

SEVEN ROTATIONS OF SEVEN FOR THREE (TRIPLE DOUBLES)

for three violas
with or without live electronics

Michael Edwards 2019-21

freeze, pitch **4**

A1 $\text{♩} = 90-105$

viola 1

These opening fermate should be very long,
perhaps in total up to a minute or more.

viola 2

Viola 2 begins as soon as possible,
while the others are still getting ready.

viola 3

The score consists of three staves for violas. The first staff (viola 1) has a long opening fermata with a 'freeze, pitch' instruction. The second staff (viola 2) begins as soon as possible. The third staff (viola 3) also begins as soon as possible. The score includes various dynamic markings and articulation marks.

**SEVEN ROTATIONS
OF SEVEN FOR THREE
(TRIPLE DOUBLES)**

for three violas
with or without live electronics

MICHAEL EDWARDS

michael edwards
seven rotations of seven for three (triple doubles)
for three violas with or without live electronics

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programme note

seven rotations of seven for three (triple doubles) was written for Emile Cantor, Gareth Lubbe, and Barbara Maurer. Though very different, it's a retrospective view of my *tramontana* which was premiered by Barbara at Darmstadt in 2004. As with that piece, the violas are tuned so that the first three strings have a harmonic in common with the seventh partial of the fourth string—a pitch which plays a central and recurring role in the piece.

seven rotations is, then, an abstract investigation of the sonic, microtonal, and dramatic potential of the viola double harmonics available using this tuning, as well as a sevenfold rotation of two sets of seven-bar rhythmic sequences. Of these, one set is quite fast and discontinuous and the other is slow in tempo but frenetic and heavy or obsessive. The piece was generated with my *slippery chicken* algorithmic composition software but extensively edited or, rather, 'interpreted' via standard pencil-and-paper techniques.

Although each of the three viola parts is equally challenging, there is a general sense of the second (middle) viola being flanked by the other two, left and right. Overall, the second viola moves from double harmonics on the first two (higher) strings to those on the lower two, whereas the flanking players have the opposite movement. Another process at play is the gradual introduction of a low microtonal 'melody' on the C string: 'normal' notes are conspicuously absent at first but come more to the fore as the piece progresses.

(I apologise if all of this sounds rather dull and/or technical, but my approach to music and especially composition is often purely formal, abstract, hermetic even, and process-based, as opposed to conceptual. To put it another way, works such as this are focused on creating and framing opportunities for perception rather than reaching for the 'extra-musical'.)

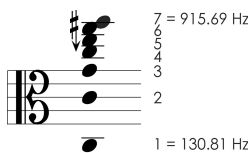
notes

duration

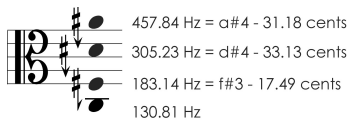
9-11 minutes

scordatura

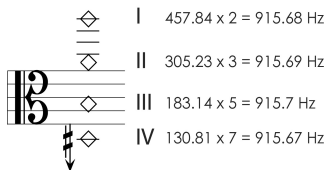
The strings of the viola are tuned so that all strings provide harmonics at the frequency of the 7th partial of the C-string:



In order to achieve this, the strings should be tuned as follows:



The following harmonics, then, all result in the same frequency, i.e. 915.69 Hz (assuming A4 at 440Hz), this being the 7th partial of C3 (all numbers rounded to 2 decimal places hence slight deviations), meaning that these can be used to tune the strings “by ear” relative to this 7th partial:



