

# RAGE

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Violoncello & Piano

JORDAN ALEXANDER KEY

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“RAGE”

FOR

CELLO & PIANO

2021

### Explanation of System of Pan-Rational Rhythmic Notation:

This work uses what I call “pan-rational time signatures” (known elsewhere and erroneously as “irrational time signatures”). I do not call them “irrational” since they are in no way “irrational” (either psychologically or mathematically). They are “rational” proportions, but do not use powers of 2 for the bottom number (not written over 2, 4, 8, 16, 32, 64, etc.). Such a system of time signature grew out of questions like “why isn’t there a ‘fifth’ or ‘third’ note?” Well, many music teachers will simply say, “because there isn’t one,” but of course there is.

What we call a triplet is actually just some multiple or divisions of a “third note,” and similarly the quintuplet some “fifth note.” Systems of subdividing fundamental note values (like the breve or whole-note) into groups other than “dyadic-rationals” (note subdivisions in the form  $\frac{1}{2^n}$ ) into “pan-rationals” (third, fifth, seventh as compared to half, fourth, eighth, sixteenth, etc.) have existed at prior points in music history (particularly the late Middle Ages and Renaissance), using uncommon and arcane systems of mensuration. Such systems have long fallen out of favor; however, if reincorporated into our system of musical language, they can allow for the fluid notations of some rather complex rhythmic ideas without the use of excessive tempo changes or tuplet (and embedded tuplet) markings.

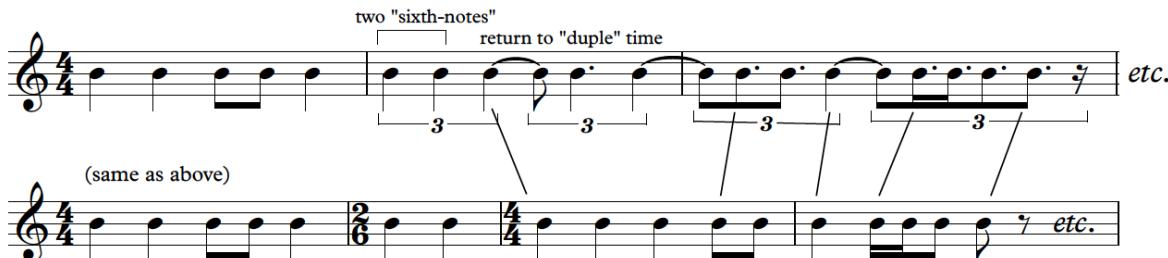
This work employs my system of pan-rational rhythmic notation to execute a rhythmic hierarchy with not only dyadic note subdivisions, but also notes that are triadic and pentadic (note subdivisions in the form of  $\frac{1}{3^n}$  and  $\frac{1}{5^n}$ , e.g. 3<sup>rd</sup>-notes, 5<sup>th</sup>-notes and their subdivisions and combinations with each other. Thus, this piece employs a whole-note value that is simultaneously dyadically (2), triadically (3), pentadically (5), hexadically (2\*3), and pentadectadically (3\*5) divisible.

The system of pan-rational rhythmic notation (“pan-rationalism”) is the culmination of my dissertation, which surveyed past and present systems of exceptional rhythmic notation in an effort to understand how systems of “non-dyadic” rhythmic notation came into being and why/how they disappeared from use in order that I could fashion a better, more comprehensive system that would allow for the notation of any subdivision or combination of note values apart from tuplets and the requirements of their aggregation. By this, I mean that pan-rational notation no longer requires exceptional rhythmic values be confined to tuplets, which themselves require their own completion and grouping. This grouping disallows easy intermingling of dyadic and non-dyadic rhythmic values and the presentation of non-dyadic rhythmic values without their compete set of related subdivisions (i.e. pan-rationalism permits the presentation of fractional parts of a tuplet).

For example, imagine if I wanted to write a quarter note triplet in a 4/4 time signature, but I only wanted two-thirds of that triplet (namely, two quarter notes of the three within the quarter-note triplet), and then I wanted to return directly to duple time with no hint of the prior triplet. What would I do? Well, I would have to write the two notes of the triplet, but then, in returning to the simple duple time from the 4/4, I would have to endlessly tie over values from within triplets.

However, if I just recognize that I can create “sixth notes,” then I can specify that I want two “sixth-notes” without the use of triplet and many ties subsequently. This can be done using a “pan-rational” time signature, namely 2/6. See Figure 1.

**Figure 1:**



Why “2/6” and “sixth-notes” rather than “third-notes”? Well, if we consider the “whole-note” as the fundamental value of rhythm (perhaps appropriately since it is “whole”), then to get the quarter-note triplets, we must recognize that the whole-note must be divided equally into six parts. Then, to get only two of these six equal divisions of the whole note, we simply specify “2,” just as one might specify “3” in 4 equal divisions of the whole to get 3/4 rather than 4/4.

