4.80	4.80	8.000	24.836	8.322	3
79	1	X		2.92	4.80	3.35	1.148	0.871	0.60	4.80	4.80	8.000	18.029	8.322	3
83	0		X	3.20	2.26	2.27	0.708	1.413	0.60						3
84	1		X	0.84	2.26	2.27	2.696	0.371	0.60						3
85	1	X		0.52	4.80	3.52	6.790	0.147	0.60	4.80	4.80	8.000	16.311	8.322	3
88	1	X		0.57	4.80	3.54	6.238	0.160	0.60	4.80	4.80	8.000	13.504	8.322	3
91	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
92	1	X		3.27	4.80	4.25	1.301	0.769	0.60	4.80	4.80	8.000	11.586	8.322	3
95	1	X		1.92	4.80	4.01	2.091	0.478	0.60	4.80	4.80	8.000	6.729	8.322	3
98	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
99	1	X		1.92	4.80	4.01	2.091	0.478	0.60	4.80	4.80	8.000	4.811	8.322	3
101	1	X		1.59	4.80	3.90	2.459	0.407	0.60	4.80	4.80	8.000	0.794	8.322	3
103	1		X	1.74	2.26	2.27	1.302	0.768	0.60						3
104	2	X		4.16	6.08	6.08	1.461	0.684	0.60	6.08	6.08	10.137	40.910	2.085	3
106	1	X		3.06	4.20	3.61	1.180	0.848	0.38	4.20	4.20	11.053	13.220	6.792	4
109	1	X		3.26	4.20	3.63	1.113	0.899	0.38	4.20	4.20	11.053	13.220	1.633	4
112	1		X	1.70	2.00	2.00	1.176	0.850	0.38						4
113	1	X		3.06	4.20	3.61	1.180	0.848	0.38	4.20	4.20	11.053	27.920	6.792	4
116	1	X		3.26	4.20	3.63	1.113	0.899	0.38	4.20	4.20	11.053	27.920	1.633	4
119	1		X	1.70	2.00	2.00	1.176	0.850	0.38						4
122	2	X		3.35	0.45	0.45	0.134	7.444	0.60	0.45	0.45	0.750	14.895	8.322	3
126	2	X		3.35	0.45	0.45	0.134	7.444	0.60	0.45	0.45	0.750	14.895	0.004	3
132	2	X		4.75	0.45	0.45	0.095	10.556	0.60	0.45	0.45	0.750	30.295	8.322	3
135	2	X		3.19	0.45	0.45	0.141	7.096	0.60	0.45	0.45	0.750	39.313	8.326	3
140	2	X		1.92	0.45	0.45	0.234	4.273	0.60	0.45	0.45	0.750	4.809	8.322	3
143	2	X		2.25	0.45	0.45	0.200	5.007	0.60	0.45	0.45	0.750	2.720	8.322	3
146	2	X		1.59	0.45	0.45	0.282	3.540	0.60	0.45	0.45	0.750	0.797	8.322	3
149	2	X		1.92	0.45	0.45	0.234	4.273	0.60	0.45	0.45	0.750	4.809	0.004	3
152	2	X		2.25	0.45	0.45	0.200	5.007	0.60	0.45	0.45	0.750	2.720	0.004	3
155	2	X		1.59	0.45	0.45	0.282	3.540	0.60	0.45	0.45	0.750	0.797	0.004	3
158	2	X		3.03	1.06	1.06	0.349	2.866	0.60	1.06	1.06	1.760	0.000	6.809	3
161	2		X	1.75	1.22	1.22	0.696	1.437	0.60						3
162	2		X	1.75	1.22	1.22	0.696	1.436	0.60						3
163	2	X		3.03	1.06	1.06	0.349	2.866	0.60	1.06	1.06	1.760	0.000	1.517	3
194	2	X		4.16	6.08	6.08	1.461	0.684	0.60	6.08	6.08	10.137	40.910	6.248	3

2. DATI GEOMETRICI ELEMENTI IN C.A.

N.	p.no	C/R	T/Z	lungh.	Piano Complanare (m)				Piano Ortogonale (m)				Xg (m)	Yg (m)	N° mat
					alt.	alt.	h/l	l/h	spess.	alt.	h/t				

				l(base)	H	def.h			t	def.h				
120	2	X		3.27	0.45	0.45	0.138	7.262	0.60	0.45	0.750	11.586	8.322	1
123	2	X		6.17	0.45	0.45	0.073	13.707	0.60	0.45	0.750	24.836	8.322	1
124	2	X		1.92	0.45	0.45	0.235	4.262	0.60	0.45	0.750	6.729	0.004	1
128	2	X		2.92	0.45	0.45	0.154	6.482	0.60	0.45	0.750	18.029	0.004	1
130	2	X		2.83	0.45	0.45	0.159	6.293	0.60	0.45	0.750	29.336	0.004	1
133	2	X		3.11	0.45	0.45	0.145	6.918	0.60	0.45	0.750	36.160	8.322	1
138	2	X		3.31	0.45	0.45	0.136	7.362	0.60	0.45	0.750	35.682	0.004	1
166	2	X		2.27	0.45	0.45	0.199	5.033	0.60	0.45	0.750	20.620	8.322	1
169	2	X		2.92	0.45	0.45	0.154	6.482	0.60	0.45	0.750	18.029	8.322	1
171	2	X		1.93	0.45	0.45	0.233	4.298	0.60	0.45	0.750	33.637	8.322	1
173	2	X		2.27	0.45	0.45	0.199	5.033	0.60	0.45	0.750	8.820	8.322	1
176	2	X		1.92	0.45	0.45	0.235	4.262	0.60	0.45	0.750	6.729	8.322	1
178	2	X		6.17	0.45	0.45	0.073	13.707	0.60	0.45	0.750	24.836	0.004	1
179	2	X		2.27	0.45	0.45	0.199	5.033	0.60	0.45	0.750	20.620	0.004	1
182	2	X		3.27	0.45	0.45	0.138	7.262	0.60	0.45	0.750	11.586	0.004	1
184	2	X		2.27	0.45	0.45	0.199	5.033	0.60	0.45	0.750	8.820	0.004	1
187	2	X		3.27	0.45	0.45	0.137	7.273	0.60	0.45	0.750	32.389	0.004	1
189	2	X		2.22	0.45	0.45	0.202	4.944	0.60	0.45	0.750	38.451	0.004	1
191	2	X		1.35	0.45	0.45	0.334	2.991	0.60	0.45	0.750	40.236	0.004	1
241	2		X	0.35	4.48	4.48	12.809	0.078	0.60					1
395	0		X	0.80	2.00	2.00	2.500	0.400	0.60					1
399	0		X	0.80	2.00	2.00	2.500	0.400	0.60					1
404	0		X	0.80	1.65	1.65	2.062	0.485	0.60					1
405	0		X	0.80	1.32	1.32	1.650	0.606	0.60					1
406	0		X	0.80	2.18	2.18	2.722	0.367	0.60					1
407	0		X	0.80	1.85	1.85	2.312	0.432	0.60					1
408	0		X	0.80	1.32	1.32	1.650	0.606	0.60					1
409	0		X	0.80	1.85	1.85	2.312	0.432	0.60					1
410	0		X	0.80	1.32	1.32	1.650	0.606	0.60					1
411	0		X	0.80	2.18	2.18	2.722	0.367	0.60					1
412	0		X	0.80	1.65	1.65	2.062	0.485	0.60					1
413	0		X	0.80	1.32	1.32	1.650	0.606	0.60					1
429	2		X	0.35	0.00	0.00	0.011	87.500	0.60					1
430	2		X	0.35	4.48	4.48	12.797	0.078	0.60					1
432	2		X	0.35	0.00	0.00	0.011	87.500	0.60					1
433	2		X	0.35	4.48	4.48	12.797	0.078	0.60					1
492	2		X	0.35	4.48	4.48	12.797	0.078	0.60					1
493	2		X	0.35	0.00	0.00	0.011	87.500	0.60					1

3. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm^2)	fk / fm (N/mm^2)	γ, m * FC	fd (N/mm^2)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	M	e	B	311.35	0.170	2.500	3.60	0.694	1071.71	334.22	114.98	2.907
4	M	e	B	296.87	0.160	2.500	3.60	0.694	1071.71	324.74	-126.49	2.567
8	M	e	B	82.51	0.090	2.500	3.60	0.694	562.42	55.90	-19.19	2.913
11	M	e	B	142.44	0.120	2.500	3.60	0.694	679.29	107.96	-34.08	3.168
16	M	e	B	189.01	0.160	2.500	3.60	0.694	679.29	130.83	-20.22	6.470
19	M	e	B	380.25	0.190	2.500	3.60	0.694	1157.42	417.20	-50.99	8.182
23	M	e	B	72.93	0.210	2.500	3.60	0.694	200.81	13.17	-0.78	>> 1
26	M	e	B	94.64	0.300	2.500	3.60	0.694	183.46	11.87	0.76	>> 1
30	M	e	B	396.96	0.230	2.500	3.60	0.694	1033.10	356.50	121.74	2.928
34	M	e	B	542.05	0.150	2.500	3.60	0.694	2184.50	1256.88	0.00	4.030
40	M	e	B	58.36	0.170	2.500	3.60	0.694	201.17	11.77	-0.66	>> 1
43	M	e	B	494.61	0.250	2.500	3.60	0.694	1159.19	464.06	78.31	5.926
46	M	e	B	300.99	0.150	2.500	3.60	0.694	1159.19	364.67	113.51	3.213
49	M	e	B	54.03	0.070	2.500	3.60	0.694	476.71	32.24	7.36	4.381
54	M	e	B	110.95	0.140	2.500	3.60	0.694	470.69	56.35	-0.19	>> 1
56	M	e	B	82.55	0.160	2.500	3.60	0.694	306.00	26.04	-1.85	>> 1
60	M	e	B	69.27	0.130	2.500	3.60	0.694	306.00	23.15	-0.44	>> 1
64	M	e	B	229.19	0.200	2.500	3.60	0.694	679.29	145.64	47.21	3.085
69	M	e	B	306.46	0.270	2.500	3.60	0.694	679.29	161.31	22.04	7.319
71	M	e	B	56.82	0.170	2.500	3.60	0.694	201.17	11.58	-0.71	>> 1
75	M	e	B	521.33	0.140	2.500	3.60	0.694	2184.50	1224.09	0.00	4.190
79	M	e	B	381.42	0.220	2.500	3.60	0.694	1033.10	350.92	120.18	2.920
85	M	e	B	91.91	0.300	2.500	3.60	0.694	183.46	11.88	0.74	>> 1
88	M	e	B	71.08	0.210	2.500	3.60	0.694	200.81	13.02	-0.89	>> 1
92	M	e	B	363.56	0.190	2.500	3.60	0.694	1157.42	407.46	-59.34	6.866
95	M	e	B	210.59	0.180	2.500	3.60	0.694	679.29	139.35	2.36	>> 1
99	M	e	B	235.20	0.200	2.500	3.60	0.694	679.29	147.46	2.43	>> 1
101	M	e	B	158.54	0.170	2.500	3.60	0.694	562.42	90.40	-42.74	2.115
104	M	e	B	285.46	0.110	2.500	3.60	0.694	1474.40	479.14	-13.91	>> 1
106	M	n	B	349.64	0.300	5.300	3.00	1.767	1745.57	427.66	73.95	5.783
109	M	n	B	377.16	0.300	5.300	3.00	1.767	1859.69	489.94	-68.82	7.119
113	M	n	B	346.34	0.300	5.300	3.00	1.767	1745.57	424.62	144.86	2.931
116	M	n	B	372.76	0.300	5.300	3.00	1.767	1859.69	485.66	-142.77	3.402
122	M	e	B	24.48	0.010	2.500	3.60	0.694	1186.46	40.16	0.00	>> 1
126	M	e	B	24.06	0.010	2.500	3.60	0.694	1186.46	39.48	0.00	>> 1
132	M	e	B	39.36	0.010	2.500	3.60	0.694	1682.29	91.29	0.00	>> 1
135	M	e	B	29.90	0.020	2.500	3.60	0.694	1130.85	46.47	0.00	>> 1

140	M	e	B	14.19	0.010	2.500	3.60	0.694	681.06	13.36	0.00	>> 1
143	M	e	B	16.80	0.010	2.500	3.60	0.694	797.94	18.53	0.00	>> 1
146	M	e	B	12.01	0.010	2.500	3.60	0.694	564.19	9.36	0.00	>> 1
149	M	e	B	13.24	0.010	2.500	3.60	0.694	681.06	12.48	0.00	>> 1
152	M	e	B	15.37	0.010	2.500	3.60	0.694	797.94	16.98	0.00	>> 1
155	M	e	B	10.78	0.010	2.500	3.60	0.694	564.19	8.42	0.00	>> 1
158	M	e	B	63.77	0.040	2.500	3.60	0.694	1071.71	90.74	0.00	>> 1
163	M	e	B	71.24	0.040	2.500	3.60	0.694	1071.71	100.62	0.00	>> 1
194	M	e	B	318.21	0.130	2.500	3.60	0.694	1474.40	519.40	-13.74	>> 1
262	W		I	4.01	1.220	-	1.05	261.905	859.05	40.48	7.34	5.515
262	W		J	4.01	1.220	-	1.05	261.905	859.05	40.48	7.35	5.508
265	W		I	5.40	1.650	-	1.05	261.905	859.05	40.48	2.67	>> 1
265	W		J	5.40	1.650	-	1.05	261.905	859.05	40.48	2.70	>> 1

4. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159

(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

N.	Tip.	P (kN)	Nu	My	Mz (kN m)	Mu,y	Mu,z	C.Sic.
120	C	100.92	30763.71	-0.92	19.02	-5.77	119.30	6.272
120	C	72.25	30763.71	0.73	5.59	14.41	110.35	>> 1
123	C	208.60	57830.37	-14.65	37.75	-58.12	149.76	3.967
123	C	154.48	57830.37	-12.48	8.47	-188.26	127.77	>> 1
124	C	54.23	18163.71	-0.35	-13.29	-2.76	-104.76	7.882
124	C	37.41	18163.71	0.06	-5.07	1.18	-99.91	>> 1
128	C	86.94	27487.71	0.19	-19.51	1.12	-115.24	5.907
128	C	61.34	27487.71	0.44	-8.41	5.62	-107.43	>> 1
130	C	82.26	26694.37	-0.20	-18.20	-1.25	-113.80	6.253
130	C	57.41	26694.37	-0.44	-8.82	-5.30	-106.23	>> 1
133	C	137.24	29317.04	-2.93	19.80	-19.13	129.29	6.530
133	C	109.93	29317.04	-2.14	3.35	-75.54	118.26	>> 1
138	C	103.04	31183.71	-1.32	-20.76	-7.62	-119.85	5.773
138	C	73.97	31183.71	-1.83	-10.74	-18.85	-110.65	>> 1
166	C	71.95	21402.37	-0.74	13.64	-5.97	110.11	8.072
166	C	52.08	21402.37	0.15	3.35	4.67	104.33	>> 1
169	C	91.38	27487.71	-0.92	17.40	-6.15	116.28	6.683
169	C	65.78	27487.71	0.33	4.51	7.95	108.61	>> 1
171	C	80.70	18313.04	-0.81	12.20	-7.45	112.27	9.202
171	C	63.73	18313.04	-0.31	2.21	-14.98	106.83	>> 1
173	C	69.88	21402.37	-0.51	13.02	-4.29	109.59	8.417
173	C	50.01	21402.37	0.67	4.03	17.12	102.99	>> 1
176	C	59.79	18163.71	-0.40	10.93	-3.89	106.32	9.727
176	C	42.96	18163.71	0.62	3.51	17.76	100.54	>> 1
178	C	176.59	57830.37	0.40	-40.30	1.42	-142.78	3.543
178	C	122.47	57830.37	0.30	-18.65	2.04	-126.62	6.790
179	C	66.15	21402.37	0.12	-15.01	0.87	-108.69	7.241
179	C	46.27	21402.37	0.23	-6.65	3.55	-102.68	>> 1
182	C	96.93	30763.71	-0.93	-22.34	-4.92	-118.17	5.289
182	C	68.26	30763.71	-0.35	-8.98	-4.28	-109.71	>> 1
184	C	65.30	21402.37	-0.49	-15.60	-3.40	-108.30	6.942
184	C	45.42	21402.37	-0.03	-6.09	-0.51	-102.61	>> 1
187	C	97.57	30810.37	-0.74	-20.78	-4.22	-118.39	5.697
187	C	68.85	30810.37	-1.14	-10.39	-12.01	-109.48	>> 1
189	C	73.04	21029.04	-0.49	-13.80	-3.92	-110.51	8.008
189	C	53.52	21029.04	-0.86	-7.34	-12.22	-104.28	>> 1
191	C	46.19	12825.04	-0.06	-8.29	-0.74	-101.72	>> 1
191	C	34.38	12825.04	-0.29	-4.49	-6.33	-97.93	>> 1
241	T	7.95	3529.04	-14.84		-49.25		3.319
241	T	-7.94	3529.04	-14.84		-46.72		3.148
395	Z	0.00	8253.79	5.85		338.83		>> 1
395	Z	0.00	8253.79	5.70		338.83		>> 1
399	Z	0.00	8253.79	-14.99		-338.83		>> 1
399	Z	0.00	8253.79	-14.23		-338.83		>> 1
404	Z	0.00	8253.79	-96.14		-338.83		3.524
404	Z	0.00	8253.79	231.62		338.83		1.463
405	Z	0.00	8253.79	-229.66		-338.83		1.475
405	Z	0.00	8253.79	-95.30		-338.83		3.555
406	Z	0.00	8253.79	-243.27		-338.83		1.393
406	Z	0.00	8253.79	-229.18		-338.83		1.478
407	Z	0.00	8253.79	232.94		338.83		1.455
407	Z	0.00	8253.79	-126.76		-338.83		2.673
408	Z	0.00	8253.79	-125.96		-338.83		2.690
408	Z	0.00	8253.79	-243.66		-338.83		1.391
409	Z	0.00	8253.79	-101.56		-338.83		3.336
409	Z	0.00	8253.79	283.84		338.83		1.194
410	Z	0.00	8253.79	-232.72		-338.83		1.456
410	Z	0.00	8253.79	-100.78		-338.83		3.362
411	Z	0.00	8253.79	-235.26		-338.83		1.440
411	Z	0.00	8253.79	-232.30		-338.83		1.459
412	Z	0.00	8253.79	211.21		338.83		1.604
412	Z	0.00	8253.79	-109.46		-338.83		3.095
413	Z	0.00	8253.79	-108.62		-338.83		3.119
413	Z	0.00	8253.79	-235.71		-338.83		1.437

429	T	-0.01	3529.04	0.00	0.00	>> 1
429	T	-0.02	3529.04	0.00	0.00	>> 1
430	T	23.06	3529.04	-15.61	-51.65	3.309
430	T	6.88	3529.04	-14.60	-49.08	3.362
432	T	-0.01	3529.04	0.00	0.00	>> 1
432	T	-0.02	3529.04	0.00	0.00	>> 1
433	T	23.02	3529.04	-15.59	-51.65	3.313
433	T	6.84	3529.04	-14.61	-49.07	3.359
492	T	7.94	3529.04	-14.82	-49.25	3.323
492	T	-7.93	3529.04	-14.82	-46.72	3.153
493	T	0.02	3529.04	0.00	0.00	>> 1
493	T	0.00	3529.04	0.00	0.00	>> 1

5. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm ²)	f _k / f _m (N/mm ²)	γ _m * FC	f _d (N/mm ²)	N _u (kN)	M _u (kN m)	M (kN m)	C.Sic.
1	M	e	B	309.47	0.170	2.500	3.60	0.694	1071.71	333.02	84.62	3.935
4	M	e	B	294.97	0.160	2.500	3.60	0.694	1071.71	323.46	-162.36	1.992
8	M	e	B	84.34	0.090	2.500	3.60	0.694	562.42	56.92	-15.65	3.637
11	M	e	B	138.22	0.120	2.500	3.60	0.694	679.29	105.58	-30.02	3.517
16	M	e	B	184.22	0.160	2.500	3.60	0.694	679.29	128.76	-17.54	7.341
19	M	e	B	375.80	0.190	2.500	3.60	0.694	1157.42	414.68	-51.03	8.126
23	M	e	B	73.15	0.220	2.500	3.60	0.694	200.81	13.18	-0.74	>> 1
26	M	e	B	92.98	0.300	2.500	3.60	0.694	183.46	11.88	0.85	>> 1
30	M	e	B	387.33	0.220	2.500	3.60	0.694	1033.10	353.12	127.31	2.774
34	M	e	B	533.04	0.140	2.500	3.60	0.694	2184.50	1242.77	0.00	4.098
40	M	e	B	58.61	0.170	2.500	3.60	0.694	201.17	11.80	-0.59	>> 1
43	M	e	B	484.95	0.250	2.500	3.60	0.694	1159.19	461.61	82.20	5.616
46	M	e	B	293.72	0.150	2.500	3.60	0.694	1159.19	358.88	117.43	3.056
49	M	e	B	55.91	0.070	2.500	3.60	0.694	476.71	33.21	6.52	5.094
54	M	e	B	108.65	0.140	2.500	3.60	0.694	470.69	55.53	0.05	>> 1
56	M	e	B	81.69	0.160	2.500	3.60	0.694	306.00	25.87	-0.84	>> 1
60	M	e	B	69.50	0.130	2.500	3.60	0.694	306.00	23.20	1.23	>> 1
64	M	e	B	234.25	0.200	2.500	3.60	0.694	679.29	147.18	49.62	2.966
69	M	e	B	310.52	0.270	2.500	3.60	0.694	679.29	161.66	23.81	6.790
71	M	e	B	56.92	0.170	2.500	3.60	0.694	201.17	11.59	-0.58	>> 1
75	M	e	B	529.89	0.140	2.500	3.60	0.694	2184.50	1237.78	0.00	4.123
79	M	e	B	390.34	0.220	2.500	3.60	0.694	1033.10	354.21	123.12	2.877
85	M	e	B	93.18	0.300	2.500	3.60	0.694	183.46	11.88	0.80	>> 1
88	M	e	B	71.26	0.210	2.500	3.60	0.694	200.81	13.03	-0.75	>> 1
92	M	e	B	367.60	0.190	2.500	3.60	0.694	1157.42	409.89	-50.97	8.042
95	M	e	B	217.75	0.190	2.500	3.60	0.694	679.29	141.88	5.00	>> 1
99	M	e	B	243.83	0.210	2.500	3.60	0.694	679.29	149.90	5.07	>> 1
101	M	e	B	158.02	0.170	2.500	3.60	0.694	562.42	90.22	-47.01	1.919
104	M	e	B	289.69	0.120	2.500	3.60	0.694	1474.40	484.51	-68.39	7.085
106	M	n	B	350.28	0.300	5.300	3.00	1.767	1745.57	428.24	34.58	>> 1
109	M	n	B	377.63	0.300	5.300	3.00	1.767	1859.69	490.40	-111.65	4.392
113	M	n	B	346.82	0.300	5.300	3.00	1.767	1745.57	425.07	106.87	3.977
116	M	n	B	372.53	0.300	5.300	3.00	1.767	1859.69	485.44	-183.18	2.650
122	M	e	B	24.72	0.010	2.500	3.60	0.694	1186.46	40.54	0.00	>> 1
126	M	e	B	23.90	0.010	2.500	3.60	0.694	1186.46	39.23	0.00	>> 1
132	M	e	B	40.55	0.010	2.500	3.60	0.694	1682.29	93.98	0.00	>> 1
135	M	e	B	29.54	0.020	2.500	3.60	0.694	1130.85	45.93	0.00	>> 1
140	M	e	B	13.39	0.010	2.500	3.60	0.694	681.06	12.62	0.00	>> 1
143	M	e	B	15.54	0.010	2.500	3.60	0.694	797.94	17.16	0.00	>> 1
146	M	e	B	10.91	0.010	2.500	3.60	0.694	564.19	8.52	0.00	>> 1
149	M	e	B	14.09	0.010	2.500	3.60	0.694	681.06	13.27	0.00	>> 1
152	M	e	B	16.68	0.010	2.500	3.60	0.694	797.94	18.40	0.00	>> 1
155	M	e	B	11.92	0.010	2.500	3.60	0.694	564.19	9.29	0.00	>> 1
158	M	e	B	77.28	0.040	2.500	3.60	0.694	1071.71	108.49	0.00	>> 1
163	M	e	B	57.51	0.030	2.500	3.60	0.694	1071.71	82.34	0.00	>> 1
194	M	e	B	318.40	0.130	2.500	3.60	0.694	1474.40	519.63	-68.27	7.611
262	W		I	3.99	1.220	-	1.05	261.905	859.05	40.48	7.37	5.493
262	W		J	3.99	1.220	-	1.05	261.905	859.05	40.48	7.31	5.538
265	W		I	5.39	1.640	-	1.05	261.905	859.05	40.48	2.71	>> 1
265	W		J	5.39	1.640	-	1.05	261.905	859.05	40.48	2.66	>> 1

6. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159

(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

N.	Tip.	P (kN)	N _u	M _y	M _z (kN m)	M _{u,y}	M _{u,z}	C.Sic.
120	C	99.67	30763.71	-1.87	24.08	-9.22	118.75	4.931
120	C	71.00	30763.71	-0.24	11.75	-2.26	110.62	9.415
123	C	221.03	57830.37	-15.57	49.17	-48.73	153.89	3.130
123	C	166.91	57830.37	-13.43	18.29	-99.48	135.48	7.407
124	C	59.00	18163.71	0.21	-10.45	2.13	-106.20	>> 1

124	C	42.18	18163.71	0.04	-1.22	3.32	-101.18	>> 1
128	C	83.92	27487.71	1.01	-14.44	7.97	-113.98	7.893
128	C	58.32	27487.71	0.36	-3.29	11.62	-106.21	>> 1
130	C	76.93	26694.37	0.17	-12.55	1.52	-112.21	8.941
130	C	52.07	26694.37	-0.95	-4.55	-21.67	-103.77	>> 1
133	C	139.46	29317.04	-2.06	26.38	-10.18	130.41	4.944
133	C	112.14	29317.04	-1.25	7.53	-20.22	121.80	>> 1
138	C	99.45	31183.71	-1.58	-13.67	-13.69	-118.47	8.666
138	C	70.38	31183.71	-3.15	-6.20	-54.71	-107.69	>> 1
166	C	75.67	21402.37	-0.86	17.62	-5.43	111.23	6.313
166	C	55.79	21402.37	0.02	7.17	0.29	105.67	>> 1
169	C	95.01	27487.71	-1.29	22.35	-6.77	117.32	5.249
169	C	69.41	27487.71	-0.06	9.60	-0.69	110.08	>> 1
171	C	83.45	18313.04	-0.68	16.17	-4.76	113.24	7.003
171	C	66.48	18313.04	-0.17	4.92	-3.74	108.31	>> 1
173	C	66.72	21402.37	-0.90	16.38	-5.97	108.57	6.628
173	C	46.85	21402.37	0.28	8.44	3.41	102.86	>> 1
176	C	55.38	18163.71	-0.66	13.68	-5.06	104.95	7.672
176	C	38.56	18163.71	0.35	7.33	4.78	100.03	>> 1
178	C	165.43	57830.37	2.38	-28.61	11.56	-139.00	4.858
178	C	111.31	57830.37	0.35	-8.74	4.93	-123.17	>> 1
179	C	62.91	21402.37	0.60	-10.94	5.89	-107.45	9.822
179	C	43.04	21402.37	0.00	-2.80	0.00	-101.93	>> 1
182	C	98.84	30763.71	0.53	-17.13	3.68	-118.80	6.935
182	C	70.17	30763.71	0.10	-2.77	3.98	-110.29	>> 1
184	C	68.90	21402.37	0.24	-12.14	2.16	-109.43	9.014
184	C	49.03	21402.37	0.01	-1.65	0.63	-103.66	>> 1
187	C	92.08	30810.37	-0.58	-14.02	-4.83	-116.74	8.326
187	C	63.37	30810.37	-2.02	-5.68	-37.87	-106.49	>> 1
189	C	72.60	21029.04	-0.50	-8.89	-6.20	-110.25	>> 1
189	C	53.08	21029.04	-1.59	-4.42	-36.95	-102.72	>> 1
191	C	47.01	12825.04	0.05	-5.26	0.97	-101.95	>> 1
191	C	35.19	12825.04	-0.61	-2.78	-21.33	-97.23	>> 1
241	T	7.95	3529.04	-14.84		-49.25		3.319
241	T	-7.93	3529.04	-14.84		-46.72		3.148
395	Z	0.00	8253.79	20.65		338.83		>> 1
395	Z	0.00	8253.79	-8.84		-338.83		>> 1
399	Z	0.00	8253.79	-30.78		-338.83		>> 1
399	Z	0.00	8253.79	1.95		338.83		>> 1
404	Z	0.00	8253.79	-102.00		-338.83		3.322
404	Z	0.00	8253.79	225.39		338.83		1.503
405	Z	0.00	8253.79	-232.98		-338.83		1.454
405	Z	0.00	8253.79	-101.20		-338.83		3.348
406	Z	0.00	8253.79	-240.71		-338.83		1.408
406	Z	0.00	8253.79	-232.55		-338.83		1.457
407	Z	0.00	8253.79	239.56		338.83		1.414
407	Z	0.00	8253.79	-121.34		-338.83		2.792
408	Z	0.00	8253.79	-120.50		-338.83		2.812
408	Z	0.00	8253.79	-241.17		-338.83		1.405
409	Z	0.00	8253.79	-94.63		-338.83		3.581
409	Z	0.00	8253.79	292.40		338.83		1.159
410	Z	0.00	8253.79	-229.24		-338.83		1.478
410	Z	0.00	8253.79	-93.80		-338.83		3.612
411	Z	0.00	8253.79	-238.97		-338.83		1.418
411	Z	0.00	8253.79	-228.76		-338.83		1.481
412	Z	0.00	8253.79	201.59		338.83		1.681
412	Z	0.00	8253.79	-116.81		-338.83		2.901
413	Z	0.00	8253.79	-116.02		-338.83		2.920
413	Z	0.00	8253.79	-239.37		-338.83		1.416
429	T	-0.01	3529.04	0.00		0.00		>> 1
429	T	-0.02	3529.04	0.00		0.00		>> 1
430	T	23.10	3529.04	-15.63		-51.66		3.305
430	T	6.92	3529.04	-14.59		-49.09		3.364
432	T	-0.01	3529.04	0.00		0.00		>> 1
432	T	-0.02	3529.04	0.00		0.00		>> 1
433	T	22.97	3529.04	-15.58		-51.64		3.314
433	T	6.80	3529.04	-14.62		-49.07		3.356
492	T	7.94	3529.04	-14.82		-49.25		3.323
492	T	-7.93	3529.04	-14.82		-46.72		3.153
493	T	0.02	3529.04	0.00		0.00		>> 1
493	T	0.00	3529.04	0.00		0.00		>> 1

7. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm^2)	fk / fm (N/mm^2)	γ, m * FC	fd (N/mm^2)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	M	e	B	309.66	0.170	2.500	3.60	0.694	1071.71	333.14	120.50	2.765
4	M	e	B	296.25	0.160	2.500	3.60	0.694	1071.71	324.32	-130.64	2.483
8	M	e	B	81.74	0.090	2.500	3.60	0.694	562.42	55.47	-18.16	3.054
11	M	e	B	144.44	0.130	2.500	3.60	0.694	679.29	109.06	-29.32	3.720
16	M	e	B	191.88	0.170	2.500	3.60	0.694	679.29	132.03	-16.64	7.935
19	M	e	B	380.85	0.190	2.500	3.60	0.694	1157.42	417.54	-41.11	>> 1

23	M	e	B	73.26	0.220	2.500	3.60	0.694	200.81	13.19	-0.58	>> 1
26	M	e	B	94.19	0.300	2.500	3.60	0.694	183.46	11.87	0.91	>> 1
30	M	e	B	396.06	0.230	2.500	3.60	0.694	1033.10	356.20	130.23	2.735
34	M	e	B	541.57	0.150	2.500	3.60	0.694	2184.50	1256.13	0.00	4.034
40	M	e	B	58.71	0.170	2.500	3.60	0.694	201.17	11.81	-0.46	>> 1
43	M	e	B	489.70	0.250	2.500	3.60	0.694	1159.19	462.84	88.65	5.221
46	M	e	B	296.98	0.150	2.500	3.60	0.694	1159.19	361.49	125.03	2.891
49	M	e	B	54.28	0.070	2.500	3.60	0.694	476.71	32.37	6.42	5.042
54	M	e	B	110.12	0.140	2.500	3.60	0.694	470.69	56.06	0.89	>> 1
56	M	e	B	80.28	0.150	2.500	3.60	0.694	306.00	25.58	-0.35	>> 1
60	M	e	B	67.29	0.130	2.500	3.60	0.694	306.00	22.68	1.41	>> 1
64	M	e	B	227.85	0.200	2.500	3.60	0.694	679.29	145.22	52.43	2.770
69	M	e	B	304.55	0.260	2.500	3.60	0.694	679.29	161.12	25.88	6.226
71	M	e	B	57.20	0.170	2.500	3.60	0.694	201.17	11.63	-0.51	>> 1
75	M	e	B	520.92	0.140	2.500	3.60	0.694	2184.50	1223.42	0.00	4.194
79	M	e	B	380.61	0.220	2.500	3.60	0.694	1033.10	350.61	128.97	2.719
85	M	e	B	91.48	0.290	2.500	3.60	0.694	183.46	11.88	0.89	>> 1
88	M	e	B	71.46	0.210	2.500	3.60	0.694	200.81	13.05	-0.70	>> 1
92	M	e	B	363.11	0.190	2.500	3.60	0.694	1157.42	407.18	-50.59	8.049
95	M	e	B	212.10	0.180	2.500	3.60	0.694	679.29	139.89	7.34	>> 1
99	M	e	B	238.31	0.210	2.500	3.60	0.694	679.29	148.36	7.41	>> 1
101	M	e	B	159.83	0.170	2.500	3.60	0.694	562.42	90.84	-43.97	2.066
104	M	e	B	289.96	0.120	2.500	3.60	0.694	1474.40	484.86	-13.72	>> 1
106	M	n	B	350.83	0.300	5.300	3.00	1.767	1745.57	428.75	73.65	5.821
109	M	n	B	378.37	0.310	5.300	3.00	1.767	1859.69	491.11	-68.47	7.173
113	M	n	B	346.86	0.300	5.300	3.00	1.767	1745.57	425.10	143.35	2.965
116	M	n	B	373.12	0.300	5.300	3.00	1.767	1859.69	486.01	-141.68	3.430
122	M	e	B	24.52	0.010	2.500	3.60	0.694	1186.46	40.22	0.00	>> 1
126	M	e	B	24.06	0.010	2.500	3.60	0.694	1186.46	39.48	0.00	>> 1
132	M	e	B	39.10	0.010	2.500	3.60	0.694	1682.29	90.70	0.00	>> 1
135	M	e	B	29.45	0.020	2.500	3.60	0.694	1130.85	45.79	0.00	>> 1
140	M	e	B	14.27	0.010	2.500	3.60	0.694	681.06	13.43	0.00	>> 1
143	M	e	B	16.91	0.010	2.500	3.60	0.694	797.94	18.65	0.00	>> 1
146	M	e	B	12.10	0.010	2.500	3.60	0.694	564.19	9.43	0.00	>> 1
149	M	e	B	13.28	0.010	2.500	3.60	0.694	681.06	12.52	0.00	>> 1
152	M	e	B	15.42	0.010	2.500	3.60	0.694	797.94	17.03	0.00	>> 1
155	M	e	B	10.82	0.010	2.500	3.60	0.694	564.19	8.45	0.00	>> 1
158	M	e	B	63.73	0.040	2.500	3.60	0.694	1071.71	90.69	0.00	>> 1
163	M	e	B	71.37	0.040	2.500	3.60	0.694	1071.71	100.79	0.00	>> 1
194	M	e	B	321.69	0.130	2.500	3.60	0.694	1474.40	523.50	-13.63	>> 1
262	W		I	4.01	1.220	-	1.05	261.905	859.05	40.48	7.34	5.515
262	W		J	4.01	1.220	-	1.05	261.905	859.05	40.48	7.35	5.508
265	W		I	5.40	1.650	-	1.05	261.905	859.05	40.48	2.67	>> 1
265	W		J	5.40	1.650	-	1.05	261.905	859.05	40.48	2.70	>> 1

8. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159

(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))

N.	Tip.	P (kN)	Nu	My	Mz	Mu,y	Mu,z	C.Sic.
120	C	101.47	30763.71	-0.26	18.99	-1.64	119.68	6.302
120	C	72.79	30763.71	0.20	5.53	4.02	111.06	>> 1
123	C	207.54	57830.37	-12.91	37.66	-51.34	149.75	3.976
123	C	153.42	57830.37	-12.98	8.40	-196.38	127.09	>> 1
124	C	54.47	18163.71	-0.02	-13.30	-0.16	-104.98	7.894
124	C	37.65	18163.71	-0.26	-5.11	-5.08	-99.74	>> 1
128	C	86.81	27487.71	0.73	-19.54	4.30	-115.03	5.887
128	C	61.21	27487.71	-0.03	-8.45	-0.38	-107.67	>> 1
130	C	81.59	26694.37	0.31	-18.25	1.93	-113.57	6.223
130	C	56.74	26694.37	-0.89	-8.85	-10.63	-105.75	>> 1
133	C	134.66	29317.04	-2.17	19.74	-14.16	128.79	6.524
133	C	107.35	29317.04	-2.50	3.33	-87.73	116.86	>> 1
138	C	101.99	31183.71	-0.74	-20.83	-4.25	-119.72	5.747
138	C	72.92	31183.71	-2.39	-10.76	-24.44	-110.04	>> 1
166	C	71.85	21402.37	-0.31	13.62	-2.51	110.28	8.097
166	C	51.97	21402.37	-0.23	3.32	-7.21	104.15	>> 1
169	C	91.43	27487.71	-0.35	17.37	-2.35	116.50	6.707
169	C	65.83	27487.71	-0.15	4.47	-3.65	108.86	>> 1
171	C	79.46	18313.04	-0.43	12.16	-3.96	112.12	9.220
171	C	62.50	18313.04	-0.61	2.20	-29.28	105.60	>> 1
173	C	70.40	21402.37	-0.08	13.01	-0.68	109.96	8.452
173	C	50.53	21402.37	0.29	3.98	7.56	103.70	>> 1
176	C	60.33	18163.71	-0.04	10.92	-0.39	106.69	9.770
176	C	43.50	18163.71	0.29	3.47	8.46	101.26	>> 1
178	C	175.60	57830.37	1.71	-40.38	6.03	-142.28	3.523
178	C	121.48	57830.37	-0.53	-18.72	-3.57	-126.26	6.745
179	C	65.94	21402.37	0.53	-15.04	3.82	-108.46	7.211
179	C	46.06	21402.37	-0.14	-6.68	-2.15	-102.70	>> 1
182	C	97.14	30763.71	-0.33	-22.35	-1.75	-118.39	5.297
182	C	68.47	30763.71	-0.87	-9.04	-10.53	-109.44	>> 1
184	C	65.53	21402.37	-0.09	-15.61	-0.63	-108.52	6.952
184	C	45.65	21402.37	-0.41	-6.13	-6.84	-102.31	>> 1
187	C	96.63	30810.37	-0.14	-20.84	-0.79	-118.30	5.676

187	C	67.91	30810.37	-1.67	-10.42	-17.45	-108.91	>> 1
189	C	72.31	21029.04	-0.11	-13.84	-0.88	-110.48	7.982
189	C	52.79	21029.04	-1.24	-7.34	-17.53	-103.76	>> 1
191	C	45.76	12825.04	0.16	-8.32	1.95	-101.52	>> 1
191	C	33.94	12825.04	-0.51	-4.49	-11.08	-97.51	>> 1
241	T	7.95	3529.04	-14.84		-49.25		3.319
241	T	-7.94	3529.04	-14.84		-46.72		3.148
395	Z	0.00	8253.79	5.99		338.83		>> 1
395	Z	0.00	8253.79	5.85		338.83		>> 1
399	Z	0.00	8253.79	-14.72		-338.83		>> 1
399	Z	0.00	8253.79	-13.86		-338.83		>> 1
404	Z	0.00	8253.79	-96.25		-338.83		3.520
404	Z	0.00	8253.79	232.00		338.83		1.460
405	Z	0.00	8253.79	-229.98		-338.83		1.473
405	Z	0.00	8253.79	-95.41		-338.83		3.551
406	Z	0.00	8253.79	-243.59		-338.83		1.391
406	Z	0.00	8253.79	-229.49		-338.83		1.476
407	Z	0.00	8253.79	233.33		338.83		1.452
407	Z	0.00	8253.79	-126.91		-338.83		2.670
408	Z	0.00	8253.79	-126.11		-338.83		2.687
408	Z	0.00	8253.79	-243.99		-338.83		1.389
409	Z	0.00	8253.79	-101.25		-338.83		3.346
409	Z	0.00	8253.79	283.15		338.83		1.197
410	Z	0.00	8253.79	-232.06		-338.83		1.460
410	Z	0.00	8253.79	-100.47		-338.83		3.372
411	Z	0.00	8253.79	-234.61		-338.83		1.444
411	Z	0.00	8253.79	-231.64		-338.83		1.463
412	Z	0.00	8253.79	210.57		338.83		1.609
412	Z	0.00	8253.79	-109.18		-338.83		3.103
413	Z	0.00	8253.79	-108.35		-338.83		3.127
413	Z	0.00	8253.79	-235.07		-338.83		1.441
429	T	-0.01	3529.04	0.00		0.00		>> 1
429	T	-0.02	3529.04	0.00		0.00		>> 1
430	T	23.06	3529.04	-15.62		-51.65		3.307
430	T	6.88	3529.04	-14.60		-49.08		3.362
432	T	-0.01	3529.04	0.00		0.00		>> 1
432	T	-0.02	3529.04	0.00		0.00		>> 1
433	T	23.01	3529.04	-15.59		-51.65		3.313
433	T	6.84	3529.04	-14.61		-49.07		3.359
492	T	7.94	3529.04	-14.82		-49.25		3.323
492	T	-7.93	3529.04	-14.82		-46.72		3.153
493	T	0.02	3529.04	0.00		0.00		>> 1
493	T	0.00	3529.04	0.00		0.00		>> 1

9. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm^2)	fk / fm (N/mm^2)	γ, m * FC	fd (N/mm^2)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	M	e	B	311.54	0.170	2.500	3.60	0.694	1071.71	334.34	150.86	2.216
4	M	e	B	298.15	0.160	2.500	3.60	0.694	1071.71	325.60	-94.76	3.436
8	M	e	B	79.91	0.080	2.500	3.60	0.694	562.42	54.43	-21.70	2.508
11	M	e	B	148.66	0.130	2.500	3.60	0.694	679.29	111.37	-33.37	3.337
16	M	e	B	196.67	0.170	2.500	3.60	0.694	679.29	134.00	-19.31	6.939
19	M	e	B	385.29	0.200	2.500	3.60	0.694	1157.42	419.99	-41.07	>> 1
23	M	e	B	73.05	0.210	2.500	3.60	0.694	200.81	13.18	-0.63	>> 1
26	M	e	B	95.86	0.310	2.500	3.60	0.694	183.46	11.85	0.83	>> 1
30	M	e	B	405.69	0.230	2.500	3.60	0.694	1033.10	359.34	124.66	2.883
34	M	e	B	550.58	0.150	2.500	3.60	0.694	2184.50	1270.03	0.00	3.968
40	M	e	B	58.46	0.170	2.500	3.60	0.694	201.17	11.78	-0.53	>> 1
43	M	e	B	499.37	0.250	2.500	3.60	0.694	1159.19	465.17	84.77	5.487
46	M	e	B	304.25	0.150	2.500	3.60	0.694	1159.19	367.22	121.11	3.032
49	M	e	B	52.40	0.060	2.500	3.60	0.694	476.71	31.39	7.26	4.324
54	M	e	B	112.43	0.140	2.500	3.60	0.694	470.69	56.86	0.65	>> 1
56	M	e	B	81.14	0.160	2.500	3.60	0.694	306.00	25.76	-1.35	>> 1
60	M	e	B	67.06	0.130	2.500	3.60	0.694	306.00	22.62	-0.27	>> 1
64	M	e	B	222.79	0.190	2.500	3.60	0.694	679.29	143.58	50.03	2.870
69	M	e	B	300.49	0.260	2.500	3.60	0.694	679.29	160.70	24.11	6.665
71	M	e	B	57.11	0.170	2.500	3.60	0.694	201.17	11.61	-0.63	>> 1
75	M	e	B	512.36	0.140	2.500	3.60	0.694	2184.50	1209.51	0.00	4.264
79	M	e	B	371.69	0.210	2.500	3.60	0.694	1033.10	347.07	126.03	2.754
85	M	e	B	90.21	0.290	2.500	3.60	0.694	183.46	11.88	0.83	>> 1
88	M	e	B	71.28	0.210	2.500	3.60	0.694	200.81	13.03	-0.83	>> 1
92	M	e	B	359.07	0.180	2.500	3.60	0.694	1157.42	404.70	-58.96	6.864
95	M	e	B	204.94	0.180	2.500	3.60	0.694	679.29	137.24	4.70	>> 1
99	M	e	B	229.69	0.200	2.500	3.60	0.694	679.29	145.79	4.77	>> 1
101	M	e	B	160.35	0.170	2.500	3.60	0.694	562.42	91.02	-39.70	2.293
104	M	e	B	285.73	0.110	2.500	3.60	0.694	1474.40	479.49	40.77	>> 1
106	M	n	B	350.19	0.300	5.300	3.00	1.767	1745.57	428.16	113.02	3.788
109	M	n	B	377.90	0.310	5.300	3.00	1.767	1859.69	490.66	-25.63	>> 1
113	M	n	B	346.39	0.300	5.300	3.00	1.767	1745.57	424.67	181.34	2.342
116	M	n	B	373.34	0.300	5.300	3.00	1.767	1859.69	486.23	-101.28	4.801
122	M	e	B	24.27	0.010	2.500	3.60	0.694	1186.46	39.82	0.00	>> 1

126	M	e	B	24.22	0.010	2.500	3.60	0.694	1186.46	39.74	0.00	>> 1
132	M	e	B	37.91	0.010	2.500	3.60	0.694	1682.29	88.01	0.00	>> 1
135	M	e	B	29.81	0.020	2.500	3.60	0.694	1130.85	46.34	0.00	>> 1
140	M	e	B	15.08	0.010	2.500	3.60	0.694	681.06	14.18	0.00	>> 1
143	M	e	B	18.17	0.010	2.500	3.60	0.694	797.94	20.00	0.00	>> 1
146	M	e	B	13.21	0.010	2.500	3.60	0.694	564.19	10.28	0.00	>> 1
149	M	e	B	12.43	0.010	2.500	3.60	0.694	681.06	11.73	0.00	>> 1
152	M	e	B	14.11	0.010	2.500	3.60	0.694	797.94	15.61	0.00	>> 1
155	M	e	B	9.68	0.010	2.500	3.60	0.694	564.19	7.58	0.00	>> 1
158	M	e	B	50.22	0.030	2.500	3.60	0.694	1071.71	72.42	0.00	>> 1
163	M	e	B	85.10	0.050	2.500	3.60	0.694	1071.71	118.53	0.00	>> 1
194	M	e	B	321.50	0.130	2.500	3.60	0.694	1474.40	523.28	40.91	>> 1
262	W		I	4.02	1.230	-	1.05	261.905	859.05	40.48	7.30	5.546
262	W		J	4.02	1.230	-	1.05	261.905	859.05	40.48	7.38	5.486
265	W		I	5.42	1.650	-	1.05	261.905	859.05	40.48	2.63	>> 1
265	W		J	5.42	1.650	-	1.05	261.905	859.05	40.48	2.74	>> 1

10. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159

(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))