symbols

- diamond noteheads indicate the nodal (touching) points on the given strings
 - the pitches of the diamonds relate to the normally tuned string
 - * so, for example, a notated B natural on the G string will produce the 5th partial
 - * this is most often also the case with notated open strings although sometimes the sounding pitch (scordatura) is indicated for clarity of line: in that case a circle will be placed above the note
- notated above the diamond noteheads are the sounding pitches rounded to the nearest quarter tone
- string numbers apply to all following harmonics/notes until changed
- a wiggly trill line beginning with 0 (e.g. viola 2 bar 4) indicates a trill/tremolo between the given notes/harmonics and their open string(s)
- a wiggly trill line beginning with a reverse S squiggle (e.g. viola 1 bar 121) means bow the lower string continuously but tremolo quickly with the bow to the upper string (legato)
- where possible, play all (low) ordinary notes on the C string
- spe means *sul ponticello estremo*
- vtrem is *vertical tremolo*: very noisy but with some harmonic sound where possible; this stops as soon as the tremolo beams stop
- at pianissimo and below, all accents are '*poco*'
- half-filled harmonic circles (e.g. viola 2 bar 88) indicate a half-flageolet (dull)
- all *pizzicato* double stops are to be played with two fingers rather than one

for Barbara, Emile, and Gareth

seven rotations of seven for three (triple doubles)

Michael Edwards 2019-21

freeze, pitch

4

A1 ♩ = 90-105

viola 1

These opening fermate should be very long, perhaps in total up to a minute or more.

Viola 2 begins as soon as possible, while the others are still getting ready.

viola 2

viola 3

7

musical score for three violas, featuring complex rhythmic patterns and dynamic markings.

25 **A3** **freeze**

III IV

0

mp > pp < mp > pp <

mp pp

0

pp < mp > pp < mp > pp

jeté

0

pp < mp > pp < mp > pp

31 **A4** **freeze**

III IV

spicc.

mf 5 pp < mp > pp 5 ppp <

I II

spicc.

mf 5 pp

III IV

spicc.

mf 5 pp < mp > pp 5

III IV

III IV

spe → ord.

37

spicc.

p *pp* *mf*

(spicc.)

I II spicc.

I II

(spicc.)

III IV III

mf

45

A5

spe → ord.

44

mp *pp* *mf* *pp* *mf* *pp*

(spicc.)

I II

III IV

pp *mf* *pp* *mf* *pp*

freeze A6

Musical score for measures 50-56. The score is written for three staves: two bass staves and one treble staff. The key signature has one sharp (F#) and the time signature is 2/4. Measure 50 starts with a dynamic of *mp* and a *pp* dynamic. A *spicc.* marking is present above the treble staff. Fingerings of 5 and 3 are indicated. Articulation marks like accents and slurs are used. The bottom bass staff includes fingering III and IV.

Musical score for measures 57-63. The score continues with three staves. Measure 57 is marked with *(spicc.)* and *(pp)*. It features triplets and slurs. The bottom bass staff includes fingering III and IV. Dynamics range from *mp* to *pp*. The score concludes with a final measure containing a 5-fingered triplet and a 3-fingered triplet.

64 **A7** **freeze** spicc. à B1

65 I II
spicc. à B1

(pp) mp

I II III IV

(pp) mp

70

$\overset{\sim}{5}$ = 108-126

3x

pp ppp

I II I I I I II

pp ppp

III IV

pp ppp

76 **Tempo I**

Measures 76-79. Bass staves (top and bottom) and Treble staff (middle). Includes triplets, slurs, and dynamic markings like *f*. Fingering numbers I and II are indicated above notes.

80 **pitch**

80 **pesante** ♩ = 50-58

B1 détaché

Measures 80-83. Bass staves (top and bottom) and Treble staff (middle). Includes slurs, dynamic markings like *ff*, and fingering numbers III, IV, I, II. The word *détaché* is written above the notes.

82

Musical score for measures 82-83. The bass line features chords III and IV with a 7:4 ratio. The treble line includes triplets and a 'spe' (speaking) marking.

84

85

7x

Musical score for measures 84-85. Measure 85 is highlighted with a red box and the number 85. A '7x' box indicates a repeat. Dynamics include *pp sub.* and *mp*. The score includes bass and treble staves with various chord markings and ratios.

pp sub. ————— *mp*
(cresc. over the duration of the repeats)

Musical score for measures 86-92. The score consists of three staves. The first staff begins at measure 86 with a *ff sub.* dynamic and a 7:4 ratio. The second staff also begins at measure 86 with a *ff sub.* dynamic and includes a triplet of 3. The third staff begins at measure 86 with a *ff sub.* dynamic. The score is heavily annotated with fingering numbers (I, II, III, IV) and includes a *pizz.* marking in measure 90. The time signature changes from 7/4 to 2/4.