Similarly, if we want seven units of five equal divisions of the whole note (1 and 2/5’s of an eighth-note quintuplet), we will recognize that we must divide the whole into 10 equal parts and play seven of those parts, thus requiring a 7/10 time signature and “tenth-notes.” See Figure 2.

**Figure 2:**



Such a system allows for the rapid alternation between different tempos without the use of tempo markings on each measure. Furthermore, it utilizes and recognizes those rhythmic fluctuations that are proportional to each other. The notational possibilities of non-dyadic time signatures as compared to tempo changes are demonstrated, in a rudimentary form, in Figure 3.

Figure 3:

The figure consists of three staves of musical notation, each with a different time signature and tempo.

- (with tempo changes)**: A staff in 4/4 time with a key signature of one sharp. It shows a repeating pattern of eighth notes. Above each note is a tempo marking:  $\text{♩} = 100$ ,  $\text{♩} = 150$ ,  $\text{♩} = 100$ ,  $\text{♩} = 150$ ,  $\text{♩} = 100$ ,  $\text{♩} = 150$ ,  $\text{♩} = 100$ ,  $\text{♩} = 150$ . The word "etc." follows the eighth notes.
- (with non-dyadic time signature changes)**: A staff in 4/4 time with a key signature of one sharp. It shows a repeating pattern of eighth notes. The time signature changes between 2/4 and 6/4. The 2/4 measures have two eighth notes, and the 6/4 measures have three eighth notes. The word "etc." follows the eighth notes.
- (with compound non-dyadic time signatures)**: A staff in 5/(4+6) time with a key signature of one sharp. It shows a repeating pattern of eighth notes. The time signature is indicated as 5 over a bracketed 4+6. The word "etc." follows the eighth notes.

Naturally, there are limits to the performability of such diverse rhythmic structures; consequently, the number of available non-dyadic rhythmic values is limited to a relatively small subset of low primes (2, 3, 5, 7, 11, 13, and maybe 17 and 19). Beyond such unique subdivisions, performability becomes exceedingly difficult and the difference between closely values rhythmic subdivisions becomes difficult to accurately perform and perceive. Thus, as the potential of performer of this piece, do not initially worry that the rhythmic subdivision contained herein might be unperformable; they are well within the capabilities of human performance and perception!

However, the challenge of this work (beyond the typically technical issues) is that this piece presents rhythmic structures that are unique to music at present (i.e. concatenations of various combinations of dyadic and tridecadic note values without their respective aggregates). However, I imagine the prospect of a wholly unique rhythmic world yet to be explored might be well-worth the new cognitive challenge.

To notate this music, I have made two general additions to our present system of rhythmic notation: first, the interpretation of time signature; second, the meaning of note shapes.

In regards to time signature, you will find the time signatures in this work are in the form of  $\frac{k}{15n}$  or  $\frac{k}{6n}$ , where the lower number designates the unique subdivisions available within the rhythmic hierarchy according to the available unique prime factors of the number given (3 and 5 in the case of 15 and 2 and 3 in the case of 6) and k represents the number of those equal subdivisions of the whole note appearing in each measure (e.g. 15/15 means that the whole note may be divided into either 15 equal parts or any combination or subdivision of the prime factors of 15. The charts below give the notation of these values along with all theoretical further subdivisions. Those notes highlighted in green are those used in this piece.

To differentiate q-notes (3<sup>rd</sup> or 5<sup>th</sup>-notes depending on the pan-rational hierarchy in use in any moment) from p-notes (2<sup>nd</sup> or 3<sup>rd</sup>-notes depending on the pan-rational hierarchy in use in any moment) a slash (backward and forwards respectively) have been placed over the note heads. The tempo value of these notes, if one desires it can be calculated by taking the tempo of the whole note (18 bpm in this piece) and multiplying it by the value of the note (e.g., the tempo for 15<sup>th</sup>-note is  $18 \times 15 = 270$  bpm or as close as one can reasonably get).

I suggest beginning studying the piece by practicing 15 equal subdivisions of a whole-note at 18 bpm. Then, once that rhythmic scheme is well established in one's mind and hands, then begin to alternate between measures of 3, 9, 5, 15, 2, and 4 equal subdivisions. Once this is well established, begin subtracting 15<sup>th</sup>-notes from the measure of 15 equal subdivisions, progressing all the way to one 15<sup>th</sup>-note per measure alternating with measures of 4/4 and/or 3/3 (or 9/9).

For further clarification of this system of rhythmic notation, see this summary video:  
<https://www.youtube.com/watch?v=fN4fU4laue4>

If the performer has any questions or needs any clarification on this system of pan-rational rhythmic notation, please do not hesitate to contact the composer (contact information is given below) or refer to his thesis, wherein this system is comprehensively given.

