LACY, ERIC B., M.M. Bipolarity (2012)
Directed by Dr. Alejandro Rutty 77 pp.

The purpose of this work is to explore the possibilities of unconventional contrapuntal techniques in music. *Bipolarity* is a composition consisting of two complete, self-contained works that were also designed to be performed simultaneously. The fact that these individual pieces are performed at the same time does not necessarily indicate that they will function in dissonance. There are many moments of both consonance and dissonance with respect to harmony, rhythm, and motive within this work. The purpose of *Bipolarity* is to demonstrate that the two pieces can function conjointly while retaining their own identity.

BIPOLARITY

by

Eric B. Lacy

A Thesis Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Master of Music

Greensboro
2012

Approved by

_____
Committee Chair

APPROVAL PAGE

This thesis has been approved by the following committee of the Faculty Graduate School at The University of North Carolina at Greensboro.

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Committee Members _____

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Date of Final Oral Examination

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CHAPTER I

INTRODUCTION

Bipolarity is a work composed for two ensembles. Each ensemble is given a complete piece of music that can be performed independently of the other ensemble. These pieces, however, are also designed to be performed simultaneously. The first ensemble consists of four string players, and the second ensemble consists of three flutists. I chose these ensembles for their ability to blend within their individual group as well as their easily identifiable timbral characteristics. I also gave consideration to dynamic blending and making sure that one ensemble would not overpower the other ensemble.

In terms of live performance, the stage should be set up so that the listener is able to have a visual representation of what is intended to be heard musically. There should always be a self-contained and complete musical idea within each ensemble as well as occasional moments of separation of musical ideas between ensembles. As a result, *Bipolarity* has a specific stage design. Figure 1 shows the performance stage should have the flute trio set up in front of the string quartet and slightly on the right side from the performer's perspective.

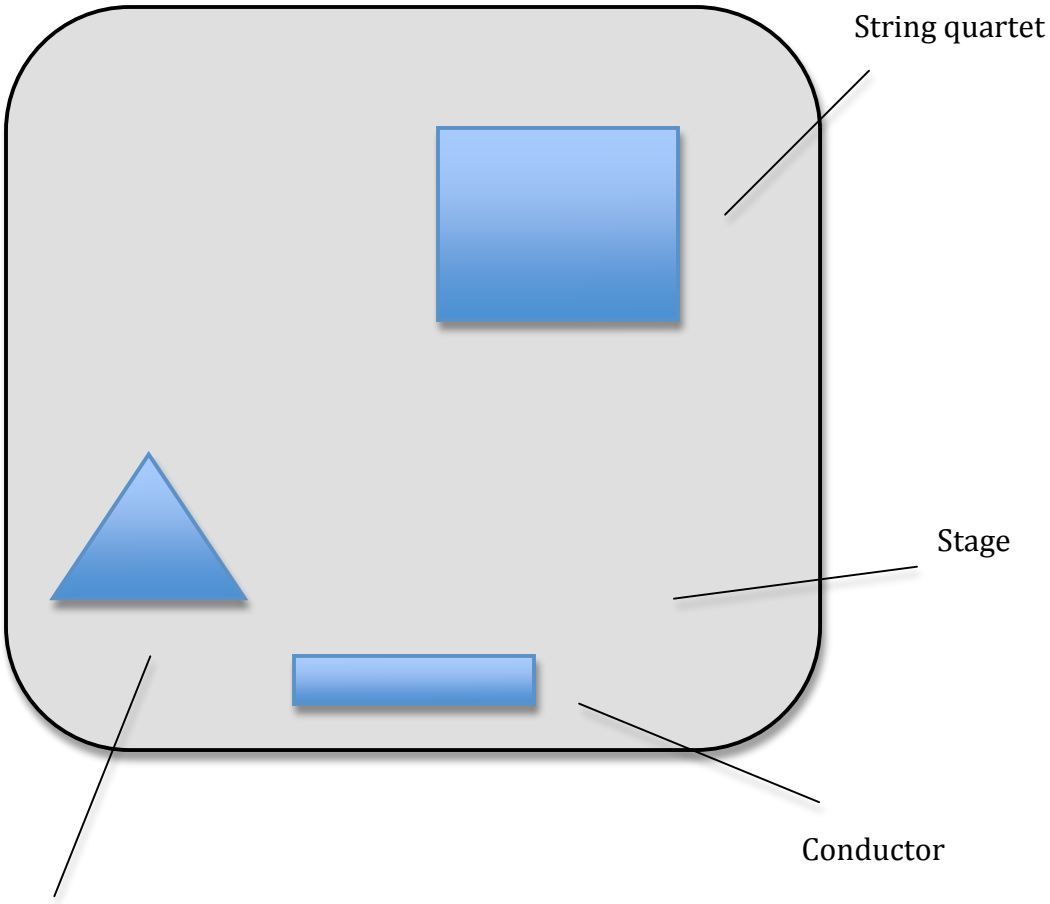

Figure 1. Stage arrangement for live performance.