88 pitch

92

B2 Tempo I

B3

Musical score for measures 88-92. The score consists of a single staff. It begins at measure 88 with a *pp* dynamic and a *pizz.* marking. The score includes a *mp* dynamic, a *pp* dynamic with a 5-measure phrase, and a *mp* dynamic. A red arrow points to a *jeté* marking in measure 92, which is followed by a triplet of 3. The score is annotated with fingering numbers (II, III, IV) and includes a *mp sub.* dynamic. The time signature changes from 2/4 to 3/4.

freeze 97 B4

Musical score for measures 94-103. The score is written for Violin I, Violin II, and Cello/Double Bass. It includes dynamic markings such as *pp*, *mp*, *p*, and *ppp*. Articulation markings include *spe*, *ord.*, and *spicc.*. Fingering numbers like 0, 5, and 3 are present. A red box highlights the number 97.

107

Musical score for measures 104-113. The score is written for Violin I, Violin II, and Cello/Double Bass. It includes dynamic markings such as *ppp* and *mf sub.*. Articulation markings include *spicc.*. Fingering numbers like 3 are present. A red box highlights the number 107.

Musical score for measures 112-117. The score is written for three staves (treble, alto, and bass clefs). It features complex rhythmic patterns with triplets and various dynamic markings including *mp* (mezzo-piano), *pp* (pianissimo), and *pizz.* (pizzicato). Fingerings are indicated by Roman numerals I, II, and III. The piece includes a *spicc.* (spiccato) section and a *pizz.* section. The time signature changes from 3/8 to 2/4 and back to 3/8.

Musical score for measures 118-121. Measure 118 is marked with a box containing **B5**. Measure 119 is marked with a box containing **7x**. Measure 120 is marked with a large red box containing **121**. The score is written for three staves. It features complex rhythmic patterns with quintuplets and various dynamic markings including *pp* (pianissimo), *mp* (mezzo-piano), and *pp* (pianissimo). Fingerings are indicated by Roman numerals I, II, and III. The piece includes an *arco* section. The time signature changes from 2/4 to 3/4 and back to 2/4.

freeze

124

spe ord. I I I II spe- arco

B6

pizz. p mp mp >

II III II III II III III II III

molto vib. ord. IV

mp >

spe ord.

II III p pp

p > pp

pp

133

130

(spe) spicc. à C I II II III I

B7

pp 3 pp p pp

III IV spicc. III II

pp 3 mf pp p 3 p pizz.

pp 3 mf pp p 3 pp

pizz. arco spicc. pp

136

I II I
I II
I II I
I II
I II
III

III
IV
arco
mp
5

III → spe III
IV → spicc. ord. IV
pp mp pp <

(spicc.)
mp
pp
3
mp
3

♩ = 50-58

I **freeze, pitch**
II

freely vary bow speed, direction
(also vertical), position, etc.

C1

141

mf
pp
5

ppp

nervous and twitchy
spicc. II III II
III IV III

mf
pp

spicc.
pp 5

ppp

nervous and twitchy
spicc.

freely vary bow speed, direction
(also vertical), position, etc.

III

IV

150

153

(spicc.)