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**Dissertation Title:** "Pan-Rational & Irrational Rhythm, The History, Development, and Modern Implementation of Nondyadic Rational Rhythms in Western Music" (University of Florida, 2021)

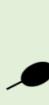
## Pentadecaplex Two-Dimensional Rhythmic Hierarchy:

Rhythmic hierarchy for signatures in the form of  $\frac{k}{pq}$ , where  $k$  is some integer partition of the whole-note, and  $p$  and  $q$  are the distinct prime factors of the whole, where  $p = 3$  and  $q = 5$  and  $n$  is any positive integer..

$\frac{k}{15(n)}$	q note 5 <sup>th</sup> note	q <sup>2</sup> note 25 <sup>th</sup> -note	q <sup>3</sup> note etc.	q <sup>4</sup> note
p note 3 <sup>rd</sup> -note 	pq note 15 <sup>th</sup> -note 	pq <sup>2</sup> note etc. 	pq <sup>3</sup> note 	pq <sup>4</sup> note 
p <sup>2</sup> note 9 <sup>th</sup> -note 	p <sup>2</sup> q note etc. 	p <sup>2</sup> q <sup>2</sup> note etc. 	p <sup>2</sup> q <sup>3</sup> note 	p <sup>2</sup> q <sup>4</sup> note 
p <sup>3</sup> note 27 <sup>th</sup> -note 	p <sup>3</sup> q note 	p <sup>3</sup> q <sup>2</sup> note 	p <sup>3</sup> q <sup>3</sup> note 	p <sup>3</sup> q <sup>4</sup> note 
p <sup>4</sup> note etc. 	p <sup>4</sup> q note 	p <sup>4</sup> q <sup>2</sup> note 	p <sup>4</sup> q <sup>3</sup> note 	p <sup>4</sup> q <sup>4</sup> note 

### Hexaplex Two-Dimensional Rhythmic Hierarchy:

Rhythmic hierarchy for signatures in the form of  $\frac{k}{pq}$ , where  $k$  is some integer partition of the whole-note, and  $p$  and  $q$  are the distinct prime factors of the whole, where  $p = 2$  and  $q = 3$  and  $n$  is any positive integer.

$\frac{k}{6(n)}$	q note 3 <sup>rd</sup> -note 	$q^2$ note 9 <sup>th</sup> -note 	$q^3$ note 27 <sup>th</sup> -note 	$q^4$ note etc. 
				
p note 2 <sup>nd</sup> -note 	pq note 6 <sup>th</sup> -note 	$pq^2$ note 18 <sup>th</sup> -note 	$pq^3$ note etc. 	$pq^4$ note etc. 
$p^2$ note 4 <sup>th</sup> -note 	$p^2q$ note 12 <sup>th</sup> -note 	$p^2q^2$ note 36 <sup>th</sup> -note 	$p^2q^3$ note etc. 	$p^2q^4$ note etc. 
$p^3$ note 8 <sup>th</sup> -note 	$p^3q$ note 24 <sup>th</sup> -note 	$p^3q^2$ note 	$p^3q^3$ note 	$p^3q^4$ note 
$p^4$ note 16 <sup>th</sup> -note 	$p^4q$ note etc. 	$p^4q^2$ note 	$p^4q^3$ note 	$p^4q^4$ note 

Congruent Rest Values to the Above Notes:

$\frac{k}{pq(n)}$	$q$	$q^2$	$q^3$	$q^4$
$\frac{k}{pq(n)}$				
$p$	$pq$ 	$pq^2$ 	$pq^3$ 	$pq^4$ 
$p^2$	$p^2q$ 	$p^2q^2$ 	$p^2q^3$ 	$p^2q^4$ 
$p^3$	$p^3q$ 	$p^3q^2$ 	$p^3q^3$ 	$p^3q^4$ 
$p^4$	$p^4q$ 	$p^4q^2$ 	$p^4q^3$ 	$p^4q^4$ 

# RAGE

$\text{o} = 18 \text{ bpm}$

$p = 2, q = 3$

$p = 3, q = 5$

Jordan Alexander Key  
March 2021

Violoncello

Piano

3

5

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2  
7

**ff** *v.*      **mp**

**ff** *v.*      **mp**

Musical score for orchestra, page 11, measures 9-11. The score consists of three staves. The top staff is in bass clef, 15/16 time, and features eighth-note patterns with fermatas and grace notes. The middle staff is in treble clef, 15/16 time, with dynamics *p*. The bottom staff is in bass clef, 15/16 time, with a key signature of one sharp. Measure 9 ends with a fermata over the first note of the next measure. Measure 10 continues the pattern. Measure 11 begins with a dynamic *pp* and concludes with a fermata over the first note of the next measure.

Musical score for strings and piano. The strings play a sustained note in measure 11, dynamic *mp*. In measure 12, the piano plays eighth-note chords in the bass and treble staves, while the strings play eighth-note patterns.

Musical score for piano, page 12. The score consists of three staves. The top staff is bass clef, three sharps, and a measure starting with a half note. The middle staff is treble clef, one sharp, and a measure starting with a quarter note. The bottom staff is bass clef, two sharps, and a measure starting with a dotted half note.