N.	Tip.	P (kN)	Nu	My	Mz (kN m)	Mu,y	Mu,z	C.Sic.
120	C	102.72	30763.71	0.69	13.93	5.94	119.83	8.602
120	C	74.04	30763.71	1.30	-0.71	187.62	-101.76	>> 1
123	C	195.12	57830.37	-11.98	26.24	-66.37	145.37	5.540
123	C	141.00	57830.37	-12.03	-1.43	-806.70	-95.89	>> 1
124	C	49.70	18163.71	-0.58	-16.14	-3.71	-103.37	6.404
124	C	32.88	18163.71	-0.23	-8.96	-2.53	-98.50	>> 1
128	C	89.83	27487.71	-0.10	-24.61	-0.47	-116.13	4.719
128	C	64.23	27487.71	0.05	-13.58	0.40	-108.56	7.994
130	C	86.92	26694.37	-0.06	-23.90	-0.29	-115.23	4.821
130	C	62.07	26694.37	-0.39	-13.12	-3.20	-107.73	8.211
133	C	132.44	29317.04	-3.03	13.17	-29.30	127.34	9.669
133	C	105.13	29317.04	-3.40	-0.86	-395.78	-100.11	>> 1
138	C	105.59	31183.71	-0.48	-27.92	-2.08	-120.90	4.330
138	C	76.51	31183.71	-1.07	-15.29	-7.84	-111.98	7.324
166	C	68.13	21402.37	-0.19	9.64	-2.15	109.20	>> 1
166	C	48.26	21402.37	-0.19	-0.95	-20.46	-102.29	>> 1
169	C	87.80	27487.71	0.02	12.42	0.19	115.54	9.303
169	C	62.20	27487.71	0.43	-1.17	39.28	-105.87	>> 1
171	C	76.71	18313.04	-0.56	8.19	-7.60	111.09	>> 1
171	C	59.74	18313.04	-0.99	-0.67	-143.93	-97.87	>> 1
173	C	73.56	21402.37	0.30	9.65	3.44	110.73	>> 1
173	C	53.69	21402.37	0.91	-0.57	152.21	-96.25	>> 1
176	C	64.73	18163.71	0.22	8.16	2.91	107.83	>> 1
176	C	47.90	18163.71	0.81	-0.51	148.91	-94.05	>> 1
178	C	186.76	57830.37	-0.26	-52.06	-0.73	-145.84	2.801
178	C	132.64	57830.37	-0.58	-28.63	-2.63	-129.63	4.528
179	C	69.17	21402.37	0.06	-19.11	0.34	-109.61	5.736
179	C	49.30	21402.37	0.08	-10.53	0.79	-103.73	9.851
182	C	95.23	30763.71	-1.79	-27.56	-7.63	-117.52	4.264
182	C	66.56	30763.71	-1.32	-15.25	-9.43	-108.93	7.143
184	C	61.92	21402.37	-0.83	-19.07	-4.67	-107.23	5.623
184	C	42.05	21402.37	-0.45	-10.58	-4.31	-101.39	9.583
187	C	102.12	30810.37	-0.30	-27.60	-1.30	-119.90	4.344
187	C	73.40	30810.37	-0.78	-15.13	-5.73	-111.15	7.347
189	C	72.75	21029.04	-0.10	-18.75	-0.59	-110.62	5.900
189	C	53.23	21029.04	-0.51	-10.25	-5.20	-104.60	>> 1
191	C	44.94	12825.04	0.05	-11.34	0.45	-101.38	8.940
191	C	33.13	12825.04	-0.19	-6.20	-3.00	-97.77	>> 1
241	T	7.95	3529.04	-14.84		-49.25		3.319
241	T	-7.94	3529.04	-14.84		-46.72		3.148
395	Z	0.00	8253.79	-8.82		-338.83		>> 1
395	Z	0.00	8253.79	20.39		338.83		>> 1
399	Z	0.00	8253.79	1.07		338.83		>> 1
399	Z	0.00	8253.79	-30.04		-338.83		>> 1
404	Z	0.00	8253.79	-90.39		-338.83		3.749
404	Z	0.00	8253.79	238.23		338.83		1.422
405	Z	0.00	8253.79	-226.66		-338.83		1.495
405	Z	0.00	8253.79	-89.50		-338.83		3.786
406	Z	0.00	8253.79	-246.15		-338.83		1.377
406	Z	0.00	8253.79	-226.12		-338.83		1.498
407	Z	0.00	8253.79	226.71		338.83		1.495
407	Z	0.00	8253.79	-132.33		-338.83		2.560
408	Z	0.00	8253.79	-131.58		-338.83		2.575
408	Z	0.00	8253.79	-246.49		-338.83		1.375
409	Z	0.00	8253.79	-108.18		-338.83		3.132
409	Z	0.00	8253.79	274.59		338.83		1.234
410	Z	0.00	8253.79	-235.54		-338.83		1.439
410	Z	0.00	8253.79	-107.45		-338.83		3.153
411	Z	0.00	8253.79	-230.90		-338.83		1.467
411	Z	0.00	8253.79	-235.18		-338.83		1.441
412	Z	0.00	8253.79	220.19		338.83		1.539

412	Z	0.00	8253.79	-101.83		-338.83	3.327
413	Z	0.00	8253.79	-100.95		-338.83	3.356
413	Z	0.00	8253.79	-231.41		-338.83	1.464
429	T	-0.01	3529.04	0.00		0.00	>> 1
429	T	-0.02	3529.04	0.00		0.00	>> 1
430	T	23.02	3529.04	-15.60		-51.65	3.311
430	T	6.84	3529.04	-14.61		-49.07	3.359
432	T	-0.01	3529.04	0.00		0.00	>> 1
432	T	-0.02	3529.04	0.00		0.00	>> 1
433	T	23.06	3529.04	-15.61		-51.65	3.309
433	T	6.88	3529.04	-14.60		-49.08	3.362
492	T	7.94	3529.04	-14.82		-49.25	3.323
492	T	-7.93	3529.04	-14.82		-46.72	3.153
493	T	0.02	3529.04	0.00		0.00	>> 1
493	T	0.00	3529.04	0.00		0.00	>> 1

11. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm^2)	fk / fm (N/mm^2)	γ, m * FC	fd (N/mm^2)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	M	e	B	239.98	0.130	2.500	3.60	0.694	1071.71	281.79	87.92	3.205
4	M	e	B	228.73	0.130	2.500	3.60	0.694	1071.71	272.21	-96.92	2.809
8	M	e	B	63.72	0.070	2.500	3.60	0.694	562.42	44.86	-14.90	3.011
11	M	e	B	109.57	0.100	2.500	3.60	0.694	679.29	88.13	-26.77	3.292
16	M	e	B	145.27	0.130	2.500	3.60	0.694	679.29	109.52	-15.98	6.854
19	M	e	B	292.79	0.150	2.500	3.60	0.694	1157.42	357.39	-40.41	8.844
23	M	e	B	56.14	0.170	2.500	3.60	0.694	200.81	11.47	-0.63	>> 1
26	M	e	B	72.96	0.230	2.500	3.60	0.694	183.46	11.38	0.57	>> 1
30	M	e	B	305.97	0.170	2.500	3.60	0.694	1033.10	314.09	92.75	3.386
34	M	e	B	417.69	0.110	2.500	3.60	0.694	2184.50	1041.85	0.00	5.230
40	M	e	B	44.92	0.130	2.500	3.60	0.694	201.17	9.91	-0.53	>> 1
43	M	e	B	381.58	0.190	2.500	3.60	0.694	1159.19	418.90	59.10	7.088
46	M	e	B	232.46	0.120	2.500	3.60	0.694	1159.19	304.13	86.06	3.534
49	M	e	B	41.71	0.050	2.500	3.60	0.694	476.71	25.61	5.77	4.439
54	M	e	B	85.62	0.110	2.500	3.60	0.694	470.69	46.55	-0.27	>> 1
56	M	e	B	63.90	0.120	2.500	3.60	0.694	306.00	21.84	-1.59	>> 1
60	M	e	B	53.66	0.100	2.500	3.60	0.694	306.00	19.12	-0.55	>> 1
64	M	e	B	176.82	0.150	2.500	3.60	0.694	679.29	125.43	35.75	3.509
69	M	e	B	236.32	0.210	2.500	3.60	0.694	679.29	147.79	16.53	8.941
71	M	e	B	43.73	0.130	2.500	3.60	0.694	201.17	9.72	-0.57	>> 1
75	M	e	B	401.74	0.110	2.500	3.60	0.694	2184.50	1011.11	0.00	5.438
79	M	e	B	294.01	0.170	2.500	3.60	0.694	1033.10	306.78	91.51	3.352
85	M	e	B	70.85	0.230	2.500	3.60	0.694	183.46	11.26	0.55	>> 1
88	M	e	B	54.71	0.160	2.500	3.60	0.694	200.81	11.28	-0.71	>> 1
92	M	e	B	280.08	0.140	2.500	3.60	0.694	1157.42	346.91	-46.71	7.427
95	M	e	B	162.03	0.140	2.500	3.60	0.694	679.29	118.32	1.24	>> 1
99	M	e	B	180.80	0.160	2.500	3.60	0.694	679.29	127.24	1.29	>> 1
101	M	e	B	121.96	0.130	2.500	3.60	0.694	562.42	75.84	-32.77	2.314
104	M	e	B	219.39	0.090	2.500	3.60	0.694	1474.40	388.71	-10.71	>> 1
106	M	n	B	269.17	0.230	5.300	3.00	1.767	1745.57	348.21	56.97	6.112
109	M	n	B	290.35	0.230	5.300	3.00	1.767	1859.69	399.26	-53.03	7.529
113	M	n	B	266.74	0.230	5.300	3.00	1.767	1745.57	345.64	111.72	3.094
116	M	n	B	287.10	0.230	5.300	3.00	1.767	1859.69	395.61	-110.08	3.594
122	M	e	B	18.90	0.010	2.500	3.60	0.694	1186.46	31.15	0.00	>> 1
126	M	e	B	18.58	0.010	2.500	3.60	0.694	1186.46	30.63	0.00	>> 1
132	M	e	B	30.42	0.010	2.500	3.60	0.694	1682.29	70.94	0.00	>> 1
135	M	e	B	23.11	0.010	2.500	3.60	0.694	1130.85	36.14	0.00	>> 1
140	M	e	B	10.94	0.010	2.500	3.60	0.694	681.06	10.35	0.00	>> 1
143	M	e	B	12.95	0.010	2.500	3.60	0.694	797.94	14.35	0.00	>> 1
146	M	e	B	9.26	0.010	2.500	3.60	0.694	564.19	7.25	0.00	>> 1
149	M	e	B	10.22	0.010	2.500	3.60	0.694	681.06	9.68	0.00	>> 1
152	M	e	B	11.87	0.010	2.500	3.60	0.694	797.94	13.17	0.00	>> 1
155	M	e	B	8.32	0.010	2.500	3.60	0.694	564.19	6.53	0.00	>> 1
158	M	e	B	49.22	0.030	2.500	3.60	0.694	1071.71	71.05	0.00	>> 1
163	M	e	B	54.95	0.030	2.500	3.60	0.694	1071.71	78.88	0.00	>> 1
194	M	e	B	244.71	0.100	2.500	3.60	0.694	1474.40	424.82	-10.57	>> 1
262	W		I	3.10	0.950	-	1.05	261.905	859.05	40.48	5.65	7.165
265	W		I	4.18	1.270	-	1.05	261.905	859.05	40.48	2.06	>> 1
265	W		J	4.18	1.270	-	1.05	261.905	859.05	40.48	2.07	>> 1

12. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

N.	Tip.	P (kN)	Nu	My	Mz (kN m)	Mu,y	Mu,z	C.Sic.
120	C	78.11	30763.71	-0.79	14.71	-6.04	112.53	7.650
120	C	56.05	30763.71	0.62	4.33	15.11	105.52	>> 1
123	C	161.70	57830.37	-11.49	29.20	-53.51	135.99	4.657

123	C	120.07	57830.37	-9.56	6.57	-172.06	118.25	>> 1
124	C	42.01	18163.71	-0.31	-10.27	-3.05	-101.15	9.849
124	C	29.06	18163.71	0.08	-3.91	1.99	-97.41	>> 1
128	C	67.38	27487.71	0.09	-15.07	0.65	-109.48	7.265
128	C	47.69	27487.71	0.39	-6.49	6.21	-103.36	>> 1
130	C	63.73	26694.37	-0.21	-14.06	-1.62	-108.30	7.703
130	C	44.61	26694.37	-0.28	-6.81	-4.21	-102.51	>> 1
133	C	106.38	29317.04	-2.33	15.32	-18.28	120.20	7.846
133	C	85.37	29317.04	-1.60	2.60	-68.52	111.35	>> 1
138	C	79.69	31183.71	-1.06	-16.04	-7.46	-112.94	7.041
138	C	57.32	31183.71	-1.32	-8.29	-16.85	-105.82	>> 1
166	C	55.76	21402.37	-0.62	10.56	-6.18	105.32	9.974
166	C	40.47	21402.37	0.16	2.60	6.20	100.82	>> 1
169	C	70.80	27487.71	-0.78	13.46	-6.39	110.18	8.186
169	C	51.11	27487.71	0.31	3.50	9.23	104.21	>> 1
171	C	62.56	18313.04	-0.67	9.44	-7.59	106.93	>> 1
171	C	49.50	18313.04	-0.20	1.71	-12.03	102.82	>> 1
173	C	54.05	21402.37	-0.45	10.07	-4.69	104.91	>> 1
173	C	38.76	21402.37	0.56	3.12	17.88	99.64	>> 1
176	C	46.22	18163.71	-0.35	8.45	-4.24	102.31	>> 1
176	C	33.28	18163.71	0.52	2.72	18.67	97.64	>> 1
178	C	136.87	57830.37	0.22	-31.13	0.93	-130.97	4.207
178	C	95.24	57830.37	0.38	-14.40	3.13	-118.46	8.227
179	C	51.27	21402.37	0.05	-11.60	0.45	-104.33	8.994
179	C	35.98	21402.37	0.22	-5.13	4.27	-99.60	>> 1
182	C	75.09	30763.71	-0.79	-17.26	-5.11	-111.69	6.471
182	C	53.04	30763.71	-0.21	-6.93	-3.19	-105.25	>> 1
184	C	50.58	21402.37	-0.42	-12.06	-3.62	-103.95	8.619
184	C	35.29	21402.37	0.02	-4.70	0.42	-99.62	>> 1
187	C	75.54	30810.37	-0.62	-16.05	-4.32	-111.86	6.970
187	C	53.45	30810.37	-0.80	-8.03	-10.46	-104.99	>> 1
189	C	56.42	21029.04	-0.41	-10.66	-4.06	-105.61	9.907
189	C	41.40	21029.04	-0.61	-5.67	-10.84	-100.79	>> 1
191	C	35.66	12825.04	-0.07	-6.40	-1.08	-98.63	>> 1
191	C	26.57	12825.04	-0.20	-3.46	-5.53	-95.70	>> 1
241	T	6.12	3529.04	-11.43		-48.96		4.283
241	T	-6.11	3529.04	-11.43		-47.01		4.113
395	Z	0.00	8253.79	4.49		338.83		>> 1
395	Z	0.00	8253.79	4.38		338.83		>> 1
399	Z	0.00	8253.79	-11.57		-338.83		>> 1
399	Z	0.00	8253.79	-10.99		-338.83		>> 1
404	Z	0.00	8253.79	-74.03		-338.83		4.577
404	Z	0.00	8253.79	178.36		338.83		1.900
405	Z	0.00	8253.79	-176.85		-338.83		1.916
405	Z	0.00	8253.79	-73.38		-338.83		4.617
406	Z	0.00	8253.79	-187.33		-338.83		1.809
406	Z	0.00	8253.79	-176.48		-338.83		1.920
407	Z	0.00	8253.79	179.37		338.83		1.889
407	Z	0.00	8253.79	-97.61		-338.83		3.471
408	Z	0.00	8253.79	-97.00		-338.83		3.493
408	Z	0.00	8253.79	-187.63		-338.83		1.806
409	Z	0.00	8253.79	-78.27		-338.83		4.329
409	Z	0.00	8253.79	218.72		338.83		1.549
410	Z	0.00	8253.79	-179.34		-338.83		1.889
410	Z	0.00	8253.79	-77.66		-338.83		4.363
411	Z	0.00	8253.79	-181.29		-338.83		1.869
411	Z	0.00	8253.79	-179.01		-338.83		1.893
412	Z	0.00	8253.79	162.77		338.83		2.082
412	Z	0.00	8253.79	-84.35		-338.83		4.017
413	Z	0.00	8253.79	-83.70		-338.83		4.048
413	Z	0.00	8253.79	-181.64		-338.83		1.865
429	T	-0.01	3529.04	0.00		0.00		>> 1
429	T	-0.02	3529.04	0.00		0.00		>> 1
430	T	17.75	3529.04	-12.02		-50.81		4.227
430	T	5.29	3529.04	-11.24		-48.83		4.344
432	T	-0.01	3529.04	0.00		0.00		>> 1
432	T	-0.02	3529.04	0.00		0.00		>> 1
433	T	17.72	3529.04	-12.01		-50.80		4.230
433	T	5.26	3529.04	-11.25		-48.82		4.340
492	T	6.11	3529.04	-11.41		-48.96		4.291
492	T	-6.10	3529.04	-11.41		-47.01		4.120
493	T	0.01	3529.04	0.00		0.00		>> 1
493	T	0.00	3529.04	0.00		0.00		>> 1

13. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm ²)	fk / fm (N/mm ²)	γ, m * FC	fd (N/mm ²)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	M	e	B	238.10	0.130	2.500	3.60	0.694	1071.71	280.21	57.56	4.868
4	M	e	B	226.83	0.120	2.500	3.60	0.694	1071.71	270.56	-132.80	2.037
8	M	e	B	65.55	0.070	2.500	3.60	0.694	562.42	45.98	-11.37	4.044
11	M	e	B	105.35	0.090	2.500	3.60	0.694	679.29	85.36	-22.72	3.757

16	M	e	B	140.47	0.120	2.500	3.60	0.694	679.29	106.85	-13.30	8.034
19	M	e	B	288.35	0.150	2.500	3.60	0.694	1157.42	353.78	-40.44	8.748
23	M	e	B	56.35	0.170	2.500	3.60	0.694	200.81	11.49	-0.58	>> 1
26	M	e	B	71.29	0.230	2.500	3.60	0.694	183.46	11.29	0.66	>> 1
30	M	e	B	296.34	0.170	2.500	3.60	0.694	1033.10	308.23	98.32	3.135
34	M	e	B	408.68	0.110	2.500	3.60	0.694	2184.50	1024.58	0.00	5.345
40	M	e	B	45.17	0.130	2.500	3.60	0.694	201.17	9.95	-0.46	>> 1
43	M	e	B	371.91	0.190	2.500	3.60	0.694	1159.19	413.36	62.98	6.563
46	M	e	B	225.19	0.110	2.500	3.60	0.694	1159.19	296.93	89.98	3.300
49	M	e	B	43.60	0.050	2.500	3.60	0.694	476.71	26.66	4.94	5.397
54	M	e	B	83.31	0.100	2.500	3.60	0.694	470.69	45.56	-0.03	>> 1
56	M	e	B	63.03	0.120	2.500	3.60	0.694	306.00	21.62	-0.59	>> 1
60	M	e	B	53.89	0.100	2.500	3.60	0.694	306.00	19.18	1.13	>> 1
64	M	e	B	181.88	0.160	2.500	3.60	0.694	679.29	127.72	38.15	3.348
69	M	e	B	240.38	0.210	2.500	3.60	0.694	679.29	148.95	18.29	8.144
71	M	e	B	43.82	0.130	2.500	3.60	0.694	201.17	9.73	-0.44	>> 1
75	M	e	B	410.30	0.110	2.500	3.60	0.694	2184.50	1027.70	0.00	5.324
79	M	e	B	302.92	0.170	2.500	3.60	0.694	1033.10	312.26	94.45	3.306
85	M	e	B	72.12	0.230	2.500	3.60	0.694	183.46	11.34	0.61	>> 1
88	M	e	B	54.89	0.160	2.500	3.60	0.694	200.81	11.31	-0.57	>> 1
92	M	e	B	284.11	0.140	2.500	3.60	0.694	1157.42	350.28	-38.33	9.139
95	M	e	B	169.19	0.150	2.500	3.60	0.694	679.29	121.84	3.88	>> 1
99	M	e	B	189.42	0.160	2.500	3.60	0.694	679.29	131.00	3.94	>> 1
101	M	e	B	121.45	0.130	2.500	3.60	0.694	562.42	75.61	-37.04	2.041
104	M	e	B	223.63	0.090	2.500	3.60	0.694	1474.40	394.88	-65.20	6.056
106	M	n	B	269.81	0.230	5.300	3.00	1.767	1745.57	348.89	17.60	>> 1
109	M	n	B	290.83	0.230	5.300	3.00	1.767	1859.69	399.80	-95.86	4.171
113	M	n	B	267.21	0.230	5.300	3.00	1.767	1745.57	346.13	73.74	4.694
116	M	n	B	286.87	0.230	5.300	3.00	1.767	1859.69	395.35	-150.48	2.627
122	M	e	B	19.15	0.010	2.500	3.60	0.694	1186.46	31.56	0.00	>> 1
126	M	e	B	18.42	0.010	2.500	3.60	0.694	1186.46	30.37	0.00	>> 1
132	M	e	B	31.61	0.010	2.500	3.60	0.694	1682.29	73.66	0.00	>> 1
135	M	e	B	22.75	0.010	2.500	3.60	0.694	1130.85	35.59	0.00	>> 1
140	M	e	B	10.14	0.010	2.500	3.60	0.694	681.06	9.60	0.00	>> 1
143	M	e	B	11.70	0.010	2.500	3.60	0.694	797.94	12.99	0.00	>> 1
146	M	e	B	8.15	0.010	2.500	3.60	0.694	564.19	6.40	0.00	>> 1
149	M	e	B	11.07	0.010	2.500	3.60	0.694	681.06	10.47	0.00	>> 1
152	M	e	B	13.17	0.010	2.500	3.60	0.694	797.94	14.59	0.00	>> 1
155	M	e	B	9.46	0.010	2.500	3.60	0.694	564.19	7.41	0.00	>> 1
158	M	e	B	62.73	0.030	2.500	3.60	0.694	1071.71	89.36	0.00	>> 1
163	M	e	B	41.22	0.020	2.500	3.60	0.694	1071.71	59.97	0.00	>> 1
194	M	e	B	244.90	0.100	2.500	3.60	0.694	1474.40	425.09	-65.11	6.529
262	W		I	3.08	0.940	-	1.05	261.905	859.05	40.48	5.68	7.127
262	W		J	3.08	0.940	-	1.05	261.905	859.05	40.48	5.62	7.203
265	W		I	4.16	1.270	-	1.05	261.905	859.05	40.48	2.10	>> 1
265	W		J	4.16	1.270	-	1.05	261.905	859.05	40.48	2.03	>> 1

14. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159

(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))

N.	Tip.	P	Nu	My	Mz	Mu,y	Mu,z	C.Sic.
		(kN)			(kN m)			
120	C	76.86	30763.71	-1.74	19.77	-9.85	111.96	5.663
120	C	54.80	30763.71	-0.36	10.50	-3.63	105.75	>> 1
123	C	174.12	57830.37	-12.41	40.63	-42.82	140.18	3.450
123	C	132.49	57830.37	-10.51	16.39	-80.84	126.06	7.691
124	C	46.77	18163.71	0.25	-7.43	3.45	-102.52	>> 1
124	C	33.83	18163.71	0.48	-0.48	93.28	-93.28	>> 1
128	C	64.36	27487.71	0.91	-10.00	9.84	-108.09	>> 1
128	C	44.67	27487.71	0.32	-1.37	23.71	-101.52	>> 1
130	C	58.40	26694.37	0.17	-8.41	2.16	-106.70	>> 1
130	C	39.28	26694.37	-0.78	-2.54	-30.56	-99.50	>> 1
133	C	108.60	29317.04	-1.47	21.90	-8.15	121.38	5.543
133	C	87.59	29317.04	-0.70	6.78	-11.87	114.97	>> 1
138	C	76.09	31183.71	-1.31	-8.95	-16.31	-111.41	>> 1
138	C	53.73	31183.71	-2.64	-3.76	-71.53	-101.87	>> 1
166	C	59.48	21402.37	-0.74	14.53	-5.42	106.46	7.327
166	C	44.19	21402.37	0.03	6.42	0.48	102.24	>> 1
169	C	74.43	27487.71	-1.15	18.41	-6.95	111.23	6.042
169	C	54.74	27487.71	-0.08	8.58	-0.99	105.72	>> 1
171	C	65.31	18313.04	-0.54	13.41	-4.35	107.93	8.049
171	C	52.26	18313.04	-0.06	4.42	-1.42	104.28	>> 1
173	C	50.89	21402.37	-0.83	13.44	-6.41	103.87	7.729
173	C	35.60	21402.37	0.16	7.53	2.12	99.62	>> 1
176	C	41.82	18163.71	-0.61	11.21	-5.49	100.94	9.005
176	C	28.87	18163.71	0.24	6.55	3.56	97.26	>> 1
178	C	125.71	57830.37	2.19	-19.45	14.30	-127.04	6.531
178	C	84.08	57830.37	0.43	-4.49	10.99	-114.78	>> 1
179	C	48.03	21402.37	0.52	-7.53	7.11	-102.99	>> 1
179	C	32.75	21402.37	0.00	-1.29	0.00	-98.90	>> 1
182	C	77.00	30763.71	0.67	-12.06	6.23	-112.19	9.303
182	C	54.94	30763.71	0.35	-1.04	34.72	-104.16	>> 1
184	C	54.18	21402.37	0.31	-8.60	3.78	-105.00	>> 1

184	C	38.89	21402.37	0.17	-0.76	22.93	-99.38	>> 1
187	C	70.05	30810.37	-0.46	-9.29	-5.46	-110.18	>> 1
187	C	47.96	30810.37	-1.68	-3.31	-51.37	-101.21	>> 1
189	C	55.98	21029.04	-0.42	-5.75	-7.69	-105.27	>> 1
189	C	40.96	21029.04	-1.34	-2.75	-48.00	-98.50	>> 1
191	C	36.47	12825.04	0.04	-3.38	1.17	-98.86	>> 1
191	C	27.38	12825.04	-0.51	-1.76	-27.41	-94.58	>> 1
241	T	6.12	3529.04	-11.43		-48.96		4.283
241	T	-6.11	3529.04	-11.43		-47.01		4.113
395	Z	0.00	8253.79	19.30		338.83		>> 1
395	Z	0.00	8253.79	-10.16		-338.83		>> 1
399	Z	0.00	8253.79	-27.36		-338.83		>> 1
399	Z	0.00	8253.79	5.19		338.83		>> 1
404	Z	0.00	8253.79	-79.90		-338.83		4.241
404	Z	0.00	8253.79	172.12		338.83		1.969
405	Z	0.00	8253.79	-180.17		-338.83		1.881
405	Z	0.00	8253.79	-79.29		-338.83		4.273
406	Z	0.00	8253.79	-184.77		-338.83		1.834
406	Z	0.00	8253.79	-179.85		-338.83		1.884
407	Z	0.00	8253.79	185.99		338.83		1.822
407	Z	0.00	8253.79	-92.20		-338.83		3.675
408	Z	0.00	8253.79	-91.53		-338.83		3.702
408	Z	0.00	8253.79	-185.14		-338.83		1.830
409	Z	0.00	8253.79	-71.33		-338.83		4.750
409	Z	0.00	8253.79	227.28		338.83		1.491
410	Z	0.00	8253.79	-175.85		-338.83		1.927
410	Z	0.00	8253.79	-70.68		-338.83		4.794
411	Z	0.00	8253.79	-185.00		-338.83		1.832
411	Z	0.00	8253.79	-175.47		-338.83		1.931
412	Z	0.00	8253.79	153.15		338.83		2.212
412	Z	0.00	8253.79	-91.70		-338.83		3.695
413	Z	0.00	8253.79	-91.10		-338.83		3.719
413	Z	0.00	8253.79	-185.30		-338.83		1.829
429	T	-0.01	3529.04	0.00		0.00		>> 1
429	T	-0.02	3529.04	0.00		0.00		>> 1
430	T	17.79	3529.04	-12.04		-50.82		4.221
430	T	5.34	3529.04	-11.23		-48.83		4.349
432	T	-0.01	3529.04	0.00		0.00		>> 1
432	T	-0.02	3529.04	0.00		0.00		>> 1
433	T	17.68	3529.04	-11.99		-50.80		4.237
433	T	5.22	3529.04	-11.26		-48.82		4.335
492	T	6.11	3529.04	-11.41		-48.96		4.291
492	T	-6.10	3529.04	-11.41		-47.01		4.120
493	T	0.01	3529.04	0.00		0.00		>> 1
493	T	0.00	3529.04	0.00		0.00		>> 1

15. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm^2)	f _k / f _m (N/mm^2)	γ _m (* FC)	f _d (N/mm^2)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	M	e	B	238.29	0.130	2.500	3.60	0.694	1071.71	280.37	93.45	3.000
4	M	e	B	228.11	0.130	2.500	3.60	0.694	1071.71	271.67	-101.07	2.688
8	M	e	B	62.96	0.070	2.500	3.60	0.694	562.42	44.39	-13.88	3.198
11	M	e	B	111.57	0.100	2.500	3.60	0.694	679.29	89.42	-22.02	4.061
16	M	e	B	148.13	0.130	2.500	3.60	0.694	679.29	111.08	-12.39	8.965
19	M	e	B	293.39	0.150	2.500	3.60	0.694	1157.42	357.88	-30.52	>> 1
23	M	e	B	56.47	0.170	2.500	3.60	0.694	200.81	11.51	-0.42	>> 1
26	M	e	B	72.51	0.230	2.500	3.60	0.694	183.46	11.36	0.72	>> 1
30	M	e	B	305.07	0.170	2.500	3.60	0.694	1033.10	313.55	101.24	3.097
34	M	e	B	417.21	0.110	2.500	3.60	0.694	2184.50	1040.94	0.00	5.236
40	M	e	B	45.27	0.130	2.500	3.60	0.694	201.17	9.96	-0.33	>> 1
43	M	e	B	376.67	0.190	2.500	3.60	0.694	1159.19	416.12	69.44	5.992
46	M	e	B	228.45	0.120	2.500	3.60	0.694	1159.19	300.18	97.58	3.076
49	M	e	B	41.97	0.050	2.500	3.60	0.694	476.71	25.76	4.84	5.322
54	M	e	B	84.79	0.110	2.500	3.60	0.694	470.69	46.19	0.81	>> 1
56	M	e	B	61.62	0.120	2.500	3.60	0.694	306.00	21.26	-0.10	>> 1
60	M	e	B	51.68	0.100	2.500	3.60	0.694	306.00	18.56	1.30	>> 1
64	M	e	B	175.48	0.150	2.500	3.60	0.694	679.29	124.81	40.96	3.047
69	M	e	B	234.41	0.200	2.500	3.60	0.694	679.29	147.23	20.36	7.231
71	M	e	B	44.11	0.130	2.500	3.60	0.694	201.17	9.78	-0.37	>> 1
75	M	e	B	401.33	0.110	2.500	3.60	0.694	2184.50	1010.31	0.00	5.443
79	M	e	B	293.19	0.170	2.500	3.60	0.694	1033.10	306.26	100.30	3.053
85	M	e	B	70.43	0.230	2.500	3.60	0.694	183.46	11.24	0.71	>> 1
88	M	e	B	55.08	0.160	2.500	3.60	0.694	200.81	11.33	-0.52	>> 1
92	M	e	B	279.62	0.140	2.500	3.60	0.694	1157.42	346.52	-37.95	9.131
95	M	e	B	163.53	0.140	2.500	3.60	0.694	679.29	119.07	6.22	>> 1
99	M	e	B	183.90	0.160	2.500	3.60	0.694	679.29	128.62	6.28	>> 1
101	M	e	B	123.26	0.130	2.500	3.60	0.694	562.42	76.42	-34.00	2.248
104	M	e	B	223.90	0.090	2.500	3.60	0.694	1474.40	395.27	-10.52	>> 1
106	M	n	B	270.36	0.230	5.300	3.00	1.767	1745.57	349.47	56.67	6.167
109	M	n	B	291.57	0.240	5.300	3.00	1.767	1859.69	400.62	-52.68	7.605
113	M	n	B	267.26	0.230	5.300	3.00	1.767	1745.57	346.19	110.22	3.141

116	M	n	B	287.45	0.230	5.300	3.00	1.767	1859.69	396.00	-108.99	3.633
122	M	e	B	18.94	0.010	2.500	3.60	0.694	1186.46	31.22	0.00	>> 1
126	M	e	B	18.58	0.010	2.500	3.60	0.694	1186.46	30.63	0.00	>> 1
132	M	e	B	30.16	0.010	2.500	3.60	0.694	1682.29	70.35	0.00	>> 1
135	M	e	B	22.66	0.010	2.500	3.60	0.694	1130.85	35.45	0.00	>> 1
140	M	e	B	11.03	0.010	2.500	3.60	0.694	681.06	10.43	0.00	>> 1
143	M	e	B	13.07	0.010	2.500	3.60	0.694	797.94	14.48	0.00	>> 1
146	M	e	B	9.35	0.010	2.500	3.60	0.694	564.19	7.32	0.00	>> 1
149	M	e	B	10.26	0.010	2.500	3.60	0.694	681.06	9.72	0.00	>> 1
152	M	e	B	11.91	0.010	2.500	3.60	0.694	797.94	13.22	0.00	>> 1
155	M	e	B	8.36	0.010	2.500	3.60	0.694	564.19	6.56	0.00	>> 1
158	M	e	B	49.18	0.030	2.500	3.60	0.694	1071.71	70.99	0.00	>> 1
163	M	e	B	55.08	0.030	2.500	3.60	0.694	1071.71	79.05	0.00	>> 1
194	M	e	B	248.19	0.100	2.500	3.60	0.694	1474.40	429.65	-10.46	>> 1
262	W		I	3.10	0.950	-	1.05	261.905	859.05	40.48	5.65	7.165
265	W		I	4.18	1.270	-	1.05	261.905	859.05	40.48	2.06	>> 1
265	W		J	4.18	1.270	-	1.05	261.905	859.05	40.48	2.08	>> 1

16. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159

(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))

N.	Tip.	P (kN)	Nu	My	Mz	Mu,y	Mu,z	C.Sic.
120	C	78.65	30763.71	-0.14	14.69	-1.08	112.95	7.689
120	C	56.60	30763.71	0.09	4.27	2.24	106.36	>> 1
123	C	160.64	57830.37	-9.75	29.12	-45.55	136.04	4.672
123	C	119.01	57830.37	-10.05	6.50	-181.67	117.50	>> 1
124	C	42.25	18163.71	0.02	-10.28	0.20	-101.39	9.863
124	C	29.30	18163.71	-0.24	-3.95	-5.91	-97.24	>> 1
128	C	67.24	27487.71	0.63	-15.10	4.56	-109.23	7.234
128	C	47.55	27487.71	-0.07	-6.53	-1.11	-103.59	>> 1
130	C	63.06	26694.37	0.31	-14.11	2.37	-108.06	7.659
130	C	43.94	26694.37	-0.73	-6.84	-10.88	-101.95	>> 1
133	C	103.80	29317.04	-1.57	15.26	-12.32	119.74	7.847
133	C	82.79	29317.04	-1.96	2.58	-83.42	109.81	>> 1
138	C	78.64	31183.71	-0.48	-16.10	-3.36	-112.85	7.009
138	C	56.27	31183.71	-1.88	-8.31	-23.79	-105.14	>> 1
166	C	55.65	21402.37	-0.19	10.53	-1.90	105.54	>> 1
166	C	40.37	21402.37	-0.22	2.57	-8.62	100.65	>> 1
169	C	70.85	27487.71	-0.20	13.43	-1.64	110.45	8.224
169	C	51.16	27487.71	-0.17	3.45	-5.15	104.44	>> 1
171	C	61.32	18313.04	-0.28	9.40	-3.18	106.83	>> 1
171	C	48.27	18313.04	-0.50	1.70	-29.82	101.39	>> 1
173	C	54.57	21402.37	-0.02	10.06	-0.21	105.32	>> 1
173	C	39.28	21402.37	0.17	3.08	5.55	100.50	>> 1
176	C	46.76	18163.71	0.01	8.44	0.12	102.72	>> 1
176	C	33.82	18163.71	0.19	2.68	6.98	98.50	>> 1
178	C	135.88	57830.37	1.53	-31.21	6.39	-130.42	4.179
178	C	94.24	57830.37	-0.44	-14.47	-3.59	-118.14	8.165
179	C	51.06	21402.37	0.46	-11.63	4.12	-104.06	8.947
179	C	35.77	21402.37	-0.15	-5.16	-2.90	-99.62	>> 1
182	C	75.30	30763.71	-0.19	-17.28	-1.23	-111.95	6.479
182	C	53.25	30763.71	-0.74	-6.99	-11.11	-104.90	>> 1
184	C	50.81	21402.37	-0.03	-12.07	-0.26	-104.21	8.634
184	C	35.52	21402.37	-0.36	-4.74	-7.54	-99.28	>> 1
187	C	74.60	30810.37	-0.02	-16.11	-0.14	-111.80	6.940
187	C	52.51	30810.37	-1.32	-8.05	-17.11	-104.37	>> 1
189	C	55.69	21029.04	-0.03	-10.70	-0.30	-105.61	9.870
189	C	40.68	21029.04	-0.99	-5.67	-17.49	-100.19	>> 1
191	C	35.22	12825.04	0.15	-6.43	2.30	-98.43	>> 1
191	C	26.13	12825.04	-0.42	-3.47	-11.52	-95.20	>> 1
241	T	6.12	3529.04	-11.43		-48.96		4.283
241	T	-6.11	3529.04	-11.43		-47.01		4.113
395	Z	0.00	8253.79	4.64		338.83		>> 1
395	Z	0.00	8253.79	4.53		338.83		>> 1
399	Z	0.00	8253.79	-11.30		-338.83		>> 1
399	Z	0.00	8253.79	-10.62		-338.83		>> 1
404	Z	0.00	8253.79	-74.15		-338.83		4.570
404	Z	0.00	8253.79	178.73		338.83		1.896
405	Z	0.00	8253.79	-177.17		-338.83		1.912
405	Z	0.00	8253.79	-73.50		-338.83		4.610
406	Z	0.00	8253.79	-187.65		-338.83		1.806
406	Z	0.00	8253.79	-176.79		-338.83		1.917
407	Z	0.00	8253.79	179.75		338.83		1.885
407	Z	0.00	8253.79	-97.76		-338.83		3.466
408	Z	0.00	8253.79	-97.15		-338.83		3.488
408	Z	0.00	8253.79	-187.96		-338.83		1.803
409	Z	0.00	8253.79	-77.95		-338.83		4.347
409	Z	0.00	8253.79	218.03		338.83		1.554
410	Z	0.00	8253.79	-178.68		-338.83		1.896
410	Z	0.00	8253.79	-77.35		-338.83		4.380
411	Z	0.00	8253.79	-180.65		-338.83		1.876
411	Z	0.00	8253.79	-178.35		-338.83		1.900

412	Z	0.00	8253.79	162.13		338.83		2.090
412	Z	0.00	8253.79	-84.07		-338.83		4.030
413	Z	0.00	8253.79	-83.43		-338.83		4.061
413	Z	0.00	8253.79	-181.00		-338.83		1.872
429	T	-0.01	3529.04	0.00		0.00		>> 1
429	T	-0.02	3529.04	0.00		0.00		>> 1
430	T	17.75	3529.04	-12.02		-50.81		4.227
430	T	5.30	3529.04	-11.24		-48.83		4.344
432	T	-0.01	3529.04	0.00		0.00		>> 1
432	T	-0.02	3529.04	0.00		0.00		>> 1
433	T	17.72	3529.04	-12.01		-50.80		4.230
433	T	5.26	3529.04	-11.25		-48.82		4.340
492	T	6.11	3529.04	-11.41		-48.96		4.291
492	T	-6.10	3529.04	-11.41		-47.01		4.120
493	T	0.01	3529.04	0.00		0.00		>> 1
493	T	0.00	3529.04	0.00		0.00		>> 1

17. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm²)	fk / fm (N/mm²)	γ, m * FC	fd (N/mm²)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	M	e	B	240.17	0.130	2.500	3.60	0.694	1071.71	281.94	123.80	2.277
4	M	e	B	230.01	0.130	2.500	3.60	0.694	1071.71	273.32	-65.20	4.192
8	M	e	B	61.12	0.060	2.500	3.60	0.694	562.42	43.26	-17.41	2.485
11	M	e	B	115.79	0.100	2.500	3.60	0.694	679.29	92.11	-26.07	3.533
16	M	e	B	152.92	0.130	2.500	3.60	0.694	679.29	113.64	-15.07	7.541
19	M	e	B	297.83	0.150	2.500	3.60	0.694	1157.42	361.43	-30.49	>> 1
23	M	e	B	56.25	0.170	2.500	3.60	0.694	200.81	11.48	-0.47	>> 1
26	M	e	B	74.17	0.240	2.500	3.60	0.694	183.46	11.44	0.63	>> 1
30	M	e	B	314.70	0.180	2.500	3.60	0.694	1033.10	319.17	95.66	3.337
34	M	e	B	426.22	0.120	2.500	3.60	0.694	2184.50	1058.00	0.00	5.125
40	M	e	B	45.02	0.130	2.500	3.60	0.694	201.17	9.92	-0.40	>> 1
43	M	e	B	386.33	0.200	2.500	3.60	0.694	1159.19	421.52	65.55	6.431
46	M	e	B	235.72	0.120	2.500	3.60	0.694	1159.19	307.31	93.66	3.281
49	M	e	B	40.08	0.050	2.500	3.60	0.694	476.71	24.71	5.67	4.357
54	M	e	B	87.10	0.110	2.500	3.60	0.694	470.69	47.17	0.57	>> 1
56	M	e	B	62.49	0.120	2.500	3.60	0.694	306.00	21.48	-1.10	>> 1
60	M	e	B	51.45	0.100	2.500	3.60	0.694	306.00	18.49	-0.37	>> 1
64	M	e	B	170.42	0.150	2.500	3.60	0.694	679.29	122.43	38.56	3.175
69	M	e	B	230.35	0.200	2.500	3.60	0.694	679.29	146.00	18.60	7.849
71	M	e	B	44.02	0.130	2.500	3.60	0.694	201.17	9.77	-0.49	>> 1
75	M	e	B	392.77	0.110	2.500	3.60	0.694	2184.50	993.51	0.00	5.562
79	M	e	B	284.27	0.160	2.500	3.60	0.694	1033.10	300.52	97.36	3.087
85	M	e	B	69.15	0.220	2.500	3.60	0.694	183.46	11.16	0.64	>> 1
88	M	e	B	54.91	0.160	2.500	3.60	0.694	200.81	11.31	-0.65	>> 1
92	M	e	B	275.58	0.140	2.500	3.60	0.694	1157.42	343.08	-46.33	7.405
95	M	e	B	156.38	0.140	2.500	3.60	0.694	679.29	115.44	3.58	>> 1
99	M	e	B	175.28	0.150	2.500	3.60	0.694	679.29	124.72	3.63	>> 1
101	M	e	B	123.77	0.130	2.500	3.60	0.694	562.42	76.65	-29.74	2.577
104	M	e	B	219.67	0.090	2.500	3.60	0.694	1474.40	389.12	43.96	8.852
106	M	n	B	269.72	0.230	5.300	3.00	1.767	1745.57	348.79	96.04	3.632
109	M	n	B	291.09	0.240	5.300	3.00	1.767	1859.69	400.09	-9.84	>> 1
113	M	n	B	266.78	0.230	5.300	3.00	1.767	1745.57	345.68	148.20	2.333
116	M	n	B	287.68	0.230	5.300	3.00	1.767	1859.69	396.26	-68.59	5.777
122	M	e	B	18.69	0.010	2.500	3.60	0.694	1186.46	30.81	0.00	>> 1
126	M	e	B	18.74	0.010	2.500	3.60	0.694	1186.46	30.89	0.00	>> 1
132	M	e	B	28.97	0.010	2.500	3.60	0.694	1682.29	67.62	0.00	>> 1
135	M	e	B	23.02	0.010	2.500	3.60	0.694	1130.85	36.00	0.00	>> 1
140	M	e	B	11.83	0.010	2.500	3.60	0.694	681.06	11.18	0.00	>> 1
143	M	e	B	14.32	0.010	2.500	3.60	0.694	797.94	15.84	0.00	>> 1
146	M	e	B	10.45	0.010	2.500	3.60	0.694	564.19	8.17	0.00	>> 1
149	M	e	B	9.41	0.010	2.500	3.60	0.694	681.06	8.92	0.00	>> 1
152	M	e	B	10.61	0.010	2.500	3.60	0.694	797.94	11.79	0.00	>> 1
155	M	e	B	7.22	0.010	2.500	3.60	0.694	564.19	5.68	0.00	>> 1
158	M	e	B	35.67	0.020	2.500	3.60	0.694	1071.71	52.17	0.00	>> 1
163	M	e	B	68.82	0.040	2.500	3.60	0.694	1071.71	97.44	0.00	>> 1
194	M	e	B	248.00	0.100	2.500	3.60	0.694	1474.40	429.38	44.07	9.743
262	W		I	3.11	0.950	-	1.05	261.905	859.05	40.48	5.61	7.216
262	W		J	3.11	0.950	-	1.05	261.905	859.05	40.48	5.69	7.115
265	W		I	4.20	1.280	-	1.05	261.905	859.05	40.48	2.02	>> 1
265	W		J	4.20	1.280	-	1.05	261.905	859.05	40.48	2.12	>> 1

18. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))

N.	Tip.	P (kN)	Nu	My	Mz (kN m)	Mu,y	Mu,z	C.Sic.
120	C	79.90	30763.71	0.82	9.63	9.61	112.87	>> 1

120	C	57.85	30763.71	1.06	-1.89	58.21	-103.78	>> 1
123	C	148.21	57830.37	-8.82	17.69	-65.53	131.43	7.430
123	C	106.58	57830.37	-9.10	-3.33	-296.80	-108.61	>> 1
124	C	37.48	18163.71	-0.54	-13.12	-4.11	-99.75	7.603
124	C	24.53	18163.71	-0.21	-7.80	-2.59	-96.04	>> 1
128	C	70.27	27487.71	-0.20	-20.17	-1.09	-110.31	5.469
128	C	50.57	27487.71	0.00	-11.66	0.00	-104.54	8.966
130	C	68.39	26694.37	-0.07	-19.76	-0.39	-109.75	5.554
130	C	49.27	26694.37	-0.22	-11.11	-2.06	-104.00	9.361
133	C	101.58	29317.04	-2.44	8.69	-33.13	118.00	>> 1
133	C	80.57	29317.04	-2.85	-1.61	-183.93	-103.90	>> 1
138	C	82.23	31183.71	-0.22	-23.20	-1.08	-114.03	4.915
138	C	59.87	31183.71	-0.56	-12.84	-4.68	-107.22	8.350
166	C	51.94	21402.37	-0.07	6.55	-1.12	104.49	>> 1
166	C	36.65	21402.37	-0.09	-1.25	-7.17	-99.63	>> 1
169	C	67.22	27487.71	0.16	8.48	2.06	109.36	>> 1
169	C	47.53	27487.71	0.21	-1.63	13.26	-102.93	>> 1
171	C	58.57	18313.04	-0.42	5.43	-8.18	105.72	>> 1
171	C	45.51	18313.04	-0.64	-1.01	-62.48	-98.61	>> 1
173	C	57.73	21402.37	0.36	6.70	5.69	105.93	>> 1
173	C	42.44	21402.37	0.57	-1.33	42.55	-99.29	>> 1
176	C	51.16	18163.71	0.27	5.69	4.92	103.72	>> 1
176	C	38.22	18163.71	0.46	-1.15	39.14	-97.85	>> 1
178	C	147.04	57830.37	-0.45	-42.90	-1.41	-133.97	3.123
178	C	105.40	57830.37	-0.50	-24.37	-2.49	-121.52	4.986
179	C	54.30	21402.37	-0.02	-15.70	-0.13	-105.24	6.703
179	C	39.01	21402.37	0.07	-9.01	0.78	-100.70	>> 1
182	C	73.39	30763.71	-1.64	-22.48	-8.10	-111.02	4.939
182	C	51.34	30763.71	-1.19	-13.20	-9.41	-104.42	7.911
184	C	47.20	21402.37	-0.76	-15.53	-5.03	-102.87	6.624
184	C	31.92	21402.37	-0.40	-9.18	-4.29	-98.41	>> 1
187	C	80.09	30810.37	-0.17	-22.87	-0.84	-113.39	4.958
187	C	57.99	30810.37	-0.44	-12.76	-3.68	-106.70	8.362
189	C	56.13	21029.04	-0.02	-15.61	-0.14	-105.75	6.775
189	C	41.11	21029.04	-0.26	-8.58	-3.07	-101.16	>> 1
191	C	34.41	12825.04	0.04	-9.45	0.42	-98.31	>> 1
191	C	25.32	12825.04	-0.10	-5.18	-1.84	-95.57	>> 1
241	T	6.12	3529.04	-11.43		-48.96		4.283
241	T	-6.11	3529.04	-11.43		-47.01		4.113
395	Z	0.00	8253.79	-10.17		-338.83		>> 1
395	Z	0.00	8253.79	19.07		338.83		>> 1
399	Z	0.00	8253.79	4.49		338.83		>> 1
399	Z	0.00	8253.79	-26.80		-338.83		>> 1
404	Z	0.00	8253.79	-68.29		-338.83		4.962
404	Z	0.00	8253.79	184.97		338.83		1.832
405	Z	0.00	8253.79	-173.85		-338.83		1.949
405	Z	0.00	8253.79	-67.59		-338.83		5.013
406	Z	0.00	8253.79	-190.21		-338.83		1.781
406	Z	0.00	8253.79	-173.42		-338.83		1.954
407	Z	0.00	8253.79	173.14		338.83		1.957
407	Z	0.00	8253.79	-103.18		-338.83		3.284
408	Z	0.00	8253.79	-102.62		-338.83		3.302
408	Z	0.00	8253.79	-190.46		-338.83		1.779
409	Z	0.00	8253.79	-84.89		-338.83		3.991
409	Z	0.00	8253.79	209.47		338.83		1.618
410	Z	0.00	8253.79	-182.16		-338.83		1.860
410	Z	0.00	8253.79	-84.33		-338.83		4.018
411	Z	0.00	8253.79	-176.93		-338.83		1.915
411	Z	0.00	8253.79	-181.89		-338.83		1.863
412	Z	0.00	8253.79	171.74		338.83		1.973
412	Z	0.00	8253.79	-76.72		-338.83		4.416
413	Z	0.00	8253.79	-76.03		-338.83		4.457
413	Z	0.00	8253.79	-177.34		-338.83		1.911
429	T	-0.01	3529.04	0.00		0.00		>> 1
429	T	-0.02	3529.04	0.00		0.00		>> 1
430	T	17.71	3529.04	-12.01		-50.80		4.230
430	T	5.25	3529.04	-11.25		-48.82		4.340
432	T	-0.01	3529.04	0.00		0.00		>> 1
432	T	-0.02	3529.04	0.00		0.00		>> 1
433	T	17.76	3529.04	-12.02		-50.81		4.227
433	T	5.30	3529.04	-11.24		-48.83		4.344
492	T	6.11	3529.04	-11.41		-48.96		4.291
492	T	-6.10	3529.04	-11.41		-47.01		4.120
493	T	0.01	3529.04	0.00		0.00		>> 1
493	T	0.00	3529.04	0.00		0.00		>> 1

19. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°9:)

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm^2)	f _k / f _m (N/mm^2)	γ _m * FC	f _d (N/mm^2)	N _u (kN)	M _u (kN m)	M (kN m)	C.Sic.
1	M	e	B	231.72	0.130	2.500	3.60	0.694	1071.71	274.79	87.70	3.133
4	M	e	B	220.58	0.120	2.500	3.60	0.694	1071.71	265.05	-96.32	2.752

8	M	e	B	59.01	0.060	2.500	3.60	0.694	562.42	41.94	-13.76	3.048
11	M	e	B	104.74	0.090	2.500	3.60	0.694	679.29	84.96	-24.11	3.524
16	M	e	B	141.55	0.120	2.500	3.60	0.694	679.29	107.46	-13.99	7.681
19	M	e	B	284.29	0.140	2.500	3.60	0.694	1157.42	350.43	-34.67	>> 1
23	M	e	B	54.57	0.160	2.500	3.60	0.694	200.81	11.27	-0.51	>> 1
26	M	e	B	70.38	0.230	2.500	3.60	0.694	183.46	11.24	0.63	>> 1
30	M	e	B	293.78	0.170	2.500	3.60	0.694	1033.10	306.63	95.04	3.226
34	M	e	B	402.86	0.110	2.500	3.60	0.694	2184.50	1013.30	0.00	5.422
40	M	e	B	43.77	0.130	2.500	3.60	0.694	201.17	9.73	-0.43	>> 1
43	M	e	B	368.13	0.190	2.500	3.60	0.694	1159.19	411.12	63.20	6.505
46	M	e	B	221.13	0.110	2.500	3.60	0.694	1159.19	292.85	90.26	3.244
49	M	e	B	38.31	0.050	2.500	3.60	0.694	476.71	23.71	5.17	4.586
54	M	e	B	81.95	0.100	2.500	3.60	0.694	470.69	44.97	0.27	>> 1
56	M	e	B	60.24	0.120	2.500	3.60	0.694	306.00	20.90	-0.85	>> 1
60	M	e	B	49.89	0.100	2.500	3.60	0.694	306.00	18.04	0.28	>> 1
64	M	e	B	169.11	0.150	2.500	3.60	0.694	679.29	121.80	37.70	3.231
69	M	e	B	228.28	0.200	2.500	3.60	0.694	679.29	145.35	18.15	8.008
71	M	e	B	42.63	0.130	2.500	3.60	0.694	201.17	9.54	-0.46	>> 1
75	M	e	B	387.47	0.100	2.500	3.60	0.694	2184.50	983.01	0.00	5.638
79	M	e	B	282.28	0.160	2.500	3.60	0.694	1033.10	299.21	93.99	3.183
85	M	e	B	68.35	0.220	2.500	3.60	0.694	183.46	11.11	0.62	>> 1
88	M	e	B	53.22	0.160	2.500	3.60	0.694	200.81	11.09	-0.59	>> 1
92	M	e	B	271.51	0.140	2.500	3.60	0.694	1157.42	339.58	-41.33	8.216
95	M	e	B	157.66	0.140	2.500	3.60	0.694	679.29	116.10	3.60	>> 1
99	M	e	B	176.60	0.150	2.500	3.60	0.694	679.29	125.33	3.65	>> 1
101	M	e	B	118.56	0.120	2.500	3.60	0.694	562.42	74.29	-32.40	2.293
104	M	e	B	215.36	0.090	2.500	3.60	0.694	1474.40	382.79	-10.83	>> 1
106	M	n	B	261.59	0.230	5.300	3.00	1.767	1745.57	340.14	55.63	6.114
109	M	n	B	282.14	0.230	5.300	3.00	1.767	1859.69	390.00	-51.71	7.542
113	M	n	B	259.21	0.220	5.300	3.00	1.767	1745.57	337.59	108.30	3.117
116	M	n	B	278.92	0.230	5.300	3.00	1.767	1859.69	386.33	-106.78	3.618
122	M	e	B	17.38	0.010	2.500	3.60	0.694	1186.46	28.69	0.00	>> 1
126	M	e	B	16.99	0.010	2.500	3.60	0.694	1186.46	28.05	0.00	>> 1
132	M	e	B	28.15	0.010	2.500	3.60	0.694	1682.29	65.74	0.00	>> 1
135	M	e	B	21.32	0.010	2.500	3.60	0.694	1130.85	33.40	0.00	>> 1
140	M	e	B	9.76	0.010	2.500	3.60	0.694	681.06	9.25	0.00	>> 1
143	M	e	B	11.45	0.010	2.500	3.60	0.694	797.94	12.71	0.00	>> 1
146	M	e	B	8.12	0.010	2.500	3.60	0.694	564.19	6.37	0.00	>> 1
149	M	e	B	8.90	0.010	2.500	3.60	0.694	681.06	8.45	0.00	>> 1
152	M	e	B	10.18	0.010	2.500	3.60	0.694	797.94	11.32	0.00	>> 1
155	M	e	B	7.04	0.010	2.500	3.60	0.694	564.19	5.54	0.00	>> 1
158	M	e	B	45.04	0.020	2.500	3.60	0.694	1071.71	65.28	0.00	>> 1
163	M	e	B	50.71	0.030	2.500	3.60	0.694	1071.71	73.09	0.00	>> 1
194	M	e	B	240.29	0.100	2.500	3.60	0.694	1474.40	418.65	-10.73	>> 1
262	W		I	2.74	0.840	-	1.05	261.905	859.05	40.48	5.65	7.165
265	W		I	3.70	1.130	-	1.05	261.905	859.05	40.48	2.06	>> 1
265	W		J	3.70	1.130	-	1.05	261.905	859.05	40.48	2.07	>> 1

20. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°9:)

N.	Tip.	P (kN)	Nu	My	Mz (kN m)	Mu,y	Mu,z	C.Sic.
120	C	65.71	30763.71	-0.77	12.86	-6.52	108.83	8.463
120	C	43.66	30763.71	-0.02	3.66	-0.56	102.61	>> 1
123	C	141.05	57830.37	-10.09	25.56	-51.30	129.94	5.084
123	C	99.42	57830.37	-9.41	5.49	-190.70	111.26	>> 1
124	C	32.55	18163.71	-0.28	-9.18	-3.00	-98.37	>> 1
124	C	19.61	18163.71	-0.18	-3.55	-4.79	-94.46	>> 1
128	C	57.65	27487.71	0.11	-13.48	0.87	-106.59	7.907
128	C	37.95	27487.71	-0.04	-5.89	-0.68	-100.77	>> 1
130	C	56.45	26694.37	-0.09	-12.59	-0.76	-106.20	8.435
130	C	37.33	26694.37	-0.59	-6.17	-9.57	-100.06	>> 1
133	C	93.52	29317.04	-1.81	13.41	-15.73	116.52	8.689
133	C	72.51	29317.04	-1.70	2.14	-84.76	106.70	>> 1
138	C	72.34	31183.71	-1.00	-14.36	-7.71	-110.75	7.712
138	C	49.98	31183.71	-1.77	-7.50	-24.37	-103.25	>> 1
166	C	48.36	21402.37	-0.40	9.24	-4.47	103.24	>> 1
166	C	33.07	21402.37	-0.07	2.18	-3.17	98.81	>> 1
169	C	61.09	27487.71	-0.56	11.78	-5.10	107.38	9.115
169	C	41.40	27487.71	-0.07	2.94	-2.42	101.70	>> 1
171	C	54.94	18313.04	-0.43	8.26	-5.46	104.82	>> 1
171	C	41.89	18313.04	-0.35	1.42	-24.61	99.83	>> 1
173	C	44.70	21402.37	-0.35	8.81	-4.06	102.19	>> 1
173	C	29.41	21402.37	0.20	2.64	7.39	97.49	>> 1
176	C	37.68	18163.71	-0.25	7.39	-3.38	99.86	>> 1
176	C	24.74	18163.71	0.23	2.31	9.53	95.68	>> 1
178	C	119.56	57830.37	-0.52	-27.85	-2.35	-125.74	4.515
178	C	77.93	57830.37	-1.32	-13.04	-11.43	-112.93	8.660
179	C	44.25	21402.37	0.15	-10.38	1.48	-102.20	9.846
179	C	28.96	21402.37	-0.04	-4.65	-0.84	-97.73	>> 1
182	C	61.71	30763.71	-0.95	-15.43	-6.63	-107.64	6.976
182	C	39.65	30763.71	-0.88	-6.29	-14.09	-100.71	>> 1

184	C	40.31	21402.37	-0.42	-10.77	-3.93	-100.90	9.369
184	C	25.03	21402.37	-0.33	-4.27	-7.43	-96.19	>> 1
187	C	67.64	30810.37	-0.53	-14.37	-4.04	-109.54	7.623
187	C	45.55	30810.37	-1.21	-7.26	-17.05	-102.31	>> 1
189	C	51.91	21029.04	-0.31	-9.54	-3.39	-104.32	>> 1
189	C	36.89	21029.04	-0.85	-5.13	-16.43	-99.14	>> 1
191	C	33.10	12825.04	0.02	-5.73	0.34	-97.93	>> 1
191	C	24.01	12825.04	-0.31	-3.13	-9.38	-94.72	>> 1
241	T	5.52	3529.04	-10.32		-48.86		4.735
241	T	-5.52	3529.04	-10.32		-47.11		4.565
395	Z	0.00	8253.79	4.25		338.83		>> 1
395	Z	0.00	8253.79	4.17		338.83		>> 1
399	Z	0.00	8253.79	-11.24		-338.83		>> 1
399	Z	0.00	8253.79	-10.68		-338.83		>> 1
404	Z	0.00	8253.79	-71.97		-338.83		4.708
404	Z	0.00	8253.79	173.37		338.83		1.954
405	Z	0.00	8253.79	-171.91		-338.83		1.971
405	Z	0.00	8253.79	-71.34		-338.83		4.750
406	Z	0.00	8253.79	-182.08		-338.83		1.861
406	Z	0.00	8253.79	-171.55		-338.83		1.975
407	Z	0.00	8253.79	174.35		338.83		1.943
407	Z	0.00	8253.79	-94.88		-338.83		3.571
408	Z	0.00	8253.79	-94.29		-338.83		3.593
408	Z	0.00	8253.79	-182.38		-338.83		1.858
409	Z	0.00	8253.79	-75.96		-338.83		4.461
409	Z	0.00	8253.79	212.28		338.83		1.596
410	Z	0.00	8253.79	-174.05		-338.83		1.947
410	Z	0.00	8253.79	-75.37		-338.83		4.496
411	Z	0.00	8253.79	-175.96		-338.83		1.926
411	Z	0.00	8253.79	-173.74		-338.83		1.950
412	Z	0.00	8253.79	157.96		338.83		2.145
412	Z	0.00	8253.79	-81.88		-338.83		4.138
413	Z	0.00	8253.79	-81.25		-338.83		4.170
413	Z	0.00	8253.79	-176.30		-338.83		1.922
429	T	-0.01	3529.04	0.00		0.00		>> 1
429	T	-0.02	3529.04	0.00		0.00		>> 1
430	T	16.33	3529.04	-10.81		-50.58		4.679
430	T	5.15	3529.04	-10.08		-48.80		4.842
432	T	-0.01	3529.04	0.00		0.00		>> 1
432	T	-0.02	3529.04	0.00		0.00		>> 1
433	T	16.30	3529.04	-10.80		-50.58		4.683
433	T	5.11	3529.04	-10.09		-48.80		4.836
492	T	5.52	3529.04	-10.30		-48.86		4.744
492	T	-5.51	3529.04	-10.30		-47.11		4.574
493	T	0.01	3529.04	0.00		0.00		>> 1
493	T	0.00	3529.04	0.00		0.00		>> 1

21. VERIFICA A PRESSOFLESSIONE NEL PIANO (§4.5.6, §7.8.2.2.1, §7.8.2.2.4) [SLV] - C.Sic: 1.159 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	Tip.	n/e	Sez.	P (kN)	p (N/mm^2)	fk / fm (N/mm^2)	γ, m * FC	fd (N/mm^2)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.	ID CCC
1	M	e	B	311.54	0.170	2.500	3.60	0.694	1071.71	334.34	150.86	2.216	44
4	M	e	B	294.97	0.160	2.500	3.60	0.694	1071.71	323.46	-162.36	1.992	42
8	M	e	B	61.12	0.060	2.500	3.60	0.694	562.42	43.26	-17.41	2.485	48
11	M	e	B	142.44	0.120	2.500	3.60	0.694	679.29	107.96	-34.08	3.168	41
16	M	e	B	189.01	0.160	2.500	3.60	0.694	679.29	130.83	-20.22	6.470	41
19	M	e	B	375.80	0.190	2.500	3.60	0.694	1157.42	414.68	-51.03	8.126	42
23	M	e	B	72.93	0.210	2.500	3.60	0.694	200.81	13.17	-0.78	>> 1	41
26	M	e	B	94.19	0.300	2.500	3.60	0.694	183.46	11.87	0.91	>> 1	43
30	M	e	B	396.06	0.230	2.500	3.60	0.694	1033.10	356.20	130.23	2.735	43
34	M	e	B	550.58	0.150	2.500	3.60	0.694	2184.50	1270.03	0.00	3.968	44
40	M	e	B	58.36	0.170	2.500	3.60	0.694	201.17	11.77	-0.66	>> 1	41
43	M	e	B	489.70	0.250	2.500	3.60	0.694	1159.19	462.84	88.65	5.221	43
46	M	e	B	296.98	0.150	2.500	3.60	0.694	1159.19	361.49	125.03	2.891	43
49	M	e	B	52.40	0.060	2.500	3.60	0.694	476.71	31.39	7.26	4.324	44
54	M	e	B	84.79	0.110	2.500	3.60	0.694	470.69	46.19	0.81	>> 1	47
56	M	e	B	63.90	0.120	2.500	3.60	0.694	306.00	21.84	-1.59	>> 1	45
60	M	e	B	51.68	0.100	2.500	3.60	0.694	306.00	18.56	1.30	>> 1	47
64	M	e	B	227.85	0.200	2.500	3.60	0.694	679.29	145.22	52.43	2.770	43
69	M	e	B	304.55	0.260	2.500	3.60	0.694	679.29	161.12	25.88	6.226	43
71	M	e	B	56.82	0.170	2.500	3.60	0.694	201.17	11.58	-0.71	>> 1	41
75	M	e	B	529.89	0.140	2.500	3.60	0.694	2184.50	1237.78	0.00	4.123	42
79	M	e	B	380.61	0.220	2.500	3.60	0.694	1033.10	350.61	128.97	2.719	43
85	M	e	B	91.48	0.290	2.500	3.60	0.694	183.46	11.88	0.89	>> 1	43
88	M	e	B	71.08	0.210	2.500	3.60	0.694	200.81	13.02	-0.89	>> 1	41
92	M	e	B	359.07	0.180	2.500	3.60	0.694	1157.42	404.70	-58.96	6.864	44
95	M	e	B	212.10	0.180	2.500	3.60	0.694	679.29	139.89	7.34	>> 1	43
99	M	e	B	238.31	0.210	2.500	3.60	0.694	679.29	148.36	7.41	>> 1	43
101	M	e	B	158.02	0.170	2.500	3.60	0.694	562.42	90.22	-47.01	1.919	42
104	M	e	B	223.63	0.090	2.500	3.60	0.694	1474.40	394.88	-65.20	6.056	46
106	M	n	B	269.72	0.230	5.300	3.00	1.767	1745.57	348.79	96.04	3.632	48
109	M	n	B	290.83	0.230	5.300	3.00	1.767	1859.69	399.80	-95.86	4.171	46

113	M	n	B	266.78	0.230	5.300	3.00	1.767	1745.57	345.68	148.20	2.333	48
116	M	n	B	286.87	0.230	5.300	3.00	1.767	1859.69	395.35	-150.48	2.627	46
122	M	e	B	24.72	0.010	2.500	3.60	0.694	1186.46	40.54	0.00	>> 1	42
126	M	e	B	24.22	0.010	2.500	3.60	0.694	1186.46	39.74	0.00	>> 1	44
132	M	e	B	40.55	0.010	2.500	3.60	0.694	1682.29	93.98	0.00	>> 1	42
135	M	e	B	29.90	0.020	2.500	3.60	0.694	1130.85	46.47	0.00	>> 1	41
140	M	e	B	15.08	0.010	2.500	3.60	0.694	681.06	14.18	0.00	>> 1	44
143	M	e	B	18.17	0.010	2.500	3.60	0.694	797.94	20.00	0.00	>> 1	44
146	M	e	B	13.21	0.010	2.500	3.60	0.694	564.19	10.28	0.00	>> 1	44
149	M	e	B	14.09	0.010	2.500	3.60	0.694	681.06	13.27	0.00	>> 1	42
152	M	e	B	16.68	0.010	2.500	3.60	0.694	797.94	18.40	0.00	>> 1	42
155	M	e	B	11.92	0.010	2.500	3.60	0.694	564.19	9.29	0.00	>> 1	42
158	M	e	B	77.28	0.040	2.500	3.60	0.694	1071.71	108.49	0.00	>> 1	42
163	M	e	B	85.10	0.050	2.500	3.60	0.694	1071.71	118.53	0.00	>> 1	44
194	M	e	B	244.90	0.100	2.500	3.60	0.694	1474.40	425.09	-65.11	6.529	46
262	W		I	4.02	1.230	-	1.05	261.905	859.05	40.48	7.30	5.546	44
262	W		J	4.02	1.230	-	1.05	261.905	859.05	40.48	7.38	5.486	44
265	W		I	5.42	1.650	-	1.05	261.905	859.05	40.48	2.63	>> 1	44
265	W		J	5.42	1.650	-	1.05	261.905	859.05	40.48	2.74	>> 1	44

22. VERIFICA A PRESSOFLESSIONE - STRUTTURE IN C.A. [SLV] - C.Sic: 1.159 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	Tip.	P (kN)	Nu	My	Mz (kN m)	Mu,y	Mu,z	C.Sic.	ID CCC
120	C	99.67	30763.71	-1.87	24.08	-9.22	118.75	4.931	42
120	C	71.00	30763.71	-0.24	11.75	-2.26	110.62	9.415	42
123	C	221.03	57830.37	-15.57	49.17	-48.73	153.89	3.130	42
123	C	166.91	57830.37	-13.43	18.29	-99.48	135.48	7.407	42
124	C	49.70	18163.71	-0.58	-16.14	-3.71	-103.37	6.404	44
124	C	32.88	18163.71	-0.23	-8.96	-2.53	-98.50	>> 1	44
128	C	89.83	27487.71	-0.10	-24.61	-0.47	-116.13	4.719	44
128	C	64.23	27487.71	0.05	-13.58	0.40	-108.56	7.994	44
130	C	86.92	26694.37	-0.06	-23.90	-0.29	-115.23	4.821	44
130	C	62.07	26694.37	-0.39	-13.12	-3.20	-107.73	8.211	44
133	C	139.46	29317.04	-2.06	26.38	-10.18	130.41	4.944	42
133	C	112.14	29317.04	-1.25	7.53	-20.22	121.80	>> 1	42
138	C	105.59	31183.71	-0.48	-27.92	-2.08	-120.90	4.330	44
138	C	76.51	31183.71	-1.07	-15.29	-7.84	-111.98	7.324	44
166	C	75.67	21402.37	-0.86	17.62	-5.43	111.23	6.313	42
166	C	55.79	21402.37	0.02	7.17	0.29	105.67	>> 1	42
169	C	95.01	27487.71	-1.29	22.35	-6.77	117.32	5.249	42
169	C	69.41	27487.71	-0.06	9.60	-0.69	110.08	>> 1	42
171	C	83.45	18313.04	-0.68	16.17	-4.76	113.24	7.003	42
171	C	66.48	18313.04	-0.17	4.92	-3.74	108.31	>> 1	42
173	C	66.72	21402.37	-0.90	16.38	-5.97	108.57	6.628	42
173	C	46.85	21402.37	0.28	8.44	3.41	102.86	>> 1	42
176	C	55.38	18163.71	-0.66	13.68	-5.06	104.95	7.672	42
176	C	38.56	18163.71	0.35	7.33	4.78	100.03	>> 1	42
178	C	186.76	57830.37	-0.26	-52.06	-0.73	-145.84	2.801	44
178	C	132.64	57830.37	-0.58	-28.63	-2.63	-129.63	4.528	44
179	C	69.17	21402.37	0.06	-19.11	0.34	-109.61	5.736	44
179	C	49.30	21402.37	0.08	-10.53	0.79	-103.73	9.851	44
182	C	95.23	30763.71	-1.79	-27.56	-7.63	-117.52	4.264	44
182	C	66.56	30763.71	-1.32	-15.25	-9.43	-108.93	7.143	44
184	C	61.92	21402.37	-0.83	-19.07	-4.67	-107.23	5.623	44
184	C	42.05	21402.37	-0.45	-10.58	-4.31	-101.39	9.583	44
187	C	102.12	30810.37	-0.30	-27.60	-1.30	-119.90	4.344	44
187	C	73.40	30810.37	-0.78	-15.13	-5.73	-111.15	7.347	44
189	C	72.75	21029.04	-0.10	-18.75	-0.59	-110.62	5.900	44
189	C	53.23	21029.04	-0.51	-10.25	-5.20	-104.60	>> 1	44
191	C	44.94	12825.04	0.05	-11.34	0.45	-101.38	8.940	44
191	C	33.13	12825.04	-0.19	-6.20	-3.00	-97.77	>> 1	44
241	T	7.95	3529.04	-14.84		-49.25		3.319	41
241	T	-7.94	3529.04	-14.84		-46.72		3.148	41
395	Z	0.00	8253.79	20.65		338.83		>> 1	42
395	Z	0.00	8253.79	-8.84		-338.83		>> 1	42
399	Z	0.00	8253.79	-30.78		-338.83		>> 1	42
399	Z	0.00	8253.79	1.95		338.83		>> 1	42
404	Z	0.00	8253.79	-90.39		-338.83		3.749	44
404	Z	0.00	8253.79	238.23		338.83		1.422	44
405	Z	0.00	8253.79	-232.98		-338.83		1.454	42
405	Z	0.00	8253.79	-101.20		-338.83		3.348	42
406	Z	0.00	8253.79	-246.15		-338.83		1.377	44
406	Z	0.00	8253.79	-226.12		-338.83		1.498	44
407	Z	0.00	8253.79	239.56		338.83		1.414	42
407	Z	0.00	8253.79	-121.34		-338.83		2.792	42
408	Z	0.00	8253.79	-131.58		-338.83		2.575	44
408	Z	0.00	8253.79	-246.49		-338.83		1.375	44
409	Z	0.00	8253.79	-94.63		-338.83		3.581	42
409	Z	0.00	8253.79	292.40		338.83		1.159	42
410	Z	0.00	8253.79	-235.54		-338.83		1.439	44
410	Z	0.00	8253.79	-107.45		-338.83		3.153	44

411	Z	0.00	8253.79	-238.97		-338.83		1.418	42
411	Z	0.00	8253.79	-228.76		-338.83		1.481	42
412	Z	0.00	8253.79	220.19		338.83		1.539	44
412	Z	0.00	8253.79	-101.83		-338.83		3.327	44
413	Z	0.00	8253.79	-116.02		-338.83		2.920	42
413	Z	0.00	8253.79	-239.37		-338.83		1.416	42
429	T	-0.01	3529.04	0.00		0.00		>> 1	41
429	T	-0.02	3529.04	0.00		0.00		>> 1	41
430	T	23.10	3529.04	-15.63		-51.66		3.305	42
430	T	6.92	3529.04	-14.59		-49.09		3.364	42
432	T	-0.01	3529.04	0.00		0.00		>> 1	41
432	T	-0.02	3529.04	0.00		0.00		>> 1	41
433	T	23.06	3529.04	-15.61		-51.65		3.309	44
433	T	6.88	3529.04	-14.60		-49.08		3.362	44
492	T	7.94	3529.04	-14.82		-49.25		3.323	41
492	T	-7.93	3529.04	-14.82		-46.72		3.153	41
493	T	0.02	3529.04	0.00		0.00		>> 1	41
493	T	0.00	3529.04	0.00		0.00		>> 1	41

23. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ, n (N/mm ²)	f _{vk0} /f _{vm0}	γ, m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.
106	n	B	349.64	73.95	0.21	1.000	349.64	0.301	0.300	3.00	0.140	162.86	24.01	6.783
109	n	B	377.16	-68.82	0.18	1.000	377.16	0.305	0.300	3.00	0.141	174.13	20.56	8.469
113	n	B	346.34	144.86	0.42	1.000	346.34	0.298	0.300	3.00	0.140	162.42	43.78	3.710
116	n	B	372.76	-142.77	0.38	1.000	372.76	0.301	0.300	3.00	0.140	173.54	38.92	4.459

24. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.
120	C	15.556	7.778	2.500	276.35	29.84	9.261	2.500	1588.28	3.67	>> 1	9.261
123	C	15.556	7.778	2.500	276.35	65.06	4.248	2.500	3014.29	4.82	>> 1	4.248
124	C	15.556	7.778	2.500	276.35	-18.28	>> 1	2.500	924.45	0.92	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-24.67	>> 1	2.500	1415.68	0.55	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-20.85	>> 1	2.500	1373.89	-0.52	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	36.57	7.557	2.500	1512.06	1.74	>> 1	7.557
138	C	15.556	7.778	2.500	276.35	-22.28	>> 1	2.500	1610.41	-1.14	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	22.87	>> 1	2.500	1095.08	1.99	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	28.64	9.649	2.500	1415.68	2.78	>> 1	9.649
171	C	15.556	7.778	2.500	276.35	22.20	>> 1	2.500	932.32	1.12	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	19.99	>> 1	2.500	1095.08	2.63	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	16.48	>> 1	2.500	924.45	2.27	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-48.10	5.745	2.500	3014.29	-0.24	>> 1	5.745
179	C	15.556	7.778	2.500	276.35	-18.59	>> 1	2.500	1095.08	0.23	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-29.67	9.314	2.500	1588.28	1.29	>> 1	9.314
184	C	15.556	7.778	2.500	276.35	-21.15	>> 1	2.500	1095.08	1.03	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-23.09	>> 1	2.500	1590.74	-0.89	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-14.36	>> 1	2.500	1075.41	-0.84	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-8.45	>> 1	2.500	643.18	-0.51	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	19.86	7.725	7.725
241	T	15.556	7.778					2.500	153.42	-19.86	7.725	7.725
395	Z	15.556	7.778					2.500	369.78	-76.51	4.833	4.833
395	Z	15.556	7.778					2.500	369.78	76.13	4.857	4.857
399	Z	15.556	7.778					2.500	369.78	-76.42	4.839	4.839
399	Z	15.556	7.778					2.500	369.78	77.41	4.777	4.777
404	Z	15.556	7.778					2.500	369.78	142.09	2.602	2.602
404	Z	15.556	7.778					2.500	369.78	258.03	1.433	1.433
405	Z	15.556	7.778					2.500	369.78	61.91	5.973	5.973
405	Z	15.556	7.778					2.500	369.78	143.12	2.584	2.584
406	Z	15.556	7.778					2.500	369.78	-55.96	6.608	6.608
406	Z	15.556	7.778					2.500	369.78	68.90	5.367	5.367
407	Z	15.556	7.778					2.500	369.78	-262.87	1.407	1.407
407	Z	15.556	7.778					2.500	369.78	-129.98	2.845	2.845
408	Z	15.556	7.778					2.500	369.78	-130.61	2.831	2.831
408	Z	15.556	7.778					2.500	369.78	-49.23	7.511	7.511
409	Z	15.556	7.778					2.500	369.78	142.27	2.599	2.599
409	Z	15.556	7.778					2.500	369.78	278.12	1.330	1.330
410	Z	15.556	7.778					2.500	369.78	58.80	6.289	6.289
410	Z	15.556	7.778					2.500	369.78	142.64	2.592	2.592
411	Z	15.556	7.778					2.500	369.78	-62.59	5.908	5.908
411	Z	15.556	7.778					2.500	369.78	65.52	5.644	5.644
412	Z	15.556	7.778					2.500	369.78	-254.52	1.453	1.453
412	Z	15.556	7.778					2.500	369.78	-137.03	2.699	2.699
413	Z	15.556	7.778					2.500	369.78	-138.26	2.675	2.675
413	Z	15.556	7.778					2.500	369.78	-55.68	6.641	6.641

429	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	20.46	7.498	7.498
430	T	15.556	7.778					2.500	153.42	-20.01	7.667	7.667
432	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
433	T	15.556	7.778					2.500	153.42	20.46	7.498	7.498
433	T	15.556	7.778					2.500	153.42	-20.02	7.663	7.663
492	T	15.556	7.778					2.500	153.42	19.85	7.729	7.729
492	T	15.556	7.778					2.500	153.42	-19.85	7.729	7.729
493	T	15.556	7.778					2.500	153.42	0.02	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1

25. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ_n (N/mm ²)	f _{vk0} /f _{vm0}	γ_m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.
106	n	B	350.28	34.58	0.10	1.000	350.28	0.301	0.300	3.00	0.140	162.95	2.38	>> 1
109	n	B	377.63	-111.65	0.30	1.000	377.63	0.305	0.300	3.00	0.141	174.19	44.13	3.947
113	n	B	346.82	106.87	0.31	1.000	346.82	0.298	0.300	3.00	0.140	162.48	22.82	7.120
116	n	B	372.53	-183.18	0.49	1.000	372.53	0.301	0.300	3.00	0.140	173.51	61.53	2.820

26. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.
120	C	15.556	7.778	2.500	276.35	26.83	>> 1	2.500	1588.28	3.62	>> 1	>> 1
120	C	15.556	7.778	2.500	276.35	27.94	9.891	2.500	1588.28	3.62	>> 1	9.891
123	C	15.556	7.778	2.500	276.35	67.57	4.090	2.500	3014.29	4.77	>> 1	4.090
123	C	15.556	7.778	2.500	276.35	69.66	3.967	2.500	3014.29	4.77	>> 1	3.967
124	C	15.556	7.778	2.500	276.35	-20.85	>> 1	2.500	924.45	-0.38	>> 1	>> 1
124	C	15.556	7.778	2.500	276.35	-20.20	>> 1	2.500	924.45	-0.38	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-25.28	>> 1	2.500	1415.68	-1.44	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-24.29	>> 1	2.500	1415.68	-1.44	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-18.24	>> 1	2.500	1373.89	-2.49	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-17.29	>> 1	2.500	1373.89	-2.49	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	41.35	6.683	2.500	1512.06	1.80	>> 1	6.683
133	C	15.556	7.778	2.500	276.35	42.40	6.518	2.500	1512.06	1.80	>> 1	6.518
138	C	15.556	7.778	2.500	276.35	-17.15	>> 1	2.500	1610.41	-3.50	>> 1	>> 1
138	C	15.556	7.778	2.500	276.35	-16.03	>> 1	2.500	1610.41	-3.50	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	22.83	>> 1	2.500	1095.08	1.96	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	23.60	>> 1	2.500	1095.08	1.96	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	27.84	9.926	2.500	1415.68	2.74	>> 1	9.926
169	C	15.556	7.778	2.500	276.35	28.83	9.586	2.500	1415.68	2.74	>> 1	9.586
171	C	15.556	7.778	2.500	276.35	24.69	>> 1	2.500	932.32	1.14	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	25.34	>> 1	2.500	932.32	1.14	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	17.27	>> 1	2.500	1095.08	2.61	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	18.04	>> 1	2.500	1095.08	2.61	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	13.78	>> 1	2.500	924.45	2.25	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	14.43	>> 1	2.500	924.45	2.25	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-45.20	6.114	2.500	3014.29	-4.50	>> 1	6.114
178	C	15.556	7.778	2.500	276.35	-43.12	6.409	2.500	3014.29	-4.50	>> 1	6.409
179	C	15.556	7.778	2.500	276.35	-18.48	>> 1	2.500	1095.08	-1.31	>> 1	>> 1
179	C	15.556	7.778	2.500	276.35	-17.70	>> 1	2.500	1095.08	-1.31	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-32.46	8.514	2.500	1588.28	-0.95	>> 1	8.514
182	C	15.556	7.778	2.500	276.35	-31.36	8.812	2.500	1588.28	-0.95	>> 1	8.812
184	C	15.556	7.778	2.500	276.35	-23.71	>> 1	2.500	1095.08	-0.52	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-22.94	>> 1	2.500	1095.08	-0.52	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-19.08	>> 1	2.500	1590.74	-3.19	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-17.98	>> 1	2.500	1590.74	-3.19	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-10.29	>> 1	2.500	1075.41	-2.43	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-9.55	>> 1	2.500	1075.41	-2.43	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-5.75	>> 1	2.500	643.18	-1.46	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-5.31	>> 1	2.500	643.18	-1.46	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	19.86	7.725	7.725
241	T	15.556	7.778					2.500	153.42	-19.86	7.725	7.725
395	Z	15.556	7.778					2.500	369.78	-91.17	4.056	4.056
395	Z	15.556	7.778					2.500	369.78	61.74	5.989	5.989
399	Z	15.556	7.778					2.500	369.78	-60.56	6.106	6.106
399	Z	15.556	7.778					2.500	369.78	93.22	3.967	3.967
404	Z	15.556	7.778					2.500	369.78	140.66	2.629	2.629
404	Z	15.556	7.778					2.500	369.78	259.26	1.426	1.426
405	Z	15.556	7.778					2.500	369.78	59.46	6.219	6.219
405	Z	15.556	7.778					2.500	369.78	141.78	2.608	2.608
406	Z	15.556	7.778					2.500	369.78	-58.61	6.309	6.309
406	Z	15.556	7.778					2.500	369.78	66.44	5.566	5.566
407	Z	15.556	7.778					2.500	369.78	-262.01	1.411	1.411

407	Z	15.556	7.778				2.500	369.78	-131.82	2.805	2.805
408	Z	15.556	7.778				2.500	369.78	-132.36	2.794	2.794
408	Z	15.556	7.778				2.500	369.78	-51.85	7.132	7.132
409	Z	15.556	7.778				2.500	369.78	144.45	2.560	2.560
409	Z	15.556	7.778				2.500	369.78	277.35	1.333	1.333
410	Z	15.556	7.778				2.500	369.78	61.90	5.974	5.974
410	Z	15.556	7.778				2.500	369.78	144.72	2.555	2.555
411	Z	15.556	7.778				2.500	369.78	-59.36	6.229	6.229
411	Z	15.556	7.778				2.500	369.78	68.64	5.387	5.387
412	Z	15.556	7.778				2.500	369.78	-254.47	1.453	1.453
412	Z	15.556	7.778				2.500	369.78	-134.60	2.747	2.747
413	Z	15.556	7.778				2.500	369.78	-135.94	2.720	2.720
413	Z	15.556	7.778				2.500	369.78	-52.47	7.047	7.047
429	T	15.556	7.778				2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778				2.500	153.42	20.47	7.495	7.495
430	T	15.556	7.778				2.500	153.42	-20.00	7.671	7.671
432	T	15.556	7.778				2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1
433	T	15.556	7.778				2.500	153.42	20.45	7.502	7.502
433	T	15.556	7.778				2.500	153.42	-20.02	7.663	7.663
492	T	15.556	7.778				2.500	153.42	19.85	7.729	7.729
492	T	15.556	7.778				2.500	153.42	-19.85	7.729	7.729
493	T	15.556	7.778				2.500	153.42	0.02	>> 1	>> 1
493	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1

27. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ_n (N/mm ²)	f _{vk0} /f _{vm0}	γ_m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.
106	n	B	350.83	73.65	0.21	1.000	350.83	0.302	0.300	3.00	0.140	163.02	23.93	6.812
109	n	B	378.37	-68.47	0.18	1.000	378.37	0.306	0.300	3.00	0.141	174.29	20.47	8.514
113	n	B	346.86	143.35	0.41	1.000	346.86	0.298	0.300	3.00	0.140	162.49	43.30	3.753
116	n	B	373.12	-141.68	0.38	1.000	373.12	0.301	0.300	3.00	0.140	173.59	38.72	4.483

28. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.
120	C	15.556	7.778	2.500	276.35	29.93	9.233	2.500	1588.28	1.04	>> 1	9.233
123	C	15.556	7.778	2.500	276.35	65.04	4.249	2.500	3014.29	-0.15	>> 1	4.249
124	C	15.556	7.778	2.500	276.35	-18.20	>> 1	2.500	924.45	-0.53	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-24.63	>> 1	2.500	1415.68	-1.68	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-20.89	>> 1	2.500	1373.89	-2.68	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	36.47	7.577	2.500	1512.06	-0.74	>> 1	7.577
138	C	15.556	7.778	2.500	276.35	-22.38	>> 1	2.500	1610.41	-3.66	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	22.88	>> 1	2.500	1095.08	0.18	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	28.68	9.636	2.500	1415.68	0.44	>> 1	9.636
171	C	15.556	7.778	2.500	276.35	22.15	>> 1	2.500	932.32	-0.40	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	20.06	>> 1	2.500	1095.08	0.83	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	16.56	>> 1	2.500	924.45	0.74	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-48.12	5.743	2.500	3014.29	-4.97	>> 1	5.743
179	C	15.556	7.778	2.500	276.35	-18.57	>> 1	2.500	1095.08	-1.49	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-29.58	9.342	2.500	1588.28	-1.21	>> 1	9.342
184	C	15.556	7.778	2.500	276.35	-21.07	>> 1	2.500	1095.08	-0.69	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-23.16	>> 1	2.500	1590.74	-3.38	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-14.44	>> 1	2.500	1075.41	-2.52	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-8.50	>> 1	2.500	643.18	-1.50	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	19.86	7.725	7.725
241	T	15.556	7.778					2.500	153.42	-19.86	7.725	7.725
395	Z	15.556	7.778					2.500	369.78	-76.67	4.823	4.823
395	Z	15.556	7.778					2.500	369.78	76.30	4.846	4.846
399	Z	15.556	7.778					2.500	369.78	-76.22	4.851	4.851
399	Z	15.556	7.778					2.500	369.78	77.31	4.783	4.783
404	Z	15.556	7.778					2.500	369.78	142.31	2.598	2.598
404	Z	15.556	7.778					2.500	369.78	258.41	1.431	1.431
405	Z	15.556	7.778					2.500	369.78	62.00	5.964	5.964
405	Z	15.556	7.778					2.500	369.78	143.33	2.580	2.580
406	Z	15.556	7.778					2.500	369.78	-56.05	6.597	6.597
406	Z	15.556	7.778					2.500	369.78	69.00	5.359	5.359
407	Z	15.556	7.778					2.500	369.78	-263.25	1.405	1.405
407	Z	15.556	7.778					2.500	369.78	-130.18	2.841	2.841
408	Z	15.556	7.778					2.500	369.78	-130.80	2.827	2.827
408	Z	15.556	7.778					2.500	369.78	-49.30	7.501	7.501
409	Z	15.556	7.778					2.500	369.78	141.90	2.606	2.606
409	Z	15.556	7.778					2.500	369.78	277.39	1.333	1.333
410	Z	15.556	7.778					2.500	369.78	58.65	6.305	6.305

410	Z	15.556	7.778					2.500	369.78	142.27	2.599	2.599
411	Z	15.556	7.778					2.500	369.78	-62.40	5.926	5.926
411	Z	15.556	7.778					2.500	369.78	65.35	5.658	5.658
412	Z	15.556	7.778					2.500	369.78	-253.79	1.457	1.457
412	Z	15.556	7.778					2.500	369.78	-136.63	2.706	2.706
413	Z	15.556	7.778					2.500	369.78	-137.87	2.682	2.682
413	Z	15.556	7.778					2.500	369.78	-55.51	6.661	6.661
429	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	20.46	7.498	7.498
430	T	15.556	7.778					2.500	153.42	-20.01	7.667	7.667
432	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
433	T	15.556	7.778					2.500	153.42	20.46	7.498	7.498
433	T	15.556	7.778					2.500	153.42	-20.02	7.663	7.663
492	T	15.556	7.778					2.500	153.42	19.85	7.729	7.729
492	T	15.556	7.778					2.500	153.42	-19.85	7.729	7.729
493	T	15.556	7.778					2.500	153.42	0.02	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1

29. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ_n (N/mm ²)	f _{vk0} /f _{vm0}	γ_m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.
106	n	B	350.19	113.02	0.32	1.000	350.19	0.301	0.300	3.00	0.140	162.93	45.55	3.577
109	n	B	377.90	-25.63	0.07	1.000	377.90	0.305	0.300	3.00	0.141	174.23	3.10	>> 1
113	n	B	346.39	181.34	0.52	0.990	346.39	0.302	0.300	3.00	0.140	160.87	64.26	2.503
116	n	B	373.34	-101.28	0.27	1.000	373.34	0.301	0.300	3.00	0.140	173.62	16.11	>> 1

30. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.
120	C	15.556	7.778	2.500	276.35	32.93	8.392	2.500	1588.28	1.08	>> 1	8.392
120	C	15.556	7.778	2.500	276.35	31.83	8.682	2.500	1588.28	1.08	>> 1	8.682
123	C	15.556	7.778	2.500	276.35	62.52	4.420	2.500	3014.29	-0.10	>> 1	4.420
123	C	15.556	7.778	2.500	276.35	60.44	4.572	2.500	3014.29	-0.10	>> 1	4.572
124	C	15.556	7.778	2.500	276.35	-15.63	>> 1	2.500	924.45	0.78	>> 1	>> 1
124	C	15.556	7.778	2.500	276.35	-16.27	>> 1	2.500	924.45	0.78	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-24.02	>> 1	2.500	1415.68	0.32	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-25.01	>> 1	2.500	1415.68	0.32	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-23.49	>> 1	2.500	1373.89	-0.71	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-24.45	>> 1	2.500	1373.89	-0.71	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	31.69	8.720	2.500	1512.06	-0.81	>> 1	8.720
133	C	15.556	7.778	2.500	276.35	30.64	9.019	2.500	1512.06	-0.81	>> 1	9.019
138	C	15.556	7.778	2.500	276.35	-27.51	>> 1	2.500	1610.41	-1.30	>> 1	>> 1
138	C	15.556	7.778	2.500	276.35	-28.63	9.652	2.500	1610.41	-1.30	>> 1	9.652
166	C	15.556	7.778	2.500	276.35	22.92	>> 1	2.500	1095.08	0.21	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	22.14	>> 1	2.500	1095.08	0.21	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	29.47	9.377	2.500	1415.68	0.47	>> 1	9.377
169	C	15.556	7.778	2.500	276.35	28.49	9.700	2.500	1415.68	0.47	>> 1	9.700
171	C	15.556	7.778	2.500	276.35	19.67	>> 1	2.500	932.32	-0.42	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	19.01	>> 1	2.500	932.32	-0.42	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	22.78	>> 1	2.500	1095.08	0.85	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	22.01	>> 1	2.500	1095.08	0.85	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	19.26	>> 1	2.500	924.45	0.77	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	18.61	>> 1	2.500	924.45	0.77	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-51.03	5.415	2.500	3014.29	-0.70	>> 1	5.415
178	C	15.556	7.778	2.500	276.35	-53.11	5.203	2.500	3014.29	-0.70	>> 1	5.203
179	C	15.556	7.778	2.500	276.35	-18.68	>> 1	2.500	1095.08	0.05	>> 1	>> 1
179	C	15.556	7.778	2.500	276.35	-19.45	>> 1	2.500	1095.08	0.05	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-26.79	>> 1	2.500	1588.28	1.03	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-27.90	9.905	2.500	1588.28	1.03	>> 1	9.905
184	C	15.556	7.778	2.500	276.35	-18.50	>> 1	2.500	1095.08	0.85	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-19.27	>> 1	2.500	1095.08	0.85	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-27.16	>> 1	2.500	1590.74	-1.09	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-28.26	9.779	2.500	1590.74	-1.09	>> 1	9.779
189	C	15.556	7.778	2.500	276.35	-18.50	>> 1	2.500	1075.41	-0.92	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-19.24	>> 1	2.500	1075.41	-0.92	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-11.21	>> 1	2.500	643.18	-0.55	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-11.64	>> 1	2.500	643.18	-0.55	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	19.86	7.725	7.725
241	T	15.556	7.778					2.500	153.42	-19.86	7.725	7.725
395	Z	15.556	7.778					2.500	369.78	-62.00	5.964	5.964
395	Z	15.556	7.778					2.500	369.78	90.69	4.077	4.077
399	Z	15.556	7.778					2.500	369.78	-92.08	4.016	4.016
399	Z	15.556	7.778					2.500	369.78	61.50	6.013	6.013

404	Z	15.556	7.778				2.500	369.78	143.74	2.573	2.573
404	Z	15.556	7.778				2.500	369.78	257.17	1.438	1.438
405	Z	15.556	7.778				2.500	369.78	64.46	5.737	5.737
405	Z	15.556	7.778				2.500	369.78	144.67	2.556	2.556
406	Z	15.556	7.778				2.500	369.78	-53.40	6.925	6.925
406	Z	15.556	7.778				2.500	369.78	71.46	5.175	5.175
407	Z	15.556	7.778				2.500	369.78	-264.12	1.400	1.400
407	Z	15.556	7.778				2.500	369.78	-128.34	2.881	2.881
408	Z	15.556	7.778				2.500	369.78	-129.06	2.865	2.865
408	Z	15.556	7.778				2.500	369.78	-46.68	7.922	7.922
409	Z	15.556	7.778				2.500	369.78	139.72	2.647	2.647
409	Z	15.556	7.778				2.500	369.78	278.15	1.329	1.329
410	Z	15.556	7.778				2.500	369.78	55.55	6.657	6.657
410	Z	15.556	7.778				2.500	369.78	140.19	2.638	2.638
411	Z	15.556	7.778				2.500	369.78	-65.63	5.634	5.634
411	Z	15.556	7.778				2.500	369.78	62.24	5.941	5.941
412	Z	15.556	7.778				2.500	369.78	-253.84	1.457	1.457
412	Z	15.556	7.778				2.500	369.78	-139.07	2.659	2.659
413	Z	15.556	7.778				2.500	369.78	-140.19	2.638	2.638
413	Z	15.556	7.778				2.500	369.78	-58.72	6.297	6.297
429	T	15.556	7.778				2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778				2.500	153.42	20.46	7.498	7.498
430	T	15.556	7.778				2.500	153.42	-20.01	7.667	7.667
432	T	15.556	7.778				2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1
433	T	15.556	7.778				2.500	153.42	20.46	7.498	7.498
433	T	15.556	7.778				2.500	153.42	-20.01	7.667	7.667
492	T	15.556	7.778				2.500	153.42	19.85	7.729	7.729
492	T	15.556	7.778				2.500	153.42	-19.85	7.729	7.729
493	T	15.556	7.778				2.500	153.42	0.02	>> 1	>> 1
493	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1

31. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ_n (N/mm ²)	f _{vk0} /f _{vm0}	γ_m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.
106	n	B	269.17	56.97	0.21	1.000	269.17	0.232	0.300	3.00	0.131	152.13	18.50	8.223
109	n	B	290.35	-53.03	0.18	1.000	290.35	0.234	0.300	3.00	0.131	162.56	15.85	>> 1
113	n	B	266.74	111.72	0.42	1.000	266.74	0.229	0.300	3.00	0.131	151.81	33.78	4.494
116	n	B	287.10	-110.08	0.38	1.000	287.10	0.232	0.300	3.00	0.131	162.12	30.01	5.402

32. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.
120	C	15.556	7.778	2.500	276.35	23.06	>> 1	2.500	1588.28	3.13	>> 1	>> 1
123	C	15.556	7.778	2.500	276.35	50.30	5.494	2.500	3014.29	4.29	>> 1	5.494
124	C	15.556	7.778	2.500	276.35	-14.14	>> 1	2.500	924.45	0.87	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-19.08	>> 1	2.500	1415.68	0.68	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-16.11	>> 1	2.500	1373.89	-0.16	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	28.28	9.772	2.500	1512.06	1.63	>> 1	9.772
138	C	15.556	7.778	2.500	276.35	-17.22	>> 1	2.500	1610.41	-0.59	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	17.68	>> 1	2.500	1095.08	1.74	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	22.14	>> 1	2.500	1415.68	2.41	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	17.17	>> 1	2.500	932.32	1.04	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	15.45	>> 1	2.500	1095.08	2.24	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	12.74	>> 1	2.500	924.45	1.92	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-37.19	7.431	2.500	3014.29	0.35	>> 1	7.431
179	C	15.556	7.778	2.500	276.35	-14.37	>> 1	2.500	1095.08	0.37	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-22.95	>> 1	2.500	1588.28	1.28	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-16.36	>> 1	2.500	1095.08	0.98	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-17.84	>> 1	2.500	1590.74	-0.40	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-11.09	>> 1	2.500	1075.41	-0.45	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-6.53	>> 1	2.500	643.18	-0.28	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	15.29	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	-15.29	>> 1	>> 1
395	Z	15.556	7.778					2.500	369.78	-58.91	6.277	6.277
395	Z	15.556	7.778					2.500	369.78	58.61	6.309	6.309
399	Z	15.556	7.778					2.500	369.78	-58.89	6.279	6.279
399	Z	15.556	7.778					2.500	369.78	59.64	6.200	6.200
404	Z	15.556	7.778					2.500	369.78	109.42	3.379	3.379
404	Z	15.556	7.778					2.500	369.78	198.69	1.861	1.861
405	Z	15.556	7.778					2.500	369.78	47.67	7.757	7.757
405	Z	15.556	7.778					2.500	369.78	110.21	3.355	3.355
406	Z	15.556	7.778					2.500	369.78	-43.09	8.582	8.582
406	Z	15.556	7.778					2.500	369.78	53.06	6.969	6.969