CHAPTER II

PRECEDING WORKS

In 1971 Elliott Carter tested the limits of human perception in music with his *String Quartet No. 3*. In his quartet, he proposed to divide the ensemble into two Duos. Duo I consisted of Violin I and Violoncello, while Duo II consisted of Violin II and Viola. The two duos essentially perform separate pieces of music, each with their own tempo, rhythms, and thematic material. The object of the piece was to establish two distinct groups playing different pieces at the same time with varying degrees of dissonance throughout.

John Cage also experimented with combining two or more of his pieces to produce rather unique sonorities and timbres. In 1958, he created and designed his *Aria* to be performed either as a solo piece or in conjunction with *Fontana Mix.*[1] In January 1962, Cage composed *Atlas Eclipticalis* for the Montreal Festival Society. He designed this piece to be performed as a stand-alone piece as well as simultaneously with *Winter Mix* or *Song Books*.[2] As recently as 1991, Cage composed *One*[8]

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[1] Andre Chaudron "John Cage Database." http://www.johncage.info/workscage/aria.html (accessed March 24, 2012).
[2] Andre Chaudron "John Cage Database." http://www.johncage.info/workscage/atlaseclipticalis.html (accessed March 24, 2012).

specifically for Michael Bach. On the title page, John Cage left these instructions: "…violoncello solo to be played with or without *108* (for orchestra)".[3]

Finally, Charles Ives composed several works between 1904 -1920 in which he combined a plurality of independent melodic ideas. During this period, Ives composed *William Booth Enters Into Heaven*, *Three Places in New England*, *Holiday Symphony,* and *Symphony No. 4* about which he stated,

> As the eye, in looking at the a view, may focus on the sky, clouds or distant outlines, yet sense the color and form of the foreground, and then by bringing the eye to the foreground, sense the distant outline and color, so in some similar way can the listener choose to arrange in his mind the relation of the rhythmic and harmonic and other material. In other words, in music the ear may play a role similar to the eye in the above instance.[4]

In Ives's Fourth Symphony, he combines several melodies in a polyphonic texture during his second movement. He creates a rich polyphonic and polyrhythmic texture within a hierarchical framework. In his established hierarchy, his intention is for the listener to become active in his own enjoyment of the performance. Not all of his parallel "planes" of melody are of equal importance.[5]

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[3] James Pritchett "John Cage One[8]." (2004) http://www.rosewhitemusic.com/cage/texts/one8.html (accessed March 29, 2012).
[4] Robert P. Morgan, *Twentieth-Century Music* (W.W. Norton and Company, NY, 1991), 148.
[5] Gordon Cyr, "Intervallic Structural Elements of Ives's Fourth Symphony," *Perspectives of New Music* 9/10, no. 2/1 (200): 8, 9.

In my piece, which I have entitled *Bipolarity*, I have taken the ideas and procedures of Carter, Cage, and Ives in a different direction. While it is only a possibility that Ives was influenced by listening to several pieces of music being performed simultaneously as a child, the idea of Bipolarity occurred to me in that very fashion. With *Bipolarity*, I have composed two distinct pieces of music to be performed simultaneously, but contrary to the aforementioned works of Carter, Cage, and Ives, there is much more consonance than dissonance within the piece. While Carter composed his *String Quartet No. 3* for one ensemble, I have designed the music of *Bipolarity* for two ensembles so that they are as distinct as possible while remaining cohesive within the context of a single composed work.