13

3

Musical score for measure 13. The score consists of three staves. The top staff is in bass clef, the middle staff in treble clef, and the bottom staff in bass clef. The key signature is one flat. The music includes eighth and sixteenth note patterns with various dynamics like forte, piano, and accents.

14

Musical score for measure 14. The score consists of three staves. The top staff is in bass clef, the middle staff in treble clef, and the bottom staff in bass clef. The key signature changes to one sharp. The music includes eighth and sixteenth note patterns with dynamics like forte, piano, and accents. There are also slurs and grace notes.

15

Musical score for measure 15. The score consists of three staves. The top staff is in bass clef, the middle staff in treble clef, and the bottom staff in bass clef. The key signature changes to one sharp. The music includes eighth and sixteenth note patterns with dynamics like forte, piano, and accents. There are also slurs and grace notes.

16

Musical score for measure 16. The score consists of three staves. The top staff is in bass clef, the middle staff in treble clef, and the bottom staff in bass clef. The key signature changes to one sharp. The music includes eighth and sixteenth note patterns with dynamics like forte, piano, and accents. There are also slurs and grace notes. Measure 16 concludes with a repeat sign and endings, labeled (8) and (10/15).

17

10  
15  
15

(8)

18

15  
15  
15

v.  
v.  
v.  
v.

(8)

19

15  
15  
15

20

10  
15  
15

mp  
p

22

Musical score for page 5, measures 22-23. The score consists of three staves. The top staff is bass clef, B-flat major (two sharps). The middle staff is treble clef, B-flat major (two sharps). The bottom staff is bass clef, B-flat major (two sharps). Measure 22 starts with a bass note followed by a series of eighth notes. Measure 23 begins with a bass note, followed by a series of eighth notes with various dynamics and articulations.

23

Musical score for page 5, measures 23-24. The score consists of three staves. The top staff is bass clef, B-flat major (two sharps). The middle staff is treble clef, B-flat major (two sharps). The bottom staff is bass clef, B-flat major (two sharps). Measure 23 continues with a series of eighth notes. Measure 24 begins with a bass note, followed by a series of eighth notes.

24

Musical score for page 5, measure 24. The score consists of three staves. The top staff is bass clef, B-flat major (two sharps). The middle staff is treble clef, B-flat major (two sharps). The bottom staff is bass clef, B-flat major (two sharps). The measure begins with a bass note, followed by a series of eighth notes.

6

25

**p**

26

**8vb**

27

**10/15**

**(8)**

28

210  
315

(8)

29

3  
15

(8)

30

2 15  
3 15

(8)

8

31

$\leftarrow \downarrow = \rightarrow$   
p = 3

p = 3

33 p = 3, q = 5

p = 3, q = 5

(8)

35 p = 3

p = 3, q = 5

p = 3, q = 5

(8)

38

Musical score for page 9, system 38. The score consists of three staves. The top staff is in common time (indicated by '10') and has a key signature of one sharp (F#). The middle staff is in common time (indicated by '10') and has a key signature of one sharp (F#). The bottom staff is in common time (indicated by '10') and has a key signature of one sharp (F#). All staves feature eighth-note patterns.

39

Musical score for page 9, system 39. The score consists of three staves. The top staff is in common time (indicated by '10') and has a key signature of one sharp (F#). The middle staff is in common time (indicated by '10') and has a key signature of one sharp (F#). The bottom staff is in common time (indicated by '10') and has a key signature of one sharp (F#). All staves feature eighth-note patterns.

40

Musical score for page 9, system 40. The score consists of three staves. The top staff is in common time (indicated by '10') and has a key signature of one sharp (F#). The middle staff is in common time (indicated by '10') and has a key signature of one sharp (F#). The bottom staff is in common time (indicated by '10') and has a key signature of one sharp (F#). All staves feature eighth-note patterns. A dynamic marking 'f' is present on the middle staff.

41

Musical score for page 9, system 41. The score consists of three staves. The top staff is in common time (indicated by '10') and has a key signature of one sharp (F#). The middle staff is in common time (indicated by '10') and has a key signature of one sharp (F#). The bottom staff is in common time (indicated by '10') and has a key signature of one sharp (F#). All staves feature eighth-note patterns. A dynamic marking 'ff' is present on the bottom staff.

10

marcato

42

*mp*

43

**f**

**mf**

44

**Bassoon Part (Top Staff):**

- Measure 1: Bass clef, 2 measures. Dynamics: **f**. Measure 2: Bass clef, 2 measures. Dynamics: **f**.
- Measure 3: Bass clef, 2 measures. Dynamics: **f**. Measure 4: Bass clef, 2 measures. Dynamics: **f**.
- Measure 5: Bass clef, 2 measures. Dynamics: **f**. Measure 6: Bass clef, 2 measures. Dynamics: **f**.
- Measure 7: Bass clef, 2 measures. Dynamics: **f**. Measure 8: Bass clef, 2 measures. Dynamics: **f**.
- Measure 9: Bass clef, 2 measures. Dynamics: **f**. Measure 10: Bass clef, 2 measures. Dynamics: **f**.