407	Z	15.556	7.778					2.500	369.78	-202.42	1.827	1.827
407	Z	15.556	7.778					2.500	369.78	-100.09	3.694	3.694
408	Z	15.556	7.778					2.500	369.78	-100.58	3.676	3.676
408	Z	15.556	7.778					2.500	369.78	-37.91	9.754	9.754
409	Z	15.556	7.778					2.500	369.78	109.63	3.373	3.373
409	Z	15.556	7.778					2.500	369.78	214.31	1.725	1.725
410	Z	15.556	7.778					2.500	369.78	45.31	8.161	8.161
410	Z	15.556	7.778					2.500	369.78	109.92	3.364	3.364
411	Z	15.556	7.778					2.500	369.78	-48.23	7.667	7.667
411	Z	15.556	7.778					2.500	369.78	50.49	7.324	7.324
412	Z	15.556	7.778					2.500	369.78	-196.13	1.885	1.885
412	Z	15.556	7.778					2.500	369.78	-105.60	3.502	3.502
413	Z	15.556	7.778					2.500	369.78	-106.55	3.470	3.470
413	Z	15.556	7.778					2.500	369.78	-42.91	8.618	8.618
429	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	15.76	9.735	9.735
430	T	15.556	7.778					2.500	153.42	-15.41	9.956	9.956
432	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
433	T	15.556	7.778					2.500	153.42	15.75	9.741	9.741
433	T	15.556	7.778					2.500	153.42	-15.41	9.956	9.956
492	T	15.556	7.778					2.500	153.42	15.28	>> 1	>> 1
492	T	15.556	7.778					2.500	153.42	-15.28	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	0.01	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1

33. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ, n (N/mm ²)	f _{vk0} /f _{vm0}	γ, m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.
106	n	B	269.81	17.60	0.07	1.000	269.81	0.232	0.300	3.00	0.131	152.22	3.13	>> 1
109	n	B	290.83	-95.86	0.33	1.000	290.83	0.235	0.300	3.00	0.131	162.62	39.42	4.125
113	n	B	267.21	73.74	0.28	1.000	267.21	0.230	0.300	3.00	0.131	151.87	12.82	>> 1
116	n	B	286.87	-150.48	0.52	1.000	286.87	0.232	0.300	3.00	0.131	162.09	52.61	3.081

34. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.
120	C	15.556	7.778	2.500	276.35	20.05	>> 1	2.500	1588.28	3.09	>> 1	>> 1
120	C	15.556	7.778	2.500	276.35	21.16	>> 1	2.500	1588.28	3.09	>> 1	>> 1
123	C	15.556	7.778	2.500	276.35	52.82	5.232	2.500	3014.29	4.24	>> 1	5.232
123	C	15.556	7.778	2.500	276.35	54.90	5.034	2.500	3014.29	4.24	>> 1	5.034
124	C	15.556	7.778	2.500	276.35	-16.71	>> 1	2.500	924.45	-0.43	>> 1	>> 1
124	C	15.556	7.778	2.500	276.35	-16.07	>> 1	2.500	924.45	-0.43	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-19.69	>> 1	2.500	1415.68	-1.32	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-18.70	>> 1	2.500	1415.68	-1.32	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-13.51	>> 1	2.500	1373.89	-2.12	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-12.55	>> 1	2.500	1373.89	-2.12	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	33.06	8.359	2.500	1512.06	1.70	>> 1	8.359
133	C	15.556	7.778	2.500	276.35	34.11	8.102	2.500	1512.06	1.70	>> 1	8.102
138	C	15.556	7.778	2.500	276.35	-12.08	>> 1	2.500	1610.41	-2.95	>> 1	>> 1
138	C	15.556	7.778	2.500	276.35	-10.97	>> 1	2.500	1610.41	-2.95	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	17.64	>> 1	2.500	1095.08	1.71	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	18.41	>> 1	2.500	1095.08	1.71	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	21.34	>> 1	2.500	1415.68	2.37	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	22.33	>> 1	2.500	1415.68	2.37	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	19.65	>> 1	2.500	932.32	1.07	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	20.31	>> 1	2.500	932.32	1.07	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	12.73	>> 1	2.500	1095.08	2.21	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	13.50	>> 1	2.500	1095.08	2.21	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	10.04	>> 1	2.500	924.45	1.90	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	10.68	>> 1	2.500	924.45	1.90	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-34.28	8.062	2.500	3014.29	-3.91	>> 1	8.062
178	C	15.556	7.778	2.500	276.35	-32.20	8.582	2.500	3014.29	-3.91	>> 1	8.582
179	C	15.556	7.778	2.500	276.35	-14.26	>> 1	2.500	1095.08	-1.17	>> 1	>> 1
179	C	15.556	7.778	2.500	276.35	-13.49	>> 1	2.500	1095.08	-1.17	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-25.74	>> 1	2.500	1588.28	-0.97	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-24.64	>> 1	2.500	1588.28	-0.97	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-18.93	>> 1	2.500	1095.08	-0.56	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-18.15	>> 1	2.500	1095.08	-0.56	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-13.84	>> 1	2.500	1590.74	-2.70	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-12.74	>> 1	2.500	1590.74	-2.70	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-7.03	>> 1	2.500	1075.41	-2.05	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-6.29	>> 1	2.500	1075.41	-2.05	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-3.83	>> 1	2.500	643.18	-1.23	>> 1	>> 1

191	C	15.556	7.778	2.500	276.35	-3.39	>> 1	2.500	643.18	-1.23	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	15.29	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	-15.29	>> 1	>> 1
395	Z	15.556	7.778					2.500	369.78	-73.57	5.026	5.026
395	Z	15.556	7.778					2.500	369.78	44.22	8.362	8.362
399	Z	15.556	7.778					2.500	369.78	-43.03	8.594	8.594
399	Z	15.556	7.778					2.500	369.78	75.45	4.901	4.901
404	Z	15.556	7.778					2.500	369.78	107.99	3.424	3.424
404	Z	15.556	7.778					2.500	369.78	199.93	1.850	1.850
405	Z	15.556	7.778					2.500	369.78	45.22	8.177	8.177
405	Z	15.556	7.778					2.500	369.78	108.86	3.397	3.397
406	Z	15.556	7.778					2.500	369.78	-45.74	8.084	8.084
406	Z	15.556	7.778					2.500	369.78	50.59	7.309	7.309
407	Z	15.556	7.778					2.500	369.78	-201.56	1.835	1.835
407	Z	15.556	7.778					2.500	369.78	-101.93	3.628	3.628
408	Z	15.556	7.778					2.500	369.78	-102.32	3.614	3.614
408	Z	15.556	7.778					2.500	369.78	-40.53	9.124	9.124
409	Z	15.556	7.778					2.500	369.78	111.82	3.307	3.307
409	Z	15.556	7.778					2.500	369.78	213.55	1.732	1.732
410	Z	15.556	7.778					2.500	369.78	48.41	7.638	7.638
410	Z	15.556	7.778					2.500	369.78	111.99	3.302	3.302
411	Z	15.556	7.778					2.500	369.78	-45.00	8.217	8.217
411	Z	15.556	7.778					2.500	369.78	53.61	6.898	6.898
412	Z	15.556	7.778					2.500	369.78	-196.08	1.886	1.886
412	Z	15.556	7.778					2.500	369.78	-103.17	3.584	3.584
413	Z	15.556	7.778					2.500	369.78	-104.23	3.548	3.548
413	Z	15.556	7.778					2.500	369.78	-39.70	9.314	9.314
429	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	15.76	9.735	9.735
430	T	15.556	7.778					2.500	153.42	-15.40	9.962	9.962
432	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
433	T	15.556	7.778					2.500	153.42	15.75	9.741	9.741
433	T	15.556	7.778					2.500	153.42	-15.42	9.949	9.949
492	T	15.556	7.778					2.500	153.42	15.28	>> 1	>> 1
492	T	15.556	7.778					2.500	153.42	-15.28	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	0.01	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1

35. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ_n (N/mm ²)	f _{vk0} /f _{vm0}	γ_m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.
106	n	B	270.36	56.67	0.21	1.000	270.36	0.233	0.300	3.00	0.131	152.29	18.42	8.268
109	n	B	291.57	-52.68	0.18	1.000	291.57	0.235	0.300	3.00	0.131	162.72	15.76	>> 1
113	n	B	267.26	110.22	0.41	1.000	267.26	0.230	0.300	3.00	0.131	151.88	33.30	4.561
116	n	B	287.45	-108.99	0.38	1.000	287.45	0.232	0.300	3.00	0.131	162.17	29.81	5.440

36. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.
120	C	15.556	7.778	2.500	276.35	23.15	>> 1	2.500	1588.28	0.50	>> 1	>> 1
123	C	15.556	7.778	2.500	276.35	50.28	5.496	2.500	3014.29	-0.67	>> 1	5.496
124	C	15.556	7.778	2.500	276.35	-14.06	>> 1	2.500	924.45	-0.58	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-19.04	>> 1	2.500	1415.68	-1.55	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-16.15	>> 1	2.500	1373.89	-2.31	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	28.18	9.807	2.500	1512.06	-0.85	>> 1	9.807
138	C	15.556	7.778	2.500	276.35	-17.31	>> 1	2.500	1610.41	-3.11	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	17.69	>> 1	2.500	1095.08	-0.06	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	22.17	>> 1	2.500	1415.68	0.07	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	17.12	>> 1	2.500	932.32	-0.48	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	15.52	>> 1	2.500	1095.08	0.43	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	12.81	>> 1	2.500	924.45	0.40	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-37.21	7.427	2.500	3014.29	-4.38	>> 1	7.427
179	C	15.556	7.778	2.500	276.35	-14.36	>> 1	2.500	1095.08	-1.35	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-22.86	>> 1	2.500	1588.28	-1.23	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-16.28	>> 1	2.500	1095.08	-0.74	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-17.91	>> 1	2.500	1590.74	-2.89	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-11.17	>> 1	2.500	1075.41	-2.13	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-6.58	>> 1	2.500	643.18	-1.27	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	15.29	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	-15.29	>> 1	>> 1
395	Z	15.556	7.778					2.500	369.78	-59.07	6.260	6.260
395	Z	15.556	7.778					2.500	369.78	58.78	6.291	6.291
399	Z	15.556	7.778					2.500	369.78	-58.68	6.302	6.302

399	Z	15.556	7.778				2.500	369.78	59.54	6.211	6.211
404	Z	15.556	7.778				2.500	369.78	109.63	3.373	3.373
404	Z	15.556	7.778				2.500	369.78	199.07	1.858	1.858
405	Z	15.556	7.778				2.500	369.78	47.77	7.741	7.741
405	Z	15.556	7.778				2.500	369.78	110.41	3.349	3.349
406	Z	15.556	7.778				2.500	369.78	-43.18	8.564	8.564
406	Z	15.556	7.778				2.500	369.78	53.15	6.957	6.957
407	Z	15.556	7.778				2.500	369.78	-202.80	1.823	1.823
407	Z	15.556	7.778				2.500	369.78	-100.29	3.687	3.687
408	Z	15.556	7.778				2.500	369.78	-100.77	3.670	3.670
408	Z	15.556	7.778				2.500	369.78	-37.98	9.736	9.736
409	Z	15.556	7.778				2.500	369.78	109.26	3.384	3.384
409	Z	15.556	7.778				2.500	369.78	213.58	1.731	1.731
410	Z	15.556	7.778				2.500	369.78	45.16	8.188	8.188
410	Z	15.556	7.778				2.500	369.78	109.54	3.376	3.376
411	Z	15.556	7.778				2.500	369.78	-48.05	7.696	7.696
411	Z	15.556	7.778				2.500	369.78	50.32	7.349	7.349
412	Z	15.556	7.778				2.500	369.78	-195.41	1.892	1.892
412	Z	15.556	7.778				2.500	369.78	-105.20	3.515	3.515
413	Z	15.556	7.778				2.500	369.78	-106.15	3.484	3.484
413	Z	15.556	7.778				2.500	369.78	-42.74	8.652	8.652
429	T	15.556	7.778				2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778				2.500	153.42	15.76	9.735	9.735
430	T	15.556	7.778				2.500	153.42	-15.41	9.956	9.956
432	T	15.556	7.778				2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1
433	T	15.556	7.778				2.500	153.42	15.75	9.741	9.741
433	T	15.556	7.778				2.500	153.42	-15.41	9.956	9.956
492	T	15.556	7.778				2.500	153.42	15.28	>> 1	>> 1
492	T	15.556	7.778				2.500	153.42	-15.28	>> 1	>> 1
493	T	15.556	7.778				2.500	153.42	0.01	>> 1	>> 1
493	T	15.556	7.778				2.500	153.42	-0.02	>> 1	>> 1

37. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ_n (N/mm ²)	f _{vk0} /f _{vm0}	γ_m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.
106	n	B	269.72	96.04	0.36	1.000	269.72	0.232	0.300	3.00	0.131	152.20	40.05	3.800
109	n	B	291.09	-9.84	0.03	1.000	291.09	0.235	0.300	3.00	0.131	162.65	7.81	>> 1
113	n	B	266.78	148.20	0.56	0.960	266.78	0.240	0.300	3.00	0.132	146.61	54.26	2.702
116	n	B	287.68	-68.59	0.24	1.000	287.68	0.232	0.300	3.00	0.131	162.20	7.20	>> 1

38. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))

N.	Tip.	f _{cd} (N/mm ²)	γ f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.
120	C	15.556	7.778	2.500	276.35	26.15	>> 1	2.500	1588.28	0.54	>> 1	>> 1
120	C	15.556	7.778	2.500	276.35	25.05	>> 1	2.500	1588.28	0.54	>> 1	>> 1
123	C	15.556	7.778	2.500	276.35	47.76	5.786	2.500	3014.29	-0.62	>> 1	5.786
123	C	15.556	7.778	2.500	276.35	45.68	6.050	2.500	3014.29	-0.62	>> 1	6.050
124	C	15.556	7.778	2.500	276.35	-11.49	>> 1	2.500	924.45	0.72	>> 1	>> 1
124	C	15.556	7.778	2.500	276.35	-12.14	>> 1	2.500	924.45	0.72	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-18.43	>> 1	2.500	1415.68	0.44	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-19.42	>> 1	2.500	1415.68	0.44	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-18.76	>> 1	2.500	1373.89	-0.35	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-19.72	>> 1	2.500	1373.89	-0.35	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	23.40	>> 1	2.500	1512.06	-0.91	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	22.35	>> 1	2.500	1512.06	-0.91	>> 1	>> 1
138	C	15.556	7.778	2.500	276.35	-22.45	>> 1	2.500	1610.41	-0.75	>> 1	>> 1
138	C	15.556	7.778	2.500	276.35	-23.56	>> 1	2.500	1610.41	-0.75	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	17.73	>> 1	2.500	1095.08	-0.04	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	16.95	>> 1	2.500	1095.08	-0.04	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	22.97	>> 1	2.500	1415.68	0.11	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	21.99	>> 1	2.500	1415.68	0.11	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	14.64	>> 1	2.500	932.32	-0.50	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	13.98	>> 1	2.500	932.32	-0.50	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	18.24	>> 1	2.500	1095.08	0.46	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	17.47	>> 1	2.500	1095.08	0.46	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	15.51	>> 1	2.500	924.45	0.42	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	14.87	>> 1	2.500	924.45	0.42	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-40.12	6.888	2.500	3014.29	-0.11	>> 1	6.888
178	C	15.556	7.778	2.500	276.35	-42.20	6.549	2.500	3014.29	-0.11	>> 1	6.549
179	C	15.556	7.778	2.500	276.35	-14.46	>> 1	2.500	1095.08	0.19	>> 1	>> 1
179	C	15.556	7.778	2.500	276.35	-15.24	>> 1	2.500	1095.08	0.19	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-20.07	>> 1	2.500	1588.28	1.02	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-21.18	>> 1	2.500	1588.28	1.02	>> 1	>> 1

184	C	15.556	7.778	2.500	276.35	-13.71	>> 1	2.500	1095.08	0.81	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-14.49	>> 1	2.500	1095.08	0.81	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-21.91	>> 1	2.500	1590.74	-0.60	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-23.02	>> 1	2.500	1590.74	-0.60	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-15.24	>> 1	2.500	1075.41	-0.54	>> 1	>> 1
189	C	15.556	7.778	2.500	276.35	-15.98	>> 1	2.500	1075.41	-0.54	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-9.28	>> 1	2.500	643.18	-0.32	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-9.72	>> 1	2.500	643.18	-0.32	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	15.29	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	-15.29	>> 1	>> 1
395	Z	15.556	7.778					2.500	369.78	-44.40	8.328	8.328
395	Z	15.556	7.778					2.500	369.78	73.17	5.054	5.054
399	Z	15.556	7.778					2.500	369.78	-74.54	4.961	4.961
399	Z	15.556	7.778					2.500	369.78	43.72	8.458	8.458
404	Z	15.556	7.778					2.500	369.78	111.06	3.330	3.330
404	Z	15.556	7.778					2.500	369.78	197.83	1.869	1.869
405	Z	15.556	7.778					2.500	369.78	50.22	7.363	7.363
405	Z	15.556	7.778					2.500	369.78	111.76	3.309	3.309
406	Z	15.556	7.778					2.500	369.78	-40.53	9.124	9.124
406	Z	15.556	7.778					2.500	369.78	55.62	6.648	6.648
407	Z	15.556	7.778					2.500	369.78	-203.67	1.816	1.816
407	Z	15.556	7.778					2.500	369.78	-98.45	3.756	3.756
408	Z	15.556	7.778					2.500	369.78	-99.02	3.734	3.734
408	Z	15.556	7.778					2.500	369.78	-35.36	>> 1	>> 1
409	Z	15.556	7.778					2.500	369.78	107.08	3.453	3.453
409	Z	15.556	7.778					2.500	369.78	214.35	1.725	1.725
410	Z	15.556	7.778					2.500	369.78	42.07	8.790	8.790
410	Z	15.556	7.778					2.500	369.78	107.47	3.441	3.441
411	Z	15.556	7.778					2.500	369.78	-51.28	7.211	7.211
411	Z	15.556	7.778					2.500	369.78	47.20	7.834	7.834
412	Z	15.556	7.778					2.500	369.78	-195.46	1.892	1.892
412	Z	15.556	7.778					2.500	369.78	-107.64	3.435	3.435
413	Z	15.556	7.778					2.500	369.78	-108.47	3.409	3.409
413	Z	15.556	7.778					2.500	369.78	-45.95	8.047	8.047
429	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	15.75	9.741	9.741
430	T	15.556	7.778					2.500	153.42	-15.41	9.956	9.956
432	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
433	T	15.556	7.778					2.500	153.42	15.76	9.735	9.735
433	T	15.556	7.778					2.500	153.42	-15.41	9.956	9.956
492	T	15.556	7.778					2.500	153.42	15.28	>> 1	>> 1
492	T	15.556	7.778					2.500	153.42	-15.28	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	0.01	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1

39. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°9:)

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ_n (N/mm ²)	f _{vk0} /f _{vm0}	γ_m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.
106	n	B	261.59	55.63	0.21	1.000	261.59	0.225	0.300	3.00	0.130	151.12	17.86	8.461
109	n	B	282.14	-51.71	0.18	1.000	282.14	0.228	0.300	3.00	0.130	161.46	15.18	>> 1
113	n	B	259.21	108.30	0.42	1.000	259.21	0.223	0.300	3.00	0.130	150.80	32.52	4.637
116	n	B	278.92	-106.78	0.38	1.000	278.92	0.225	0.300	3.00	0.130	161.03	28.88	5.576

40. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329

(Analisi Statica Lineare NON Sismica: CCC n°9:)

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.
120	C	15.556	7.778	2.500	276.35	20.44	>> 1	2.500	1588.28	1.65	>> 1	>> 1
123	C	15.556	7.778	2.500	276.35	44.58	6.199	2.500	3014.29	1.50	>> 1	6.199
124	C	15.556	7.778	2.500	276.35	-12.50	>> 1	2.500	924.45	0.22	>> 1	>> 1
128	C	15.556	7.778	2.500	276.35	-16.87	>> 1	2.500	1415.68	-0.32	>> 1	>> 1
130	C	15.556	7.778	2.500	276.35	-14.26	>> 1	2.500	1373.89	-1.12	>> 1	>> 1
133	C	15.556	7.778	2.500	276.35	25.05	>> 1	2.500	1512.06	0.24	>> 1	>> 1
138	C	15.556	7.778	2.500	276.35	-15.23	>> 1	2.500	1610.41	-1.72	>> 1	>> 1
166	C	15.556	7.778	2.500	276.35	15.67	>> 1	2.500	1095.08	0.73	>> 1	>> 1
169	C	15.556	7.778	2.500	276.35	19.63	>> 1	2.500	1415.68	1.10	>> 1	>> 1
171	C	15.556	7.778	2.500	276.35	15.21	>> 1	2.500	932.32	0.19	>> 1	>> 1
173	C	15.556	7.778	2.500	276.35	13.69	>> 1	2.500	1095.08	1.22	>> 1	>> 1
176	C	15.556	7.778	2.500	276.35	11.29	>> 1	2.500	924.45	1.07	>> 1	>> 1
178	C	15.556	7.778	2.500	276.35	-32.91	8.397	2.500	3014.29	-1.77	>> 1	8.397
179	C	15.556	7.778	2.500	276.35	-12.71	>> 1	2.500	1095.08	-0.40	>> 1	>> 1
182	C	15.556	7.778	2.500	276.35	-20.29	>> 1	2.500	1588.28	0.15	>> 1	>> 1
184	C	15.556	7.778	2.500	276.35	-14.46	>> 1	2.500	1095.08	0.21	>> 1	>> 1
187	C	15.556	7.778	2.500	276.35	-15.79	>> 1	2.500	1590.74	-1.52	>> 1	>> 1

189	C	15.556	7.778	2.500	276.35	-9.81	>> 1	2.500	1075.41	-1.21	>> 1	>> 1
191	C	15.556	7.778	2.500	276.35	-5.78	>> 1	2.500	643.18	-0.72	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	13.81	>> 1	>> 1
241	T	15.556	7.778					2.500	153.42	-13.81	>> 1	>> 1
395	Z	15.556	7.778					2.500	369.78	-57.26	6.458	6.458
395	Z	15.556	7.778					2.500	369.78	57.02	6.485	6.485
399	Z	15.556	7.778					2.500	369.78	-57.18	6.467	6.467
399	Z	15.556	7.778					2.500	369.78	57.91	6.385	6.385
404	Z	15.556	7.778					2.500	369.78	106.34	3.477	3.477
404	Z	15.556	7.778					2.500	369.78	193.16	1.914	1.914
405	Z	15.556	7.778					2.500	369.78	46.32	7.983	7.983
405	Z	15.556	7.778					2.500	369.78	107.14	3.451	3.451
406	Z	15.556	7.778					2.500	369.78	-41.92	8.821	8.821
406	Z	15.556	7.778					2.500	369.78	51.59	7.168	7.168
407	Z	15.556	7.778					2.500	369.78	-196.77	1.879	1.879
407	Z	15.556	7.778					2.500	369.78	-97.27	3.802	3.802
408	Z	15.556	7.778					2.500	369.78	-97.77	3.782	3.782
408	Z	15.556	7.778					2.500	369.78	-36.83	>> 1	>> 1
409	Z	15.556	7.778					2.500	369.78	106.38	3.476	3.476
409	Z	15.556	7.778					2.500	369.78	208.02	1.778	1.778
410	Z	15.556	7.778					2.500	369.78	43.96	8.412	8.412
410	Z	15.556	7.778					2.500	369.78	106.70	3.466	3.466
411	Z	15.556	7.778					2.500	369.78	-46.83	7.896	7.896
411	Z	15.556	7.778					2.500	369.78	49.03	7.542	7.542
412	Z	15.556	7.778					2.500	369.78	-190.38	1.942	1.942
412	Z	15.556	7.778					2.500	369.78	-102.47	3.609	3.609
413	Z	15.556	7.778					2.500	369.78	-103.42	3.576	3.576
413	Z	15.556	7.778					2.500	369.78	-41.62	8.885	8.885
429	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
429	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	14.16	>> 1	>> 1
430	T	15.556	7.778					2.500	153.42	-13.83	>> 1	>> 1
432	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1
432	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1
433	T	15.556	7.778					2.500	153.42	14.15	>> 1	>> 1
433	T	15.556	7.778					2.500	153.42	-13.84	>> 1	>> 1
492	T	15.556	7.778					2.500	153.42	13.80	>> 1	>> 1
492	T	15.556	7.778					2.500	153.42	-13.80	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	0.01	>> 1	>> 1
493	T	15.556	7.778					2.500	153.42	-0.01	>> 1	>> 1

41. VERIFICA A TAGLIO PER SCORRIMENTO (§4.5.6, §7.8.2.2.2) [SLV] - C.Sic: 1.329 (CCC ID 44)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	n/e	Sez.	P (kN)	M (kN m)	Ecc. (m)	Beta	C (kN)	σ_n (N/mm ²)	f _{vk0} /f _{vm0}	γ_m * FC	f _{vd} (N/mm ²)	V _t (kN)	V (kN)	C.Sic.	ID CCC
106	n	B	350.19	113.02	0.32	1.000	350.19	0.301	0.300	3.00	0.140	162.93	45.55	3.577	44
109	n	B	377.63	-111.65	0.30	1.000	377.63	0.305	0.300	3.00	0.141	174.19	44.13	3.947	42
113	n	B	346.39	181.34	0.52	0.990	346.39	0.302	0.300	3.00	0.140	160.87	64.26	2.503	44
116	n	B	372.53	-183.18	0.49	1.000	372.53	0.301	0.300	3.00	0.140	173.51	61.53	2.820	42

42. VERIFICA A TAGLIO - STRUTTURE IN C.A. [SLV] - C.Sic: 1.329 (CCC ID 44)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	Tip.	f _{cd} (N/mm ²)	ν f _{cd}	cotg.th (y)	V _{u,y} (kN)	V _y	C.Sic. y	cotg.th (Z)	V _{u,Z} (kN)	V _z	C.Sic. Z	C.Sic.	ID CCC
120	C	15.556	7.778	2.500	276.35	32.93	8.392	2.500	1588.28	1.08	>> 1	8.392	44
120	C	15.556	7.778	2.500	276.35	31.83	8.682	2.500	1588.28	1.08	>> 1	8.682	44
123	C	15.556	7.778	2.500	276.35	67.57	4.090	2.500	3014.29	4.77	>> 1	4.090	42
123	C	15.556	7.778	2.500	276.35	69.66	3.967	2.500	3014.29	4.77	>> 1	3.967	42
124	C	15.556	7.778	2.500	276.35	-20.85	>> 1	2.500	924.45	-0.38	>> 1	>> 1	42
124	C	15.556	7.778	2.500	276.35	-20.20	>> 1	2.500	924.45	-0.38	>> 1	>> 1	42
128	C	15.556	7.778	2.500	276.35	-25.28	>> 1	2.500	1415.68	-1.44	>> 1	>> 1	42
128	C	15.556	7.778	2.500	276.35	-24.29	>> 1	2.500	1415.68	-1.44	>> 1	>> 1	42
130	C	15.556	7.778	2.500	276.35	-23.49	>> 1	2.500	1373.89	-0.71	>> 1	>> 1	44
130	C	15.556	7.778	2.500	276.35	-24.45	>> 1	2.500	1373.89	-0.71	>> 1	>> 1	44
133	C	15.556	7.778	2.500	276.35	41.35	6.683	2.500	1512.06	1.80	>> 1	6.683	42
133	C	15.556	7.778	2.500	276.35	42.40	6.518	2.500	1512.06	1.80	>> 1	6.518	42
138	C	15.556	7.778	2.500	276.35	-27.51	>> 1	2.500	1610.41	-1.30	>> 1	>> 1	44
138	C	15.556	7.778	2.500	276.35	-28.63	9.652	2.500	1610.41	-1.30	>> 1	9.652	44
166	C	15.556	7.778	2.500	276.35	22.83	>> 1	2.500	1095.08	1.96	>> 1	>> 1	42
166	C	15.556	7.778	2.500	276.35	23.60	>> 1	2.500	1095.08	1.96	>> 1	>> 1	42
169	C	15.556	7.778	2.500	276.35	29.47	9.377	2.500	1415.68	0.47	>> 1	9.377	44
169	C	15.556	7.778	2.500	276.35	28.49	9.700	2.500	1415.68	0.47	>> 1	9.700	44
171	C	15.556	7.778	2.500	276.35	24.69	>> 1	2.500	932.32	1.14	>> 1	>> 1	42
171	C	15.556	7.778	2.500	276.35	25.34	>> 1	2.500	932.32	1.14	>> 1	>> 1	42
173	C	15.556	7.778	2.500	276.35	22.78	>> 1	2.500	1095.08	0.85	>> 1	>> 1	44
173	C	15.556	7.778	2.500	276.35	22.01	>> 1	2.500	1095.08	0.85	>> 1	>> 1	44
176	C	15.556	7.778	2.500	276.35	19.26	>> 1	2.500	924.45	0.77	>> 1	>> 1	44

176	C	15.556	7.778	2.500	276.35	18.61	>> 1	2.500	924.45	0.77	>> 1	>> 1	44
178	C	15.556	7.778	2.500	276.35	-51.03	5.415	2.500	3014.29	-0.70	>> 1	5.415	44
178	C	15.556	7.778	2.500	276.35	-53.11	5.203	2.500	3014.29	-0.70	>> 1	5.203	44
179	C	15.556	7.778	2.500	276.35	-18.68	>> 1	2.500	1095.08	0.05	>> 1	>> 1	44
179	C	15.556	7.778	2.500	276.35	-19.45	>> 1	2.500	1095.08	0.05	>> 1	>> 1	44
182	C	15.556	7.778	2.500	276.35	-32.46	8.514	2.500	1588.28	-0.95	>> 1	8.514	42
182	C	15.556	7.778	2.500	276.35	-31.36	8.812	2.500	1588.28	-0.95	>> 1	8.812	42
184	C	15.556	7.778	2.500	276.35	-23.71	>> 1	2.500	1095.08	-0.52	>> 1	>> 1	42
184	C	15.556	7.778	2.500	276.35	-22.94	>> 1	2.500	1095.08	-0.52	>> 1	>> 1	42
187	C	15.556	7.778	2.500	276.35	-27.16	>> 1	2.500	1590.74	-1.09	>> 1	>> 1	44
187	C	15.556	7.778	2.500	276.35	-28.26	9.779	2.500	1590.74	-1.09	>> 1	9.779	44
189	C	15.556	7.778	2.500	276.35	-18.50	>> 1	2.500	1075.41	-0.92	>> 1	>> 1	44
189	C	15.556	7.778	2.500	276.35	-19.24	>> 1	2.500	1075.41	-0.92	>> 1	>> 1	44
191	C	15.556	7.778	2.500	276.35	-11.21	>> 1	2.500	643.18	-0.55	>> 1	>> 1	44
191	C	15.556	7.778	2.500	276.35	-11.64	>> 1	2.500	643.18	-0.55	>> 1	>> 1	44
241	T	15.556	7.778					2.500	153.42	19.86	7.725	7.725	41
241	T	15.556	7.778					2.500	153.42	-19.86	7.725	7.725	41
395	Z	15.556	7.778					2.500	369.78	-91.17	4.056	4.056	42
395	Z	15.556	7.778					2.500	369.78	61.74	5.989	5.989	42
399	Z	15.556	7.778					2.500	369.78	-60.56	6.106	6.106	42
399	Z	15.556	7.778					2.500	369.78	93.22	3.967	3.967	42
404	Z	15.556	7.778					2.500	369.78	140.66	2.629	2.629	42
404	Z	15.556	7.778					2.500	369.78	259.26	1.426	1.426	42
405	Z	15.556	7.778					2.500	369.78	64.46	5.737	5.737	44
405	Z	15.556	7.778					2.500	369.78	144.67	2.556	2.556	44
406	Z	15.556	7.778					2.500	369.78	-53.40	6.925	6.925	44
406	Z	15.556	7.778					2.500	369.78	71.46	5.175	5.175	44
407	Z	15.556	7.778					2.500	369.78	-264.12	1.400	1.400	44
407	Z	15.556	7.778					2.500	369.78	-128.34	2.881	2.881	44
408	Z	15.556	7.778					2.500	369.78	-132.36	2.794	2.794	42
408	Z	15.556	7.778					2.500	369.78	-51.85	7.132	7.132	42
409	Z	15.556	7.778					2.500	369.78	139.72	2.647	2.647	44
409	Z	15.556	7.778					2.500	369.78	278.15	1.329	1.329	44
410	Z	15.556	7.778					2.500	369.78	61.90	5.974	5.974	42
410	Z	15.556	7.778					2.500	369.78	144.72	2.555	2.555	42
411	Z	15.556	7.778					2.500	369.78	-59.36	6.229	6.229	42
411	Z	15.556	7.778					2.500	369.78	68.64	5.387	5.387	42
412	Z	15.556	7.778					2.500	369.78	-254.52	1.453	1.453	41
412	Z	15.556	7.778					2.500	369.78	-137.03	2.699	2.699	41
413	Z	15.556	7.778					2.500	369.78	-140.19	2.638	2.638	44
413	Z	15.556	7.778					2.500	369.78	-58.72	6.297	6.297	44
429	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1	41
429	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1	41
430	T	15.556	7.778					2.500	153.42	20.47	7.495	7.495	42
430	T	15.556	7.778					2.500	153.42	-20.00	7.671	7.671	42
432	T	15.556	7.778					2.500	153.42	0.00	>> 1	>> 1	41
432	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1	41
433	T	15.556	7.778					2.500	153.42	20.46	7.498	7.498	41
433	T	15.556	7.778					2.500	153.42	-20.02	7.663	7.663	41
492	T	15.556	7.778					2.500	153.42	19.85	7.729	7.729	41
492	T	15.556	7.778					2.500	153.42	-19.85	7.729	7.729	41
493	T	15.556	7.778					2.500	153.42	0.02	>> 1	>> 1	41
493	T	15.556	7.778					2.500	153.42	-0.02	>> 1	>> 1	41

43. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm^2)	tau0	γ_m * FC	fvd (N/mm^2)	Vt (kN)	V (kN)	C.Sic.
1	e	M	1.330	207.10	0.114	0.043	3.60	0.037	66.54	33.25	2.001
4	e	M	1.330	192.61	0.106	0.043	3.60	0.036	64.50	35.86	1.799
8	e	M	1.500	46.08	0.048	0.043	3.60	0.023	21.89	12.77	1.714
11	e	M	1.500	95.22	0.083	0.043	3.60	0.028	32.66	19.89	1.642
16	e	M	1.500	123.02	0.107	0.043	3.60	0.032	36.28	8.10	4.479
19	e	M	1.300	261.04	0.133	0.043	3.60	0.040	78.40	17.98	4.360
23	e	M	1.500	55.71	0.164	0.043	3.60	0.038	12.94	0.40	>> 1
26	e	M	1.500	79.03	0.254	0.043	3.60	0.047	14.47	0.27	>> 1
30	e	M	1.150	313.13	0.179	0.043	3.60	0.052	90.53	39.59	2.287
34	e	M	1.000	318.37	0.086	0.043	3.60	0.043	159.71	41.06	3.890
40	e	M	1.500	41.14	0.121	0.043	3.60	0.033	11.32	0.35	>> 1
43	e	M	1.300	375.22	0.191	0.043	3.60	0.047	92.50	13.68	6.762
46	e	M	1.070	203.10	0.103	0.043	3.60	0.044	85.97	31.06	2.768
49	e	M	1.500	24.96	0.031	0.043	3.60	0.020	15.92	3.66	4.351
54	e	M	1.500	81.15	0.102	0.043	3.60	0.031	24.62	2.10	>> 1
56	e	M	1.500	65.44	0.126	0.043	3.60	0.034	17.56	1.95	9.007
60	e	M	1.500	53.46	0.103	0.043	3.60	0.031	16.09	0.79	>> 1
64	e	M	1.500	181.97	0.158	0.043	3.60	0.038	43.19	21.88	1.974
69	e	M	1.500	240.47	0.209	0.043	3.60	0.043	48.91	5.33	9.177
71	e	M	1.500	39.60	0.116	0.043	3.60	0.033	11.14	0.37	>> 1
75	e	M	1.000	297.65	0.080	0.043	3.60	0.042	155.35	43.99	3.531
79	e	M	1.150	297.59	0.170	0.043	3.60	0.051	88.46	38.72	2.285
85	e	M	1.500	76.29	0.245	0.043	3.60	0.046	14.23	0.25	>> 1
88	e	M	1.500	53.86	0.158	0.043	3.60	0.037	12.74	0.44	>> 1

92	e	M	1.300	244.36	0.125	0.043	3.60	0.039	76.16	20.31	3.750
95	e	M	1.500	144.60	0.126	0.043	3.60	0.034	38.91	0.97	>> 1
99	e	M	1.500	169.21	0.147	0.043	3.60	0.036	41.71	0.95	>> 1
101	e	M	1.500	105.34	0.111	0.043	3.60	0.032	30.48	15.71	1.940
104	e	M	1.460	68.22	0.027	0.043	3.60	0.019	48.67	0.82	>> 1
122	e	M	1.000	11.54	0.006	0.043	3.60	0.021	41.38	0.43	>> 1
126	e	M	1.000	11.12	0.006	0.043	3.60	0.020	41.20	0.12	>> 1
132	e	M	1.000	21.02	0.007	0.043	3.60	0.021	60.67	0.38	>> 1
135	e	M	1.000	17.57	0.009	0.043	3.60	0.022	42.21	0.20	>> 1
140	e	M	1.000	6.77	0.006	0.043	3.60	0.021	23.82	0.28	>> 1
143	e	M	1.000	8.10	0.006	0.043	3.60	0.021	27.98	0.34	>> 1
146	e	M	1.000	5.86	0.006	0.043	3.60	0.021	19.84	0.24	>> 1
149	e	M	1.000	5.82	0.005	0.043	3.60	0.020	23.40	0.12	>> 1
152	e	M	1.000	6.67	0.005	0.043	3.60	0.020	27.35	0.14	>> 1
155	e	M	1.000	4.63	0.005	0.043	3.60	0.020	19.30	0.10	>> 1
158	e	M	1.000	36.35	0.020	0.043	3.60	0.026	47.34	3.46	>> 1
163	e	M	1.000	43.82	0.024	0.043	3.60	0.027	49.84	4.43	>> 1
194	e	M	1.460	100.98	0.040	0.043	3.60	0.022	55.28	0.79	>> 1

44. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm^2)	fvd0	γ_{mFC}	fvd (N/mm^2)	Vt,lim (kN)	Vt (kN)	V (kN)	C.Sic.
106	n	M	1.180	300.56	0.259	0.300	3.00	0.134	190.28	155.69	24.01	6.484
109	n	M	1.110	324.62	0.262	0.300	3.00	0.143	215.61	177.33	20.56	8.625
113	n	M	1.180	297.26	0.256	0.300	3.00	0.133	189.82	154.67	43.78	3.533
116	n	M	1.110	320.22	0.259	0.300	3.00	0.142	214.96	175.89	38.92	4.519

45. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm^2)	tau0	γ_{mFC}	fvd (N/mm^2)	Vt (kN)	V (kN)	C.Sic.
1	e	M	1.330	205.22	0.113	0.043	3.60	0.037	66.28	15.12	4.384
4	e	M	1.330	190.72	0.105	0.043	3.60	0.035	64.23	55.41	1.159
8	e	M	1.500	47.91	0.050	0.043	3.60	0.023	22.20	10.34	2.147
11	e	M	1.500	91.00	0.079	0.043	3.60	0.028	32.06	17.26	1.857
16	e	M	1.500	118.23	0.103	0.043	3.60	0.031	35.67	6.86	5.200
19	e	M	1.300	256.60	0.131	0.043	3.60	0.040	77.81	16.71	4.656
23	e	M	1.500	55.92	0.164	0.043	3.60	0.038	12.96	0.36	>> 1
26	e	M	1.500	77.36	0.249	0.043	3.60	0.046	14.33	0.31	>> 1
30	e	M	1.150	303.50	0.173	0.043	3.60	0.051	89.25	42.90	2.080
34	e	M	1.000	309.36	0.084	0.043	3.60	0.043	157.83	36.93	4.274
40	e	M	1.500	41.39	0.121	0.043	3.60	0.033	11.35	0.30	>> 1
43	e	M	1.300	365.55	0.186	0.043	3.60	0.047	91.40	15.92	5.741
46	e	M	1.070	195.83	0.100	0.043	3.60	0.043	84.65	33.92	2.496
49	e	M	1.500	26.85	0.033	0.043	3.60	0.020	16.30	3.38	4.823
54	e	M	1.500	78.85	0.099	0.043	3.60	0.030	24.32	1.58	>> 1
56	e	M	1.500	64.58	0.125	0.043	3.60	0.034	17.46	1.19	>> 1
60	e	M	1.500	53.69	0.104	0.043	3.60	0.031	16.12	0.66	>> 1
64	e	M	1.500	187.04	0.163	0.043	3.60	0.038	43.73	23.62	1.851
69	e	M	1.500	244.53	0.212	0.043	3.60	0.043	49.29	6.24	7.899
71	e	M	1.500	39.70	0.116	0.043	3.60	0.033	11.15	0.30	>> 1
75	e	M	1.000	306.21	0.083	0.043	3.60	0.042	157.16	35.93	4.374
79	e	M	1.150	306.51	0.175	0.043	3.60	0.051	89.65	40.95	2.189
85	e	M	1.500	77.56	0.250	0.043	3.60	0.046	14.34	0.29	>> 1
88	e	M	1.500	54.04	0.159	0.043	3.60	0.038	12.76	0.37	>> 1
92	e	M	1.300	248.39	0.127	0.043	3.60	0.039	76.71	17.10	4.486
95	e	M	1.500	151.76	0.132	0.043	3.60	0.035	39.74	0.22	>> 1
99	e	M	1.500	177.84	0.155	0.043	3.60	0.037	42.65	0.24	>> 1
101	e	M	1.500	104.83	0.110	0.043	3.60	0.032	30.41	16.95	1.794
104	e	M	1.460	72.46	0.029	0.043	3.60	0.020	49.57	19.21	2.581
122	e	M	1.000	11.79	0.006	0.043	3.60	0.021	41.49	0.42	>> 1
126	e	M	1.000	10.96	0.005	0.043	3.60	0.020	41.13	0.16	>> 1
132	e	M	1.000	22.21	0.008	0.043	3.60	0.021	61.17	0.38	>> 1
135	e	M	1.000	17.21	0.009	0.043	3.60	0.022	42.06	0.22	>> 1
140	e	M	1.000	5.97	0.005	0.043	3.60	0.020	23.47	0.28	>> 1
143	e	M	1.000	6.84	0.005	0.043	3.60	0.020	27.43	0.34	>> 1
146	e	M	1.000	4.75	0.005	0.043	3.60	0.020	19.35	0.23	>> 1
149	e	M	1.000	6.66	0.006	0.043	3.60	0.021	23.77	0.04	>> 1
152	e	M	1.000	7.98	0.006	0.043	3.60	0.021	27.93	0.05	>> 1
155	e	M	1.000	5.77	0.006	0.043	3.60	0.021	19.80	0.03	>> 1
158	e	M	1.000	49.86	0.027	0.043	3.60	0.029	51.77	4.04	>> 1
163	e	M	1.000	30.09	0.017	0.043	3.60	0.025	45.13	3.82	>> 1
194	e	M	1.460	101.17	0.041	0.043	3.60	0.022	55.31	19.19	2.882

46. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm ²)	fvd0	γ _m * FC	fvd (N/mm ²)	Vt,lim (kN)	Vt (kN)	V (kN)	C.Sic.
106	n	M	1.180	301.20	0.259	0.300	3.00	0.134	190.37	155.89	2.38	>> 1
109	n	M	1.110	325.09	0.263	0.300	3.00	0.143	215.68	177.49	44.13	4.022
113	n	M	1.180	297.74	0.256	0.300	3.00	0.133	189.89	154.81	22.82	6.784
116	n	M	1.110	320.00	0.258	0.300	3.00	0.142	214.93	175.81	61.53	2.857

47. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm ²)	tau0	γ _m * FC	fvd (N/mm ²)	Vt (kN)	V (kN)	C.Sic.
1	e	M	1.330	205.40	0.113	0.043	3.60	0.037	66.30	34.76	1.908
4	e	M	1.330	191.99	0.106	0.043	3.60	0.035	64.41	36.88	1.746
8	e	M	1.500	45.32	0.048	0.043	3.60	0.023	21.76	11.46	1.899
11	e	M	1.500	97.22	0.084	0.043	3.60	0.029	32.94	16.38	2.011
16	e	M	1.500	125.89	0.109	0.043	3.60	0.032	36.64	6.21	5.900
19	e	M	1.300	261.64	0.133	0.043	3.60	0.040	78.48	13.07	6.004
23	e	M	1.500	56.04	0.165	0.043	3.60	0.038	12.97	0.28	>> 1
26	e	M	1.500	78.57	0.253	0.043	3.60	0.046	14.43	0.35	>> 1
30	e	M	1.150	312.23	0.178	0.043	3.60	0.052	90.41	45.17	2.002
34	e	M	1.000	317.89	0.086	0.043	3.60	0.043	159.61	28.66	5.569
40	e	M	1.500	41.49	0.122	0.043	3.60	0.033	11.37	0.23	>> 1
43	e	M	1.300	370.31	0.189	0.043	3.60	0.047	91.94	18.71	4.914
46	e	M	1.070	199.09	0.101	0.043	3.60	0.043	85.24	37.92	2.248
49	e	M	1.500	25.21	0.031	0.043	3.60	0.020	15.97	3.55	4.500
54	e	M	1.500	80.32	0.101	0.043	3.60	0.031	24.51	0.69	>> 1
56	e	M	1.500	63.17	0.122	0.043	3.60	0.033	17.29	0.69	>> 1
60	e	M	1.500	51.48	0.099	0.043	3.60	0.031	15.84	0.90	>> 1
64	e	M	1.500	180.64	0.157	0.043	3.60	0.037	43.05	25.64	1.679
69	e	M	1.500	238.56	0.207	0.043	3.60	0.042	48.73	7.31	6.667
71	e	M	1.500	39.98	0.117	0.043	3.60	0.033	11.18	0.25	>> 1
75	e	M	1.000	297.24	0.080	0.043	3.60	0.042	155.26	31.42	4.941
79	e	M	1.150	296.78	0.170	0.043	3.60	0.050	88.35	44.45	1.988
85	e	M	1.500	75.86	0.244	0.043	3.60	0.046	14.20	0.34	>> 1
88	e	M	1.500	54.23	0.159	0.043	3.60	0.038	12.78	0.33	>> 1
92	e	M	1.300	243.90	0.124	0.043	3.60	0.039	76.10	15.63	4.869
95	e	M	1.500	146.11	0.127	0.043	3.60	0.034	39.09	1.37	>> 1
99	e	M	1.500	172.32	0.150	0.043	3.60	0.037	42.05	1.39	>> 1
101	e	M	1.500	106.63	0.112	0.043	3.60	0.032	30.64	15.65	1.958
104	e	M	1.460	72.73	0.029	0.043	3.60	0.020	49.63	0.88	>> 1
122	e	M	1.000	11.58	0.006	0.043	3.60	0.021	41.40	0.10	>> 1
126	e	M	1.000	11.13	0.006	0.043	3.60	0.020	41.20	0.19	>> 1
132	e	M	1.000	20.76	0.007	0.043	3.60	0.021	60.56	0.09	>> 1
135	e	M	1.000	17.12	0.009	0.043	3.60	0.022	42.02	0.11	>> 1
140	e	M	1.000	6.85	0.006	0.043	3.60	0.021	23.85	0.10	>> 1
143	e	M	1.000	8.21	0.006	0.043	3.60	0.021	28.03	0.12	>> 1
146	e	M	1.000	5.95	0.006	0.043	3.60	0.021	19.88	0.08	>> 1
149	e	M	1.000	5.85	0.005	0.043	3.60	0.020	23.42	0.06	>> 1
152	e	M	1.000	6.72	0.005	0.043	3.60	0.020	27.37	0.07	>> 1
155	e	M	1.000	4.66	0.005	0.043	3.60	0.020	19.31	0.05	>> 1
158	e	M	1.000	36.31	0.020	0.043	3.60	0.026	47.32	3.46	>> 1
163	e	M	1.000	43.95	0.024	0.043	3.60	0.027	49.88	4.42	>> 1
194	e	M	1.460	104.46	0.042	0.043	3.60	0.022	55.93	0.86	>> 1

48. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm ²)	fvd0	γ _m * FC	fvd (N/mm ²)	Vt,lim (kN)	Vt (kN)	V (kN)	C.Sic.
106	n	M	1.180	301.75	0.260	0.300	3.00	0.134	190.44	156.06	23.93	6.521
109	n	M	1.110	325.83	0.263	0.300	3.00	0.144	215.78	177.73	20.47	8.683
113	n	M	1.180	297.78	0.256	0.300	3.00	0.133	189.89	154.83	43.30	3.576
116	n	M	1.110	320.58	0.259	0.300	3.00	0.142	215.01	176.01	38.72	4.546

49. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm ²)	tau0	γ _m * FC	fvd (N/mm ²)	Vt (kN)	V (kN)	C.Sic.
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1	e	M	1.330	207.28	0.114	0.043	3.60	0.037	66.57	52.89	1.259
4	e	M	1.330	193.89	0.107	0.043	3.60	0.036	64.68	17.32	3.734
8	e	M	1.500	43.48	0.046	0.043	3.60	0.022	21.43	13.89	1.543
11	e	M	1.500	101.44	0.088	0.043	3.60	0.029	33.53	19.02	1.763
16	e	M	1.500	130.68	0.114	0.043	3.60	0.032	37.24	7.45	4.998
19	e	M	1.300	266.08	0.136	0.043	3.60	0.040	79.06	14.35	5.510
23	e	M	1.500	55.83	0.164	0.043	3.60	0.038	12.95	0.32	>> 1
26	e	M	1.500	80.24	0.258	0.043	3.60	0.047	14.57	0.30	>> 1
30	e	M	1.150	321.86	0.184	0.043	3.60	0.052	91.67	41.85	2.190
34	e	M	1.000	326.90	0.088	0.043	3.60	0.044	161.47	32.79	4.924
40	e	M	1.500	41.24	0.121	0.043	3.60	0.033	11.34	0.28	>> 1
43	e	M	1.300	379.97	0.193	0.043	3.60	0.047	93.03	16.48	5.645
46	e	M	1.070	206.36	0.105	0.043	3.60	0.044	86.56	35.06	2.469
49	e	M	1.500	23.33	0.029	0.043	3.60	0.019	15.59	3.84	4.060
54	e	M	1.500	82.63	0.104	0.043	3.60	0.031	24.81	1.21	>> 1
56	e	M	1.500	64.03	0.124	0.043	3.60	0.034	17.40	1.45	>> 1
60	e	M	1.500	51.26	0.099	0.043	3.60	0.030	15.81	0.55	>> 1
64	e	M	1.500	175.58	0.153	0.043	3.60	0.037	42.51	23.91	1.778
69	e	M	1.500	234.50	0.204	0.043	3.60	0.042	48.35	6.40	7.555
71	e	M	1.500	39.89	0.117	0.043	3.60	0.033	11.17	0.32	>> 1
75	e	M	1.000	288.68	0.078	0.043	3.60	0.041	153.42	39.48	3.886
79	e	M	1.150	287.86	0.164	0.043	3.60	0.050	87.14	42.22	2.064
85	e	M	1.500	74.59	0.240	0.043	3.60	0.045	14.08	0.31	>> 1
88	e	M	1.500	54.06	0.159	0.043	3.60	0.038	12.77	0.40	>> 1
92	e	M	1.300	239.86	0.122	0.043	3.60	0.039	75.54	18.85	4.008
95	e	M	1.500	138.95	0.121	0.043	3.60	0.033	38.24	0.18	>> 1
99	e	M	1.500	163.70	0.142	0.043	3.60	0.036	41.10	0.20	>> 1
101	e	M	1.500	107.15	0.112	0.043	3.60	0.032	30.70	14.41	2.130
104	e	M	1.460	68.49	0.027	0.043	3.60	0.020	48.73	17.51	2.783
122	e	M	1.000	11.34	0.006	0.043	3.60	0.021	41.30	0.10	>> 1
126	e	M	1.000	11.28	0.006	0.043	3.60	0.021	41.27	0.09	>> 1
132	e	M	1.000	19.57	0.007	0.043	3.60	0.021	60.06	0.09	>> 1
135	e	M	1.000	17.48	0.009	0.043	3.60	0.022	42.17	0.12	>> 1
140	e	M	1.000	7.65	0.007	0.043	3.60	0.021	24.20	0.10	>> 1
143	e	M	1.000	9.47	0.007	0.043	3.60	0.021	28.56	0.12	>> 1
146	e	M	1.000	7.06	0.007	0.043	3.60	0.021	20.35	0.08	>> 1
149	e	M	1.000	5.01	0.004	0.043	3.60	0.020	23.04	0.10	>> 1
152	e	M	1.000	5.41	0.004	0.043	3.60	0.020	26.79	0.12	>> 1
155	e	M	1.000	3.53	0.004	0.043	3.60	0.020	18.81	0.09	>> 1
158	e	M	1.000	22.80	0.013	0.043	3.60	0.023	42.42	2.88	>> 1
163	e	M	1.000	57.68	0.032	0.043	3.60	0.030	54.17	5.03	>> 1
194	e	M	1.460	104.27	0.042	0.043	3.60	0.022	55.90	17.53	3.189

50. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm^2)	fvd0	γ_m * FC	fvd (N/mm^2)	Vt,lim (kN)	Vt (kN)	V (kN)	C.Sic.
106	n	M	1.180	301.11	0.259	0.300	3.00	0.134	190.35	155.86	45.55	3.422
109	n	M	1.110	325.36	0.263	0.300	3.00	0.143	215.71	177.58	3.10	>> 1
113	n	M	1.180	297.30	0.256	0.300	3.00	0.133	189.83	154.68	64.26	2.407
116	n	M	1.110	320.81	0.259	0.300	3.00	0.142	215.05	176.08	16.11	>> 1

51. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm^2)	tau0	γ_m * FC	fvd (N/mm^2)	Vt (kN)	V (kN)	C.Sic.
1	e	M	1.330	159.79	0.088	0.043	3.60	0.033	59.61	25.44	2.343
4	e	M	1.330	148.53	0.082	0.043	3.60	0.032	57.84	27.50	2.103
8	e	M	1.500	35.70	0.037	0.043	3.60	0.021	20.01	9.99	2.003
11	e	M	1.500	73.25	0.064	0.043	3.60	0.026	29.40	15.71	1.871
16	e	M	1.500	94.50	0.082	0.043	3.60	0.028	32.48	6.45	5.036
19	e	M	1.300	201.09	0.103	0.043	3.60	0.036	70.02	14.42	4.855
23	e	M	1.500	42.89	0.126	0.043	3.60	0.034	11.52	0.32	>> 1
26	e	M	1.500	60.94	0.196	0.043	3.60	0.041	12.83	0.19	>> 1
30	e	M	1.150	241.49	0.138	0.043	3.60	0.046	80.57	29.83	2.701
34	e	M	1.000	245.63	0.066	0.043	3.60	0.039	143.82	33.03	4.354
40	e	M	1.500	31.67	0.093	0.043	3.60	0.030	10.13	0.28	>> 1
43	e	M	1.300	289.73	0.148	0.043	3.60	0.042	82.30	9.95	8.272
46	e	M	1.070	157.16	0.080	0.043	3.60	0.039	77.24	23.12	3.341
49	e	M	1.500	19.36	0.024	0.043	3.60	0.018	14.75	2.83	5.212
54	e	M	1.500	62.70	0.079	0.043	3.60	0.028	22.11	1.78	>> 1
56	e	M	1.500	50.74	0.098	0.043	3.60	0.030	15.74	1.65	9.540
60	e	M	1.500	41.50	0.080	0.043	3.60	0.028	14.48	0.80	>> 1
64	e	M	1.500	140.49	0.122	0.043	3.60	0.033	38.52	16.41	2.347
69	e	M	1.500	185.56	0.161	0.043	3.60	0.038	43.47	3.88	>> 1
71	e	M	1.500	30.48	0.089	0.043	3.60	0.029	9.96	0.30	>> 1

75	e	M	1.000	229.68	0.062	0.043	3.60	0.038	140.09	35.30	3.969
79	e	M	1.150	229.52	0.131	0.043	3.60	0.045	78.78	29.15	2.703
85	e	M	1.500	58.83	0.189	0.043	3.60	0.041	12.62	0.18	>> 1
88	e	M	1.500	41.46	0.122	0.043	3.60	0.033	11.35	0.35	>> 1
92	e	M	1.300	188.38	0.096	0.043	3.60	0.035	68.11	16.18	4.209
95	e	M	1.500	111.27	0.097	0.043	3.60	0.030	34.76	1.02	>> 1
99	e	M	1.500	130.04	0.113	0.043	3.60	0.032	37.16	1.00	>> 1
101	e	M	1.500	81.04	0.085	0.043	3.60	0.029	27.28	12.11	2.253
104	e	M	1.460	52.29	0.021	0.043	3.60	0.018	45.11	0.62	>> 1
122	e	M	1.000	8.95	0.004	0.043	3.60	0.020	40.24	0.37	>> 1
126	e	M	1.000	8.63	0.004	0.043	3.60	0.020	40.10	0.13	>> 1
132	e	M	1.000	16.31	0.006	0.043	3.60	0.021	58.65	0.35	>> 1
135	e	M	1.000	13.63	0.007	0.043	3.60	0.021	40.57	0.19	>> 1
140	e	M	1.000	5.23	0.005	0.043	3.60	0.020	23.14	0.24	>> 1
143	e	M	1.000	6.26	0.005	0.043	3.60	0.020	27.17	0.29	>> 1
146	e	M	1.000	4.53	0.005	0.043	3.60	0.020	19.26	0.20	>> 1
149	e	M	1.000	4.51	0.004	0.043	3.60	0.020	22.82	0.11	>> 1
152	e	M	1.000	5.17	0.004	0.043	3.60	0.020	26.68	0.13	>> 1
155	e	M	1.000	3.59	0.004	0.043	3.60	0.020	18.83	0.09	>> 1
158	e	M	1.000	28.13	0.015	0.043	3.60	0.024	44.42	2.67	>> 1
163	e	M	1.000	33.86	0.019	0.043	3.60	0.026	46.47	3.42	>> 1
194	e	M	1.460	77.60	0.031	0.043	3.60	0.020	50.65	0.60	>> 1

52. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

N.	n/e	Sez.	Coeff.	P	p	fvd0	γ_m	fvd	Vt,lim	Vt	V	C.Sic.
			b	(kN)	(N/mm ²)		* FC	(N/mm ²)	(kN)	(kN)	(kN)	
106	n	M	1.180	231.42	0.199	0.300	3.00	0.115	180.47	134.25	18.50	7.257
109	n	M	1.110	249.94	0.202	0.300	3.00	0.123	204.40	152.78	15.85	9.639
113	n	M	1.180	228.98	0.197	0.300	3.00	0.115	180.11	133.49	33.78	3.952
116	n	M	1.110	246.68	0.199	0.300	3.00	0.122	203.89	151.70	30.01	5.055

53. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))

N.	n/e	Sez.	Coeff.	P	p	tau0	γ_m	fvd	Vt	V	C.Sic.
			b	(kN)	(N/mm ²)		* FC	(N/mm ²)	(kN)	(kN)	
1	e	M	1.330	157.90	0.087	0.043	3.60	0.033	59.32	7.31	8.115
4	e	M	1.330	146.63	0.081	0.043	3.60	0.032	57.54	47.06	1.223
8	e	M	1.500	37.53	0.039	0.043	3.60	0.021	20.35	7.56	2.692
11	e	M	1.500	69.03	0.060	0.043	3.60	0.025	28.73	13.08	2.197
16	e	M	1.500	89.71	0.078	0.043	3.60	0.028	31.80	5.21	6.103
19	e	M	1.300	196.65	0.100	0.043	3.60	0.035	69.35	13.14	5.278
23	e	M	1.500	43.10	0.127	0.043	3.60	0.034	11.54	0.28	>> 1
26	e	M	1.500	59.28	0.191	0.043	3.60	0.041	12.67	0.24	>> 1
30	e	M	1.150	231.86	0.132	0.043	3.60	0.045	79.13	33.15	2.387
34	e	M	1.000	236.62	0.064	0.043	3.60	0.038	141.72	28.90	4.904
40	e	M	1.500	31.92	0.094	0.043	3.60	0.030	10.16	0.23	>> 1
43	e	M	1.300	280.07	0.143	0.043	3.60	0.041	81.07	12.19	6.651
46	e	M	1.070	149.90	0.076	0.043	3.60	0.039	75.77	25.98	2.916
49	e	M	1.500	21.24	0.026	0.043	3.60	0.019	15.15	2.55	5.943
54	e	M	1.500	60.39	0.076	0.043	3.60	0.027	21.78	1.26	>> 1
56	e	M	1.500	49.87	0.096	0.043	3.60	0.030	15.63	0.88	>> 1
60	e	M	1.500	41.73	0.080	0.043	3.60	0.028	14.51	0.65	>> 1
64	e	M	1.500	145.56	0.126	0.043	3.60	0.034	39.12	18.15	2.155
69	e	M	1.500	189.61	0.165	0.043	3.60	0.038	43.89	4.79	9.163
71	e	M	1.500	30.58	0.090	0.043	3.60	0.029	9.98	0.23	>> 1
75	e	M	1.000	238.24	0.064	0.043	3.60	0.038	142.10	27.24	5.217
79	e	M	1.150	238.44	0.136	0.043	3.60	0.046	80.11	31.38	2.553
85	e	M	1.500	60.11	0.193	0.043	3.60	0.041	12.75	0.22	>> 1
88	e	M	1.500	41.64	0.122	0.043	3.60	0.033	11.37	0.28	>> 1
92	e	M	1.300	192.41	0.098	0.043	3.60	0.035	68.72	12.97	5.298
95	e	M	1.500	118.43	0.103	0.043	3.60	0.031	35.70	0.17	>> 1
99	e	M	1.500	138.66	0.120	0.043	3.60	0.033	38.20	0.19	>> 1
101	e	M	1.500	80.53	0.085	0.043	3.60	0.029	27.21	13.34	2.040
104	e	M	1.460	56.52	0.023	0.043	3.60	0.018	46.08	19.01	2.424
122	e	M	1.000	9.20	0.005	0.043	3.60	0.020	40.35	0.36	>> 1
126	e	M	1.000	8.47	0.004	0.043	3.60	0.020	40.02	0.15	>> 1
132	e	M	1.000	17.50	0.006	0.043	3.60	0.021	59.17	0.35	>> 1
135	e	M	1.000	13.27	0.007	0.043	3.60	0.021	40.42	0.21	>> 1
140	e	M	1.000	4.43	0.004	0.043	3.60	0.020	22.78	0.24	>> 1
143	e	M	1.000	5.00	0.004	0.043	3.60	0.020	26.60	0.28	>> 1
146	e	M	1.000	3.42	0.004	0.043	3.60	0.020	18.76	0.20	>> 1
149	e	M	1.000	5.36	0.005	0.043	3.60	0.020	23.20	0.05	>> 1
152	e	M	1.000	6.48	0.005	0.043	3.60	0.020	27.27	0.06	>> 1
155	e	M	1.000	4.73	0.005	0.043	3.60	0.020	19.35	0.04	>> 1
158	e	M	1.000	41.64	0.023	0.043	3.60	0.027	49.12	3.25	>> 1
163	e	M	1.000	20.13	0.011	0.043	3.60	0.023	41.39	2.81	>> 1

194	e	M	1.460	77.79	0.031	0.043	3.60	0.020	50.69	18.99	2.669
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54. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm ²)	fvd0	γ _m * FC	fvd (N/mm ²)	Vt,lim (kN)	Vt (kN)	V (kN)	C.Sic.
106	n	M	1.180	232.06	0.200	0.300	3.00	0.116	180.56	134.45	3.13	>> 1
109	n	M	1.110	250.41	0.202	0.300	3.00	0.123	204.47	152.93	39.42	3.879
113	n	M	1.180	229.46	0.197	0.300	3.00	0.115	180.18	133.64	12.82	>> 1
116	n	M	1.110	246.46	0.199	0.300	3.00	0.122	203.86	151.63	52.61	2.882

55. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm ²)	tau0	γ _m * FC	fvd (N/mm ²)	Vt (kN)	V (kN)	C.Sic.
1	e	M	1.330	158.09	0.087	0.043	3.60	0.033	59.35	26.95	2.202
4	e	M	1.330	147.91	0.081	0.043	3.60	0.032	57.74	28.53	2.024
8	e	M	1.500	34.94	0.037	0.043	3.60	0.021	19.86	8.68	2.289
11	e	M	1.500	75.25	0.065	0.043	3.60	0.026	29.71	12.21	2.433
16	e	M	1.500	97.37	0.085	0.043	3.60	0.029	32.88	4.56	7.211
19	e	M	1.300	201.69	0.103	0.043	3.60	0.036	70.10	9.50	7.379
23	e	M	1.500	43.22	0.127	0.043	3.60	0.034	11.56	0.20	>> 1
26	e	M	1.500	60.49	0.195	0.043	3.60	0.041	12.79	0.28	>> 1
30	e	M	1.150	240.59	0.137	0.043	3.60	0.046	80.43	35.41	2.271
34	e	M	1.000	245.15	0.066	0.043	3.60	0.039	143.71	20.62	6.969
40	e	M	1.500	32.02	0.094	0.043	3.60	0.030	10.17	0.16	>> 1
43	e	M	1.300	284.82	0.145	0.043	3.60	0.042	81.68	14.98	5.453
46	e	M	1.070	153.15	0.078	0.043	3.60	0.039	76.43	29.98	2.549
49	e	M	1.500	19.61	0.024	0.043	3.60	0.018	14.80	2.72	5.443
54	e	M	1.500	61.87	0.078	0.043	3.60	0.028	21.99	0.37	>> 1
56	e	M	1.500	48.46	0.093	0.043	3.60	0.030	15.44	0.38	>> 1
60	e	M	1.500	39.52	0.076	0.043	3.60	0.027	14.19	0.89	>> 1
64	e	M	1.500	139.16	0.121	0.043	3.60	0.033	38.36	20.17	1.902
69	e	M	1.500	183.64	0.160	0.043	3.60	0.038	43.26	5.86	7.383
71	e	M	1.500	30.86	0.091	0.043	3.60	0.029	10.02	0.18	>> 1
75	e	M	1.000	229.27	0.062	0.043	3.60	0.038	139.99	22.73	6.159
79	e	M	1.150	228.71	0.131	0.043	3.60	0.045	78.66	34.88	2.255
85	e	M	1.500	58.41	0.188	0.043	3.60	0.040	12.58	0.27	>> 1
88	e	M	1.500	41.83	0.123	0.043	3.60	0.033	11.39	0.24	>> 1
92	e	M	1.300	187.92	0.096	0.043	3.60	0.035	68.04	11.50	5.916
95	e	M	1.500	112.77	0.098	0.043	3.60	0.030	34.96	1.33	>> 1
99	e	M	1.500	133.14	0.116	0.043	3.60	0.033	37.54	1.34	>> 1
101	e	M	1.500	82.34	0.086	0.043	3.60	0.029	27.46	12.04	2.281
104	e	M	1.460	56.80	0.023	0.043	3.60	0.018	46.14	0.68	>> 1
122	e	M	1.000	8.99	0.004	0.043	3.60	0.020	40.26	0.04	>> 1
126	e	M	1.000	8.63	0.004	0.043	3.60	0.020	40.10	0.19	>> 1
132	e	M	1.000	16.05	0.006	0.043	3.60	0.021	58.54	0.12	>> 1
135	e	M	1.000	13.18	0.007	0.043	3.60	0.021	40.38	0.12	>> 1
140	e	M	1.000	5.31	0.005	0.043	3.60	0.020	23.18	0.05	>> 1
143	e	M	1.000	6.37	0.005	0.043	3.60	0.020	27.22	0.06	>> 1
146	e	M	1.000	4.62	0.005	0.043	3.60	0.020	19.30	0.05	>> 1
149	e	M	1.000	4.55	0.004	0.043	3.60	0.020	22.83	0.07	>> 1
152	e	M	1.000	5.22	0.004	0.043	3.60	0.020	26.70	0.08	>> 1
155	e	M	1.000	3.63	0.004	0.043	3.60	0.020	18.85	0.05	>> 1
158	e	M	1.000	28.09	0.015	0.043	3.60	0.024	44.41	2.68	>> 1
163	e	M	1.000	33.99	0.019	0.043	3.60	0.026	46.52	3.42	>> 1
194	e	M	1.460	81.09	0.032	0.043	3.60	0.021	51.37	0.67	>> 1

56. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm ²)	fvd0	γ _m * FC	fvd (N/mm ²)	Vt,lim (kN)	Vt (kN)	V (kN)	C.Sic.
106	n	M	1.180	232.60	0.200	0.300	3.00	0.116	180.64	134.61	18.42	7.308
109	n	M	1.110	251.15	0.203	0.300	3.00	0.124	204.58	153.17	15.76	9.719
113	n	M	1.180	229.50	0.197	0.300	3.00	0.115	180.19	133.65	33.30	4.014
116	n	M	1.110	247.04	0.199	0.300	3.00	0.123	203.95	151.82	29.81	5.093

57. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm^2)	tau0	γ_m * FC	fvd (N/mm^2)	Vt (kN)	V (kN)	C.Sic.
1	e	M	1.330	159.97	0.088	0.043	3.60	0.033	59.64	45.08	1.323
4	e	M	1.330	149.81	0.083	0.043	3.60	0.032	58.04	8.97	6.471
8	e	M	1.500	33.10	0.035	0.043	3.60	0.020	19.51	11.11	1.756
11	e	M	1.500	79.46	0.069	0.043	3.60	0.026	30.36	14.84	2.046
16	e	M	1.500	102.16	0.089	0.043	3.60	0.029	33.54	5.80	5.783
19	e	M	1.300	206.14	0.105	0.043	3.60	0.036	70.76	10.78	6.564
23	e	M	1.500	43.01	0.126	0.043	3.60	0.034	11.53	0.24	>> 1
26	e	M	1.500	62.16	0.200	0.043	3.60	0.042	12.95	0.23	>> 1
30	e	M	1.150	250.22	0.143	0.043	3.60	0.047	81.85	32.10	2.550
34	e	M	1.000	254.16	0.069	0.043	3.60	0.039	145.77	24.76	5.887
40	e	M	1.500	31.77	0.093	0.043	3.60	0.030	10.14	0.21	>> 1
43	e	M	1.300	294.49	0.150	0.043	3.60	0.042	82.90	12.75	6.502
46	e	M	1.070	160.42	0.082	0.043	3.60	0.040	77.89	27.12	2.872
49	e	M	1.500	17.73	0.022	0.043	3.60	0.018	14.39	3.01	4.781
54	e	M	1.500	64.17	0.080	0.043	3.60	0.028	22.32	0.89	>> 1
56	e	M	1.500	49.33	0.095	0.043	3.60	0.030	15.56	1.15	>> 1
60	e	M	1.500	39.29	0.076	0.043	3.60	0.027	14.16	0.56	>> 1
64	e	M	1.500	134.10	0.117	0.043	3.60	0.033	37.75	18.44	2.047
69	e	M	1.500	179.59	0.156	0.043	3.60	0.037	42.83	4.94	8.671
71	e	M	1.500	30.77	0.090	0.043	3.60	0.029	10.00	0.25	>> 1
75	e	M	1.000	220.71	0.060	0.043	3.60	0.037	137.95	30.79	4.480
79	e	M	1.150	219.79	0.126	0.043	3.60	0.044	77.30	32.65	2.367
85	e	M	1.500	57.13	0.184	0.043	3.60	0.040	12.46	0.24	>> 1
88	e	M	1.500	41.66	0.122	0.043	3.60	0.033	11.37	0.31	>> 1
92	e	M	1.300	183.88	0.094	0.043	3.60	0.034	67.42	14.72	4.580
95	e	M	1.500	105.62	0.092	0.043	3.60	0.030	34.01	0.14	>> 1
99	e	M	1.500	124.52	0.108	0.043	3.60	0.032	36.47	0.15	>> 1
101	e	M	1.500	82.85	0.087	0.043	3.60	0.029	27.53	10.81	2.547
104	e	M	1.460	52.56	0.021	0.043	3.60	0.018	45.17	17.71	2.551
122	e	M	1.000	8.74	0.004	0.043	3.60	0.020	40.15	0.04	>> 1
126	e	M	1.000	8.79	0.004	0.043	3.60	0.020	40.17	0.10	>> 1
132	e	M	1.000	14.86	0.005	0.043	3.60	0.020	58.02	0.12	>> 1
135	e	M	1.000	13.54	0.007	0.043	3.60	0.021	40.53	0.13	>> 1
140	e	M	1.000	6.11	0.005	0.043	3.60	0.020	23.53	0.05	>> 1
143	e	M	1.000	7.63	0.006	0.043	3.60	0.021	27.77	0.07	>> 1
146	e	M	1.000	5.72	0.006	0.043	3.60	0.021	19.78	0.05	>> 1
149	e	M	1.000	3.70	0.003	0.043	3.60	0.019	22.45	0.09	>> 1
152	e	M	1.000	3.92	0.003	0.043	3.60	0.019	26.11	0.11	>> 1
155	e	M	1.000	2.49	0.003	0.043	3.60	0.019	18.33	0.08	>> 1
158	e	M	1.000	14.58	0.008	0.043	3.60	0.022	39.15	2.10	>> 1
163	e	M	1.000	47.72	0.026	0.043	3.60	0.028	51.09	4.02	>> 1
194	e	M	1.460	80.90	0.032	0.043	3.60	0.021	51.33	17.72	2.897

58. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm^2)	fvd0	γ_m * FC	fvd (N/mm^2)	Vt,lim (kN)	Vt (kN)	V (kN)	C.Sic.
106	n	M	1.180	231.97	0.200	0.300	3.00	0.116	180.55	134.42	40.05	3.356
109	n	M	1.110	250.68	0.202	0.300	3.00	0.124	204.51	153.02	7.81	>> 1
113	n	M	1.180	229.02	0.197	0.300	3.00	0.115	180.11	133.50	54.26	2.460
116	n	M	1.110	247.27	0.200	0.300	3.00	0.123	203.99	151.90	7.20	>> 1

59. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°9:)

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm^2)	tau0	γ_m * FC	fvd (N/mm^2)	Vt (kN)	V (kN)	C.Sic.
1	e	M	1.330	151.52	0.083	0.043	3.60	0.032	58.32	25.17	2.317
4	e	M	1.330	140.38	0.077	0.043	3.60	0.031	56.52	27.04	2.090
8	e	M	1.500	30.99	0.033	0.043	3.60	0.020	19.10	8.94	2.136
11	e	M	1.500	68.42	0.059	0.043	3.60	0.025	28.63	13.78	2.078
16	e	M	1.500	90.79	0.079	0.043	3.60	0.028	31.95	5.42	5.895
19	e	M	1.300	192.59	0.098	0.043	3.60	0.035	68.74	11.67	5.891
23	e	M	1.500	41.33	0.121	0.043	3.60	0.033	11.33	0.25	>> 1
26	e	M	1.500	58.36	0.188	0.043	3.60	0.040	12.58	0.23	>> 1
30	e	M	1.150	229.29	0.131	0.043	3.60	0.045	78.74	32.00	2.461
34	e	M	1.000	230.80	0.062	0.043	3.60	0.038	140.36	26.64	5.269
40	e	M	1.500	30.52	0.090	0.043	3.60	0.029	9.97	0.22	>> 1
43	e	M	1.300	276.29	0.141	0.043	3.60	0.041	80.58	12.30	6.551
46	e	M	1.070	145.84	0.074	0.043	3.60	0.038	74.93	26.15	2.865
49	e	M	1.500	15.96	0.020	0.043	3.60	0.017	13.99	2.71	5.162
54	e	M	1.500	59.03	0.074	0.043	3.60	0.027	21.58	1.03	>> 1
56	e	M	1.500	47.07	0.091	0.043	3.60	0.029	15.25	1.00	>> 1

60	e	M	1.500	37.74	0.073	0.043	3.60	0.027	13.93	0.02	>> 1
64	e	M	1.500	132.79	0.115	0.043	3.60	0.033	37.59	18.00	2.088
69	e	M	1.500	177.52	0.154	0.043	3.60	0.037	42.61	4.80	8.877
71	e	M	1.500	29.38	0.086	0.043	3.60	0.029	9.81	0.24	>> 1
75	e	M	1.000	215.41	0.058	0.043	3.60	0.037	136.67	28.74	4.755
79	e	M	1.150	217.79	0.124	0.043	3.60	0.044	76.99	31.41	2.451
85	e	M	1.500	56.34	0.181	0.043	3.60	0.040	12.38	0.23	>> 1
88	e	M	1.500	39.98	0.118	0.043	3.60	0.033	11.17	0.29	>> 1
92	e	M	1.300	179.82	0.092	0.043	3.60	0.034	66.79	13.49	4.951
95	e	M	1.500	106.90	0.093	0.043	3.60	0.030	34.18	0.14	>> 1
99	e	M	1.500	125.84	0.109	0.043	3.60	0.032	36.63	0.16	>> 1
101	e	M	1.500	77.64	0.081	0.043	3.60	0.028	26.81	11.72	2.287
104	e	M	1.460	48.26	0.019	0.043	3.60	0.018	44.16	0.71	>> 1
122	e	M	1.000	7.43	0.004	0.043	3.60	0.020	39.55	0.18	>> 1
126	e	M	1.000	7.04	0.004	0.043	3.60	0.020	39.38	0.01	>> 1
132	e	M	1.000	14.04	0.005	0.043	3.60	0.020	57.66	0.08	>> 1
135	e	M	1.000	11.83	0.006	0.043	3.60	0.021	39.80	0.02	>> 1
140	e	M	1.000	4.05	0.004	0.043	3.60	0.020	22.61	0.13	>> 1
143	e	M	1.000	4.76	0.004	0.043	3.60	0.020	26.49	0.16	>> 1
146	e	M	1.000	3.39	0.004	0.043	3.60	0.020	18.74	0.11	>> 1
149	e	M	1.000	3.19	0.003	0.043	3.60	0.019	22.21	0.03	>> 1
152	e	M	1.000	3.49	0.003	0.043	3.60	0.019	25.91	0.04	>> 1
155	e	M	1.000	2.31	0.002	0.043	3.60	0.019	18.24	0.03	>> 1
158	e	M	1.000	23.94	0.013	0.043	3.60	0.024	42.86	2.34	>> 1
163	e	M	1.000	29.62	0.016	0.043	3.60	0.025	44.96	3.05	>> 1
194	e	M	1.460	73.19	0.029	0.043	3.60	0.020	49.73	0.69	>> 1

60. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159
(Analisi Statica Lineare NON Sismica: CCC n°9:)

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm ²)	fvd0	γ _m * FC	fvd (N/mm ²)	V _{t,lim} (kN)	V _t (kN)	V (kN)	C.Sic.
106	n	M	1.180	223.83	0.193	0.300	3.00	0.113	179.36	131.89	17.86	7.385
109	n	M	1.110	241.73	0.195	0.300	3.00	0.121	203.13	150.08	15.18	9.886
113	n	M	1.180	221.45	0.191	0.300	3.00	0.113	179.01	131.15	32.52	4.033
116	n	M	1.110	238.50	0.193	0.300	3.00	0.120	202.63	149.01	28.88	5.160

61. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.16] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	n/e	Sez.	Coeff. b	P (kN)	p (N/mm ²)	tau0	γ _m * FC	fvd (N/mm ²)	V _t (kN)	V (kN)	C.Sic.	ID CCC
1	e	M	1.330	207.28	0.114	0.043	3.60	0.037	66.57	52.89	1.259	44
4	e	M	1.330	190.72	0.105	0.043	3.60	0.035	64.23	55.41	1.159	42
8	e	M	1.500	43.48	0.046	0.043	3.60	0.022	21.43	13.89	1.543	44
11	e	M	1.500	95.22	0.083	0.043	3.60	0.028	32.66	19.89	1.642	41
16	e	M	1.500	123.02	0.107	0.043	3.60	0.032	36.28	8.10	4.479	41
19	e	M	1.300	261.04	0.133	0.043	3.60	0.040	78.40	17.98	4.360	41
23	e	M	1.500	55.71	0.164	0.043	3.60	0.038	12.94	0.40	>> 1	41
26	e	M	1.500	78.57	0.253	0.043	3.60	0.046	14.43	0.35	>> 1	43
30	e	M	1.150	312.23	0.178	0.043	3.60	0.052	90.41	45.17	2.002	43
34	e	M	1.000	318.37	0.086	0.043	3.60	0.043	159.71	41.06	3.890	41
40	e	M	1.500	41.14	0.121	0.043	3.60	0.033	11.32	0.35	>> 1	41
43	e	M	1.300	370.31	0.189	0.043	3.60	0.047	91.94	18.71	4.914	43
46	e	M	1.070	199.09	0.101	0.043	3.60	0.043	85.24	37.92	2.248	43
49	e	M	1.500	23.33	0.029	0.043	3.60	0.019	15.59	3.84	4.060	44
54	e	M	1.500	81.15	0.102	0.043	3.60	0.031	24.62	2.10	>> 1	41
56	e	M	1.500	65.44	0.126	0.043	3.60	0.034	17.56	1.95	9.007	41
60	e	M	1.500	39.52	0.076	0.043	3.60	0.027	14.19	0.89	>> 1	47
64	e	M	1.500	180.64	0.157	0.043	3.60	0.037	43.05	25.64	1.679	43
69	e	M	1.500	238.56	0.207	0.043	3.60	0.042	48.73	7.31	6.667	43
71	e	M	1.500	39.60	0.116	0.043	3.60	0.033	11.14	0.37	>> 1	41
75	e	M	1.000	297.65	0.080	0.043	3.60	0.042	155.35	43.99	3.531	41
79	e	M	1.150	296.78	0.170	0.043	3.60	0.050	88.35	44.45	1.988	43
85	e	M	1.500	75.86	0.244	0.043	3.60	0.046	14.20	0.34	>> 1	43
88	e	M	1.500	53.86	0.158	0.043	3.60	0.037	12.74	0.44	>> 1	41
92	e	M	1.300	244.36	0.125	0.043	3.60	0.039	76.16	20.31	3.750	41
95	e	M	1.500	112.77	0.098	0.043	3.60	0.030	34.96	1.33	>> 1	47
99	e	M	1.500	133.14	0.116	0.043	3.60	0.033	37.54	1.34	>> 1	47
101	e	M	1.500	104.83	0.110	0.043	3.60	0.032	30.41	16.95	1.794	42
104	e	M	1.460	56.52	0.023	0.043	3.60	0.018	46.08	19.01	2.424	46
122	e	M	1.000	11.54	0.006	0.043	3.60	0.021	41.38	0.43	>> 1	41
126	e	M	1.000	8.63	0.004	0.043	3.60	0.020	40.10	0.19	>> 1	47
132	e	M	1.000	21.02	0.007	0.043	3.60	0.021	60.67	0.38	>> 1	41
135	e	M	1.000	17.21	0.009	0.043	3.60	0.022	42.06	0.22	>> 1	42
140	e	M	1.000	5.97	0.005	0.043	3.60	0.020	23.47	0.28	>> 1	42
143	e	M	1.000	6.84	0.005	0.043	3.60	0.020	27.43	0.34	>> 1	42
146	e	M	1.000	5.86	0.006	0.043	3.60	0.021	19.84	0.24	>> 1	41
149	e	M	1.000	5.82	0.005	0.043	3.60	0.020	23.40	0.12	>> 1	41

152	e	M	1.000	6.67	0.005	0.043	3.60	0.020	27.35	0.14	>> 1	41
155	e	M	1.000	4.63	0.005	0.043	3.60	0.020	19.30	0.10	>> 1	41
158	e	M	1.000	49.86	0.027	0.043	3.60	0.029	51.77	4.04	>> 1	42
163	e	M	1.000	57.68	0.032	0.043	3.60	0.030	54.17	5.03	>> 1	44
194	e	M	1.460	77.79	0.031	0.043	3.60	0.020	50.69	18.99	2.669	46

62. VERIFICA A TAGLIO PER FESSURAZIONE DIAGONALE [C8.7.1.17] (§4.5.6, §C8.7.1.3.1) [SLV] - C.Sic: 1.159 (CCC ID 42)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	n/e	Sez.	Coeff.	P	p	fvd0	γ_m	fvd	Vt,lim	Vt	V	C.Sic.	ID
			b	(kN)	(N/mm ²)		* FC	(N/mm ²)	(kN)	(kN)	(kN)		CCC
106	n	M	1.180	231.97	0.200	0.300	3.00	0.116	180.55	134.42	40.05	3.356	48
109	n	M	1.110	250.41	0.202	0.300	3.00	0.123	204.47	152.93	39.42	3.879	46
113	n	M	1.180	297.30	0.256	0.300	3.00	0.133	189.83	154.68	64.26	2.407	44
116	n	M	1.110	320.00	0.258	0.300	3.00	0.142	214.93	175.81	61.53	2.857	42

63. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°1: SLU: Combinazione 41 (Fondamentale/Vento +X))

N.	n/e	x Sez.	P	p	fk , fm	γ_m	fd	Nu	Mu	M	C.Sic.
		(m)	(kN)	(N/mm ²)	(N/mm ²)	* FC	(N/mm ²)	(kN)	(kN m)	(kN m)	
1	e	2.400	186.71	0.103	2.500	3.60	0.694	1071.71	46.25	4.48	>> 1
4	e	2.400	172.23	0.095	2.500	3.60	0.694	1071.71	43.37	4.13	>> 1
8	e	2.400	69.32	0.073	2.500	3.60	0.694	562.42	18.23	1.66	>> 1
11	e	2.400	120.53	0.105	2.500	3.60	0.694	679.29	29.74	2.89	>> 1
16	e	2.400	110.04	0.096	2.500	3.60	0.694	679.29	27.66	2.64	>> 1
19	e	2.400	245.67	0.125	2.500	3.60	0.694	1157.42	58.06	5.90	9.847
23	e	2.400	49.56	0.146	2.500	3.60	0.694	200.81	11.20	1.19	9.415
26	e	2.400	73.33	0.236	2.500	3.60	0.694	183.46	13.21	4.39	3.008
30	e	2.400	341.29	0.195	2.500	3.60	0.694	1033.10	68.56	24.69	2.777
34	e	2.400	339.17	0.092	2.500	3.60	0.694	2184.50	85.95	8.14	>> 1
40	e	2.400	34.99	0.103	2.500	3.60	0.694	201.17	8.67	0.84	>> 1
43	e	2.400	359.83	0.183	2.500	3.60	0.694	1159.19	74.44	23.01	3.235
46	e	2.400	231.35	0.118	2.500	3.60	0.694	1159.19	55.55	22.98	2.417
49	e	2.400	46.26	0.057	2.500	3.60	0.694	476.71	12.53	1.11	>> 1
54	e	2.400	56.21	0.070	2.500	3.60	0.694	470.69	14.85	1.35	>> 1
56	e	2.400	46.99	0.091	2.500	3.60	0.694	306.00	11.93	3.69	3.234
60	e	2.400	69.03	0.133	2.500	3.60	0.694	306.00	16.04	3.69	4.346
64	e	2.400	207.28	0.180	2.500	3.60	0.694	679.29	43.21	16.90	2.557
69	e	2.400	227.49	0.198	2.500	3.60	0.694	679.29	45.39	16.90	2.686
71	e	2.400	33.45	0.098	2.500	3.60	0.694	201.17	8.37	0.80	>> 1
75	e	2.400	318.45	0.086	2.500	3.60	0.694	2184.50	81.61	7.64	>> 1
79	e	2.400	325.75	0.186	2.500	3.60	0.694	1033.10	66.91	24.60	2.720
85	e	2.400	70.59	0.227	2.500	3.60	0.694	183.46	13.03	4.37	2.981
88	e	2.400	47.71	0.140	2.500	3.60	0.694	200.81	10.91	1.15	9.530
92	e	2.400	228.99	0.117	2.500	3.60	0.694	1157.42	55.11	5.50	>> 1
95	e	2.400	131.62	0.114	2.500	3.60	0.694	679.29	31.84	3.16	>> 1
99	e	2.400	156.23	0.136	2.500	3.60	0.694	679.29	36.09	3.75	9.625
101	e	2.400	93.15	0.098	2.500	3.60	0.694	562.42	23.32	2.24	>> 1
104	e	3.041	68.22	0.027	2.500	3.60	0.694	1474.40	19.52	5.91	3.303
106	n	2.100	292.52	0.252	5.300	3.00	1.767	1745.57	46.26	6.14	7.531
109	n	2.100	316.30	0.255	5.300	3.00	1.767	1859.69	49.88	6.64	7.509
113	n	2.100	289.22	0.249	5.300	3.00	1.767	1745.57	45.85	6.07	7.549
116	n	2.100	311.91	0.252	5.300	3.00	1.767	1859.69	49.32	6.55	7.530
122	e	0.225	11.54	0.006	2.500	3.60	0.694	1186.46	3.43	1.63	2.103
126	e	0.225	11.12	0.006	2.500	3.60	0.694	1186.46	3.30	2.07	1.596
132	e	0.225	21.02	0.007	2.500	3.60	0.694	1682.29	6.23	2.29	2.719
135	e	0.225	17.57	0.009	2.500	3.60	0.694	1130.85	5.19	1.53	3.392
140	e	0.225	6.77	0.006	2.500	3.60	0.694	681.06	2.01	0.93	2.162
143	e	0.225	8.10	0.006	2.500	3.60	0.694	797.94	2.41	1.09	2.207
146	e	0.225	5.86	0.006	2.500	3.60	0.694	564.19	1.74	0.77	2.259
158	e	0.528	36.35	0.020	2.500	3.60	0.694	1071.71	10.54	0.19	>> 1
163	e	0.528	43.82	0.024	2.500	3.60	0.694	1071.71	12.61	0.23	>> 1
194	e	3.041	100.98	0.040	2.500	3.60	0.694	1474.40	28.22	5.91	4.775

64. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°2: SLU: Combinazione 42 (Fondamentale/Vento +Y))

N.	n/e	x Sez.	P	p	fk , fm	γ_m	fd	Nu	Mu	M	C.Sic.
		(m)	(kN)	(N/mm ²)	(N/mm ²)	* FC	(N/mm ²)	(kN)	(kN m)	(kN m)	
1	e	2.400	184.83	0.102	2.500	3.60	0.694	1071.71	45.89	4.44	>> 1
4	e	2.400	170.33	0.094	2.500	3.60	0.694	1071.71	42.98	4.09	>> 1
8	e	2.400	71.15	0.075	2.500	3.60	0.694	562.42	18.64	1.71	>> 1
11	e	2.400	116.31	0.101	2.500	3.60	0.694	679.29	28.92	2.79	>> 1
16	e	2.400	105.25	0.091	2.500	3.60	0.694	679.29	26.68	2.57	>> 1

19	e	2.400	241.23	0.123	2.500	3.60	0.694	1157.42	57.29	5.79	9.895
23	e	2.400	49.77	0.146	2.500	3.60	0.694	200.81	11.23	1.19	9.402
26	e	2.400	71.66	0.231	2.500	3.60	0.694	183.46	13.10	3.11	4.212
30	e	2.400	331.66	0.189	2.500	3.60	0.694	1033.10	67.56	21.26	3.178
34	e	2.400	330.16	0.089	2.500	3.60	0.694	2184.50	84.08	7.92	>> 1
40	e	2.400	35.24	0.103	2.500	3.60	0.694	201.17	8.72	0.85	>> 1
43	e	2.400	350.16	0.178	2.500	3.60	0.694	1159.19	73.32	19.02	3.855
46	e	2.400	224.08	0.114	2.500	3.60	0.694	1159.19	54.23	18.99	2.856
49	e	2.400	48.15	0.060	2.500	3.60	0.694	476.71	12.99	1.75	7.421
54	e	2.400	53.90	0.068	2.500	3.60	0.694	470.69	14.32	1.29	>> 1
56	e	2.400	46.12	0.089	2.500	3.60	0.694	306.00	11.75	5.00	2.350
60	e	2.400	69.26	0.134	2.500	3.60	0.694	306.00	16.08	5.45	2.950
64	e	2.400	212.34	0.185	2.500	3.60	0.694	679.29	43.79	19.57	2.238
69	e	2.400	231.55	0.201	2.500	3.60	0.694	679.29	45.79	19.58	2.338
71	e	2.400	33.55	0.098	2.500	3.60	0.694	201.17	8.39	1.64	5.114
75	e	2.400	327.01	0.088	2.500	3.60	0.694	2184.50	83.42	9.85	8.469
79	e	2.400	334.67	0.191	2.500	3.60	0.694	1033.10	67.88	28.06	2.419
85	e	2.400	71.86	0.231	2.500	3.60	0.694	183.46	13.11	5.65	2.321
88	e	2.400	47.89	0.141	2.500	3.60	0.694	200.81	10.94	1.42	7.705
92	e	2.400	233.03	0.119	2.500	3.60	0.694	1157.42	55.83	5.59	9.983
95	e	2.400	138.78	0.121	2.500	3.60	0.694	679.29	33.13	3.51	9.438
99	e	2.400	164.86	0.143	2.500	3.60	0.694	679.29	37.45	3.96	9.466
101	e	2.400	92.63	0.097	2.500	3.60	0.694	562.42	23.21	2.89	8.032
104	e	3.041	72.46	0.029	2.500	3.60	0.694	1474.40	20.67	2.20	9.380
106	n	2.100	293.16	0.252	5.300	3.00	1.767	1745.57	46.35	6.16	7.528
109	n	2.100	316.78	0.256	5.300	3.00	1.767	1859.69	49.94	6.65	7.506
113	n	2.100	289.70	0.249	5.300	3.00	1.767	1745.57	45.91	6.08	7.546
116	n	2.100	311.68	0.252	5.300	3.00	1.767	1859.69	49.29	6.55	7.531
122	e	0.225	11.79	0.006	2.500	3.60	0.694	1186.46	3.50	2.40	1.459
126	e	0.225	10.96	0.005	2.500	3.60	0.694	1186.46	3.26	1.29	2.525
132	e	0.225	22.21	0.008	2.500	3.60	0.694	1682.29	6.58	3.39	1.940
135	e	0.225	17.21	0.009	2.500	3.60	0.694	1130.85	5.08	2.27	2.240
140	e	0.225	5.97	0.005	2.500	3.60	0.694	681.06	1.78	1.37	1.296
143	e	0.225	6.84	0.005	2.500	3.60	0.694	797.94	2.03	1.61	1.264
146	e	0.225	4.75	0.005	2.500	3.60	0.694	564.19	1.41	1.14	1.239
158	e	0.528	49.86	0.027	2.500	3.60	0.694	1071.71	14.26	0.26	>> 1
163	e	0.528	30.09	0.017	2.500	3.60	0.694	1071.71	8.77	0.16	>> 1
194	e	3.041	101.17	0.041	2.500	3.60	0.694	1474.40	28.27	3.08	9.188

65. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°3: SLU: Combinazione 43 (Fondamentale/Vento -X))

N.	n/e	x Sez. (m)	P (kN)	p (N/mm^2)	fk , fm (N/mm^2)	γ _m * FC	fd (N/mm^2)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	e	2.400	185.02	0.102	2.500	3.60	0.694	1071.71	45.92	5.96	7.705
4	e	2.400	171.61	0.095	2.500	3.60	0.694	1071.71	43.24	4.12	>> 1
8	e	2.400	68.56	0.072	2.500	3.60	0.694	562.42	18.06	1.65	>> 1
11	e	2.400	122.53	0.106	2.500	3.60	0.694	679.29	30.13	2.94	>> 1
16	e	2.400	112.90	0.098	2.500	3.60	0.694	679.29	28.24	2.71	>> 1
19	e	2.400	246.27	0.126	2.500	3.60	0.694	1157.42	58.16	5.91	9.840
23	e	2.400	49.89	0.147	2.500	3.60	0.694	200.81	11.25	1.20	9.394
26	e	2.400	72.88	0.234	2.500	3.60	0.694	183.46	13.18	4.39	3.002
30	e	2.400	340.39	0.194	2.500	3.60	0.694	1033.10	68.47	24.72	2.770
34	e	2.400	338.68	0.092	2.500	3.60	0.694	2184.50	85.85	8.13	>> 1
40	e	2.400	35.34	0.104	2.500	3.60	0.694	201.17	8.74	0.85	>> 1
43	e	2.400	354.92	0.181	2.500	3.60	0.694	1159.19	73.88	22.95	3.219
46	e	2.400	227.34	0.116	2.500	3.60	0.694	1159.19	54.83	22.92	2.392
49	e	2.400	46.52	0.058	2.500	3.60	0.694	476.71	12.59	1.12	>> 1
54	e	2.400	55.38	0.069	2.500	3.60	0.694	470.69	14.66	1.33	>> 1
56	e	2.400	44.71	0.086	2.500	3.60	0.694	306.00	11.45	3.68	3.112
60	e	2.400	67.05	0.129	2.500	3.60	0.694	306.00	15.71	3.68	4.268
64	e	2.400	205.94	0.179	2.500	3.60	0.694	679.29	43.05	16.85	2.555
69	e	2.400	225.58	0.196	2.500	3.60	0.694	679.29	45.20	16.85	2.683
71	e	2.400	33.83	0.099	2.500	3.60	0.694	201.17	8.44	0.81	>> 1
75	e	2.400	318.03	0.086	2.500	3.60	0.694	2184.50	81.52	7.63	>> 1
79	e	2.400	324.94	0.186	2.500	3.60	0.694	1033.10	66.82	24.63	2.713
85	e	2.400	70.16	0.226	2.500	3.60	0.694	183.46	13.00	4.38	2.968
88	e	2.400	48.08	0.141	2.500	3.60	0.694	200.81	10.97	1.15	9.507
92	e	2.400	228.54	0.117	2.500	3.60	0.694	1157.42	55.02	5.48	>> 1
95	e	2.400	133.13	0.116	2.500	3.60	0.694	679.29	32.11	3.20	>> 1
99	e	2.400	159.34	0.138	2.500	3.60	0.694	679.29	36.59	3.82	9.568
101	e	2.400	94.44	0.099	2.500	3.60	0.694	562.42	23.57	2.27	>> 1
104	e	3.041	72.73	0.029	2.500	3.60	0.694	1474.40	20.74	4.72	4.395
106	n	2.100	293.71	0.253	5.300	3.00	1.767	1745.57	46.42	6.17	7.525
109	n	2.100	317.52	0.256	5.300	3.00	1.767	1859.69	50.03	6.67	7.503
113	n	2.100	289.74	0.249	5.300	3.00	1.767	1745.57	45.91	6.08	7.546
116	n	2.100	312.26	0.252	5.300	3.00	1.767	1859.69	49.37	6.56	7.528
122	e	0.225	11.58	0.006	2.500	3.60	0.694	1186.46	3.44	1.62	2.124
126	e	0.225	11.13	0.006	2.500	3.60	0.694	1186.46	3.31	2.08	1.590
132	e	0.225	20.76	0.007	2.500	3.60	0.694	1682.29	6.15	2.28	2.698
135	e	0.225	17.12	0.009	2.500	3.60	0.694	1130.85	5.06	1.52	3.328
140	e	0.225	6.85	0.006	2.500	3.60	0.694	681.06	2.03	0.93	2.187
143	e	0.225	8.21	0.006	2.500	3.60	0.694	797.94	2.44	1.09	2.236