III IV

IV spicc. III

sfz pp < sfz f

Tempo I

spe →

0

C2

I

II

154

155

III spicc. III IV III

III IV

III IV

sfz mp pp fp < ff

pp < f < ff

p 5 pp

spe →

0

ord. I II C3 I I
 0 3 0 5 5
 158 mf pp mp

jeté III IV pizz.
 3 3 mf pp mf pp mp

ord. jeté II III II III II
 0 3 0 5 5
 mf pp mp

168

♩ = 108-126

I II I II I II II II II II
 II III I II II III II III II III
 5 5 5 5 5 5 5 5 5 5
 164 pp mf pp mp

arco III IV II III II III II III
 5 mp pp mp

pp mf pp mp

3x (cresc. on each repeat)

Tempo I

169

II III II III II III II III

II III II III II III II III

II III II III II III II III

pp mf pp

jeté

spe molto vib.

pp mf

I II III IV I II III IV

II spe ord. II III spicc. I II

pp mf

174

III IV ord.

III IV ord.

III IV ord.

pp mp p

jeté

spe molto vib.

mp p

(spicc.) jeté I II I II spicc.

mp pp

177

♩ = 50-58 **pitch**

C5

Musical score for measures 181-183. The score consists of three staves. The first staff is in treble clef, the second and third in bass clef. The time signature is 7/4. The music features complex guitar fingering with numbers I-IV and various accidentals. Dynamics include *pp*, *mf*, and *p*. A **4x** repeat sign is present. A *spicc.* marking is above the final measure of the first system. A *(cresc. on each repeat)* instruction is placed between the first and second systems.

Musical score for measures 184-186. The score consists of three staves. The first staff is in treble clef, the second and third in bass clef. The time signature is 7/4. The music features complex guitar fingering with numbers I-IV and various accidentals. Dynamics include *pp sub.*, *mf*, and *pp*. A *spe* marking is present above the final measure of the second system.

accel.....

187

ppp *pp* *mf sub.* *pp cresc.* *mf p* *mf*

ppp mp *ppp cresc.* *mf*

ppp cresc. *mf*

..... ♩ = 70-80

C6 pitch

189

pp *mf* *pp* *mf* *ff sub.* *p* *pp*

pp *mf* *pp* *mf* *ff sub.* *p* *pp*

pp *mf* *pp* *mf* *ff sub.* *p* *pp*

6x

Tempo I (but pushing through)

arco

pizz.

192

mp *pp* *mf*

I II
II III

195

197

mf *pp* *mp* *pp* *sfz*

C7

jeté

jeté

molto vib. spe

202

Musical score for measures 203-207. The score is written for three staves: Treble Clef (top), Treble Clef (middle), and Bass Clef (bottom). The key signature has one sharp (F#) and the time signature is 2/4. Measure numbers 203, 204, 205, 206, and 207 are indicated. Dynamics include *pp*, *cresc.*, and *mf*. Fingerings are indicated with Roman numerals I, II, III, IV, V and numbers 1-5. There are triplets and a quintuplet. The piece ends with a double bar line and repeat dots.

D1 surging $\text{♩} = 50-58$

Musical score for measures 208-212. The score is written for three staves: Treble Clef (top), Bass Clef (middle), and Bass Clef (bottom). The key signature has one sharp (F#) and the time signature is 2/4. Measure numbers 208, 209, 210, 211, and 212 are indicated. Dynamics include *pp*, *f*, *mp*, and *mf*. Fingerings are indicated with Roman numerals I, II, III. There are slurs and accents. The piece ends with a double bar line and repeat dots.

208

molto vib.

211

Violin I: *f* *pp* *f* *pp*

Violin II: *f* *pp* *f* *pp*

Cello/Double Bass: *mf* *f > pp* *ff*

Annotations: *jeté*, *pizz.*, *arco*, *ff*

214

♩ = 60-70

♩ = 50-58

5x

ff *p* *f* *p sub.* *mf sub.*

molto vib. **D2** *molto più mosso* ♩ = 120-130

ff *fp* *f* *p sub.* *mf sub.* *pp sub.*

spe *molto vib.*

p *mf sub.* *pp*

217

223

D3

228

I spe → ord.

II 0

D4 sul pont.

mf-p → *ppp*

ppp

5

3

232

II sul pont.

III

ppp

3

III IV spicc.

III IV sul pont.

III IV sul pont.

mf *pp* *ppp*

ppp *mf* → *ppp*

molto vib.

ord.