**Bassoon Part (Bottom Staff):**

- Measure 1: Bass clef, 2 measures. Dynamics: **f**. Measure 2: Bass clef, 2 measures. Dynamics: **f**.
- Measure 3: Bass clef, 2 measures. Dynamics: **f**. Measure 4: Bass clef, 2 measures. Dynamics: **f**.
- Measure 5: Bass clef, 2 measures. Dynamics: **f**. Measure 6: Bass clef, 2 measures. Dynamics: **f**.
- Measure 7: Bass clef, 2 measures. Dynamics: **f**. Measure 8: Bass clef, 2 measures. Dynamics: **f**.
- Measure 9: Bass clef, 2 measures. Dynamics: **f**. Measure 10: Bass clef, 2 measures. Dynamics: **f**.

$$46 \quad p = 3, q = 5$$

11

10

**(8)**

15

*f*

$$48 \quad p = 3, q = 5$$

$$\leftarrow \text{ } \begin{array}{c} \text{ } \\ \text{ } \end{array} = \text{ } \begin{array}{c} \text{ } \\ \text{ } \end{array} \rightarrow$$

$p = 3$

Musical score for orchestra and piano, page 10, measures 1-8. The score consists of two systems. The top system shows the piano part in treble clef with a dynamic of  $p$ , followed by measures 1-8 of the orchestra in bass clef. The bottom system shows the piano part in treble clef, starting at measure 8. The score includes various dynamics like  $f$  and  $v.$ , and time signatures like  $\frac{10}{15}$  and  $\frac{3}{4}$ .

50

(8)

53 p = 3, q = 5

*mp* ff p

*mp* ff p

(8) fff

55  $p = 3$  ← ↘ = ↗ →  $p = 3, q = 5$   $\text{v.} \quad \text{v.}$

$\text{v.} \quad \text{v.}$

$mp \quad ff \quad p$

$ff \quad p$

$fff$

$8\text{vb}$

$\leftarrow \text{ } \text{ } \text{ } \text{ } = \text{ } \text{ } \text{ } \text{ } \rightarrow$       p = 3, q = 5      13

Musical score for measures 58 to 60. The score consists of three staves. The top staff is in bass clef, 9/4 time, with a tempo of p = 3, q = 5. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note. Measure 58 ends with a dynamic of *mf*. Measure 59 begins with a measure repeat sign. Measures 59 and 60 are in 5/4 time, with a tempo of p = 3, q = 5. Measure 60 ends with a dynamic of *f*. The middle staff is in treble clef, 5/4 time, with a tempo of p = 3, q = 5. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note. Measure 59 ends with a dynamic of *mf*. Measure 60 begins with a measure repeat sign. The bottom staff is in bass clef, 4/4 time, with a tempo of p = 3, q = 5. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note. Measure 59 ends with a dynamic of *ff*. Measure 60 begins with a measure repeat sign.

Musical score for measure 61. The score consists of three staves. The top staff is in bass clef, 9/4 time, with a tempo of p = 3. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note. Measure 61 ends with a dynamic of *p*. The middle staff is in treble clef, 5/4 time, with a tempo of p = 3. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note. The bottom staff is in bass clef, 4/4 time, with a tempo of p = 3. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note.

Musical score for measures 62 and 63. The score consists of three staves. The top staff is in bass clef, 5/4 time, with a tempo of p = 3, q = 5. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note. Measure 63 ends with a dynamic of *mp*. The middle staff is in treble clef, 5/4 time, with a tempo of p = 3, q = 5. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note. The bottom staff is in bass clef, 5/4 time, with a tempo of p = 3, q = 5. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note.

Musical score for measures 64 and 65. The score consists of three staves. The top staff is in bass clef, 5/4 time, with a tempo of p = 3, q = 5. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note. Measure 64 ends with a dynamic of *mf*. The middle staff is in treble clef, 5/4 time, with a tempo of p = 3, q = 5. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note. The bottom staff is in bass clef, 5/4 time, with a tempo of p = 3, q = 5. It features a grace note pattern: a grace note followed by a quarter note, with a fermata over the quarter note.