146	e	0.225	5.95	0.006	2.500	3.60	0.694	564.19	1.77	0.77	2.294
158	e	0.528	36.31	0.020	2.500	3.60	0.694	1071.71	10.52	0.19	>> 1
163	e	0.528	43.95	0.024	2.500	3.60	0.694	1071.71	12.64	0.23	>> 1
194	e	3.041	104.46	0.042	2.500	3.60	0.694	1474.40	29.12	4.72	6.169

66. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°4: SLU: Combinazione 44 (Fondamentale/Vento -Y))

N.	n/e	x Sez. (m)	P (kN)	p (N/mm ²)	fk , fm (N/mm ²)	γ _m * FC	fd (N/mm ²)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	e	2.400	186.90	0.103	2.500	3.60	0.694	1071.71	46.29	4.49	>> 1
4	e	2.400	173.51	0.096	2.500	3.60	0.694	1071.71	43.63	4.16	>> 1
8	e	2.400	66.72	0.070	2.500	3.60	0.694	562.42	17.64	2.99	5.900
11	e	2.400	126.74	0.110	2.500	3.60	0.694	679.29	30.93	3.51	8.811
16	e	2.400	117.70	0.102	2.500	3.60	0.694	679.29	29.19	3.51	8.317
19	e	2.400	250.72	0.128	2.500	3.60	0.694	1157.42	58.92	6.02	9.792
23	e	2.400	49.68	0.146	2.500	3.60	0.694	200.81	11.22	1.39	8.070
26	e	2.400	74.55	0.240	2.500	3.60	0.694	183.46	13.28	5.67	2.342
30	e	2.400	350.02	0.200	2.500	3.60	0.694	1033.10	69.43	28.15	2.466
34	e	2.400	347.70	0.094	2.500	3.60	0.694	2184.50	87.71	9.45	9.281
40	e	2.400	35.09	0.103	2.500	3.60	0.694	201.17	8.69	1.61	5.398
43	e	2.400	364.59	0.186	2.500	3.60	0.694	1159.19	74.98	26.94	2.783
46	e	2.400	234.61	0.119	2.500	3.60	0.694	1159.19	56.14	26.91	2.086
49	e	2.400	44.63	0.055	2.500	3.60	0.694	476.71	12.14	1.79	6.780
54	e	2.400	57.69	0.072	2.500	3.60	0.694	470.69	15.19	1.45	>> 1
56	e	2.400	45.57	0.088	2.500	3.60	0.694	306.00	11.64	2.38	4.889
60	e	2.400	66.83	0.129	2.500	3.60	0.694	306.00	15.67	1.92	8.162
64	e	2.400	200.88	0.175	2.500	3.60	0.694	679.29	42.44	14.17	2.995
69	e	2.400	221.52	0.192	2.500	3.60	0.694	679.29	44.78	14.18	3.158
71	e	2.400	33.74	0.099	2.500	3.60	0.694	201.17	8.42	0.81	>> 1
75	e	2.400	309.47	0.084	2.500	3.60	0.694	2184.50	79.69	7.43	>> 1
79	e	2.400	316.02	0.181	2.500	3.60	0.694	1033.10	65.81	21.17	3.108
85	e	2.400	68.89	0.222	2.500	3.60	0.694	183.46	12.91	3.09	4.177
88	e	2.400	47.91	0.141	2.500	3.60	0.694	200.81	10.94	1.15	9.518
92	e	2.400	224.50	0.114	2.500	3.60	0.694	1157.42	54.29	5.39	>> 1
95	e	2.400	125.97	0.109	2.500	3.60	0.694	679.29	30.78	3.29	9.357
99	e	2.400	150.71	0.131	2.500	3.60	0.694	679.29	35.18	3.62	9.727
101	e	2.400	94.96	0.100	2.500	3.60	0.694	562.42	23.68	2.28	>> 1
104	e	3.041	68.49	0.027	2.500	3.60	0.694	1474.40	19.59	2.08	9.407
106	n	2.100	293.07	0.252	5.300	3.00	1.767	1745.57	46.33	6.15	7.529
109	n	2.100	317.04	0.256	5.300	3.00	1.767	1859.69	49.97	6.66	7.505
113	n	2.100	289.27	0.249	5.300	3.00	1.767	1745.57	45.85	6.07	7.548
116	n	2.100	312.49	0.252	5.300	3.00	1.767	1859.69	49.40	6.56	7.527
122	e	0.225	11.34	0.006	2.500	3.60	0.694	1186.46	3.37	0.85	3.964
126	e	0.225	11.28	0.006	2.500	3.60	0.694	1186.46	3.35	2.86	1.172
132	e	0.225	19.57	0.007	2.500	3.60	0.694	1682.29	5.80	1.19	4.876
135	e	0.225	17.48	0.009	2.500	3.60	0.694	1130.85	5.16	0.79	6.535
140	e	0.225	7.65	0.007	2.500	3.60	0.694	681.06	2.27	0.49	4.631
143	e	0.225	9.47	0.007	2.500	3.60	0.694	797.94	2.81	0.57	4.925
146	e	0.225	7.06	0.007	2.500	3.60	0.694	564.19	2.09	0.41	5.101
158	e	0.528	22.80	0.013	2.500	3.60	0.694	1071.71	6.69	0.12	>> 1
163	e	0.528	57.68	0.032	2.500	3.60	0.694	1071.71	16.37	0.30	>> 1
194	e	3.041	104.27	0.042	2.500	3.60	0.694	1474.40	29.07	3.17	9.168

67. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°5: SLU: Combinazione 45 (Fondamentale/Vento +X))

N.	n/e	x Sez. (m)	P (kN)	p (N/mm ²)	fk , fm (N/mm ²)	γ _m * FC	fd (N/mm ²)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	e	2.400	144.11	0.079	2.500	3.60	0.694	1071.71	37.42	3.46	>> 1
4	e	2.400	132.85	0.073	2.500	3.60	0.694	1071.71	34.91	3.19	>> 1
8	e	2.400	53.58	0.056	2.500	3.60	0.694	562.42	14.54	1.29	>> 1
11	e	2.400	92.71	0.081	2.500	3.60	0.694	679.29	24.02	2.23	>> 1
16	e	2.400	84.52	0.073	2.500	3.60	0.694	679.29	22.20	2.03	>> 1
19	e	2.400	189.27	0.097	2.500	3.60	0.694	1157.42	47.50	4.54	>> 1
23	e	2.400	38.16	0.112	2.500	3.60	0.694	200.81	9.27	0.92	>> 1
26	e	2.400	56.56	0.182	2.500	3.60	0.694	183.46	11.74	3.38	3.472
30	e	2.400	263.15	0.150	2.500	3.60	0.694	1033.10	58.84	19.02	3.093
34	e	2.400	261.63	0.071	2.500	3.60	0.694	2184.50	69.09	6.28	>> 1
40	e	2.400	26.94	0.079	2.500	3.60	0.694	201.17	7.00	0.65	>> 1
43	e	2.400	277.90	0.142	2.500	3.60	0.694	1159.19	63.38	17.73	3.575
46	e	2.400	178.89	0.091	2.500	3.60	0.694	1159.19	45.38	17.71	2.563
49	e	2.400	35.74	0.044	2.500	3.60	0.694	476.71	9.92	0.86	>> 1
54	e	2.400	43.51	0.055	2.500	3.60	0.694	470.69	11.85	1.04	>> 1
56	e	2.400	36.54	0.070	2.500	3.60	0.694	306.00	9.65	2.84	3.399
60	e	2.400	53.48	0.103	2.500	3.60	0.694	306.00	13.24	2.84	4.662
64	e	2.400	159.96	0.139	2.500	3.60	0.694	679.29	36.69	13.02	2.818
69	e	2.400	175.57	0.153	2.500	3.60	0.694	679.29	39.06	13.02	3.000
71	e	2.400	25.75	0.076	2.500	3.60	0.694	201.17	6.74	0.62	>> 1

75	e	2.400	245.68	0.066	2.500	3.60	0.694	2184.50	65.41	5.90	>> 1
79	e	2.400	251.18	0.144	2.500	3.60	0.694	1033.10	57.03	18.94	3.011
85	e	2.400	54.45	0.175	2.500	3.60	0.694	183.46	11.49	3.37	3.409
88	e	2.400	36.73	0.108	2.500	3.60	0.694	200.81	9.00	0.88	>> 1
92	e	2.400	176.56	0.090	2.500	3.60	0.694	1157.42	44.89	4.24	>> 1
95	e	2.400	101.29	0.088	2.500	3.60	0.694	679.29	25.86	2.43	>> 1
99	e	2.400	120.05	0.104	2.500	3.60	0.694	679.29	29.65	2.88	>> 1
101	e	2.400	71.67	0.075	2.500	3.60	0.694	562.42	18.76	1.72	>> 1
104	e	3.041	52.29	0.021	2.500	3.60	0.694	1474.40	15.13	5.78	2.618
106	n	2.100	225.24	0.194	5.300	3.00	1.767	1745.57	37.27	4.73	7.880
109	n	2.100	243.54	0.197	5.300	3.00	1.767	1859.69	40.21	5.11	7.863
113	n	2.100	222.80	0.192	5.300	3.00	1.767	1745.57	36.93	4.68	7.893
116	n	2.100	240.29	0.194	5.300	3.00	1.767	1859.69	39.76	5.05	7.879
122	e	0.225	8.95	0.004	2.500	3.60	0.694	1186.46	2.66	1.26	2.115
126	e	0.225	8.63	0.004	2.500	3.60	0.694	1186.46	2.57	1.60	1.606
132	e	0.225	16.31	0.006	2.500	3.60	0.694	1682.29	4.85	1.77	2.738
135	e	0.225	13.63	0.007	2.500	3.60	0.694	1130.85	4.04	1.18	3.423
140	e	0.225	5.23	0.005	2.500	3.60	0.694	681.06	1.56	0.72	2.162
143	e	0.225	6.26	0.005	2.500	3.60	0.694	797.94	1.86	0.85	2.192
146	e	0.225	4.53	0.005	2.500	3.60	0.694	564.19	1.35	0.60	2.247
158	e	0.528	28.13	0.015	2.500	3.60	0.694	1071.71	8.22	0.15	>> 1
163	e	0.528	33.86	0.019	2.500	3.60	0.694	1071.71	9.84	0.18	>> 1
194	e	3.041	77.60	0.031	2.500	3.60	0.694	1474.40	22.05	5.78	3.816

68. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°6: SLU: Combinazione 46 (Fondamentale/Vento +Y))

N.	n/e	x Sez. (m)	P (kN)	p (N/mm^2)	f _k , f _m (N/mm^2)	γ _m * FC	f _d (N/mm^2)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	e	2.400	142.22	0.078	2.500	3.60	0.694	1071.71	37.00	3.41	>> 1
4	e	2.400	130.95	0.072	2.500	3.60	0.694	1071.71	34.48	3.14	>> 1
8	e	2.400	55.41	0.058	2.500	3.60	0.694	562.42	14.99	1.33	>> 1
11	e	2.400	88.49	0.077	2.500	3.60	0.694	679.29	23.09	2.68	8.615
16	e	2.400	79.73	0.069	2.500	3.60	0.694	679.29	21.11	2.68	7.877
19	e	2.400	184.83	0.094	2.500	3.60	0.694	1157.42	46.59	4.44	>> 1
23	e	2.400	38.37	0.113	2.500	3.60	0.694	200.81	9.31	1.09	8.543
26	e	2.400	54.89	0.177	2.500	3.60	0.694	183.46	11.54	2.10	5.495
30	e	2.400	253.52	0.145	2.500	3.60	0.694	1033.10	57.39	15.59	3.681
34	e	2.400	252.61	0.068	2.500	3.60	0.694	2184.50	67.02	6.06	>> 1
40	e	2.400	27.19	0.080	2.500	3.60	0.694	201.17	7.05	0.93	7.585
43	e	2.400	268.23	0.137	2.500	3.60	0.694	1159.19	61.85	13.74	4.501
46	e	2.400	171.63	0.087	2.500	3.60	0.694	1159.19	43.87	13.72	3.197
49	e	2.400	37.63	0.047	2.500	3.60	0.694	476.71	10.40	1.75	5.942
54	e	2.400	41.21	0.052	2.500	3.60	0.694	470.69	11.28	1.18	9.560
56	e	2.400	35.67	0.069	2.500	3.60	0.694	306.00	9.45	4.15	2.278
60	e	2.400	53.70	0.104	2.500	3.60	0.694	306.00	13.28	4.61	2.881
64	e	2.400	165.02	0.143	2.500	3.60	0.694	679.29	37.48	15.69	2.389
69	e	2.400	179.63	0.156	2.500	3.60	0.694	679.29	39.64	15.70	2.525
71	e	2.400	25.85	0.076	2.500	3.60	0.694	201.17	6.76	1.55	4.360
75	e	2.400	254.24	0.069	2.500	3.60	0.694	2184.50	67.40	8.80	7.659
79	e	2.400	260.10	0.149	2.500	3.60	0.694	1033.10	58.38	22.40	2.606
85	e	2.400	55.72	0.179	2.500	3.60	0.694	183.46	11.64	4.65	2.503
88	e	2.400	36.91	0.108	2.500	3.60	0.694	200.81	9.04	1.37	6.597
92	e	2.400	180.59	0.092	2.500	3.60	0.694	1157.42	45.72	4.33	>> 1
95	e	2.400	108.44	0.094	2.500	3.60	0.694	679.29	27.34	3.48	7.856
99	e	2.400	128.67	0.112	2.500	3.60	0.694	679.29	31.29	3.48	8.991
101	e	2.400	71.15	0.075	2.500	3.60	0.694	562.42	18.64	2.70	6.905
104	e	3.041	56.52	0.023	2.500	3.60	0.694	1474.40	16.31	1.72	9.487
106	n	2.100	225.88	0.194	5.300	3.00	1.767	1745.57	37.36	4.74	7.877
109	n	2.100	244.02	0.197	5.300	3.00	1.767	1859.69	40.28	5.12	7.860
113	n	2.100	223.28	0.192	5.300	3.00	1.767	1745.57	37.00	4.69	7.890
116	n	2.100	240.06	0.194	5.300	3.00	1.767	1859.69	39.72	5.04	7.880
122	e	0.225	9.20	0.005	2.500	3.60	0.694	1186.46	2.74	2.03	1.349
126	e	0.225	8.47	0.004	2.500	3.60	0.694	1186.46	2.52	0.82	3.077
132	e	0.225	17.50	0.006	2.500	3.60	0.694	1682.29	5.20	2.87	1.810
135	e	0.225	13.27	0.007	2.500	3.60	0.694	1130.85	3.93	1.92	2.049
140	e	0.225	4.43	0.004	2.500	3.60	0.694	681.06	1.32	1.16	1.138
143	e	0.225	5.00	0.004	2.500	3.60	0.694	797.94	1.49	1.36	1.096
146	e	0.225	3.42	0.004	2.500	3.60	0.694	564.19	1.02	0.96	1.062
158	e	0.528	41.64	0.023	2.500	3.60	0.694	1071.71	12.01	0.22	>> 1
163	e	0.528	20.13	0.011	2.500	3.60	0.694	1071.71	5.93	0.11	>> 1
194	e	3.041	77.79	0.031	2.500	3.60	0.694	1474.40	22.11	2.37	9.345

69. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°7: SLU: Combinazione 47 (Fondamentale/Vento -X))

N.	n/e	x Sez. (m)	P (kN)	p (N/mm^2)	f _k , f _m (N/mm^2)	γ _m * FC	f _d (N/mm^2)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	e	2.400	142.41	0.078	2.500	3.60	0.694	1071.71	37.05	5.31	6.977

4	e	2.400	132.23	0.073	2.500	3.60	0.694	1071.71	34.77	3.34	>> 1
8	e	2.400	52.81	0.055	2.500	3.60	0.694	562.42	14.36	1.27	>> 1
11	e	2.400	94.71	0.082	2.500	3.60	0.694	679.29	24.45	2.27	>> 1
16	e	2.400	87.38	0.076	2.500	3.60	0.694	679.29	22.84	2.10	>> 1
19	e	2.400	189.88	0.097	2.500	3.60	0.694	1157.42	47.62	4.56	>> 1
23	e	2.400	38.49	0.113	2.500	3.60	0.694	200.81	9.33	0.92	>> 1
26	e	2.400	56.11	0.181	2.500	3.60	0.694	183.46	11.68	3.38	3.457
30	e	2.400	262.25	0.150	2.500	3.60	0.694	1033.10	58.70	19.04	3.083
34	e	2.400	261.14	0.071	2.500	3.60	0.694	2184.50	68.98	6.27	>> 1
40	e	2.400	27.29	0.080	2.500	3.60	0.694	201.17	7.08	0.65	>> 1
43	e	2.400	272.99	0.139	2.500	3.60	0.694	1159.19	62.61	17.67	3.543
46	e	2.400	174.88	0.089	2.500	3.60	0.694	1159.19	44.55	17.65	2.524
49	e	2.400	36.00	0.045	2.500	3.60	0.694	476.71	9.98	0.86	>> 1
54	e	2.400	42.68	0.054	2.500	3.60	0.694	470.69	11.64	1.02	>> 1
56	e	2.400	34.26	0.066	2.500	3.60	0.694	306.00	9.13	2.84	3.214
60	e	2.400	51.50	0.099	2.500	3.60	0.694	306.00	12.85	2.84	4.525
64	e	2.400	158.62	0.138	2.500	3.60	0.694	679.29	36.47	12.97	2.812
69	e	2.400	173.66	0.151	2.500	3.60	0.694	679.29	38.78	12.98	2.988
71	e	2.400	26.13	0.077	2.500	3.60	0.694	201.17	6.82	0.63	>> 1
75	e	2.400	245.27	0.066	2.500	3.60	0.694	2184.50	65.32	5.89	>> 1
79	e	2.400	250.37	0.143	2.500	3.60	0.694	1033.10	56.91	18.97	3.000
85	e	2.400	54.03	0.174	2.500	3.60	0.694	183.46	11.44	3.37	3.393
88	e	2.400	37.10	0.109	2.500	3.60	0.694	200.81	9.07	0.89	>> 1
92	e	2.400	176.10	0.090	2.500	3.60	0.694	1157.42	44.79	4.23	>> 1
95	e	2.400	102.79	0.089	2.500	3.60	0.694	679.29	26.17	2.47	>> 1
99	e	2.400	123.16	0.107	2.500	3.60	0.694	679.29	30.25	2.96	>> 1
101	e	2.400	72.96	0.077	2.500	3.60	0.694	562.42	19.05	1.75	>> 1
104	e	3.041	56.80	0.023	2.500	3.60	0.694	1474.40	16.38	4.86	3.371
106	n	2.100	226.42	0.195	5.300	3.00	1.767	1745.57	37.44	4.75	7.874
109	n	2.100	244.76	0.198	5.300	3.00	1.767	1859.69	40.38	5.14	7.857
113	n	2.100	223.32	0.192	5.300	3.00	1.767	1745.57	37.00	4.69	7.890
116	n	2.100	240.64	0.194	5.300	3.00	1.767	1859.69	39.81	5.05	7.877
122	e	0.225	8.99	0.004	2.500	3.60	0.694	1186.46	2.68	1.25	2.141
126	e	0.225	8.63	0.004	2.500	3.60	0.694	1186.46	2.57	1.60	1.606
132	e	0.225	16.05	0.006	2.500	3.60	0.694	1682.29	4.77	1.76	2.710
135	e	0.225	13.18	0.007	2.500	3.60	0.694	1130.85	3.91	1.18	3.312
140	e	0.225	5.31	0.005	2.500	3.60	0.694	681.06	1.58	0.72	2.195
143	e	0.225	6.37	0.005	2.500	3.60	0.694	797.94	1.90	0.84	2.257
146	e	0.225	4.62	0.005	2.500	3.60	0.694	564.19	1.37	0.60	2.291
158	e	0.528	28.09	0.015	2.500	3.60	0.694	1071.71	8.21	0.15	>> 1
163	e	0.528	33.99	0.019	2.500	3.60	0.694	1071.71	9.87	0.18	>> 1
194	e	3.041	81.09	0.032	2.500	3.60	0.694	1474.40	22.99	4.86	4.730

70. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°8: SLU: Combinazione 48 (Fondamentale/Vento -Y))

N.	n/e	x Sez. (m)	P (kN)	p (N/mm ²)	f _k , f _m (N/mm ²)	γ _m * FC	f _d (N/mm ²)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	e	2.400	144.29	0.079	2.500	3.60	0.694	1071.71	37.46	3.46	>> 1
4	e	2.400	134.13	0.074	2.500	3.60	0.694	1071.71	35.20	3.22	>> 1
8	e	2.400	50.98	0.054	2.500	3.60	0.694	562.42	13.91	2.77	5.021
11	e	2.400	98.93	0.086	2.500	3.60	0.694	679.29	25.36	3.40	7.458
16	e	2.400	92.18	0.080	2.500	3.60	0.694	679.29	23.90	3.40	7.030
19	e	2.400	194.32	0.099	2.500	3.60	0.694	1157.42	48.51	4.66	>> 1
23	e	2.400	38.28	0.113	2.500	3.60	0.694	200.81	9.29	1.35	6.885
26	e	2.400	57.78	0.186	2.500	3.60	0.694	183.46	11.87	4.66	2.548
30	e	2.400	271.88	0.155	2.500	3.60	0.694	1033.10	60.10	22.47	2.675
34	e	2.400	270.16	0.073	2.500	3.60	0.694	2184.50	71.02	8.49	8.366
40	e	2.400	27.04	0.079	2.500	3.60	0.694	201.17	7.02	1.52	4.619
43	e	2.400	282.65	0.144	2.500	3.60	0.694	1159.19	64.12	21.66	2.960
46	e	2.400	182.15	0.093	2.500	3.60	0.694	1159.19	46.06	21.64	2.128
49	e	2.400	34.11	0.042	2.500	3.60	0.694	476.71	9.50	1.78	5.338
54	e	2.400	44.99	0.056	2.500	3.60	0.694	470.69	12.21	1.42	8.596
56	e	2.400	35.13	0.068	2.500	3.60	0.694	306.00	9.33	1.53	6.097
60	e	2.400	51.27	0.099	2.500	3.60	0.694	306.00	12.80	1.23	>> 1
64	e	2.400	153.56	0.133	2.500	3.60	0.694	679.29	35.65	10.30	3.462
69	e	2.400	169.60	0.147	2.500	3.60	0.694	679.29	38.18	10.30	3.706
71	e	2.400	26.04	0.076	2.500	3.60	0.694	201.17	6.80	0.90	7.556
75	e	2.400	236.71	0.064	2.500	3.60	0.694	2184.50	63.32	5.68	>> 1
79	e	2.400	241.45	0.138	2.500	3.60	0.694	1033.10	55.51	15.51	3.579
85	e	2.400	52.75	0.170	2.500	3.60	0.694	183.46	11.27	2.09	5.395
88	e	2.400	36.93	0.109	2.500	3.60	0.694	200.81	9.04	1.07	8.450
92	e	2.400	172.07	0.088	2.500	3.60	0.694	1157.42	43.95	4.13	>> 1
95	e	2.400	95.63	0.083	2.500	3.60	0.694	679.29	24.65	3.32	7.425
99	e	2.400	114.53	0.100	2.500	3.60	0.694	679.29	28.57	3.32	8.604
101	e	2.400	73.47	0.077	2.500	3.60	0.694	562.42	19.16	1.76	>> 1
104	e	3.041	52.56	0.021	2.500	3.60	0.694	1474.40	15.21	1.60	9.513
106	n	2.100	225.78	0.194	5.300	3.00	1.767	1745.57	37.35	4.74	7.877
109	n	2.100	244.28	0.197	5.300	3.00	1.767	1859.69	40.32	5.13	7.859
113	n	2.100	222.84	0.192	5.300	3.00	1.767	1745.57	36.93	4.68	7.893
116	n	2.100	240.87	0.194	5.300	3.00	1.767	1859.69	39.84	5.06	7.876
122	e	0.225	8.74	0.004	2.500	3.60	0.694	1186.46	2.60	0.48	5.422
126	e	0.225	8.79	0.004	2.500	3.60	0.694	1186.46	2.62	2.39	1.095

132	e	0.225	14.86	0.005	2.500	3.60	0.694	1682.29	4.42	0.67	6.595
135	e	0.225	13.54	0.007	2.500	3.60	0.694	1130.85	4.01	0.44	9.121
140	e	0.225	6.11	0.005	2.500	3.60	0.694	681.06	1.82	0.28	6.488
143	e	0.225	7.63	0.006	2.500	3.60	0.694	797.94	2.27	0.33	6.870
146	e	0.225	5.72	0.006	2.500	3.60	0.694	564.19	1.70	0.23	7.385
158	e	0.528	14.58	0.008	2.500	3.60	0.694	1071.71	4.31	0.08	>> 1
163	e	0.528	47.72	0.026	2.500	3.60	0.694	1071.71	13.68	0.25	>> 1
194	e	3.041	80.90	0.032	2.500	3.60	0.694	1474.40	22.94	2.46	9.324

71. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062
(Analisi Statica Lineare NON Sismica: CCC n°9:)

N.	n/e	x Sez. (m)	P (kN)	p (N/mm ²)	fk , fm (N/mm ²)	γ _m * FC	fd (N/mm ²)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.
1	e	2.400	135.84	0.075	2.500	3.60	0.694	1071.71	35.59	3.26	>> 1
4	e	2.400	124.70	0.069	2.500	3.60	0.694	1071.71	33.06	2.99	>> 1
8	e	2.400	48.87	0.051	2.500	3.60	0.694	562.42	13.39	1.17	>> 1
11	e	2.400	87.88	0.076	2.500	3.60	0.694	679.29	22.95	2.11	>> 1
16	e	2.400	80.81	0.070	2.500	3.60	0.694	679.29	21.36	1.94	>> 1
19	e	2.400	180.78	0.092	2.500	3.60	0.694	1157.42	45.76	4.34	>> 1
23	e	2.400	36.60	0.108	2.500	3.60	0.694	200.81	8.98	0.88	>> 1
26	e	2.400	53.98	0.174	2.500	3.60	0.694	183.46	11.43	3.29	3.474
30	e	2.400	250.96	0.143	2.500	3.60	0.694	1033.10	57.00	18.50	3.081
34	e	2.400	246.79	0.067	2.500	3.60	0.694	2184.50	65.67	5.92	>> 1
40	e	2.400	25.79	0.076	2.500	3.60	0.694	201.17	6.75	0.62	>> 1
43	e	2.400	264.45	0.135	2.500	3.60	0.694	1159.19	61.24	17.23	3.554
46	e	2.400	167.56	0.085	2.500	3.60	0.694	1159.19	43.00	17.20	2.500
49	e	2.400	32.34	0.040	2.500	3.60	0.694	476.71	9.04	0.78	>> 1
54	e	2.400	39.84	0.050	2.500	3.60	0.694	470.69	10.94	0.96	>> 1
56	e	2.400	32.88	0.063	2.500	3.60	0.694	306.00	8.80	2.76	3.190
60	e	2.400	49.71	0.096	2.500	3.60	0.694	306.00	12.49	2.76	4.525
64	e	2.400	152.25	0.132	2.500	3.60	0.694	679.29	35.44	12.64	2.804
69	e	2.400	167.53	0.146	2.500	3.60	0.694	679.29	37.86	12.65	2.993
71	e	2.400	24.65	0.072	2.500	3.60	0.694	201.17	6.49	0.59	>> 1
75	e	2.400	231.41	0.063	2.500	3.60	0.694	2184.50	62.07	5.55	>> 1
79	e	2.400	239.45	0.137	2.500	3.60	0.694	1033.10	55.19	18.42	2.996
85	e	2.400	51.95	0.167	2.500	3.60	0.694	183.46	11.17	3.27	3.416
88	e	2.400	35.25	0.104	2.500	3.60	0.694	200.81	8.72	0.85	>> 1
92	e	2.400	168.00	0.086	2.500	3.60	0.694	1157.42	43.08	4.03	>> 1
95	e	2.400	96.92	0.084	2.500	3.60	0.694	679.29	24.93	2.33	>> 1
99	e	2.400	115.86	0.101	2.500	3.60	0.694	679.29	28.83	2.78	>> 1
101	e	2.400	68.26	0.072	2.500	3.60	0.694	562.42	17.99	1.64	>> 1
104	e	3.041	48.26	0.019	2.500	3.60	0.694	1474.40	14.00	1.47	9.542
106	n	2.100	217.65	0.187	5.300	3.00	1.767	1745.57	36.20	4.57	7.919
109	n	2.100	235.33	0.190	5.300	3.00	1.767	1859.69	39.05	4.94	7.903
113	n	2.100	215.27	0.185	5.300	3.00	1.767	1745.57	35.86	4.52	7.932
116	n	2.100	232.11	0.187	5.300	3.00	1.767	1859.69	38.60	4.87	7.918
122	e	0.225	7.43	0.004	2.500	3.60	0.694	1186.46	2.22	1.09	2.032
126	e	0.225	7.04	0.004	2.500	3.60	0.694	1186.46	2.10	1.44	1.458
132	e	0.225	14.04	0.005	2.500	3.60	0.694	1682.29	4.18	1.54	2.712
135	e	0.225	11.83	0.006	2.500	3.60	0.694	1130.85	3.51	1.03	3.410
140	e	0.225	4.05	0.004	2.500	3.60	0.694	681.06	1.21	0.63	1.917
143	e	0.225	4.76	0.004	2.500	3.60	0.694	797.94	1.42	0.73	1.944
146	e	0.225	3.39	0.004	2.500	3.60	0.694	564.19	1.01	0.52	1.944
158	e	0.528	23.94	0.013	2.500	3.60	0.694	1071.71	7.02	0.13	>> 1
163	e	0.528	29.62	0.016	2.500	3.60	0.694	1071.71	8.64	0.16	>> 1
194	e	3.041	73.19	0.029	2.500	3.60	0.694	1474.40	20.87	2.23	9.375

72. VERIFICA A PRESSOFLESSIONE ORTOGONALE (da modello 3D) (§4.5.6, §7.8.2.2.3) [SLV] - C.Sic: 1.062 (CCC ID 46)
(Analisi Statica Lineare NON Sismica: Involuppo CCC)

N.	n/e	x Sez. (m)	P (kN)	p (N/mm ²)	fk , fm (N/mm ²)	γ _m * FC	fd (N/mm ²)	Nu (kN)	Mu (kN m)	M (kN m)	C.Sic.	ID CCC
1	e	2.400	142.41	0.078	2.500	3.60	0.694	1071.71	37.05	5.31	6.977	47
4	e	2.400	132.23	0.073	2.500	3.60	0.694	1071.71	34.77	3.34	>> 1	47
8	e	2.400	50.98	0.054	2.500	3.60	0.694	562.42	13.91	2.77	5.021	48
11	e	2.400	98.93	0.086	2.500	3.60	0.694	679.29	25.36	3.40	7.458	48
16	e	2.400	92.18	0.080	2.500	3.60	0.694	679.29	23.90	3.40	7.030	48
19	e	2.400	250.72	0.128	2.500	3.60	0.694	1157.42	58.92	6.02	9.792	44
23	e	2.400	38.28	0.113	2.500	3.60	0.694	200.81	9.29	1.35	6.885	48
26	e	2.400	74.55	0.240	2.500	3.60	0.694	183.46	13.28	5.67	2.342	44
30	e	2.400	350.02	0.200	2.500	3.60	0.694	1033.10	69.43	28.15	2.466	44
34	e	2.400	270.16	0.073	2.500	3.60	0.694	2184.50	71.02	8.49	8.366	48
40	e	2.400	27.04	0.079	2.500	3.60	0.694	201.17	7.02	1.52	4.619	48
43	e	2.400	364.59	0.186	2.500	3.60	0.694	1159.19	74.98	26.94	2.783	44
46	e	2.400	234.61	0.119	2.500	3.60	0.694	1159.19	56.14	26.91	2.086	44
49	e	2.400	34.11	0.042	2.500	3.60	0.694	476.71	9.50	1.78	5.338	48
54	e	2.400	44.99	0.056	2.500	3.60	0.694	470.69	12.21	1.42	8.596	48
56	e	2.400	35.67	0.069	2.500	3.60	0.694	306.00	9.45	4.15	2.278	46

60	e	2.400		53.70	0.104	2.500	3.60	0.694	306.00	13.28	4.61	2.881	46
64	e	2.400		212.34	0.185	2.500	3.60	0.694	679.29	43.79	19.57	2.238	42
69	e	2.400		231.55	0.201	2.500	3.60	0.694	679.29	45.79	19.58	2.338	42
71	e	2.400		25.85	0.076	2.500	3.60	0.694	201.17	6.76	1.55	4.360	46
75	e	2.400		254.24	0.069	2.500	3.60	0.694	2184.50	67.40	8.80	7.659	46
79	e	2.400		334.67	0.191	2.500	3.60	0.694	1033.10	67.88	28.06	2.419	42
85	e	2.400		71.86	0.231	2.500	3.60	0.694	183.46	13.11	5.65	2.321	42
88	e	2.400		36.91	0.108	2.500	3.60	0.694	200.81	9.04	1.37	6.597	46
92	e	2.400		233.03	0.119	2.500	3.60	0.694	1157.42	55.83	5.59	9.983	42
95	e	2.400		95.63	0.083	2.500	3.60	0.694	679.29	24.65	3.32	7.425	48
99	e	2.400		114.53	0.100	2.500	3.60	0.694	679.29	28.57	3.32	8.604	48
101	e	2.400		71.15	0.075	2.500	3.60	0.694	562.42	18.64	2.70	6.905	46
104	e	3.041		52.29	0.021	2.500	3.60	0.694	1474.40	15.13	5.78	2.618	45
106	n	2.100		293.71	0.253	5.300	3.00	1.767	1745.57	46.42	6.17	7.525	43
109	n	2.100		317.52	0.256	5.300	3.00	1.767	1859.69	50.03	6.67	7.503	43
113	n	2.100		289.74	0.249	5.300	3.00	1.767	1745.57	45.91	6.08	7.546	43
116	n	2.100		312.49	0.252	5.300	3.00	1.767	1859.69	49.40	6.56	7.527	44
122	e	0.225		9.20	0.005	2.500	3.60	0.694	1186.46	2.74	2.03	1.349	46
126	e	0.225		8.79	0.004	2.500	3.60	0.694	1186.46	2.62	2.39	1.095	48
132	e	0.225		17.50	0.006	2.500	3.60	0.694	1682.29	5.20	2.87	1.810	46
135	e	0.225		13.27	0.007	2.500	3.60	0.694	1130.85	3.93	1.92	2.049	46
140	e	0.225		4.43	0.004	2.500	3.60	0.694	681.06	1.32	1.16	1.138	46
143	e	0.225		5.00	0.004	2.500	3.60	0.694	797.94	1.49	1.36	1.096	46
146	e	0.225		3.42	0.004	2.500	3.60	0.694	564.19	1.02	0.96	1.062	46
158	e	0.528		49.86	0.027	2.500	3.60	0.694	1071.71	14.26	0.26	>> 1	42
163	e	0.528		57.68	0.032	2.500	3.60	0.694	1071.71	16.37	0.30	>> 1	44
194	e	3.041		77.60	0.031	2.500	3.60	0.694	1474.40	22.05	5.78	3.816	45

73. VERIFICHE PER STATO LIMITE ULTIMO DI TIPO GEOTECNICO (§6.4.2.1) [SLV] - C.Sic: 1.342 (CCC ID 44)
(Analisi Statica Lineare NON Sismica: Involuppo CCC SLU)

VERIFICA DI CAPACITA' PORTANTE DEL TERRENO (§6.4.2.1) [SLV]
(Analisi Statica Lineare NON Sismica: Involuppo CCC SLU)

N.asta	K Winkler (N/mm^3)	q,lim (N/mm^2)	Rd	Nodo i	sZ,i (mm)	sT,i (N/mm^2)	Ed,i	C.Sic. i	Nodo j	sZ,j (mm)	sT,j (N/mm^2)	Ed,j	C.Sic. j	ID CCC
197	0.016	0.511	0.222	214	-9.47	0.152	0.152	1.466	215	-9.66	0.155	0.155	1.438	44
323	0.016	0.511	0.222	213	-9.75	0.156	0.156	1.424	1	-9.66	0.155	0.155	1.437	42
324	0.016	0.511	0.222	1	-9.66	0.155	0.155	1.437	214	-9.57	0.153	0.153	1.450	42
325	0.016	0.511	0.222	215	-9.66	0.155	0.155	1.438	5	-9.87	0.158	0.158	1.407	44
326	0.016	0.511	0.222	5	-9.87	0.158	0.158	1.407	216	-10.08	0.161	0.161	1.378	44
327	0.016	0.511	0.222	216	-10.08	0.161	0.161	1.378	9	-10.07	0.161	0.161	1.378	44
328	0.016	0.511	0.222	9	-10.07	0.161	0.161	1.378	11	-10.07	0.161	0.161	1.379	44
329	0.016	0.511	0.222	11	-10.07	0.161	0.161	1.379	15	-10.06	0.161	0.161	1.380	44
330	0.016	0.511	0.222	15	-10.06	0.161	0.161	1.380	13	-10.06	0.161	0.161	1.381	44
331	0.016	0.511	0.222	13	-10.06	0.161	0.161	1.381	217	-10.05	0.161	0.161	1.381	44
332	0.016	0.511	0.222	217	-10.05	0.161	0.161	1.381	18	-10.05	0.161	0.161	1.382	44
333	0.016	0.511	0.222	18	-10.05	0.161	0.161	1.382	320	-10.04	0.161	0.161	1.383	44
334	0.016	0.511	0.222	320	-10.04	0.161	0.161	1.383	321	-10.05	0.161	0.161	1.382	44
335	0.016	0.511	0.222	321	-10.05	0.161	0.161	1.382	21	-10.05	0.161	0.161	1.382	44
336	0.016	0.511	0.222	21	-10.05	0.161	0.161	1.382	218	-10.05	0.161	0.161	1.382	44
337	0.016	0.511	0.222	218	-10.05	0.161	0.161	1.382	25	-10.05	0.161	0.161	1.382	44
338	0.016	0.511	0.222	25	-10.05	0.161	0.161	1.382	322	-10.05	0.161	0.161	1.382	44
339	0.016	0.511	0.222	322	-10.05	0.161	0.161	1.382	323	-9.95	0.159	0.159	1.395	44
340	0.016	0.511	0.222	323	-9.95	0.159	0.159	1.395	28	-9.97	0.159	0.159	1.393	44
341	0.016	0.511	0.222	28	-9.97	0.159	0.159	1.393	219	-9.98	0.160	0.160	1.392	44
342	0.016	0.511	0.222	219	-9.98	0.160	0.160	1.392	32	-10.04	0.161	0.161	1.383	44
343	0.016	0.511	0.222	32	-10.04	0.161	0.161	1.383	34	-10.10	0.162	0.162	1.374	44
344	0.016	0.511	0.222	34	-10.10	0.162	0.162	1.374	38	-10.17	0.163	0.163	1.366	44
345	0.016	0.511	0.222	38	-10.17	0.163	0.163	1.366	36	-10.18	0.163	0.163	1.365	44
346	0.016	0.511	0.222	36	-10.18	0.163	0.163	1.365	220	-10.18	0.163	0.163	1.364	44
347	0.016	0.511	0.222	220	-10.18	0.163	0.163	1.364	41	-10.18	0.163	0.163	1.364	44
348	0.016	0.511	0.222	41	-10.18	0.163	0.163	1.364	324	-10.18	0.163	0.163	1.364	44
349	0.016	0.511	0.222	324	-10.18	0.163	0.163	1.364	325	-10.05	0.161	0.161	1.381	44
350	0.016	0.511	0.222	44	-10.11	0.162	0.162	1.373	221	-10.17	0.163	0.163	1.365	44
351	0.016	0.511	0.222	221	-10.17	0.163	0.163	1.365	48	-10.23	0.164	0.164	1.357	44
352	0.016	0.511	0.222	48	-10.23	0.164	0.164	1.357	50	-10.29	0.165	0.165	1.349	44
353	0.016	0.511	0.222	50	-10.29	0.165	0.165	1.349	54	-10.32	0.165	0.165	1.345	44
354	0.016	0.511	0.222	54	-10.32	0.165	0.165	1.345	52	-10.34	0.165	0.165	1.343	44
355	0.016	0.511	0.222	52	-10.34	0.165	0.165	1.343	222	-10.35	0.166	0.166	1.342	44
356	0.016	0.511	0.222	222	-10.00	0.160	0.160	1.388	56	-9.99	0.160	0.160	1.390	42
357	0.016	0.511	0.222	56	-9.99	0.160	0.160	1.390	326	-9.98	0.160	0.160	1.392	42
358	0.016	0.511	0.222	326	-9.98	0.160	0.160	1.392	327	-9.97	0.159	0.159	1.393	42
359	0.016	0.511	0.222	327	-9.97	0.159	0.159	1.393	59	-9.96	0.159	0.159	1.394	42
360	0.016	0.511	0.222	59	-9.96	0.159	0.159	1.394	224	-9.95	0.159	0.159	1.395	42
361	0.016	0.511	0.222	224	-9.95	0.159	0.159	1.395	63	-9.95	0.159	0.159	1.396	42
362	0.016	0.511	0.222	63	-9.95	0.159	0.159	1.396	65	-9.94	0.159	0.159	1.397	42
363	0.016	0.511	0.222	65	-9.94	0.159	0.159	1.397	69	-9.90	0.158	0.158	1.403	42
364	0.016	0.511	0.222	69	-9.90	0.158	0.158	1.403	67	-9.86	0.158	0.158	1.408	42
365	0.016	0.511	0.222	67	-9.86	0.158	0.158	1.408	225	-9.82	0.157	0.157	1.414	42
366	0.016	0.511	0.222	225	-9.82	0.157	0.157	1.414	72	-9.79	0.157	0.157	1.419	42
367	0.016	0.511	0.222	328	-9.75	0.156	0.156	1.424	329	-9.88	0.158	0.158	1.406	42

368	0.016	0.511	0.222	329	-9.88	0.158	0.158	1.406	75	-9.88	0.158	0.158	1.406	42
369	0.016	0.511	0.222	75	-9.88	0.158	0.158	1.406	226	-9.88	0.158	0.158	1.406	42
370	0.016	0.511	0.222	226	-9.88	0.158	0.158	1.406	79	-9.87	0.158	0.158	1.406	42
371	0.016	0.511	0.222	79	-9.87	0.158	0.158	1.406	81	-9.87	0.158	0.158	1.407	42
372	0.016	0.511	0.222	81	-9.87	0.158	0.158	1.407	85	-9.80	0.157	0.157	1.417	42
373	0.016	0.511	0.222	85	-9.80	0.157	0.157	1.417	83	-9.74	0.156	0.156	1.426	42
374	0.016	0.511	0.222	83	-9.74	0.156	0.156	1.426	227	-9.68	0.155	0.155	1.435	42
375	0.016	0.511	0.222	227	-9.68	0.155	0.155	1.435	88	-9.67	0.155	0.155	1.437	42
376	0.016	0.511	0.222	88	-9.67	0.155	0.155	1.437	330	-9.65	0.154	0.154	1.438	42
377	0.016	0.511	0.222	330	-9.65	0.154	0.154	1.438	331	-9.74	0.156	0.156	1.425	42
378	0.016	0.511	0.222	331	-9.74	0.156	0.156	1.425	91	-9.74	0.156	0.156	1.425	42
379	0.016	0.511	0.222	91	-9.74	0.156	0.156	1.425	228	-9.74	0.156	0.156	1.425	42
380	0.016	0.511	0.222	228	-9.74	0.156	0.156	1.425	95	-9.75	0.156	0.156	1.425	42
381	0.016	0.511	0.222	95	-9.75	0.156	0.156	1.425	332	-9.75	0.156	0.156	1.424	42
382	0.016	0.511	0.222	332	-9.75	0.156	0.156	1.424	333	-9.73	0.156	0.156	1.426	42
383	0.016	0.511	0.222	333	-9.73	0.156	0.156	1.426	98	-9.72	0.155	0.155	1.429	42
384	0.016	0.511	0.222	98	-9.72	0.155	0.155	1.429	229	-9.70	0.155	0.155	1.432	42
385	0.016	0.511	0.222	229	-9.70	0.155	0.155	1.432	102	-9.68	0.155	0.155	1.435	42
386	0.016	0.511	0.222	102	-9.68	0.155	0.155	1.435	334	-9.66	0.155	0.155	1.437	42
387	0.016	0.511	0.222	334	-9.66	0.155	0.155	1.437	335	-9.66	0.155	0.155	1.438	42
388	0.016	0.511	0.222	335	-9.66	0.155	0.155	1.438	105	-9.70	0.155	0.155	1.431	42
389	0.016	0.511	0.222	105	-9.70	0.155	0.155	1.431	213	-9.75	0.156	0.156	1.424	42
390	0.016	0.511	0.222	222	-10.35	0.166	0.166	1.342	108	-10.15	0.162	0.162	1.368	44
391	0.016	0.511	0.222	108	-10.15	0.162	0.162	1.368	230	-9.95	0.159	0.159	1.395	44
392	0.016	0.520	0.226	336	-9.61	0.154	0.154	1.470	112	-9.68	0.155	0.155	1.460	42
393	0.016	0.520	0.226	112	-9.68	0.155	0.155	1.460	228	-9.74	0.156	0.156	1.450	42
394	0.016	0.520	0.226	218	-10.05	0.161	0.161	1.407	116	-9.86	0.158	0.158	1.433	44
395	0.016	0.520	0.226	337	-9.67	0.155	0.155	1.461	336	-9.50	0.152	0.152	1.487	44
396	0.016	0.520	0.226	116	-9.86	0.158	0.158	1.433	337	-9.67	0.155	0.155	1.461	44
397	0.016	0.520	0.226	226	-9.88	0.158	0.158	1.430	120	-9.77	0.156	0.156	1.446	42
398	0.016	0.520	0.226	120	-9.77	0.156	0.156	1.446	338	-9.67	0.155	0.155	1.462	42
399	0.016	0.520	0.226	338	-9.56	0.153	0.153	1.478	339	-9.73	0.156	0.156	1.453	44
400	0.016	0.520	0.226	339	-9.73	0.156	0.156	1.453	124	-9.95	0.159	0.159	1.420	44
401	0.016	0.520	0.226	124	-9.95	0.159	0.159	1.420	220	-10.18	0.163	0.163	1.388	44
402	0.016	0.511	0.222	230	-9.98	0.160	0.160	1.391	211	-9.89	0.158	0.158	1.404	41
403	0.016	0.511	0.222	211	-9.98	0.160	0.160	1.392	223	-10.00	0.160	0.160	1.388	42
404	0.016	0.520	0.226	291	-8.52	0.136	0.136	1.658	227	-9.68	0.155	0.155	1.460	42
405	0.016	0.520	0.226	293	-7.78	0.125	0.125	1.815	291	-8.52	0.136	0.136	1.658	42
406	0.016	0.520	0.226	295	-7.69	0.123	0.123	1.837	293	-7.78	0.125	0.125	1.815	42
407	0.016	0.520	0.226	219	-9.98	0.160	0.160	1.416	297	-8.55	0.137	0.137	1.653	44
408	0.016	0.520	0.226	297	-8.55	0.137	0.137	1.653	295	-7.78	0.124	0.124	1.817	44
409	0.016	0.520	0.226	299	-8.73	0.140	0.140	1.619	239	-10.07	0.161	0.161	1.403	44
410	0.016	0.520	0.226	301	-7.95	0.127	0.127	1.778	299	-8.73	0.140	0.140	1.619	44
411	0.016	0.520	0.226	303	-7.79	0.125	0.125	1.813	301	-7.95	0.127	0.127	1.778	44
412	0.016	0.520	0.226	238	-9.77	0.156	0.156	1.447	305	-8.60	0.138	0.138	1.642	42
413	0.016	0.520	0.226	305	-8.60	0.138	0.138	1.642	303	-7.89	0.126	0.126	1.791	42
496	0.016	0.511	0.222	325	-10.05	0.161	0.161	1.381	239	-10.07	0.161	0.161	1.379	44
497	0.016	0.511	0.222	239	-10.07	0.161	0.161	1.379	44	-10.11	0.162	0.162	1.373	44
498	0.016	0.511	0.222	72	-9.79	0.157	0.157	1.419	238	-9.77	0.156	0.156	1.421	42
499	0.016	0.511	0.222	238	-9.77	0.156	0.156	1.421	328	-9.75	0.156	0.156	1.424	42

VERIFICA DI SCORRIMENTO SUL PIANO DI POSA (§6.4.2.1) [SLV] (CCC ID 44)
(Analisi Statica Lineare NON Sismica: Involuppo CCC SLU)

N.nodo	F orizz.X (kN)	F orizz.Y (kN)	F vert. (kN)
1	-3.58	52.89	311.54
5	-1.09	-17.32	298.15
9	-13.89	4.15	132.11
13	-19.02	4.52	205.71
18	-7.45	4.52	196.67
21	-14.35	7.81	385.29
25	-0.32	3.04	73.05
28	0.30	-2.22	95.86
32	41.85	-21.91	470.17
36	-32.79	10.14	601.70
41	-0.28	2.79	58.46
44	16.48	-19.38	499.37
48	35.06	-19.33	369.39
52	3.84	4.91	100.08
56	-1.21	3.90	112.43
59	-1.46	6.96	81.14
63	-0.55	8.10	102.39
67	23.91	26.14	279.85
72	6.40	26.14	300.49
75	-0.32	3.88	57.11
79	-39.48	22.11	563.48
83	42.22	37.69	436.17
88	0.31	8.37	90.21
91	-0.40	3.61	71.28
95	-18.85	11.11	359.07
98	0.18	5.25	204.94
102	0.20	5.25	229.69
105	-14.41	6.70	160.35

108	0.24	17.51	285.73
112	-0.56	45.55	350.19
116	-0.46	3.10	377.90
120	-0.43	64.26	346.39
124	-0.39	-16.11	373.34
211	0.23	17.53	321.50

Angolo d'attrito fondazione-terreno (°) = 24

Direz.	F.orizz.tot. (kN)	F.vert.tot. (kN)	R (kN)	Ed (kN)	Rd (kN)	C.Sic.
X	0.06	8901.21	3963.07	0.06	3602.79	>> 1
Y	321.67	8901.21	3963.07	321.67	3602.79	>> 1

RELAZIONE DI CALCOLO

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1. NORMATIVA DI RIFERIMENTO

D.M. 17.1.2018: "Aggiornamento delle "Norme tecniche per le costruzioni", Supplemento ordinario alla "Gazzetta Ufficiale", n.42 del 20 febbraio 2018.