3

freeze, pitch

235

III IV I II

ppp *ff ppp sub.*

3

II III II III

mf-pp *ff ppp sub.*

3

III IV

ppp *ff ppp sub.*

3

freeze, pitch

♩ = 50-58

molto leggero à D6 (except when molto vib.)

D5 (sul pont.) IV punta d'arco

3x III IV III II III

ord. molto vib.

II (sul pont.) punta d'arco II III III III IV III III

244 (sul pont.) punta d'arco

III IV spe III I II I III III

III IV III

III IV

The musical score is written for a string instrument in 4/4 time. It consists of three systems of staves. The first system has a treble clef and a key signature of one sharp (F#). It begins with a measure of rest, followed by a triplet of eighth notes (D5, E5, F#5) marked 'punta d'arco' and '(ppp)'. This is followed by a repeat sign and another triplet of eighth notes (G5, A5, B5) marked 'ord. molto vib.'. The second system continues with a triplet of eighth notes (C6, D6, E6) marked '(ppp)', followed by a repeat sign and a triplet of eighth notes (F#6, G6, A6) marked '(ppp)'. The third system starts with a bass clef and a key signature of one sharp. It features a triplet of eighth notes (B5, C6, D6) marked '(ppp)', followed by a repeat sign and a triplet of eighth notes (E6, F#6, G6) marked '(ppp)'. The score includes various fingering indications (III, IV, II, I) and dynamic markings like '(ppp)' and 'ord. molto vib.'. A red box with the number '244' is placed over the first measure of the third system.

247

Musical score for measures 247-250. The score is written in 3/4 time and consists of three staves. The first staff contains two measures of music, each featuring a triplet of eighth notes with a fermata. Above the first measure are fingering indications 'III' and 'III IV'. The second staff contains four measures of music, including triplets and quintuplets of eighth notes, with various fingering and breath marks. The third staff contains two measures of music, including a half note with a fermata and a dynamic marking of *pp*. Performance instructions include *molto vib.*, *pizz.*, and *ord.*.

248

Musical score for measures 248-251. The score is written in 3/4 time and consists of three staves. The first staff contains two measures of music, each featuring a triplet of eighth notes with a fermata. Above the first measure is a fingering indication 'III'. The second staff contains two measures of music, each featuring a triplet of eighth notes with a fermata. Above the first measure are fingering indications 'III IV' and '(b)'. The third staff contains two measures of music, including a half note with a fermata and a dynamic marking of *cresc.*. Performance instructions include *cresc.*, *ord.*, *pizz.*, *molto vib.*, *ord.*, and *arco*.

III
ord.
molto vib.
3

249

III
IV
sul pont. III

III
III
sul pont.
arco

III
IV III
sul pont.

III
IV

250

(cresc.)

III
IV

III
IV

III
IV

(cresc.)

III
IV

III

(cresc.)

Detailed description: This musical score consists of three staves. The first staff begins at measure 249 with a triplet of eighth notes marked 'III' and 'ord. molto vib.'. The second staff has a triplet of eighth notes marked 'III' and 'sul pont. arco'. The third staff has a triplet of eighth notes marked 'III' and 'IV'. Measure 250 continues with triplets on all three staves, marked with 'III' and 'IV'. The first staff includes a '(cresc.)' marking. The second staff has a triplet marked 'III' and 'IV' with '(cresc.)'. The third staff has a triplet marked 'III' and 'IV' with '(cresc.)'. The notation includes various accidentals (sharps, flats, naturals) and slurs.

251

III
IV II

II II II

III III III

II III

II
III

Tempo I

D6

II
III
(sul pont.)
arco

ff mp ppp

III
IV

III

III II

III

ff

ppp

pizz.

mf

III
IV

III

III
IV
(sul pont.)
arco

ff mp ppp

mf

255

II
III

II
III

ord.

D7

spe

5

III
IV

I
II

ord. arco

spe

p ppp

3

III
IV

III

III
IV

ord.