14

65

**Bass Staff:** C-clef, 19/45 time, dynamic f, ff, v.v., measure 65 ends with a fermata.

**Treble Staff:** G-clef, 19/45 time, dynamic f, ff, v.v.

**Bass Staff:** C-clef, 19/45 time, dynamic v.v., ff, v.v., measure 65 ends with a fermata.

68 p = 2, q = 3

p = 3, q = 5

**Bass Staff:** C-clef, 4/6 time, dynamic ff, mf, p, ff, v.v.

**Treble Staff:** G-clef, 4/6 time, dynamic f, mf, p, ff, v.v.

**Bass Staff:** C-clef, 4/6 time, dynamic f, ff, v.v.

70

**Bass Staff:** C-clef, 27/45 time, dynamic ff, p, f, ff, v.v.

**Treble Staff:** G-clef, 27/45 time, dynamic p, f, ff, v.v.

**Bass Staff:** C-clef, 27/45 time, dynamic ff, v.v.

72

15

$\begin{matrix} \leftarrow & \rightarrow \end{matrix}$

$p = 3$

$\begin{matrix} 5 \\ 9 \end{matrix}$

$mf$

$ff$

$p$

$\begin{matrix} 8va \\ \swarrow \searrow \end{matrix}$

$\begin{matrix} 5 \\ 9 \end{matrix}$

$ff$

$\begin{matrix} 5 \\ 9 \end{matrix}$

$\begin{matrix} 12 \\ 27 \end{matrix}$

$\begin{matrix} 12 \\ 27 \end{matrix}$

$\begin{matrix} 12 \\ 27 \end{matrix}$

74

$p = 3, q = 5$

**(8)**

*f*

16       p = 3      p = 3, q = 5

**78** **10** **15** **10** **27**

**10** **15** **10** **27**

(8)

**10** **15** **10** **27**

**10** **27**

80      p = 3      p = 2, q = 3

**10** **15** **10** **27**

**4** **6** **4** **2**

(8) **10** **15** **10** **27**

1 **4** **6** **4** **2**

*loco*

**10** **15** **10** **27**

82 (p = 2, q = 3)

**2** **7** **2** **7** **2** **7** **2** **7**

**12** **12** **12** **12** **12** **12** **12** **12**

**f** **p** **f** **p**

**mp**

85

*f*

*f*

*9/24*

*17/24*

*mp*

*f*

*9/24*

*17/24*

*p*

88

*mp*

*f*

*mf*

*f*

*8/12*

*12/16*

*mp*

*mf*

*f*

*8/12*

*12/16*

$\leftarrow \text{---} \right. = \text{---} \left. \rightarrow$   
 $p = 2$

90

*f*

*ff*

*f*

18

92

$p = 2, q = 3$

5 12 17 48  
f  
5 12 17 48  
f  
5 12 17 48

95

17 24 48 12 23 36  
17 24 48 12 23 36  
17 24 48 12 23 36

99

gliss.  
36 23 5  
36 23 5  
36 23 5

$mp$   
 $f$   
 $ff$   
 $ff$

101

Musical score for page 101, measures 1-10. The score consists of two systems. The top system has a treble clef, a key signature of one sharp, and a time signature of 5/6. It features a bassoon part with eighth-note patterns and a piano part with sustained notes and dynamic markings like forte (f) and piano (p). The bottom system has a bass clef, a key signature of one sharp, and a time signature of 5/6. It includes a bassoon part with rests and a piano part with sustained notes. A pedal marking (Ped.) with a sharp symbol is shown at the beginning of the bassoon part.

103

103

Ped.

105

Musical score for piano, page 5, measures 105-106. The score consists of two staves. The top staff uses a bass clef and has a tempo marking of 105. The bottom staff uses a treble clef. Measure 105 ends with a repeat sign and a key signature change. Measure 106 begins with a forte dynamic (f) and continues with eighth-note patterns and various rests.

107

109

111

*mf*

*f*

\* Ped.

Ped.

113

Musical score for piano, three staves, 5/12 time signature. The score consists of three staves, each with a different key signature and time signature. The top staff has a bass clef, a 5/12 time signature, and a key signature of one sharp. The middle staff has a treble clef, a 5/12 time signature, and a key signature of one sharp. The bottom staff has a treble clef, a 5/12 time signature, and a key signature of one sharp. The music features various note heads, stems, and rests, with some notes having vertical lines above them. The first measure starts with a forte dynamic (f) and a sharp sign.

116

120

Musical score for bassoon part 1, page 10, measures 120-121. The score is in common time (indicated by 'V.'), with a tempo of 120 BPM. The key signature changes from B-flat major (two flats) to A major (no sharps or flats). Measure 120 starts with a sixteenth-note rest followed by a sixteenth-note B-flat. Measure 121 begins with a sixteenth-note rest followed by a sixteenth-note C-sharp. The bassoon part consists of eighth-note patterns primarily in B-flat major, with occasional notes in A major. Measure 121 concludes with a sixteenth-note rest followed by a sixteenth-note C-sharp.

123

124

$\leftarrow \begin{array}{c} \text{---} \\ \text{---} \end{array} \right. = \text{---}$   
p = 2

125

127

**p**

129

**p** ————— **f** ————— **ff**

132

**p** ————— **ff**

**mp**

**mf** ————— **f** ————— **fff**

$\leftarrow \text{♪} = \text{♪} \rightarrow$   
24 p = 2  
135

Musical score for measures 135-136. The top staff shows a bass clef, common time, 16th-note patterns, dynamic *f*, and dynamic *p*. The bottom staff shows a treble clef, 16th-note patterns, dynamics *mf*, *mp*, *p*, and *pp*.