Circolare 21.1.2019, n. 7 C.S.LL.PP.: Istruzioni per l'applicazione dell'«Aggiornamento delle "Norme tecniche per le costruzioni"» di cui al decreto ministeriale 17 gennaio 2018.

Edifici monumentali: Direttiva del Presidente del Consiglio dei Ministri del 9.2.2011: "Valutazione e riduzione del rischio sismico del patrimonio culturale con riferimento alle Norme tecniche per le costruzioni di cui al decreto del Ministero delle infrastrutture e dei trasporti del 14 gennaio 2008", di cui costituisce parte integrante la **Circ. 26 del 2.12.2010 del Ministero per i Beni e le Attività Culturali:** "Linee guida per la valutazione e riduzione del rischio sismico del patrimonio culturale".

FRP:

Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati, CNR-DT 200 R1/2012.

Linee guida per la Progettazione, l'Esecuzione ed il Collaudo di Interventi di Rinforzo di strutture di c.a., c.a.p. e murarie mediante FRP, documento approvato il 24 luglio 2009 dall'assemblea Generale del Consiglio Superiore dei Lavori Pubblici.

Indirizzi per l'esecuzione degli interventi di cui all'Ordinanza del Presidente del Consiglio dei Ministri n.3790 del 17.7.2009 (Riparazione con miglioramento sismico di edifici danneggiati), a cura della Presidenza del Consiglio dei Ministri, Dipartimento della Protezione Civile, Commissario Delegato (Eventi sismici provincia di L'Aquila, 6 aprile 2009).

Riferimenti tecnici: EuroCodici

Per quanto non diversamente specificato nel D.M.14.1.2008, si intendono coerenti con i principi alla base del Decreto le indicazioni riportate nei documenti di riferimento elencati in §12; fra questi: gli EuroCodici strutturali, così organizzati:

Criteri generali di progettazione strutturale

UNI EN 1990:2006

Eurocodice 1 – Azioni sulle strutture

UNI EN 1991-1-1:2004 Parte 1-1: Azioni in generale - Pesi per unità di volume, pesi propri e sovraccarichi per gli edifici

UNI EN 1991-1-2:2004 Parte 1-2: Azioni in generale - Azioni sulle strutture esposte al fuoco

UNI EN 1991-1-3:2004 Parte 1-3: Azioni in generale - Carichi da neve

UNI EN 1991-1-4:2005 Parte 1-4: Azioni in generale - Azioni del vento

UNI EN 1991-1-5:2004 Parte 1-5: Azioni in generale - Azioni termiche

UNI EN 1991-1-6:2005 Parte 1-6: Azioni in generale - Azioni durante la costruzione

UNI EN 1991-1-7:2006 Parte 1-7: Azioni in generale - Azioni eccezionali

UNI EN 1991-2:2005 Parte 2: Carichi da traffico sui ponti

UNI EN 1991-3:2006 Parte 3: Azioni indotte da gru e da macchinari

UNI EN 1991-4:2006 Parte 4: Azioni su silos e serbatoi

Eurocodice 2 – Progettazione delle strutture in calcestruzzo

UNI EN 1992-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1992-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1992-2:2006 Parte 2: Ponti di calcestruzzo - Progettazione e dettagli costruttivi

UNI EN 1992-3:2006 Parte 3: Strutture di contenimento liquidi

Eurocodice 3 – Progettazione delle strutture in acciaio

UNI EN 1993-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1993-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1993-1-3:2007 Parte 1-3: Regole generali - Regole supplementari per l'impiego dei profilati e delle lamiere sottili piegati a freddo

UNI EN 1993-1-4:2007 Parte 1-4: Regole generali - Regole supplementari per acciai inossidabili

UNI EN 1993-1-5:2007 Parte 1-5: Elementi strutturali a lastra

UNI EN 1993-1-6:2007 Parte 1-6: Resistenza e stabilità delle strutture a guscio

UNI EN 1993-1-7:2007 Parte 1-7: Strutture a lastra ortotropa caricate al di fuori del piano

UNI EN 1993-1-8:2005 Parte 1-8: Progettazione dei collegamenti

UNI EN 1993-1-9:2005 Parte 1-9: Fatica

UNI EN 1993-1-10:2005 Parte 1-10: Resilienza del materiale e proprietà attraverso lo spessore

UNI EN 1993-1-11:2007 Parte 1-11: Progettazione di strutture con elementi tesi

UNI EN 1993-1-12:2007 Parte 1-12: Regole aggiuntive per l'estensione della EN 1993 fino agli acciai di grado S 700

UNI EN 1993-2:2007 Parte 2: Ponti di acciaio

UNI EN 1993-3-1:2007 Parte 3-1: Torri, pali e ciminiera - Torri e pali

UNI EN 1993-3-2:2007 Parte 3-2: Torri, pali e ciminiera - Ciminiera

UNI EN 1993-4-1:2007 Parte 4-1: Silos

UNI EN 1993-4-2:2007 Parte 4-2: Serbatoi

UNI EN 1993-4-3:2007 Parte 4-3: Condotte

UNI EN 1993-5:2007 Parte 5: Pali e palancole

UNI EN 1993-6:2007 Parte 6: Strutture per apparecchi di sollevamento

Eurocodice 4 – Progettazione delle strutture composte acciaio-calcestruzzo

UNI EN 1994-1-1:2005 Parte 1-1: Regole generali e regole per gli edifici

UNI EN 1994-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1994-2:2006 Parte 2: Regole generali e regole per i ponti

Eurocodice 5 – Progettazione delle strutture in legno

UNI EN 1995-1-1:2005 Parte 1-1: Regole generali - Regole comuni e regole per gli edifici

UNI EN 1995-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1995-2:2005 Parte 2: Ponti

Eurocodice 6 – Progettazione delle strutture in muratura

UNI EN 1996-1-1:2006 Parte 1-1: Regole generali per strutture di muratura armata e non armata

UNI EN 1996-1-2:2005 Parte 1-2: Regole generali - Progettazione strutturale contro l'incendio

UNI EN 1996-2:2006 Parte 2: Considerazioni progettuali, selezione dei materiali ed esecuzione delle murature

UNI EN 1996-3:2006 Parte 3: Metodi di calcolo semplificato per strutture di muratura non armata

Eurocodice 7 – Progettazione geotecnica

UNI EN 1997-1:2005 Parte 1: Regole generali

UNI EN 1997-2:2007 Parte 2: Indagini e prove nel sottosuolo

Eurocodice 8 – Progettazione delle strutture per la resistenza sismica

UNI EN 1998-1:2005 Parte 1: Regole generali, azioni sismiche e regole per gli edifici

UNI EN 1998-2:2006 Parte 2: Ponti

UNI EN 1998-3:2005 Parte 3: Valutazione e adeguamento degli edifici

UNI EN 1998-4:2006 Parte 4: Silos, serbatoi e condotte

UNI EN 1998-5:2005 Parte 5: Fondazioni, strutture di contenimento ed aspetti geotecnici

UNI EN 1998-6:2005 Parte 6: Torri, pali e camini

Eurocodice 9 – Progettazione delle strutture in alluminio

UNI EN 1999-1-1:2007 Parte 1-1: Regole strutturali generali

UNI EN 1999-1-2:2007 Parte 1-2: Progettazione strutturale contro l'incendio

UNI EN 1999-1-3:2007 Parte 1-3: Strutture sottoposte a fatica

UNI EN 1999-1-4:2007 Parte 1-4: Lamiere sottili piegate a freddo

UNI EN 1999-1-5:2007 Parte 1-5: Strutture a guscio

Norme Italiane precedenti al D.M. 17.1.2018:

D.M. 14.1.2008: "Approvazione delle nuove norme tecniche per le costruzioni", Supplemento ordinario alla "Gazzetta Ufficiale", n.29 del 4 febbraio 2008.

Circolare 2.2.2009, n.617: "Istruzioni per l'applicazione delle "Nuove norme tecniche per le costruzioni" di cui al D.M. 14.1.2008.

Le norme elencate nel seguito sono in generale da considerarsi superate dal D.M.14.1.2008; esse possono costituire tuttavia utili fonti di riferimento per la comprensione dello sviluppo dei metodi di calcolo adottati dalle NTC.

D.M. 14.9.2005: "Norme Tecniche per le Costruzioni" (ex Testo Unico)

In campo antisismico, il D.M. 14.9.2005 definisce l'azione sismica [§3.2] e fissa i livelli di sicurezza. Nel rispetto di tali presupposti, il D.M.14.9.2005 può fare riferimento all'OPCM 3274 e s.m.i. [§5.7.1.1] per le indicazioni attuative sulle verifiche di sicurezza.

Sismica: Ordinanza P.C.M. n. 3274 del 20.3.2003: "Primi elementi in materia di criteri generali per la classificazione sismica del territorio nazionale e di normative tecniche per le costruzioni in zona sismica", e successive modifiche e integrazioni:

Ordinanza P.C.M. n. 3316 del 2.10.2003 e Ordinanza P.C.M. n. 3431 del 3.5.2005

Sismica: D. P.C.M. del 21.10.2003: "Disposizioni attuative dell'art.2, commi 2, 3 e 4, dell'Ordinanza del Presidente del Consiglio dei Ministri n.3274 del 20 marzo 2003".

Norme strutturali precedenti all'OPCM 3274 (per la Sismica) e al D.M. 14.9.2005:

Legge n.64 del 2.2.1974: "Provvedimenti per le costruzioni, con particolari prescrizioni per le zone sismiche."

Regione Autonoma Friuli Venezia Giulia - Legge Regionale n. 30 del 20.6.1977: "Documentazione tecnica per la progettazione e direzione delle opere di riparazione degli edifici - Documento Tecnico n. 2 - Raccomandazioni per la riparazione strutturale degli edifici in muratura."

Regione Umbria, Art.38 L.R. 1.7.1981, n.34: "Direttive tecniche ed esemplificazioni delle metodologie di intervento per la riparazione ed il consolidamento degli edifici danneggiati da eventi sismici."

D.M. 2.7.1981: "Normativa per le riparazioni ed il rafforzamento degli edifici danneggiati dal sisma nelle regioni Basilicata, Campania e Puglia."

Circolare Min.LL.PP. n.21745 del 30.7.1981: "Istruzioni relative alla normativa tecnica per la riparazione ed il rafforzamento degli edifici in muratura danneggiati dal sisma."

D.M. 16.1.1996: "Norme tecniche per le costruzioni in zone sismiche."

Circolare Min.LL.PP. n.65 del 10.4.1997: "Istruzioni per l'applicazione delle "Norme Tecniche per le costruzioni in zone sismiche" di cui al D.M. 16.1.1996."

Servizio Sismico Nazionale (S.S.N.) - Associazione Nazionale Italiana di Ingegneria Sismica (A.N.I.D.I.S.): "Commentario al D.M. 16.1.1996 ed alla Circ. n.65 del 10.4.1997 del Ministero LL.PP.", coord. F.Braga, 1998

D.G.R. Umbria n.5180 del 14.9.1998 e D.G.R. Marche n.2153 del 14.9.1998 in attuazione Legge 61/98: "Eventi sismici del 12 maggio, 26 settembre 1997 e successivi - Modalità e procedure per la concessione dei contributi previsti dall'art.4 della Legge 61/98 - Allegato B".

Provincia di Perugia, Servizio Sismico Nazionale: "Terremoto in Umbria e Marche del 1997. Criteri di calcolo per la progettazione degli interventi. Verifiche sismiche ed esempi per l'applicazione delle Direttive Tecniche D.G.R. Umbria 5180/98 e D.G.R. Marche 2153/98 in attuazione L.61/98", coord. A.De Sortis, G.Di Pasquale, U.Nasini, 1998.

Murature: D.M. 20.11.1987: "Norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento."

Circolare Min.LL.PP. n.30787 del 4.1.1989: "Istruzioni in merito alle norme tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento."

Carichi: D.M. 16.1.1996: "Norme tecniche relative ai criteri generali per la verifica di sicurezza delle costruzioni e dei carichi e sovraccarichi."

ANALISI DEI MECCANISMI LOCALI DI COLLASSO IN EDIFICI ESISTENTI IN MURATURA

(ANALISI CINEMATICA)

(D.M.17.1.2018 (NTC18), §8.7.1, Circ. 7 del 21.1.2019: §C8.7.1.2)

Negli edifici esistenti in muratura, come hanno dimostrato anche gli eventi sismici più recenti, i collassi più frequenti sono determinati dalla formazione di cinematismi: porzioni murarie di dimensioni rilevanti si distaccano dalle strutture e ruotano come corpi rigidi; è tipico il ribaltamento delle parti superiori delle facciate verso l'esterno.

Durante la sollecitazione sismica, le azioni di tipo stabilizzante (pesi propri e carichi verticali dai solai, azioni da tiranti) si oppongono alle instabilizzanti (dovute a strutture spingenti e ad azioni orizzontali di tipo sismico proporzionali alle masse, cioè ai pesi). Quando a causa del sisma le azioni instabilizzanti superano un certo valore, si forma il meccanismo di collasso.

Pertanto, la sicurezza strutturale può essere indagata studiando i cinematismi che possono formarsi nell'opera muraria e definendo per ognuno di essi il moltiplicatore di collasso, ossia l'entità dell'input sismico che lo attiva generando il ribaltamento.

Al moltiplicatore di collasso è legata l'accelerazione al suolo a_g . Con riferimento ad uno stato limite di interesse (lo Stato Limite di Danno o lo Stato Limite ultimo SLV di salvaguardia della Vita), attraverso le relazioni biunivoche che legano: accelerazione alla base della struttura PGA (che può tenere conto degli

effetti di suolo o essere considerata pari all'accelerazione di picco a_g su suolo rigido), periodo di ritorno T_R e probabilità di superamento nella vita di riferimento P_{VR} , determinata una di queste grandezze restano definite le altre. In tal modo, è possibile esprimere un indicatore di rischio sismico ζ_E (definito dal rapporto tra capacità e domanda) in termini di PGA o di periodo di ritorno: quando l'indicatore è ≥ 1 , la verifica di sicurezza è soddisfatta.

Un'importante ipotesi riguarda la monoliticità delle pareti: ad una muratura che può disgregarsi non si può attribuire la qualifica di corpo rigido. D'altra parte, alcuni Autori [1] hanno notato che la presenza di carico verticale sulla parete, insieme ai collegamenti trasversali (diatoni) conferisce alla parete stessa il comportamento di tipo monolitico. La presenza di giaciture orizzontali, inoltre, assicura la regolarità geometrica nella formazione dei cinematismi. Di fatto, l'analisi sismica condotta con metodi cinematici fornisce risultati idonei se la tessitura della parete è sufficientemente regolare e con buoni collegamenti trasversali.

In pratica, volendo definire un ordine secondo cui le strutture di un fabbricato in muratura devono essere analizzate, è possibile identificare tre stadi progressivi.

I) Se la muratura è disgregata, caotica e con malta di scarsa qualità, è impossibile il comportamento a corpo rigido. Né l'analisi cinematica né (a maggior ragione) le analisi elastiche o ultraelastiche possono identificare un parametro di capacità antisismica. La struttura deve essere consolidata comunque, se non ricostruita: si tratta di uno stato di fatto a capacità teoricamente nulla.

II) La muratura è sufficientemente organizzata in modo da potersi comportare come corpo rigido. L'analisi cinematica studia i meccanismi locali di collasso e definisce la capacità antisismica dei singoli elementi strutturali costituenti il complesso del fabbricato (singole pareti, volte, ecc.).

III) Superati i controlli di cui alle due fasi precedenti, il complesso murario mostra un comportamento scatolare: a questo punto (e solo a questo punto) può essere adeguatamente studiato con metodi elasto-plastici, quali le analisi pushover. Per elasticità si intende una fase deformativa iniziale reversibile; per plasticità una fase successiva caratterizzata da spostamenti permanenti. Il comportamento della muratura non è 'plastico' nel senso tradizionale del termine: la struttura è un solido a geometria variabile con lo stato di sollecitazione. Incrementando l'azione orizzontale, lo scheletro resistente si modifica; si formano cerniere progressive per superamenti locali della scarsa o nulla resistenza a trazione ed infine si giunge ad una labilità (meccanismo di collasso compressivo dell'edificio, che di fatto costituisce lo stadio finale di un'analisi pushover: essa può essere vista come la ricerca, per via statica, del cinematismo d'insieme del fabbricato).

Per l'edificio esistente, l'analisi verrà svolta anzitutto sullo Stato Attuale (Stato di fatto). Gli interventi di miglioramento richiederanno poi il confronto fra lo Stato di Progetto e lo Stato di Attuale, volto a quantificare l'entità del miglioramento conseguito.

Nello Stato Attuale, le verifiche degli stadi II) e III) verranno o meno eseguite a seconda che l'edificio si trovi in sicurezza oppure no nei confronti della cattiva organizzazione muraria. Nello Stato di Progetto, invece, lo stadio I) deve necessariamente essere superato, e le strutture consolidate saranno certamente sottoposte alle verifiche degli stadi II) e III).

In Analisi Cinematica viene considerato il modello di corpo rigido, ed il moto della struttura si attiva quando l'input sismico raggiunge un'intensità sufficiente a generare la formazione di un cinematismo.

L'analisi cinematica lineare procede secondo i seguenti punti:

1. si sceglie un cinematismo e si descrive nei suoi termini parametrici;
2. si calcola il moltiplicatore di collasso e la corrispondente accelerazione di attivazione del meccanismo;
3. si esegue la verifica di sicurezza confrontando l'accelerazione al suolo PGA che attiva il cinematismo (capacità) con l'accelerazione relativa al sito della costruzione (domanda) (il confronto può essere condotto equivalentemente in termini di T_R); la verifica viene condotta in generale sia allo stato limite ultimo sia allo stato limite di danno (si osservi che per Normativa la verifica a stato limite di danno non è strettamente richiesta).

Accelerazione di attivazione del meccanismo

Nel seguito, si descrive l'impostazione tipica di un problema di analisi cinematica lineare; per fissare le idee, viene fatto riferimento al ribaltamento semplice di una parete monopiano rispetto ad un asse di rotazione posto alla base in corrispondenza dello spigolo esterno.

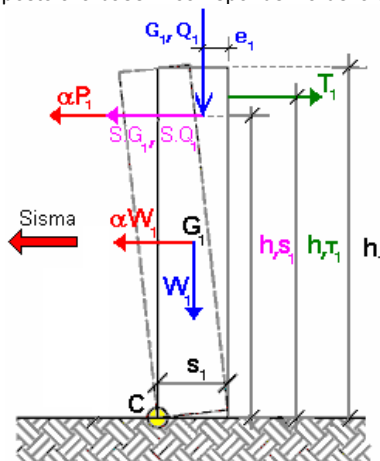


Fig. 1. Ribaltamento semplice di parete monopiano

Secondo la Normativa vigente i carichi da considerare in fase sismica sono i seguenti:

- Carico statico da solaio: $P_1 = G_1 + \psi_{21} \cdot Q_1$
- Spinta totale esercitata dal solaio (ad esempio, proveniente da una struttura voltata): $S_1 = S_{G1} + \psi_{21} \cdot S_{Q1}$

ψ_{21} è il coefficiente di combinazione quasi permanente per Q_1 (§2.5.3).

La parete è stabilizzata dal tirante capace di esercitare il tiro T_1 .

Il ribaltamento della parete avviene facendo cerniera alla base, sullo spigolo esterno (cerniera C in fig. 1; in tal caso per la posizione del polo di rotazione si suppone resistenza a compressione della muratura infinita. Più avanti sarà illustrata la possibilità di considerare un arretramento della cerniera, assumendo un valore finito per la resistenza a compressione). Il cinematismo viene quindi descritto dalla rotazione ϕ attorno alla cerniera C.

Applicando il teorema dei lavori virtuali è possibile calcolare il moltiplicatore \dot{a}_0 che attiva il cinematismo, attraverso la seguente espressione (§8.7.1.2.1.1):

$$\alpha_0 = \frac{\sum_{k=1}^N P_k \delta_{Py,k} - \sum_{k=1}^m F_k \delta_{F,k} + L_i}{\sum_{k=1}^N (P_k + Q_k) \delta_{PQx,k}}$$

che nel caso in esame diventa:

$$\alpha_0 = \frac{W_1 \varphi s_1 / 2 + P_1 \varphi (s_1 - e_1) + T_1 \varphi h_{T1} - S_1 \varphi h_{S1}}{W_1 \varphi h_1 / 2 + P_1 \varphi h_{S1}}$$

Semplificando in φ la formula può essere scritta in modo alternativo, come:

$$\alpha_0 = \frac{M_S - M_{R2}}{M_{R2}}$$

dove:

$$\dot{\alpha}_0 M_{R1} = \dot{\alpha}_0 (W_1 h_1 / 2 + P_1 h_{S1})$$

è il momento ribaltante dovuto alle forze inerziali

$$M_{R2} = S_1 h_{S1}$$

è il momento ribaltante dovuto alla spinta orizzontale indipendente da $\dot{\alpha}_0$

$$M_S = W_1 s_1 / 2 + P_1 (s_1 - e_1) + T_1 h_{T1}$$

è il momento stabilizzante

Calcolato il moltiplicatore di collasso α_0 è possibile determinare l'accelerazione spettrale che attiva il meccanismo a_0^* .

L'espressione è fornita dalla formula [C8.7.1.8], coerente con la formulazione fornita dalla Circolare n. 617 del 2 febbraio 2009 (§C8A.4.2.2):

$$a_0^* = \frac{\alpha_0 \sum_{i=1}^{n+m} P_i}{M^* FC} = \frac{\alpha_0 g}{e^* FC} \quad (C8A.4.4)$$

dove:

- g è l'accelerazione di gravità;

- $e^* = g M^* / \sum_{i=1}^{n+m} P_i$ è la frazione di massa partecipante della struttura;

- FC è il fattore di confidenza. Nel caso in cui per la valutazione del moltiplicatore α non si tenga conto della resistenza a compressione della muratura, il fattore di confidenza da utilizzare sarà comunque quello relativo al livello di conoscenza LC1.

La massa partecipante al cinematisimo M^* può essere valutata considerando gli spostamenti virtuali dei punti di applicazione dei diversi pesi, associati al cinematisimo, come una forma modale di vibrazione:

$$M^* = \frac{\left(\sum_{i=1}^{n+m} P_i \delta_{xi} \right)^2}{g \sum_{i=1}^{n+m} P_i \delta_{xi}^2} \quad (C8A.4.3)$$

dove:

- $n+m$ è il numero delle forze peso P_i applicate le cui masse, per effetto dell'azione sismica, generano forze orizzontali sugli elementi della catena cinematica;

- δ_{xi} è lo spostamento virtuale orizzontale del punto di applicazione dell' i -esimo peso P_i .

Nel caso in esame:

$$M^* = \frac{(W_1 \varphi h_1 / 2 + P_1 \varphi h_{S1})^2}{g [W_1 (\varphi h_1 / 2)^2 + P_1 (\varphi h_{S1})^2]}$$

$$e^* = g M^* / (W_1 + P_1)$$

Fino a questo punto non è stato utilizzato alcun dato sismico relativo al sito di ubicazione della struttura: il calcolo dell'accelerazione di attivazione del meccanismo a_0^* non dipende dall'azione sismica, ma soltanto dalla geometria e dai carichi applicati.

Capacità in termini di accelerazione. Indicatori di Rischio Sismico

Una volta determinata l'accelerazione spettrale di attivazione del meccanismo a_0^* la verifica di sicurezza si basa sul confronto con l'accelerazione massima alla quota Z (domanda in termini di accelerazione alla quota del baricentro delle linee di vincolo del cinematisimo). Si segue la procedura descritta al §C8.7.1.2.1.5 per SLD e §C8.7.1.2.1.7 per SLV, nell'ipotesi di meccanismi locali rigidamente vincolati alla struttura principale. L'accelerazione massima alla quota Z (a_z) può essere determinata con le seguenti espressioni [C7.2.7 - C7.2.8]

$$a_{z,k}(z) = S_e(T_k, \xi_k) \gamma_k \psi_k(z) \sqrt{1 + 0.0004 \xi_k^2}$$

$$a_z(z) = \sqrt{\sum a_{z,k}^2(z)}$$

Considerando il solo modo fondamentale di vibrazione nella direzione di avanzamento del cinematismo, un coefficiente di smorzamento viscoso $\hat{\imath} = 5\%$ e ignorando il contributo irrilevante del termine sotto radice, l'espressione [C7.2.8] diventa:

$$a_z(z) = S_e(T_1) \cdot \gamma_1 \cdot \psi_1(z)$$

dove:

- T_1 è il periodo fondamentale di vibrazione dell'intera costruzione nella direzione considerata. Se T_1 non è stato calcolato con un'analisi modale applicata alla struttura nel suo complesso, può essere definito in via semplificata tramite la relazione [C7.3.2]:
 $T_1 = 0.05 H^{3/4}$ dove H è l'altezza totale dell'edificio;
- $S_e(T_1)$ è lo spettro elastico al suolo valutato per il periodo T_1 ;
- $\psi(Z)$ è il valore della forma modale alla quota Z , posto pari a Z/H , dove H è l'altezza di tutta la costruzione rispetto alla fondazione;
- γ_1 è il coefficiente di partecipazione modale del modo fondamentale di vibrazione. Se non è noto da analisi modale può essere assunto $\gamma = 3N/(2N+1)$ con N numero di piani della costruzione [C7.2.10].

Pertanto, considerando che la domanda in termini di accelerazione (a^*) non deve comunque essere inferiore all'accelerazione al suolo, questa viene assunta come la massima tra le seguenti accelerazioni a_1^* e a_2^* .

$$a^* = \text{Max}(a_1^*, a_2^*)$$

Per Stato Limite di Danno:

$$a_1^* = a_g S$$

$$a_2^* = S_e(T_1) \cdot \gamma_1 \cdot \psi_1(z)$$

Per Stato Limite di Salvaguardia della Vita:

$$a_1^* = a_g \cdot S/q$$

$$a_2^* = S_e(T_1) \cdot \gamma_1 \cdot \psi_1(z)/q$$

La verifica di sicurezza è soddisfatta se l'accelerazione di attivazione del meccanismo a_0^* è maggiore o uguale all'accelerazione richiesta secondo normativa a^* .

Nell'espressione di a^* è direttamente identificabile la componente $a_g S$. È quindi immediatamente comprensibile come, uguagliando l'accelerazione di attivazione del meccanismo a_0^* all'espressione dell'accelerazione richiesta a^* , resti determinato univocamente un valore di PGA: è questa la capacità in termini di accelerazione dell'elemento strutturale nei confronti del cinematismo, PGA_{CLV} (capacità per SLV) e PGA_{CLD} (capacità per SLD). Un valore maggiore dell'accelerazione al suolo, quindi, innesca il meccanismo di collasso.

Per semplicità nel seguito si fa riferimento al solo SLV, ma la procedura viene applicata in modo analogo per SLD.

L'equazione $a_0^* = a^*$ che fornisce PGA_{CLV} è di tipo non lineare. Infatti, sia a_g sia i parametri di spettro F_0 e T_C^* sono tabulati in funzione del periodo di ritorno, nel reticolo sismico fornito dal D.M. 14.1.2008. Da essi dipendono inoltre i valori dei parametri S , T_C , T_B , T_D .

Pertanto, l'unico modo esatto con cui procedere per determinare PGA_{CLV} è seguire una procedura iterativa, fondata sul periodo di ritorno T_R . Applicando il metodo di bisezione, ad ogni passo T_R viene fatto variare fra i valori ammissibili, compresi fra 1 e 2475 anni; a T_R corrispondono univocamente i valori degli altri parametri, e si controlla se l'equazione $a_0^* = a^*$ è soddisfatta. Quando ciò accade, a_g e S forniscono la PGA_{CLV} . A PGA_{CLV} corrisponde il periodo di ritorno TR_{CLV} .

La capacità PGA_{CLV} viene confrontata con la domanda in termini di accelerazione al suolo per il sito in esame PGA_{DLV} , definendo il coefficiente di sicurezza allo stato limite ultimo, denominato 'Indicatore di Rischio Sismico' ζ_E in termini di PGA:

$$\zeta_{E, \text{PGA}} = \text{PGA}_{\text{CLV}} / \text{PGA}_{\text{DLV}}$$

Si osservi che a questo punto è possibile definire l'Indicatore di Rischio Sismico anche in termini di TR ($\zeta_{E, \text{TR}}$) come rapporto tra TR_{CLV} e TR_{DLV} . Poiché il legame tra TR e PGA, pur biunivoco, non è lineare, il valore di $\zeta_{E, \text{TR}}$ non coincide col valore di $\zeta_{E, \text{PGA}}$ (però sono entrambi >1 o <1 , e quando uno dei due ζ_E vale esattamente 1.000, anche l'altro vale 1.000).

Osservazioni integrative

• Intervallo di calcolo per TR.

Il D.M. 14.1.2008 definisce un periodo di ritorno compreso tra 30 e 2475 anni. Se dal calcolo risulta una capacità in termini di TR superiore a 2475 anni, si pone $\text{TR}=2475$ come limite superiore. Per quanto riguarda il limite inferiore, è possibile considerare valori di TR minori di 30 anni con riferimento al Programma di ricerca DPC-ReLUIIS (Unità di Ricerca CNR-ITC): viene adottata un'estrapolazione mediante una regressione sui tre valori di hazard $\text{ag}(30)$, $\text{ag}(50)$ e $\text{ag}(75)$, effettuata con la funzione di potenza: $\text{ag}(\text{TR}) = k \cdot \text{TR}^{\lambda}$. L'intervallo di calcolo di TR è quindi [1, 2475].

• Definizione di PGA.

PGA può essere intesa come accelerazione di picco al suolo su roccia (o: su suolo rigido), oppure come accelerazione di picco al suolo tenendo conto degli effetti di sito. Si tenga presente che la Circ. 7 del 21.1.2019 in §C8.3 specifica che "il parametro di confronto dell'azione sismica da adottare per la definizione dell'indicatore di rischio sismico a_E è, salvo casi particolari, l'accelerazione al suolo $a_g S$ ", ossia la PGA tenendo conto degli effetti di sito. La scelta di questa opzione determina il valore di PGA_{DLV} e PGA_{CLV} : nel caso si tenga conto degli effetti di sito, la PGA su roccia viene moltiplicata per il fattore di suolo S (§3.2.3.2.1), pari al prodotto di S_S (coefficiente di amplificazione stratigrafica) per S_T (coefficiente di amplificazione topografica). Poiché il coefficiente S_S è legato ai parametri di spettro (dipende da a_g e F_0), PGA_{CLV} conterrà S_S corrispondente al periodo TR_{CLV} , che in generale sarà distinto dal valore S_S corrispondente alla domanda (a_g in input): pertanto, l'Indicatore di Rischio Sismico $\zeta_{E, \text{PGA}}$ può assumere valori leggermente diversi, considerando o meno gli effetti di suolo nella definizione di PGA.

Nessuna variazione corrispondente si ha invece per l'Indicatore di Rischio Sismico $\zeta_{E,TR}$ in termini di periodo di ritorno.

• Parametri di spettro in input.

La conoscenza di specifici parametri fisici relativi alla zona di ubicazione dell'edificio (microzonazione) può tradursi in una modifica dei parametri di spettro rispetto ai valori previsti dal reticolo sismico secondo Normativa.

La capacità in termini di accelerazione al suolo, cioè il valore di PGA che produce il raggiungimento di un determinato stato limite, viene calcolata tramite una procedura iterativa eseguita sulla PGA stessa, variandone il valore fino ad ottenere verifica soddisfatta; si calcola poi l'indicatore di rischio sismico in termini di PGA. Per determinare le corrispondenti capacità - e quindi gli indicatori di rischio - in termini di TR, cioè i periodi di ritorno associati ai terremoti che generano tali accelerazioni, si esegue il passaggio dalla capacità PGA_c a TR_c con la relazione del D.M.65-07.03.2017 (All.A: Linee Guida per la Classificazione del rischio sismico delle costruzioni):

$$TR_c = TR_D * (PGA_c/PGA_D)^{\eta}$$

dove $\eta=(1/0.41)$, valore medio sull'intero territorio nazionale.

In alternativa, per un valore più puntuale dell'intensità sismica di appartenenza si usano le seguenti formule (con riferimento all'accelerazione massima su roccia a_g ; Aedes.PCM assume come riferimento a_g per SLV):

$$\eta=(1/0.49) \text{ per } a_g \geq 0.25g; \eta=(1/0.43) \text{ per } 0.25g > a_g \geq 0.15g; \eta=(1/0.356) \text{ per } 0.15g > a_g \geq 0.05g; \eta=(1/0.34) \text{ per } a_g < 0.05g.$$

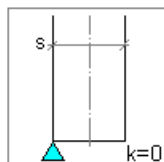
Resistenza a compressione: posizione della cerniera di ribaltamento

L'Analisi Cinematica prescinde normalmente dai parametri di elasticità e di resistenza; è comunque possibile considerare la resistenza a compressione della muratura, al fine di stimare in modo più accurato la modalità di formazione della cerniera alla base della parete soggetta a ribaltamento. La Normativa Italiana esprime chiaramente questa possibilità in §C8A.4.2.2.

Per la posizione della cerniera di ribaltamento (=polo di rotazione della parete), è possibile utilizzare una delle convenzioni riportate nella figura seguente:

Resistenza a Compressione infinita

Il comportamento del corpo rigido prescinde dalla resistenza a compressione, che può considerarsi infinita (modello alla Heyman)



1

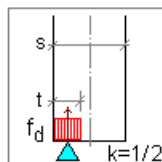
Spigolo esterno

Prescindendo dalla resistenza a compressione, il livello di conoscenza è necessariamente LC1 (§C8A.4.2.2) e quindi $F_c=1.35$

Con questa posizione del Polo, nei Dati in input, la resistenza a compressione della muratura viene ignorata (è quindi possibile non specificarne alcun valore)

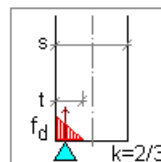
Resistenza a Compressione finita

Si distinguono le seguenti ipotesi: distribuzione di pressione uniforme o lineare (triangolare), e posizione della cerniera (polo di rotazione) nel limite della zona reagente o nel baricentro delle tensioni (in corrispondenza della risultante)



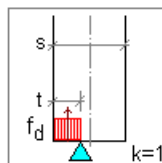
2

Distribuzione uniforme, polo di rotazione nel baricentro delle tensioni



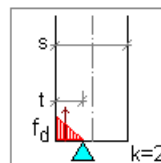
4

Distribuzione lineare, polo di rotazione nel baricentro delle tensioni



3

Distribuzione uniforme, polo di rotazione nel limite della zona reagente



5

Distribuzione lineare, polo di rotazione nel limite della zona reagente

$$\text{Resistenza di calcolo: } f_d = \frac{f_m}{F_c \gamma_M} \quad \gamma_M = 2$$

Fig. 2. Posizione della cerniera di ribaltamento

dove:

x_c = arretramento della cerniera rispetto alla posizione dell'asse di rotazione. Ad esempio, nel caso di una parete sottoposta a ribaltamento semplice con asse di rotazione in corrispondenza dello spigolo esterno, l'arretramento è la distanza della cerniera dallo spigolo esterno;

N = carico verticale in corrispondenza della sezione della parete dove è posizionato l'asse di rotazione;

a = dimensione della linea di ribaltamento. Ad esempio, nel caso di una parete sottoposta a ribaltamento semplice 'a' è la larghezza della base della parete;

k = coefficiente che assume un valore compreso fra 0 e 2 in funzione del tipo di polo di rotazione scelto.

In alternativa, è possibile definire per x_c un valore personalizzato, utile ad esempio per limitare l'arretramento stesso in casi in cui il calcolo automatico propone una posizione della cerniera troppo distante rispetto allo spigolo della parete.

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[2] A. Giuffrè (a cura di), *Sicurezza e conservazione dei centri storici. Il caso Ortigia*, Laterza.

[3] G. Cangi, M. Caraboni, A. De Maria, *Analisi strutturale per il recupero antisismico*, DEI - Tipografia del Genio Civile, Roma, 2010.

[4] A. Borri (Direttore scientifico), C. Donà, A. De Maria (a cura di), *Manuale delle Murature Storiche*, DEI - Tipografia del Genio Civile, Roma, 2011.

2. ANALISI CINEMATICA LINEARE

Azione Sismica

Struttura:

Vita Nominale VN (anni) = 50

Classe d'uso: II

Coefficiente d'uso CU = 1

Periodo di riferimento per l'azione sismica $VR=VN*CU$ (anni) = 50

Pericolosità:

Ubicazione del sito:

Longitudine ED50 (gradi sessadecimali) = 12.527298

- Latitudine ED50 (gradi sessadecimali) = 38.026001

Tipo di interpolazione: media ponderata ([3] in All.a)

Valori dei parametri a_g , F_o , T_C^* per i periodi di ritorno T_R di riferimento
(dagli Studi di pericolosità sismica del sito di ubicazione dell'edificio [cfr.Tab.1 All.B al D.M.14.1.2008]):

T_R (anni)	a_g (*g)	F_o	T_C^* (sec)
30	0.015	2.507	0.147
50	0.020	2.521	0.164
72	0.024	2.465	0.200
101	0.028	2.445	0.211
140	0.033	2.459	0.231
201	0.037	2.487	0.267
475	0.051	2.467	0.320
975	0.064	2.541	0.340
2475	0.082	2.644	0.379

Per periodi di ritorno $T_R < 30$ anni [cfr. DPC-Reluis, CNR-ITC]:
 $a_g(T_R) = K * T_R^{-\alpha}$, dove:
 $K = 0.002270210$, $\alpha = 0.553690360$

Stati Limite:
PVR (%) Probabilità di superamento nel periodo di riferimento V_R (Tab.3.2.I)
SLE: SLO 81
SLE: SLD 63
SLU: SLV 10
SLU: SLC 5
 $a_g(g)$ F_o $T_C^*(sec)$ e altri parametri di spettro per i periodi di ritorno T_R associati a ciascun Stato Limite secondo Normativa [§3.2.3]

Stato limite	T_R (anni)	a_g (*g)	F_o	T_C^* (sec)	S	TB (sec)	T_C (sec)	T_D (sec)	F_v
SLO	30	0.015	2.507	0.147	1.500	0.097	0.291	1.660	0.415
SLD	50	0.020	2.521	0.164	1.500	0.104	0.313	1.680	0.481
SLV	475	0.051	2.467	0.320	1.500	0.163	0.489	1.804	0.752
SLC	975	0.064	2.541	0.340	1.500	0.170	0.510	1.856	0.868

(parametri di spettro conformi al reticolo sismico secondo D.M. 14.1.2008)

Suolo:
Categoria di sottosuolo e Condizioni topografiche:
Categoria di sottosuolo: C
Categoria topografica: T1
Rapporto quota sito / altezza rilievo topografico = 0
Coefficiente di amplificazione topografica $S_T = 1$
PGA:
Definizione di PGA: Accelerazione al suolo (analoga ad: $a_g * S$, dove: $S = S_S * S_T$)

Componenti:
Spettro di risposta (componente orizzontale):
SLE: Smorzamento viscoso (ξ) (%) = 5
 $\eta = [10 / (5 + \xi)] = 1$
SLU: Fattore di Comportamento q per Analisi Cinematica = 2.0

3. 1) Cinematismo

Ribaltamento semplice

Il cinematismo presenta un asse di rotazione

Dati generali

V	H	Z	T1	γ	FC	SLD
(m ³)	(m)	(m)	(sec)			
30.393	6.914	0.000	0.213	1.200	1.350	

V = volume dei corpi partecipanti al meccanismo
H = altezza della struttura rispetto alla fondazione
Z = altezza rispetto alla fondazione del baricentro delle linee di vincolo tra i corpi del meccanismo ed il resto della struttura
T1 = primo periodo di vibrazione
 γ = Coefficiente di partecipazione modale
FC = fattore di confidenza
SLD = X indica che è richiesta la verifica di sicurezza per SLD

Asse di rotazione

Coord. punto iniziale (m)			Coord. punto finale (m)			Arretr.	K	N	fd	a
X	Y	Z	X	Y	Z	(m)		(kN)	(N/mm ²)	(m)
41.210	0.000	0.000	41.210	8.393	0.000	0.000	0.000	0.00	0.000	8.393

n. = numero consecutivo dell'asse di rotazione
X,Y,Z = coordinate dei punti iniziale e finale dell'asse di rotazione (considerando l'eventuale arretramento)

Carichi

n.	tipologia	Punto di applicazione (m)			Carico permanente G (kN)			Carico variabile Q (kN)			ψ_2
		X	Y	Z	GX	GY	GZ	QX	QY	QZ	
1	peso proprio	40.920	2.171	3.060	0.00	0.00	-334.45	0.00	0.00	0.00	0.30
2	da solaio	40.610	2.189	5.836	0.00	0.00	-8.68	0.00	0.00	-11.94	0.00
3	peso proprio	40.913	6.149	3.060	0.00	0.00	-334.20	0.00	0.00	0.00	0.30
4	da solaio	40.610	6.132	5.834	0.00	0.00	-8.69	0.00	0.00	-11.95	0.00

n. = numero consecutivo del carico
tipologia: peso proprio, da solaio, catena o generico
X,Y,Z = coordinate del punto di applicazione del carico nel sistema di riferimento globale XYZ
GX,GY,GZ, QX,QY,QZ = componenti del carico nel sistema XYZ
 ψ_2 = coefficiente di combinazione per il carico variabile (Tab.2.5.i), il valore di ψ_2 (per carichi da solaio con più variabili aventi diversi coefficienti di combinazione, mostrato in tabella è pari alla media pesata: $P=G+\psi_2*Q$, con G e Q carichi totali del solaio)

Forze, spostamenti, lavoro

n.	Carico totale $G+\psi_2*Q$ (kN)			Forza inerziale(kN)			Spostam.virtuali (mm)			Lavoro virtuale (kN*mm)		
	PX	PY	PZ	EX	EY	EZ	δX	δY	δZ	L1	L2	L3
1	0.00	0.00	-334.45	334.45	0.00	0.00	3.060	0.000	0.288	-96.411	1023.443	0.000
2	0.00	0.00	-8.68	8.68	0.00	0.00	5.836	0.000	0.597	-5.183	50.656	0.000
3	0.00	0.00	-334.20	334.20	0.00	0.00	3.060	0.000	0.295	-98.748	1022.707	0.000
4	0.00	0.00	-8.69	8.69	0.00	0.00	5.834	0.000	0.597	-5.187	50.687	0.000

n. = numero consecutivo del carico
PX,PY,PZ = componenti del carico totale $G+\psi_2*Q$ nel sistema XYZ
EX,EY = componenti orizzontali della forza inerziale corrispondente al carico
EZ = componente verticale della forza inerziale corrispondente al carico
 $\delta X,\delta Y,\delta Z$ = spostamenti virtuali del punto di applicazione del carico nel sistema XYZ (angolo di rotazione virtuale intorno all'asse di rotazione pari a 1 mrad)
L1 = lavoro virtuale delle forze statiche: $L1=\sum(n)[Pi*\delta i]$
L2 = lavoro virtuale delle forze inerziali (sismiche) orizzontali: $L2=\sum(n)[EXi*\delta Xi + EYi*\delta Yi]$
L3 = lavoro virtuale delle forze inerziali (sismiche) verticali: $L3=\sum(n)[EZi*\delta Zi]$

Moltiplicatore di collasso, Massa partecipante, Accelerazione di attivazione del meccanismo

α_0	M*	e*	a0*
	(kgm)		(g)
0.096	68624	0.981	0.072

α_0 = moltiplicatore di collasso
M* = massa partecipante
e* = frazione di massa partecipante
a0* = accelerazione spettrale di attivazione del meccanismo

Verifiche di sicurezza: valore obiettivo di $\zeta,E = 0.800$

SLV: Verifiche di sicurezza

a1*	a2*	a*	PGA	TR	VN	PGA,CLV	TR,CLV
(g)	(g)	(g)	CLV	CLV	CLV	/PGA,DLV	/TR,DLV
0.038	0.000	0.038	0.123	2475	261	1.608	5.211

a1* = accelerazione spettrale richiesta su sistema rigido
a2* = accelerazione spettrale richiesta su sistema deformabile

PGA,CLV = capacità in termini di PGA per SLV
 TR,CLV = capacità in termini di periodo di ritorno TR per SLV
 VN,CLV = capacità in termini di Vita Nominale per SLV
 $PGA,CLV / PGA,DLV = \zeta, E, SLV, PGA$ = indicatore di Rischio Sismico in termini di PGA per SLV
 $TR,CLV / TR,DLV = \zeta, E, SLV, TR$ = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

4. 2) Cinematismo

Ribaltamento semplice

Il cinematismo presenta un asse di rotazione

Dati generali

V	H	Z	T1	γ	FC	SLD
(m ³)	(m)	(m)	(sec)			
32.209	6.914	0.000	0.213	1.200	1.350	

V = volume dei corpi partecipanti al meccanismo

H = altezza della struttura rispetto alla fondazione

Z = altezza rispetto alla fondazione del baricentro delle linee di vincolo tra i corpi del meccanismo ed il resto della struttura

T1 = primo periodo di vibrazione

γ = Coefficiente di partecipazione modale

FC = fattore di confidenza

SLD = X indica che è richiesta la verifica di sicurezza per SLD

Asse di rotazione

Coord. punto iniziale (m)			Coord. punto finale (m)			Arretr.	K	N	fd	a
X	Y	Z	X	Y	Z	(m)		(kN)	(N/mm ²)	(m)
27.920	-0.300	0.000	40.910	-0.300	0.000	0.000	0.000	0.00	0.000	12.989

n. = numero consecutivo dell'asse di rotazione

X,Y,Z = coordinate dei punti iniziale e finale dell'asse di rotazione (considerando l'eventuale arretramento)