III
IV
spicc. à E1

5

ord. $\overset{\sim}{5}$ $\overset{\sim}{5}$ $\bullet = 108-126$ **Tempo I** III IV *molto vib.* II III \longrightarrow spe \longrightarrow ord.

262 **pp** **ppp** 5x 3

I II ord. I II \longrightarrow spe \longrightarrow ord.

5 (*ppp*)

5 (*ppp*) 5 5

270

$\overset{\sim}{5}$ $\overset{\sim}{5}$ $\bullet = 108-126$ 4x II III **Tempo I** **E1** *pizz. à E3* II III *p*

267 (*ppp*) I II ord. I II *freely vary bow speed, direction (also vertical), position, etc.* spe (*ppp*) *pp*

II III II III IV *freely vary bow speed, direction (also vertical), position, etc.* (*ppp*) 5 *pp*

freeze, pitch

273

pp p ppp mp p

II III 3 II III

freeze, pitch

281

più mosso

$\text{♩} = 120-130$

$\text{♩} = 180-195$

E2 4x

arco

pizz.

pp mf

II III I II I II I II III IV III II III 0 0

♩ = 120-130

286

Violin I: *pp*, *mf*, *ppp*

Violin II: *pp*, *p*, *mf*, *ppp*

Viola: *pp*, *mf*, *ppp*

Box E3

arco, sul pont.

293

Violin I: *mp*, *pp*

Violin II: *mp*, *pp*

Viola: *mp*, *pp*

Box E4

ord., pizz., arco

303

315

Tempo I

312

delay

= 108-126

6x

f pp (pp) 5

arco I f mp pp (pp)

mf pp (pp)

delay

E5

Tempo I

quasi niente

più mosso

♩ = 120-130

pizz.

I
II
arco

317

delay

Tempo I

4x

E6

pizz.

323

330

delay

Tempo I

pp > pppp

mp > pppp

vtrem. arco

ord.

334

pizz.

(pppp)

jeté

(pppp)

delay

$\overset{-5}{\curvearrowright}$ → $\overset{-5}{\curvearrowright}$

$\text{♩} = 108-126$

L'istesso tempo

delay

338

7x

p

pppp

III IV I II

III

p

pppp

(tie on repeat)

5

p

pppp

E7

-5-
♩ = 130-151

-5-
♩ = 108-126

347 5x

353 pizz.

molto pesante, savage ♩ = 50-58

The musical score consists of three staves, each with a treble clef and a 2/4 time signature. The key signature has one sharp (F#). The score is divided into two systems, each containing three measures. Measure numbers 364, 366, and 374 are indicated at the beginning of their respective measures. The first system (measures 364-374) is marked with a forte dynamic (*ff*). The second system (measures 366-374) features a dynamic shift from *ff* to *pp sub.* (pianissimo) in the final measure of each system. Fingering numbers (I, II, III, IV) are placed above the notes to indicate fingerings. Some notes are marked with a breath mark (>) or a breath mark with a slur (>). The notation includes various note values, rests, and slurs. A red box containing the number '364' is located at the top left of the page.

368

I
II
II
III
I
II

senza vib.

ff 7:4 7:4 *pp sub.*

II
II
III

ff *pp sub.*

molto vib.

I
II
II
III
I
II
III

ff 7:4 7:4

370

II
III
II
III
II
III
II
III
II
III
II
III

pp 7:4 *ff sub.* 7:4 *pp sub.* 7:4

370

II
III

pp *ff sub.* *pp sub.*

II
III
I
II
II
III
I
II

pp 7:4 *ff sub.* 7:4 *pp sub.* 7:4

più mosso ♩ = 120-130

372

I
II >

II I I

F2

II
III

4x

I
II

ff sub. *pp sub.* *pp*

II
III >

II
III

II
III

II
III

jeté

jeté

ff sub. *pp sub.* *pp*

I
II

I
II I

ff sub. *pp sub.* *pp*

377

6x

I
II
III

5

I
II
jeté

jeté

I
II

I
II

5

quasi niente

più mosso ♩ = 120-130

delay

delay

386

7x

5x

Tempo I

387

395

392

F3

6x

spe

(pppp)

pp

mf

p

(pppp)

pp

mf

p sub.