Musical score for measures 136-137. The top staff shows a treble clef, 16th-note patterns, dynamics *mf*, *mp*, *p*, and *pp*. The bottom staff shows a bass clef, 16th-note patterns, and dynamic *mf*.

$\leftarrow \text{♪} = \text{♪} \rightarrow$   
p = 2, q = 3

138

Musical score for measure 138. The top staff shows a bass clef, dynamic *p*, and a fermata. The bottom staff shows a treble clef, 16th-note patterns, and dynamic *f*.

Musical score for measures 138-139. The top staff shows a treble clef, 16th-note patterns, dynamics *mp* and *mf*, and a 12/16 time signature. The bottom staff shows a bass clef, 16th-note patterns, dynamics *f* and *ff*, and a 12/16 time signature.

$\leftarrow \text{♪} = \text{♪} \rightarrow$   
p = 2  
arco ord.

Musical score for measure 141. The top staff shows a bass clef, 16th-note patterns, and dynamic *f*. The bottom staff shows a treble clef, 16th-note patterns, and dynamic *ff*.

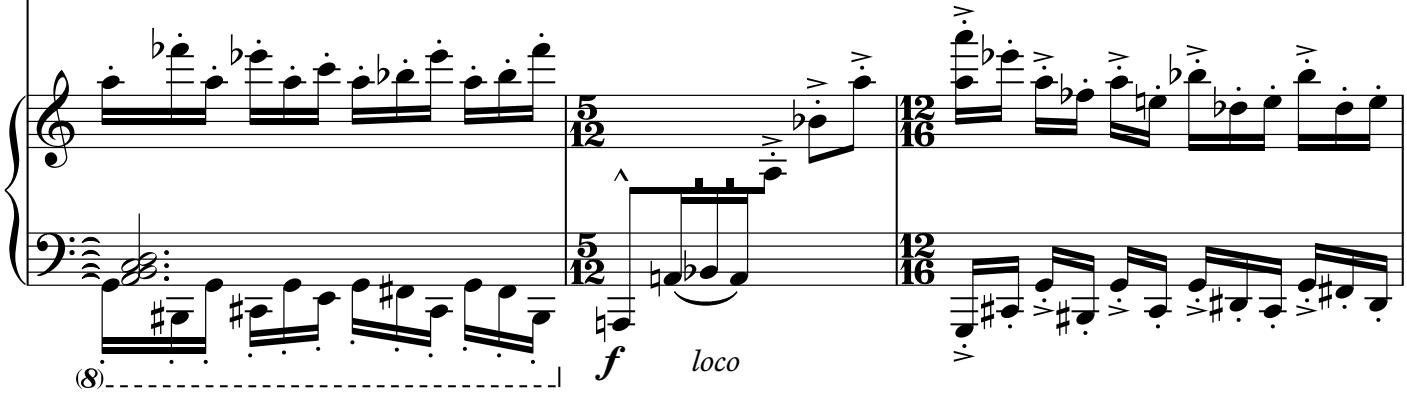
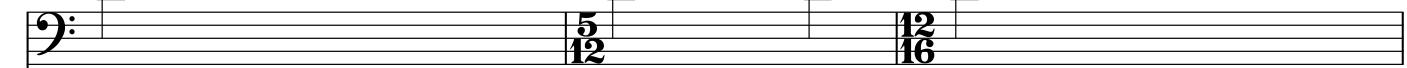
*f* molto espress.

Musical score for measure 141. The top staff shows a treble clef, 16th-note patterns, and dynamic *ff*. The bottom staff shows a bass clef, 16th-note patterns, and dynamic *(8)*.

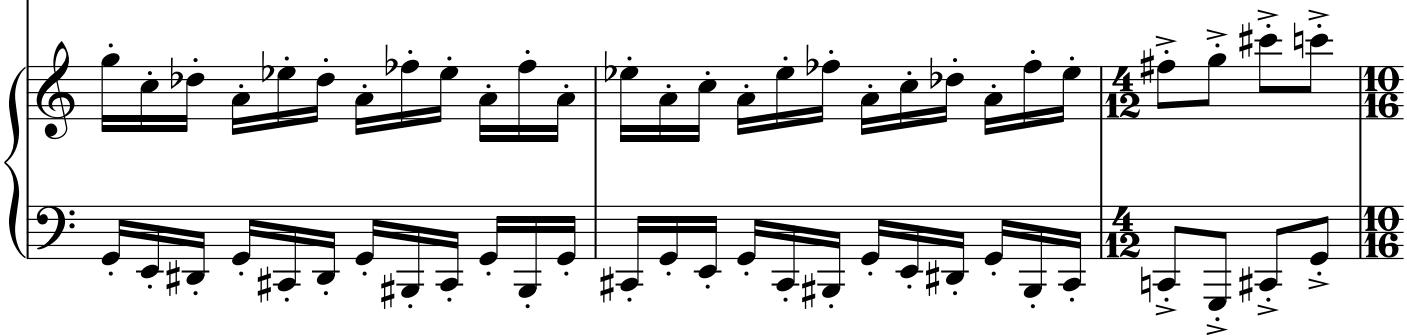
143

 $\leftarrow \text{p} = 2, q = 3 \rightarrow$   
**b>**
 $\leftarrow \text{p} = 2 \rightarrow$   
**v.**