Carichi

n.	tipologia	Punto di applicazione (m)			Carico permanente G (kN)			Carico variabile Q (kN)			ψ_2
		X	Y	Z	GX	GY	GZ	QX	QY	QZ	
1	peso proprio	31.392	0.003	2.666	0.00	0.00	-295.33	0.00	0.00	0.00	0.30
2	peso proprio	37.415	-0.002	2.333	0.00	0.00	-413.26	0.00	0.00	0.00	0.30

n. = numero consecutivo del carico

tipologia: peso proprio, da solaio, catena o generico

X,Y,Z = coordinate del punto di applicazione del carico nel sistema di riferimento globale XYZ

GX,GY,GZ, QX,QY,QZ = componenti del carico nel sistema XYZ

ψ_2 = coefficiente di combinazione per il carico variabile (Tab.2.5.i), il valore di ψ_2

(per carichi da solaio con più variabili aventi diversi coefficienti di combinazione,

mostrato in tabella è pari alla media pesata: $P=G+\psi_2*Q$, con G e Q carichi totali del solaio)

Forze, spostamenti, lavoro

n.	Carico totale $G+\psi_2*Q$ (kN)			Forza inerziale(kN)			Spostam.virtuali (mm)			Lavoro virtuale (kN*mm)		
	PX	PY	PZ	EX	EY	EZ	δX	δY	δZ	L1	L2	L3
1	0.00	0.00	-295.33	0.00	-295.33	0.00	0.000	-2.667	0.302	-89.091	787.519	0.000
2	0.00	0.00	-413.26	0.00	-413.26	0.00	0.000	-2.333	0.297	-122.834	964.147	0.000

n. = numero consecutivo del carico

PX,PY,PZ = componenti del carico totale $G+\psi_2*Q$ nel sistema XYZ

EX,EY = componenti orizzontali della forza inerziale corrispondente al carico

EZ = componente verticale della forza inerziale corrispondente al carico

$\delta X,\delta Y,\delta Z$ = spostamenti virtuali del punto di applicazione del carico nel sistema XYZ

(angolo di rotazione virtuale intorno all'asse di rotazione pari a 1 mrad)

L1 = lavoro virtuale delle forze statiche:

$$L1=\sum(n)[Pi*\delta i]$$

L2 = lavoro virtuale delle forze inerziali (sismiche) orizzontali: $L2=\sum(n)[EXi*\delta Xi + EYi*\delta Yi]$

L3 = lavoro virtuale delle forze inerziali (sismiche) verticali: $L3=\sum(n)[EZi*\delta Zi]$

Moltiplicatore di collasso, Massa partecipante, Accelerazione di attivazione del meccanismo

α_0	M*	e*	a0*
	(kgm)		(g)
0.121	71938	0.996	0.090

α_0 = moltiplicatore di collasso

M* = massa partecipante

e* = frazione di massa partecipante

a0* = accelerazione spettrale di attivazione del meccanismo

Verifiche di sicurezza: valore obiettivo di $\zeta, E = 0.800$

SLV: Verifiche di sicurezza

a1*	a2*	a*	PGA	TR	VN	PGA,CLV	TR,CLV
(g)	(g)	(g)	CLV	CLV	CLV	/PGA,DLV	/TR,DLV
0.038	0.000	0.038	0.123	2475	261	1.608	5.211

a1* = accelerazione spettrale richiesta su sistema rigido

a2* = accelerazione spettrale richiesta su sistema deformabile

PGA,CLV = capacità in termini di PGA per SLV

TR,CLV = capacità in termini di periodo di ritorno TR per SLV

VN,CLV = capacità in termini di Vita Nominale per SLV

$PGA_{CLV} / PGA_{DLV} = \zeta_{E,SLV,PGA}$ = indicatore di Rischio Sismico in termini di PGA per SLV
 $TR_{CLV} / TR_{DLV} = \zeta_{E,SLV,TR}$ = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

5. 3) Cinematismo

Ribaltamento semplice

Il cinematismo presenta un asse di rotazione

Dati generali

V	H	Z	T1	γ	FC	SLD
(m ³)	(m)	(m)	(sec)			
20.065	6.914	0.000	0.213	1.200	1.350	

V = volume dei corpi partecipanti al meccanismo
H = altezza della struttura rispetto alla fondazione
Z = altezza rispetto alla fondazione del baricentro delle linee di vincolo tra i corpi del meccanismo ed il resto della struttura
T1 = primo periodo di vibrazione
γ = Coefficiente di partecipazione modale
FC = fattore di confidenza
SLD = X indica che è richiesta la verifica di sicurezza per SLD

Asse di rotazione

Coord. punto iniziale (m)			Coord. punto finale (m)			Arretr.	K	N	fd	a
X	Y	Z	X	Y	Z	(m)		(kN)	(N/mm ²)	(m)
13.220	8.618	0.000	0.000	8.618	0.000	0.000	0.000	0.00	0.000	13.220

n. = numero consecutivo dell'asse di rotazione
X,Y,Z = coordinate dei punti iniziale e finale dell'asse di rotazione (considerando l'eventuale arretramento)

Carichi

n.	tipologia	Punto di applicazione (m)			Carico permanente G (kN)			Carico variabile Q (kN)			ψ2
		X	Y	Z	GX	GY	GZ	QX	QY	QZ	
1	peso proprio	-0.006	4.159	2.588	0.00	0.00	-441.43	0.00	0.00	0.00	0.30

n. = numero consecutivo del carico
tipologia: peso proprio, da solaio, catena o generico
X,Y,Z = coordinate del punto di applicazione del carico nel sistema di riferimento globale XYZ
GX,GY,GZ, QX,QY,QZ = componenti del carico nel sistema XYZ
ψ2 = coefficiente di combinazione per il carico variabile (Tab.2.5.i), il valore di ψ2 (per carichi da solaio con più variabili aventi diversi coefficienti di combinazione, mostrato in tabella è pari alla media pesata: $P=G+\psi_2*Q$, con G e Q carichi totali del solaio)

Forze, spostamenti, lavoro

n.	Carico totale $G+\psi_2*Q$ (kN)			Forza inerziale(kN)			Spostam.virtuali (mm)			Lavoro virtuale (kN*mm)		
	PX	PY	PZ	EX	EY	EZ	δX	δY	δZ	L1	L2	L3
1	0.00	0.00	-441.43	0.00	441.43	0.00	0.000	2.590	4.458	-1967.705	1143.487	0.000

n. = numero consecutivo del carico
PX,PY,PZ = componenti del carico totale $G+\psi_2*Q$ nel sistema XYZ
EX,EY = componenti orizzontali della forza inerziale corrispondente al carico
EZ = componente verticale della forza inerziale corrispondente al carico
δX,δY,δZ = spostamenti virtuali del punto di applicazione del carico nel sistema XYZ (angolo di rotazione virtuale intorno all'asse di rotazione pari a 1 mrad)
L1 = lavoro virtuale delle forze statiche: $L1=\sum(n)[Pi*\delta i]$
L2 = lavoro virtuale delle forze inerziali (sismiche) orizzontali: $L2=\sum(n)[EXi*\delta Xi + EYi*\delta Yi]$
L3 = lavoro virtuale delle forze inerziali (sismiche) verticali: $L3=\sum(n)[EZi*\delta Zi]$

Moltiplicatore di collasso, Massa partecipante, Accelerazione di attivazione del meccanismo

α0	M*	e*	a0*
	(kgm)		(g)
1.721	45013	1.000	1.275

α0 = moltiplicatore di collasso
M* = massa partecipante
e* = frazione di massa partecipante
a0* = accelerazione spettrale di attivazione del meccanismo

Verifiche di sicurezza: valore obiettivo di ζ,E = 0.800

SLV: Verifiche di sicurezza

a1*	a2*	a*	PGA	TR	VN	PGA,CLV	TR,CLV
(g)	(g)	(g)	CLV	CLV	CLV	/PGA,DLV	/TR,DLV
0.038	0.000	0.038	0.123	2475	261	1.608	5.211

a1* = accelerazione spettrale richiesta su sistema rigido
a2* = accelerazione spettrale richiesta su sistema deformabile
PGA,CLV = capacità in termini di PGA per SLV
TR,CLV = capacità in termini di periodo di ritorno TR per SLV
VN,CLV = capacità in termini di Vita Nominale per SLV
PGA,CLV / PGA,DLV = ζ,E,SLV,PGA = indicatore di Rischio Sismico in termini di PGA per SLV
TR,CLV / TR,DLV = ζ,E,SLV,TR = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

6. 5) Cinematismo

Ribaltamento semplice

Il cinematismo presenta un asse di rotazione

Dati generali

V	H	Z	T1	γ	FC	SLD
(m ³)	(m)	(m)	(sec)			
14.794	6.914	0.000	0.213	1.200	1.350	

V = volume dei corpi partecipanti al meccanismo

H = altezza della struttura rispetto alla fondazione

Z = altezza rispetto alla fondazione del baricentro delle linee di vincolo tra i corpi del meccanismo ed il resto della struttura

T1 = primo periodo di vibrazione

γ = Coefficiente di partecipazione modale

FC = fattore di confidenza

SLD = X indica che è richiesta la verifica di sicurezza per SLD

Asse di rotazione

Coord. punto iniziale (m)			Coord. punto finale (m)			Arretr.	K	N	fd	a
X	Y	Z	X	Y	Z	(m)		(kN)	(N/mm ²)	(m)
-0.300	8.618	0.000	-1.214	7.538	0.000	0.000	0.000	338.10	0.000	1.414

n. = numero consecutivo dell'asse di rotazione

X,Y,Z = coordinate dei punti iniziale e finale dell'asse di rotazione (considerando l'eventuale arretramento)

Carichi

n.	tipologia	Punto di applicazione (m)			Carico permanente G (kN)			Carico variabile Q (kN)			ψ_2
		X	Y	Z	GX	GY	GZ	QX	QY	QZ	
1	peso proprio	0.912	8.341	3.180	0.00	0.00	-88.44	0.00	0.00	0.00	0.30
2	peso proprio	-0.009	6.799	3.202	0.00	0.00	-143.79	0.00	0.00	0.00	0.30
3	peso proprio	0.003	4.702	5.748	0.00	0.00	-28.22	0.00	0.00	0.00	0.30
4	da solaio	0.300	4.765	6.378	0.00	0.00	-2.65	0.00	0.00	-3.65	0.00
5	peso proprio	0.003	6.515	5.386	0.00	0.00	-42.17	0.00	0.00	0.00	0.30
6	da solaio	0.300	6.655	5.622	0.00	0.00	-6.87	0.00	0.00	-9.45	0.00
7	peso proprio	0.797	8.318	5.027	0.00	0.00	-10.76	0.00	0.00	0.00	0.30
8	da solaio	0.947	8.018	5.077	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	peso proprio	2.720	8.318	5.027	0.00	0.00	-15.21	0.00	0.00	0.00	0.30
10	da solaio	2.680	8.018	5.077	0.00	0.00	0.00	0.00	0.00	0.00	0.00

n. = numero consecutivo del carico

tipologia: peso proprio, da solaio, catena o generico

X,Y,Z = coordinate del punto di applicazione del carico nel sistema di riferimento globale XYZ

GX,GY,GZ, QX,QY,QZ = componenti del carico nel sistema XYZ

ψ_2 = coefficiente di combinazione per il carico variabile (Tab.2.5.i), il valore di ψ_2

(per carichi da solaio con più variabili aventi diversi coefficienti di combinazione,

mostrato in tabella è pari alla media pesata: $P=G+\psi_2*Q$, con G e Q carichi totali del solaio)

Forze, spostamenti, lavoro

n.	Carico totale $G+\psi_2*Q$ (kN)			Forza inerziale(kN)			Spostam.virtuali (mm)			Lavoro virtuale (kN*mm)		
	PX	PY	PZ	EX	EY	EZ	δX	δY	δZ	L1	L2	L3
1	0.00	0.00	-88.44	-67.50	57.13	0.00	-2.427	2.055	1.103	-97.511	281.249	0.000
2	0.00	0.00	-143.79	-109.76	92.90	0.00	-2.444	2.069	1.395	-200.615	460.468	0.000
3	0.00	0.00	-28.22	-21.54	18.23	0.00	-4.389	3.715	2.758	-77.816	162.230	0.000
4	0.00	0.00	-2.65	-2.03	1.71	0.00	-4.869	4.121	2.944	-7.809	16.922	0.000
5	0.00	0.00	-42.17	-32.19	27.24	0.00	-4.111	3.480	1.587	-66.915	227.124	0.000
6	0.00	0.00	-6.87	-5.24	4.44	0.00	-4.292	3.633	1.724	-11.843	38.639	0.000
7	0.00	0.00	-10.76	-8.21	6.95	0.00	-3.838	3.248	1.028	-11.061	54.076	0.000
8	0.00	0.00	0.00	0.00	0.00	0.00	-3.876	3.280	1.337	0.000	0.000	0.000
9	0.00	0.00	-15.21	-11.61	9.83	0.00	-3.838	3.249	2.497	-37.973	76.486	0.000
10	0.00	0.00	0.00	0.00	0.00	0.00	-3.876	3.281	2.660	0.000	0.000	0.000

n. = numero consecutivo del carico

PX,PY,PZ = componenti del carico totale $G+\psi_2*Q$ nel sistema XYZ

EX,EY = componenti orizzontali della forza inerziale corrispondente al carico

EZ = componente verticale della forza inerziale corrispondente al carico

$\delta X,\delta Y,\delta Z$ = spostamenti virtuali del punto di applicazione del carico nel sistema XYZ

(angolo di rotazione virtuale intorno all'asse di rotazione pari a 1 mrad)

L1 = lavoro virtuale delle forze statiche:

$$L1=\sum(n)[P_i*\delta i]$$

L2 = lavoro virtuale delle forze inerziali (sismiche) orizzontali: $L2=\sum(n)[EX_i*\delta Xi + EY_i*\delta Yi]$

L3 = lavoro virtuale delle forze inerziali (sismiche) verticali: $L3=\sum(n)[EZ_i*\delta Zi]$

Moltiplicatore di collasso, Massa partecipante, Accelerazione di attivazione del meccanismo

α_0	M*	e*	a0*
	(kgm)		(g)
0.388	32127	0.932	0.309

α_0 = moltiplicatore di collasso

M* = massa partecipante

e* = frazione di massa partecipante

a0* = accelerazione spettrale di attivazione del meccanismo

Verifiche di sicurezza: valore obiettivo di $\zeta, E = 0.800$

SLV: Verifiche di sicurezza

a1*	a2*	a*	PGA	TR	VN	PGA,CLV	TR,CLV
(g)	(g)	(g)	CLV	CLV	CLV	/PGA,DLV	/TR,DLV
0.038	0.000	0.038	0.123	2475	261	1.608	5.211

a1* = accelerazione spettrale richiesta su sistema rigido

a2* = accelerazione spettrale richiesta su sistema deformabile

PGA,CLV = capacità in termini di PGA per SLV

TR,CLV = capacità in termini di periodo di ritorno TR per SLV

VN,CLV = capacità in termini di Vita Nominale per SLV

PGA,CLV / PGA,DLV = ζ, E, SLV, PGA = indicatore di Rischio Sismico in termini di PGA per SLV

TR,CLV / TR,DLV = ζ, E, SLV, TR = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

7. SINTESI RISULTATI ANALISI CINEMATICA LINEARE

Risultati dei cinematismi analizzati:

n.	α_0	PGA,CLD /PGA,DLD	TR,CLD /TR,DLD	PGA,CLV /PGA,DLV	TR,CLV /TR,DLV
1	0.096	2.333	7.860	1.608	5.211
2	0.121	3.000	15.480	1.608	5.211
3	1.721	4.100	49.500	1.608	5.211
5	0.388	4.100	49.500	1.608	5.211

n. = numero consecutivo del cinematismo

α_0 = moltiplicatore di collasso

PGA,CLD / PGA,DLD = ζ, E, SLD, PGA = indicatore di Rischio Sismico in termini di PGA per SLD

TR,CLD / TR,DLD = ζ, E, SLD, TR = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLD

PGA,CLV / PGA,DLV = ζ, E, SLV, PGA = indicatore di Rischio Sismico in termini di PGA per SLV

TR,CLV / TR,DLV = ζ, E, SLV, TR = indicatore di Rischio Sismico in termini di periodo di ritorno TR per SLV

Secondo All.A al D.M.14.1.2008, si considerano valori di TR compresi nell'intervallo [30,2475] anni. Se TR>2475 si pone TR=2475.

Se TR<30, con riferimento al Programma di ricerca DPC-ReLUIIS (Unità di Ricerca CNR-ITC)

si adotta un'estrapolazione mediante una regressione sui tre valori di hazard $ag(30)$, $ag(50)$ e $ag(75)$,

effettuata con la funzione di potenza: $ag(TR)=k*TR^\alpha$.

Per il sito in esame risulta: $K = 0.002270210$, $\alpha = 0.553690360$

Per l'Indicatore di Rischio Sismico in termini di TR si ha quindi un limite massimo pari a:

SLD: $(2475/TR,DLD)=49.500$

SLV: $(2475/TR,DLV)=5.211$

Edificio Esistente in muratura - Intervento di Adeguamento ⁽¹⁾

Risultati dell'analisi strutturale

Normativa di riferimento: D.M. 17.1.2018 (parametri di spettro conformi a reticolo D.M. 14.1.2008)

Questo documento è una scheda di sintesi, contenente i risultati dell'elaborazione in termini di confronto fra capacità e domanda e compilata con riferimento alla terminologia proposta dal D.M.17.1.2018.

Per la verifica di sicurezza di un intervento di adeguamento (§8.4.3) si richiede che l'indicatore di rischio sismico ζ_E sia ≥ 0.800 per i casi c) e), e $\zeta_E \geq 1.000$ per gli altri casi.

Per l'edificio in oggetto, nel modello di Aedes.PCM si richiede: $\zeta_E \geq 0.800$

Sintesi risultati: Indicatori di Rischio sismico ζ_E in termini di PGA

Verifica soddisfatta

Stato Limite	ζ_E (PGA _C /PGA _D)
SLO	5.591
SLD	4.100
SLV	1.105

⁽¹⁾ Questa scheda di sintesi costituisce il risultato completo nel caso dell'Intervento di Adeguamento.

In alternativa, la scheda può riferirsi allo **Stato Attuale** (pre-intervento) **di un Intervento di Miglioramento**: in tal caso, il risultato complessivo dell'Intervento di Miglioramento è costituito dalla scheda di sintesi del file dell'edificio allo Stato di Progetto (post-intervento), dove i risultati dello Stato di Progetto vengono confrontati con quelli dello Stato Attuale.

Gerarchia dei comportamenti strutturali

Indicatore di rischio sismico obiettivo: $\zeta_E \geq 0.800$

Edificio esistente, Classe d'uso (§2.4.2): II

Verifiche obbligatorie secondo Normativa (§7.3.6, §8.3): SLV: RES

In grigio: comportamenti non analizzati, o da non considerare (cfr. §7.3.6, Tab.7.3.III)

Comportamento	ζ_E (PGA _C /PGA _D)
SLV: Capacità limite in fondazione	1.105
SLV: Resistenza nel piano	1.434
SLV: Resistenza fuori piano	1.618
SLD: Rigidezza (spostamenti)	4.100
SLO: Rigidezza (spostamenti)	5.591
SLD: Resistenza nel piano	2.000
SLD: Resistenza fuori piano	4.100
SLD: Capacità limite in fondazione	4.100
SLV: Cinematismo	
SLD: Cinematismo	

Domanda

Stato Limite	PGA_D (g)	TR_D (anni)
SLO	0.022	30
SLD	0.030	50
SLV	0.076	475

Analisi eseguite:

- Analisi dinamica modale con fattore di comportamento: $q(SLD) = 1.500$, $q(SLV) = 3.000$

Riferimenti per fattore di comportamento q (SLV):

- da Normativa (D.M.17.1.2018): posto in input ($\alpha, U/\alpha, 1$) = 1.50: $q = 3.000$

- secondo §7.3.1 [$Se(SLV) \geq Se(SLD)$]: $q \geq 3.743$

Verifiche di rigidezza (RIG)

Stato Limite	PGA_C (g)	ζ_E (PGA_C/PGA_D)	TR_C (anni)	ζ_E (TR_C/TR_D)
SLO	≥ 0.123	5.591	≥ 2475	82.500
SLD	≥ 0.123	4.100	≥ 2475	49.500

Verifiche di resistenza (RES)

SLD	PGA_C (g)	ζ_E (PGA_C/PGA_D)	TR_C (anni)	ζ_E (TR_C/TR_D)
Resistenza nel piano del pannello	0.060	2.000	240	4.791
Resistenza fuori piano del pannello	≥ 0.123	4.100	≥ 2475	49.500
Capacità limite in fondazione	≥ 0.123	4.100	≥ 2475	49.500
Cinematismo				

SLV	PGA_C (g)	ζ_E (PGA_C/PGA_D)	TR_C (anni)	ζ_E (TR_C/TR_D)
Resistenza nel piano del pannello	0.109	1.434	1558	3.280
Resistenza fuori piano del pannello	≥ 0.123	1.618	≥ 2475	5.211
Capacità limite in fondazione	0.084	1.105	657	1.383
Cinematismo				

Indicatori di Rischio (rapporto fra capacità e domanda).

I valori evidenziati si riferiscono al parametro ζ_E definito in termini di PGA.

Stato Limite	ζ_E (PGA _C /PGA _D)	ζ_E (TR _C /TR _D)
SLO	5.591	82.500
SLD	4.100	49.500
SLV	1.105	1.383

Il valore di PGA specificato in input è pari ad $ag \cdot S$, accelerazione al suolo.

Capacità della struttura in termini di Vita Nominale; Tempo di intervento

Dati in input (domanda):

Classe d'uso della costruzione (§2.4.2): II

Coefficiente d'uso della costruzione (§2.4.2, 2.4.3) C_U : 1

Vita Nominale V_N (§2.4.1): 50 anni

Vita di Riferimento (§2.4.3) $V_R = V_N \cdot C_U$: 50 anni

PV_R per SLV (definita in input): 10 %

Risultati dell'analisi (capacità):

TR_{CLV} (anni) = 657 anni

Dalla relazione: $TR = -V_R / \ln(1 - PV_R)$, ponendo $TR = TR_{CLV}$ e assumendo PV_R per SLV definita in input, segue la capacità della struttura in termini di Vita di Riferimento (V_{RC}) e quindi di Vita Nominale, ossia il Tempo di intervento $T_{INT} = (TR_{CLV}/C_U) \cdot \ln(1 - PV_R)$:

V_{RC} (anni) = 69.2 anni

T_{INT} (anni) = 69.2 anni

Edifici in muratura e verifiche di sicurezza: descrizione della metodologia

Il D.M.17.1.2018 organizza le verifiche competenti ai vari Stati Limite in dipendenza dalla Classe d'Uso dell'edificio (Tab.7.3.III in §7.3.6), distinguendole in verifiche di rigidezza (RIG: consistono in verifiche di deformazione) e in verifiche di resistenza (RES, che coinvolgono i comportamenti dei pannelli murari nel piano e fuori piano e la capacità limite in fondazione). Più precisamente:

SLO: Stato Limite di Operatività:

RIG: verifica obbligatoria per edifici nuovi e classe d'uso III o IV (§7.3.6), o per edifici esistenti e classe IV (§8.3).

In analisi lineare consiste nel controllo della deformazione di interpiano, con riferimento ai limiti indicati in §7.3.6.1.

In analisi statica non lineare la verifica per SLO è definita dal confronto fra capacità (definita dallo spostamento del punto di controllo pari a $(2/3)$ di quello allo SLD) e domanda per SLO (determinata attraverso l'oscillatore monodimensionale calcolato con la bilineare equivalente allo SLV).

SLD: Stato Limite di Danno:

a) **RIG:** verifica obbligatoria per edifici nuovi e classe d'uso I e II (§7.3.6).

In analisi lineare consiste nel controllo della deformazione di interpiano, con riferimento ai limiti indicati in §7.3.6.1.

In analisi statica non lineare la verifica per SLD è definita dal confronto fra capacità e domanda. La capacità è definita dallo spostamento del punto di controllo minore fra le seguenti due condizioni:

- quello corrispondente al limite elastico della bilineare equivalente allo SLV;
- quello corrispondente al raggiungimento della resistenza massima a taglio in tutti i maschi murari in un qualunque livello di una qualunque parete ritenuta significativa ai fini dell'uso della costruzione, e comunque non prima dello spostamento per il quale si raggiunge un taglio di base pari a $3/4$ del taglio di base massimo.

La domanda per SLD è determinata attraverso l'oscillatore monodimensionale calcolato con la bilineare equivalente allo SLV.

b) **RES:** verifica obbligatoria per edifici nuovi e classe d'uso III o IV (§7.3.6), o per edifici esistenti e classe IV (§8.3).

In analisi lineare consiste nelle verifiche di resistenza, con analisi condotta con fattore di comportamento q per SLD ($q \leq 1.5$, cfr. Tab.7.3.I §7.3).

In analisi statica non lineare, la verifica per SLD coincide con quanto descritto per RIG.

SLV: Stato Limite di salvaguardia della Vita:

RES: verifiche richieste per tutti gli edifici. Per gli edifici esistenti, include le verifiche dei cinematismi condotte in termini di resistenza (con fattore di comportamento q posto in genere pari a 2).

In analisi lineare consiste nelle verifiche di resistenza, con analisi condotta con fattore di comportamento q .

In analisi statica non lineare la verifica per SLV è definita dal confronto fra capacità e domanda. La capacità è definita dallo spostamento del punto di controllo pari a $(3/4)$ di quello allo SLC. SLC è definito dallo spostamento minore fra le seguenti condizioni:

- quello corrispondente ad un taglio alla base residuo pari all'80% del massimo;
- quello corrispondente al raggiungimento della soglia limite di deformazione angolare per SLC in tutti i maschi di un qualunque livello in una qualunque parete ritenuta significativa ai fini della sicurezza.

La domanda per SLV è determinata attraverso l'oscillatore monodimensionale calcolato con la bilineare equivalente allo SLV.

Analisi sismiche eseguite e risultati per i vari comportamenti strutturali

Per ogni modello analizzato come unica struttura globale o per ogni sottostruttura di un modello calcolato come assemblaggio di sottostrutture, la scheda di sintesi indica i tipi di analisi eseguite le cui verifiche confluiscono nei risultati degli indicatori di rischio, con distinzione fra Stato Attuale e Stato di Progetto.

Le possibili analisi ed i corrispondenti comportamenti strutturali sono i seguenti:

• **Analisi cinematica:** meccanismi di collasso (cinematismi)

• **Analisi statica non lineare (pushover):**

- comportamento dei pannelli nel piano (per pressoflessione e/o taglio);
- se considerato in pushover: comportamento dei pannelli fuori piano per azioni di calcolo da modello;
- se vi sono fondazioni nello schema statico e sono considerate in pushover: capacità limite delle fondazioni.

• **Analisi sismica lineare** (con priorità per la dinamica modale rispetto alla statica lineare):

- comportamento dei pannelli nel piano (per pressoflessione e/o taglio), se non è eseguita la pushover;
- se la verifica è richiesta: comportamento dei pannelli fuori piano per azioni di calcolo da modello (considerato anche se è

eseguita la pushover) e/o per azioni equivalenti secondo §7.2.3 e §7.8.1.5.2;

c) se vi sono fondazioni nello schema statico: capacità limite delle fondazioni, se non si considera in pushover.

Per garantire coerenza fra le verifiche eseguite in analisi lineare ed i risultati dell'analisi pushover, il fattore di comportamento q utilizzato in analisi lineare deve coincidere con q calcolato in pushover (rispettando comunque, nel caso del D.M.17.1.2018, secondo §7.3.1, il valore massimo di q tale che: $S_{e,SLV} \geq S_{e,SLD}$).

Valutazione della sicurezza

Per gli edifici esistenti, seguendo §8.3, è possibile che la valutazione della sicurezza e la progettazione degli interventi possano essere eseguiti con riferimento ai soli stati limite ultimi (SLV), salvo che per le costruzioni in classe d'uso IV: per esse sono richieste le verifiche anche agli stati limite di esercizio SLE (SLO e SLD), per i quali potranno essere adottati livelli prestazionali ridotti.

L'**indicatore di rischio** ζ_E , consistente nel rapporto tra Capacità e Domanda, costituisce il risultato in sintesi dell'analisi sismica dell'edificio.

Il calcolo dell'indicatore di rischio sismico viene effettuato attraverso un procedimento iterativo sulla domanda. Questa viene fatta variare fino a trovare il massimo valore sostenibile, tale cioè da garantire il soddisfacimento contemporaneo delle due seguenti condizioni: a) capacità \geq domanda (in termini di spostamento); b) q^* (rapporto tra la forza di risposta elastica e la forza di snervamento del sistema equivalente) ≤ 3.0 , con riferimento a SLV (la relazione $q^* \leq 4.0$ indicata in D.M. 17.1.2018 per SLC viene ricondotta a $q^* \leq 3.0$ per SLV, dato il rapporto di (3/4) esistente fra le capacità per SLC e per SLV (EuroCodice 8, UNI EN 1998-3:2005, §C4.1.2).

Per tutti gli stati limite di riferimento (SLO, SLD e SLV) ζ_E può essere espresso sia in termini di PGA che di TR; i due valori non sono uguali data la non linearità del legame fra PGA e TR, ma in ogni caso sono contemporaneamente maggiori o minori di 1.

Per quanto riguarda la **pericolosità sismica**, la verifica di sicurezza e l'elaborazione dell'indicatore di rischio vengono eseguite in modo analogo sia nel caso di approccio semplificato (con riferimento al reticolo sismico italiano, pubblicato nel D.M.14.1.2008), sia nel caso di approccio rigoroso secondo **analisi della Risposta Sismica Locale (da microzonazione)**.

La procedura subisce invece alcune modifiche in altri casi di **parametri di spettro non conformi** al reticolo sismico, secondo le seguenti modalità.

(a) Se la difformità riguarda **ag**, il legame diretto tra TR e ag espresso dal reticolo non è più valido. Per tutti gli stati limite, il calcolo dell'indicatore di rischio si esegue attraverso una procedura iterativa direttamente su ag; il risultato in termini di TR si calcola in seguito facendo riferimento all'espressione proposta dal D.M. 65 del 07.03.2017: $TR_C = TR_D * (PGA_C/PGA_D)^\eta$ dove: $\eta = 1/0.49$ per $ag \geq 0.25g$; $\eta = 1/0.43$ per $0.25g \geq ag \geq 0.15g$; $\eta = 1/0.356$ per $0.15g \geq ag \geq 0.05g$; $\eta = 1/0.34$ per $0.05g \geq ag$ (ag = accelerazione massima su roccia, che viene assunta con riferimento a SLV).

Per gli altri parametri di spettro, il valore viene unificato, per tutti i periodi di ritorno.

(b) Se la difformità riguarda **non ag ma altri parametri di spettro** (ad es. il coefficiente di suolo S_S): i valori di ogni parametro difforme sono impostati costanti per tutti i periodi di ritorno, e la procedura iterativa viene eseguita su TR, sostituendo il valore previsto dalla Normativa con quello difforme.

(c) In caso di **spettro personalizzato definito per punti**, non è possibile risalire ai singoli parametri di spettro, tuttavia il valore di ancoraggio (spettro per $T=0$), pari ad $(ag*S)$, consente una procedura iterativa basata sull'accelerazione mediante la quale è possibile definire, per ogni stato limite, il valore degli indicatori di rischio. La procedura assume per ipotesi che la forma spettrale sia proporzionale ad $(ag*S)$ e che la definizione per punti dello spettro riguardi entrambe le direzioni sismiche X' e Y' (in assenza di una delle due definizioni, questa viene assunta uguale all'altra) ed un eventuale spettro in direzione Z; durante la procedura iterativa, tutti gli spettri vengono 'scalati' con il medesimo fattore di proporzionalità.

(d) Se la Normativa di riferimento è l'**EuroCodice**, il calcolo si limita agli indicatori di rischio in termini di PGA, con procedura iterativa analoga al punto (a) senza tuttavia valutare risultati in termini di TR.

La verifica di sicurezza per i **nuovi edifici** richiede che ζ_E sia ≥ 1.000 .

Il D.M.17.1.2018 introduce livelli di sicurezza specifici per gli **edifici esistenti**, ed a tal fine è possibile fare riferimento all'indicatore ζ_E **espresso in termini di accelerazione al suolo PGA**, preferibilmente espresso considerando gli effetti di suolo: **ag*S** (la scelta di definizione di PGA come accelerazione su roccia ag o contenente anche gli effetti di suolo: ag*S è definita in input nel file di Aedes.PCM).

Per gli **interventi di Miglioramento** (§8.4.2) ζ_E può essere minore di 1.0: per le costruzioni di classe III ad uso scolastico e di classe IV a seguito degli interventi di miglioramento deve essere: $\zeta_E \geq 0.600$; per tutti gli altri edifici, ζ_E deve essere incrementato di almeno 0.1: $\Delta\zeta_E \geq 0.100$.

Per gli **interventi di Adeguamento** (§8.4.3) in alcuni casi (c) e in §8.4.3) è sufficiente che ζ_E sia ≥ 0.800 , mentre negli altri casi il livello di sicurezza uguaglia quello richiesto alle nuove costruzioni: $\zeta_E \geq 1.000$.

Per quanto riguarda l'**intervallo di calcolo dei periodi di ritorno**: il D.M. 14.1.2008 definisce un periodo di ritorno compreso tra 30 e 2475 anni. Se dal calcolo risulta una capacità in termini di TR superiore a 2475 anni, si pone $TR = 2475$ come limite superiore. Per quanto riguarda il limite inferiore, è possibile considerare valori di TR minori di 30 anni con riferimento al Programma di ricerca DPC-ReLUIIS (Unità di Ricerca CNR-ITC): viene adottata un'estrapolazione mediante una regressione sui tre valori di hazard $ag(30)$, $ag(50)$ e $ag(75)$, effettuata con la funzione di potenza: $ag(TR) = k TR^\alpha$. L'intervallo di calcolo di TR è quindi $[1, 2475]$; ne consegue che la capacità in termini di PGA può assumere anche valori minori di quello corrispondente a $TR = 30$ anni.

La **capacità della struttura in termini di Vita Nominale (V_{NC})**, definita anche come **Tempo di intervento T_{INT}** , si identifica con la Vita Nominale che è possibile assegnare alla struttura, in conseguenza del periodo di ritorno sostenibile TR_{CLV} , mantenendo nel corrispondente periodo di riferimento $V_{RC} (= V_{NC} * C_U)$ la probabilità di superamento PV_R definita in input per lo Stato Limite ultimo SLV.

Per una valutazione del valore ottenuto per V_{NC} relativa a beni monumentali, si tenga presente che valori della vita nominale maggiori di 20 anni possono considerarsi ammissibili per un manufatto tutelato (§2.4 Direttiva P.C.M 9.2.2011). Se risulta: $TR_{CLV} \geq 2475$ anni, si potrà considerare un valore della vita nominale \geq del limite V_{NC} riportato nella scheda (corrispondente a $TR = 2475$ anni: $V_{NC} \geq 2475 * -\ln(1-PV_R) / C_U$).

Compilazione di schede tecniche per edifici strategici.

Le Schede di sintesi della verifica sismica per gli edifici strategici ai fini della Protezione Civile o rilevanti in caso di collasso a seguito di evento sismico, predisposte dalle Regioni (Regione Emilia-Romagna, ed altre), richiedono risultati relativi ai diversi stati limite (SLO, SLD e SLV), e l'indicatore di rischio può essere espresso in termini sia di PGA che di T_R .

In ogni caso, dal quadro di sintesi di PCM (sopra riportato) è possibile trarre i valori richiesti per la compilazione, anche qualora questa faccia riferimento alla Normativa precedente (D.M. 14.1.2008).

Informazioni sulla generazione di questa scheda:

data di creazione: 26/04/2021 , 10:23:45

Nome del file di progetto di Aedes.PCM:

per Analisi globale: TP_E_Prog

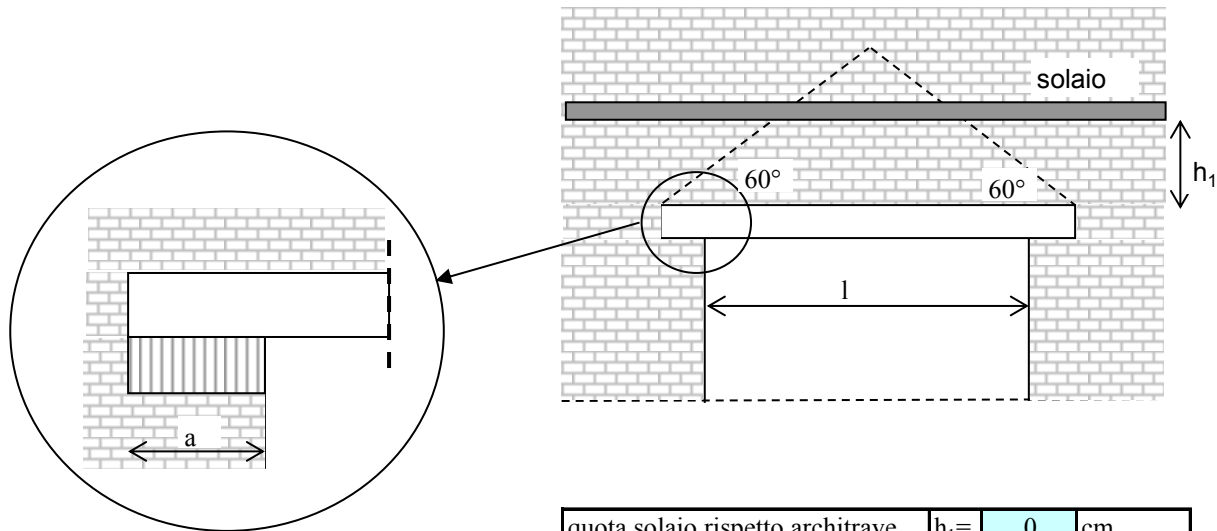
eventuale file distinto per Analisi cinematica: -

PIANO: CORPO E-F - NUOVA PARETE MATTONI PIENI

PARETE N° 1-2-3-4

ARCHITRAVE N° 1-2-3-4

VERIFICA ARCHITRAVE IN ACCIAIO



quota solaio rispetto architrave $h_1 = 0$ cm

luce architrave "l" 2 m

lunghezza di appoggio $a = 15$ cm

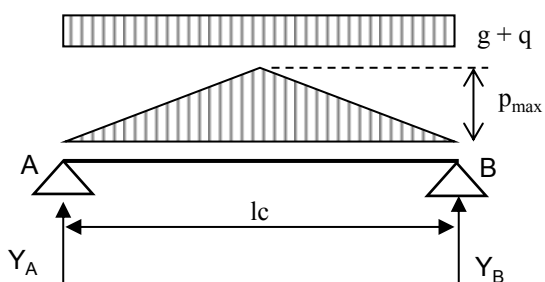
luce di calcolo "lc" 2.15 m

			carichi permanenti		carichi variabili	
	L(dx)	L(sx)	g (dx)	g (sx)	q (dx)	q (sx)
	m	m	KN/m ²	KN/m ²	KN/m ²	KN/m ²
solaio sovrastante	0	2.5	0	0.5	0	2

carichi lineari	
g	q
KN/m	KN/m
0.625	2.5

	spessore	massa vol.	p_{max} (KN/m)
	(m)	(KN/m ³)	
muro sovrastante	0.38	18	11.83

Schema statico:



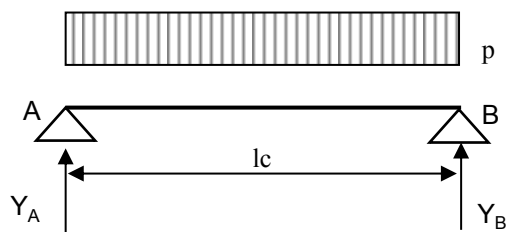
Totale carichi permanenti $g = 6.54 \text{ KN/m}$

coeff. parziale di sicurezza $\gamma_G = 1.5$

Totale carichi variabili $q = 2.5 \text{ KN/m}$

coeff. parziale di sicurezza $\gamma_Q = 1.5$

Combinazione di carico $(gx\gamma_G + qx\gamma_Q) = 13.56 \text{ KN/m}$



$p \text{ (KN/m)} = 13.56$

luce di calcolo "lc" (m) = 2.15

$Y_A \text{ (KN)} = 14.58$

$Y_B \text{ (KN)} = 14.58$

Sollecitazioni di calcolo

$M_{Ed} = 7.84 \text{ KNm}$

$V_{Ed} = 14.58 \text{ KN}$

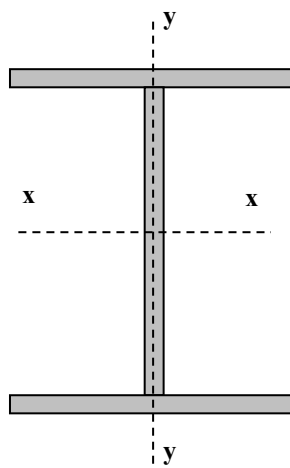
$N_{Ed} = 0.00 \text{ KN}$

Profilati

Profilato tipo **HEA**

Numero di profili per l'architrave **2**

100



valori del singolo profilo	$A =$	21.24	cm^2	area lorda del profilo
	$b =$	100	mm	larghezza delle ali
	$t_f =$	8	mm	spessore delle ali
	$t_w =$	5	mm	spessore dell'anima
	$r =$	12	mm	raggio di raccordo tra anima e ala
	$h =$	96	mm	altezza del profilo

$E =$	210000	N/mm^2	modulo elastico
$W_{pl,x} =$	83.01	cm^3	modulo di resistenza plastico del singolo profilo
$W_{el,x} =$	72.76	cm^3	modulo di resistenza elastico del singolo profilo
$W_{el,y} =$	26.76	cm^3	modulo di resistenza elastico del singolo profilo
$J_x =$	349.2	cm^4	momento d'inerzia del singolo profilo
$A_v =$	7.56	cm^2	area resistente al taglio $(A_v = A - 2b \cdot t_f + (t_w + 2 \cdot r) \cdot t_f)$

Tipo di acciaio **S275**

$f_{yk} =$	275.00	N/mm^2	tensione caratteristica di snervamento
$f_{tk} =$	430.00	N/mm^2	tensione caratteristica di rottura
$\gamma_{M0} =$	1.05		coefficiente parziale di sicurezza

Classificazione del profilo

$$\varepsilon = 0.9244 \quad \varepsilon = \sqrt{235/f_{yk}}$$

Azione di flessione

Ala $c/t = 4.44$ classe 1

Anima $c/t = 11.20$ classe 1

Classe di appartenenza del profilo:	1
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(per profili IPE o HE \rightarrow per l'ala: $c = b - t_w - 2 \cdot r$ $t = t_f$; per l'anima: $c = h - 2 \cdot t_f - 2 \cdot r$ $t = t_w$)

Resistenze di calcolo

$M_{c,Rd} = 43.481 \text{ KNm}$ Resistenza di calcolo a flessione

$V_{c,Rd} = 228.63 \text{ KN}$ Resistenza di calcolo a taglio

$N_{c,Rd} = 1112.6 \text{ KN}$ Resistenza di calcolo a sforzo normale

Verifiche di resistenza (SLU): stato limite di collasso per formazione di cerniera plastica

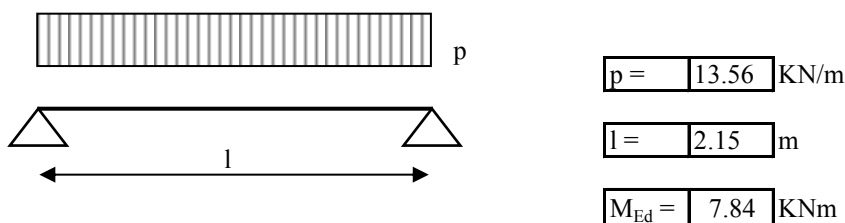
$$V_{Ed} / V_{c,Rd} = 0.0638 \leq 0,5 : \text{ si può trascurare l'influenza del taglio}$$

$$\rho = 0.000 \text{ Percentuale di riduzione della tensione di snervamento per interazione taglio-momento}$$

$M_{y,V,Rd}$ KNm	M_{Ed} KNm	$M_{y,V,Rd}/M_{Ed}$	esito della verifica
43.48	7.84	5.55	verificato

$(M_{c,Rd} = M_{pl,y,Rd} = W_{pl,y} \cdot f_{yk} / \gamma_{M0})$	Momento resistente a flessione (per sezioni di classe 1 e 2)
$(M_{c,Rd} = M_{el,y,Rd} = W_{el,min} \cdot f_{yk} / \gamma_{M0})$	Momento resistente a flessione (per sezioni di classe 3)
$(N_{c,Rd} = N_{pl,Rd} = A \cdot f_{yk} / \gamma_{M0})$	Resistenza plastica della sezione (per sezioni di classe 1, 2 e 3)
$(V_{c,Rd} = A_v \cdot f_{yk} / (\sqrt{3} \cdot \gamma_{M0}))$	Resistenza di calcolo a taglio
$(M_{y,V,Rd} = (W_{pl} - r \cdot A_v^2 / (4 \cdot t_w)) \cdot f_{yk} / \gamma_{M0})$	Resistenza convenzionale a flessione retta in presenza di taglio non trascurabile

Verifiche allo SLE (deformabilità) dell'architrave



$M_{el} =$	38.112	KNm	Momento al limite elastico ($W_{el} \cdot f_{yk} / \gamma_{M0}$)
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La trave si trova in fase elastica in quanto $M_{ed} < M_{el}$

A favore di sicurezza, si considera la stessa combinazione di carico utilizzata per la verifica di resistenza allo S.L.U.

Totale carichi permanenti	$g = 6.54 \text{ KN/m}$	coeff. parziale di sicurezza	$\gamma_G = 1.5$
Totale carichi variabili	$q = 2.5 \text{ KN/m}$	coeff. parziale di sicurezza	$\gamma_Q = 1.5$

Combinazione di carico ($g \cdot \gamma_G + q \cdot \gamma_Q$) =	13.56	KN/m
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$\delta_c \text{ (mm)} =$	0	monta iniziale della trave
$\delta_1 \text{ (mm)} =$	1.24	spostamento elastico dovuto ai carichi permanenti
$\delta_2 \text{ (mm)} =$	0.95	spostamento elastico dovuto ai carichi variabili
$\delta_{max} \text{ (mm)} =$	2.19	spostamento nello stato finale depurato della monta iniziale = $\delta_{tot} - \delta_c$

Valori limite

$\delta_{\max} / L = 1/k$

k =	400
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$\delta_2 / L = 1/k$

k =	500
-----	-----

$\delta_{\max, LIM} =$	5.375	mm
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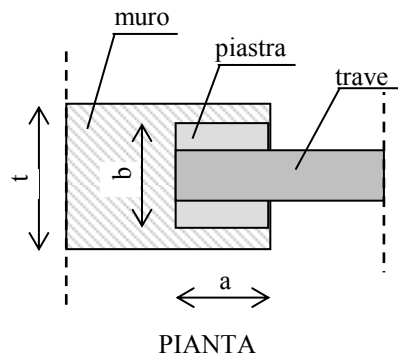
$\delta_{2, LIM} =$	4.300	mm
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δ_{\max}	< del valore limite __ VERIFICATO
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δ_2	< del valore limite __ VERIFICATO
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VERIFICHE SULLA MURATURA PER CARICHI CONCENTRATI

presenza di piastra di appoggio	no
profondità della piastra di appoggio	a (cm) = 0
larghezza della piastra di appoggio	b (cm) = 0
spessore del muro	t (cm) = 38



Caratteristiche della muratura

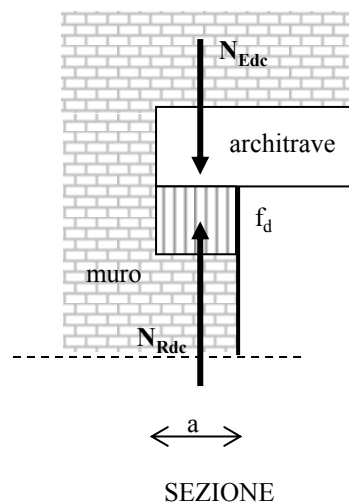
muratura in mattoni pieni e malta di calce

$f_m = 318 \text{ N/cm}^2$ Resistenza media a compressione

Livello di conoscenza **LC3** NUOVO

Coeff. parziale di sicurezza γ_M **1**

Fattore di confidenza **1**



Verifica per carichi verticali concentrati

In riferimento a quanto riportato nell'Eurocodice 6 al punto 6.1.3., il valore di progetto del carico verticale N_{Edc} deve essere minore o uguale al valore della resistenza di progetto a compressione della muratura per carichi concentrati verticali N_{Rdc} .

Deve risultare: $N_{Edc} \leq N_{Rdc}$

$$N_{Rdc} = \beta \cdot A_b \cdot f_d$$

dove: β = coefficiente di miglioramento per carichi concentrati
variabile tra 1 e 1,5: a favore di sicurezza
si sceglie $\beta = 1$

A_b = area dell'impronta del carico

f_d = resistenza di progetto a compressione della muratura

area dell'impronta di carico:

a (cm) =	15
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$A_b =$	300	cm^2
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b (cm) =	20
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$f_d =$	318.00	N/cm^2
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 Resistenza di calcolo a compressione della muratura

$N_{Edc} =$	14.58	KN
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 Valore di progetto del carico verticale concentrato sull'appoggio

$N_{Rdc} =$	95.40	KN
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 Resistenza di calcolo della muratura ai carichi verticali concentrati

$N_{Edc} / N_{Rdc} =$	0.153	≤ 1 verificato
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