403

F4

III
IV
ord.

397

sul tasto

5

pp

mp

pppp

pp

mp

pppp

pp

mp

pppp

410

6x

III
IV

405

pp

p

pppp

pp

p

pppp

pp

p

pppp

414

F5

spe

pppp

pp

III
IV

ord.

3

3

III

ord. → spe

spe

pppp

5

pp

3

3

p

I

II

I

II

I

II

vtrem.

vtrem.

III

pppp

pp

3

3

p

3

428

422

F6

Tempo I

p

5

ppp

f

ppp

ord.

III

IV

spe

5

(h)

ppp

f

III

spe

ppp

I

II

I

II

(h)

pp

ppp

3

3

f

spe

ppp

432

F7 II
III
ord.
arco

pizz.

pp

p sub.

5

III
IV

pizz.

ord.
arco

pp

I
II

II
III
II

II
III
ord.
arco

pp

p sub.

5

441

441

pizz.

pp

pp

I
II

I
II

pizz.

pp

II
III

II
III
pizz.

pp

pp

G1 Wild!

molto pesante ♩ = 50-58

3x

sul pont.

au talon

sim.

452

gliss.

fff

454

sul pont.

détaché

3

3

3

molto vib.

gliss.

fff

molto vib.

sul pont.

sim.

gliss.

fff

456

gliss.

gliss.

3

5

5

5

3

5

3

3

gliss.

gliss.

458

3x

jeté

gliss.

462

460

10x

G2

leggero

♩ = 120-130

III
IV

II
III

gliss.

(fff)

pp

(fff)

pp

(fff)

pp

466

ord.

I II I II I II

$\bullet = 180-195$

pesante

$\bullet = 120-130$

5x

mp sub.

pp sub.

ord.

II III III IV III IV

mp sub.

pp sub.

II III ord.

II III II III II III

pp

mp sub.

pp sub.

472

G3

I II I II

spe

ord.

3x

pppp

III IV

spe

pppp

II III ord.

II III

spe

pppp

483

spe
jeté

(pppp)

483

(spe)

(pppp)

spe

(pppp)

I
II

III
IV

I
II

G4 freeze, pitch

♩ = 50-58

I freely vary bow speed, direction
(also vertical), position, etc.

II sul pont.

489

con sord.

ppp

freely vary bow speed, direction
(also vertical), position, etc.

III sul pont.

con sord.

ppp

pp

freely vary bow speed, direction
(also vertical), position, etc.

IV sul pont.

con sord.

ppp

pp

G5

freeze, pitch

delay

II
III
spe

II
III

496

3x

Musical score for measures 496-500. The score consists of three staves. The first staff has a **3x** marking above it. The music is in 2/4 time and features various dynamics: *pppp*, *mp*, and *f*. There are several five-fingered patterns (marked with '5') and a *pizz.* (pizzicato) marking. The second and third staves also feature *pppp*, *mp*, and *f* dynamics, along with five-fingered patterns and a *pizz.* marking. The score includes fingerings (I, II, III, IV) and a *spe* (sostenuto) marking.

G6

499

col legno tratto
spe

Musical score for measures 499-503. The score consists of three staves. The first staff is marked *col legno tratto* and *spe*. The music is in 2/4 time and features dynamics: *ppp*, *pppp*, *pp*, and *pppp*. There are triplets (marked with '3') and a *gliss.* (glissando) marking. The second and third staves also feature *ppp*, *pppp*, and *pp* dynamics, along with triplets and a *gliss.* marking. The score includes fingerings (I, II, III, IV) and a *spe* marking. There are also markings for *arco ord.* (arco ordinario) and *sul pont.* (sul ponticello).

508 **G7**

pizz.

pizz.

pizz.

519

doppio movimento

516

14x arco

pp

arco

pp

arco

pp