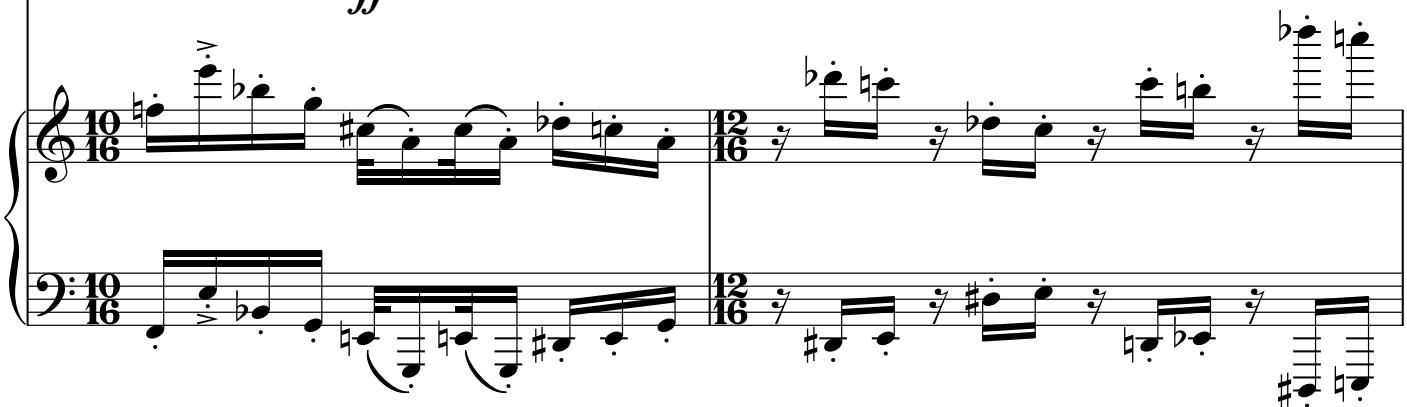
25



146

 $\leftarrow \text{p} = 2, q = 3 \rightarrow$ 


149

 $\leftarrow \text{p} = 2 \rightarrow$   
**b>**
**ff**

151

*Ped.*

153

156

*mp*

159

159

**f**

161

**ff**

**mp**

**mf**

163

**ff**

**f**

**ff**

165

167

*8va*

*loco*

*mf*

*mp*

$p = 2, q = 3$

$p = 2$

170

$f$



Musical score for piano, showing measures 180-182. The score consists of two staves. The top staff uses a bass clef and a common time signature, with a dynamic of ***ff***. The bottom staff uses a treble clef and a common time signature. Measure 180 starts with a grace note followed by a eighth note. Measures 181 and 182 show various chords and rhythmic patterns.

185

187

190

$\leftarrow \text{ } \text{ } \text{ } \text{ } \text{ } \text{ } \rightarrow$   
 $p = 2, q = 3$

192

*f*

193

*f*

**ff**

**12**  
**16**

**12**  
**16**

←  $\begin{smallmatrix} \text{♪} \\ \text{—} \end{smallmatrix}$  =  $\begin{smallmatrix} \text{—} \\ \text{♪} \end{smallmatrix}$  →  
p = 2

194

**fff**

**5**  
**12**

**5**  
**12**

$\text{p} = 2, \text{q} = 3$   
 $\text{p} = 3, \text{q} = 5$   
 196      33

198

199

Musical score for three staves, measures 1-12. The score consists of three staves: Bassoon (Bass clef), Trombone (Treble clef), and Bassoon (Bass clef). The key signature changes from B-flat major (two flats) to A major (no sharps or flats) at measure 12. The time signature changes from 15/16 to 12/8 at measure 12. Measure 1: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 2: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 3: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 4: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 5: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 6: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 7: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 8: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 9: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 10: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 11: Bassoon: V. V. V. V. Trombone: V. V. V. V. Measure 12: Bassoon: V. V. V. V. Trombone: V. V. V. V.

201 p = 2, q = 3

Musical score for orchestra, page 101, measures 1-2. The score consists of three staves. The top staff is for the Bassoon, the middle staff for the Trombones, and the bottom staff for the Double Bass. The key signature changes from B-flat major (two flats) to A major (no sharps or flats). The time signature changes from 7/12 to 2/6. Dynamics include *ff*, *fff*, and *ffff*. Articulations include *v.* (vibrato) and slurs.