The term *bipolarity* is defined as something having two opposite or contradictory ideas or natures. In this particular work, I have designed the instrumentation for each ensemble, as well as the music composed for them in such a way that they retain their independence through polarity. In effect, while one ensemble may be driven by heavy rhythms, the other ensemble is instructed to be playing more legato. While one ensemble may be primarily functioning in a certain register, the other ensemble is primarily functioning in a different register. The fact that the two ensembles are designed to function together does not imply that they necessarily complement each other at all times. As in Ives's second movement of his Fourth Symphony, there exists a plane of hierarchy in *Bipolarity*. Each ensemble at varying times of performance has noticeable elements of foreground and

background material in different degrees of consonance and dissonance. In any piece of music constructed in this fashion, there is to be expected a certain amount of dissonance between the two ensembles. The first ensemble I have labeled *Unit I* and the second ensemble, I have labeled *Unit II*.

CHAPTER III

OVERVIEW

The entire work is divided into three movements. In order to maintain each Unit's identity and a certain amount of separation between the ensembles, I've concluded that both units need to start at different points in time. This gives the listener a chance to become accustomed to the characteristics of the first ensemble. Therefore, Unit I initiates each movement with Unit II entering at a predetermined point later. As a general rule, I have composed the music for each Unit differently in terms of rhythmic function. This keeps the piece in its entirety from being too complex for the objectives of this thesis to function as a cohesively discernible piece.

Both Units were composed using the same time signature, key signature, and tempos. Because both Units were initially composed as one score, using one conductor, I constructed elements within the score to convey the effect of individualized meter and tempo. Also, ignoring strict adherence to the bar line as well as appropriately placed accents help to allow flexibility with meter even though both Units were composed as one score.

CHAPTER IV

ANALYSIS

Movement I

In the first movement, Unit II is instructed to start seven measures after the start of Unit I. I have determined that this is enough time for the first movement to establish basic rhythmic patterns and tonal center. Table 1 shows each unit as they relate to each other throughout the first movement. After the first seven measures, Unit I has established enough tonal characteristics in its music as well as a distinct rhythmic pattern that pervades throughout the entire movement. At this point, it is appropriate for Unit II to enter. Unit II enters on a D♭ chord blending with the harmonic progression of performed by Unit I. The characters of the two pieces are completely different. The music of Unit I is driven by its rhythmic texture while the music of Unit two is driven by its contrapuntal melodic and thematic content. It is not until measure 13 that Unit II presents its only major rhythmic motive because it is at this point that the music of Unit I slows in terms of its rhythmic content. This allows the two Units to function in accord with one another while retaining their basic identity as separate Units. The slow melodic content assigned to Unit II contrasts the highly rhythmic activity given to Unit I which helps to propel the music of Unit II forward without confusing the rhythmic activity of two separate pieces of

music. There are several instances in this movement where the two Units are designed to work together cohesively. In measure 21 for example, the 32nd-note runs moving from the cellos upward to the violins is concluded with a similar motive with the first flute. Also, in the middle of measure 13, the rhythmic sequence in Unit II is designed to form a complex, yet cohesive rhythmic pattern with the music of Unit I leading to the shared run of 32nd-notes in measure 21. This is the only movement in which both Units end nearly simultaneously.

Table 1. Analysis of Movement I.

	Measures 1-6/15-21	Measures 7-14/22-36	Measures 37-49
UNIT II			
Register	REST	Mid-high	Mid-high
Rhythmic activity	REST	Long sustained tones	Long sustained tones
Texture	REST	One melody being passed from instrument to instrument	Contrapuntal/thematic
Harmony	REST	B major	A♭ major tonality
UNIT I			
Register	Low-mid	Low-mid	Low-mid
Rhythmic activity	Rhythmic	Running 16th notes	Rhythmic
Texture	Chordal	Fugal	Chordal
Harmony	A♭ major tonality	B major with pentatonic solos	A♭ major tonality

Movement II

In the second movement, the music for Unit I was composed in 3/4 meter. While the time signature indicates 3/4 for both units, the phrasing and general rhythmic structure of the music for Unit II is primarily in simple duple meter. This contrast created a great challenge in coordinating both Units. Certain adjustments had to be made in order to maintain the duple pulse of the second unit. The bar line had to be ignored to a certain degree and the main motive had to be syncopated so that there were regular occurring absences of the downbeat. In this way, the listener loses track of the first beat of each measure with the music of Unit II and hears the duple pulse as intended in this Unit. To make matters even more interesting, I created a series of notes in groups of nine for Unit II to contrast the run of straight 32nd notes of Unit I. As shown in Table 2, the initial measures in the music composed for Unit I are harmonically centered in the key of F major with one tonicization to B♭ major. The other distinction of the second movement is that the music performed by Unit I finishes eight measures before Unit II performs the closing material.

Table 2. Analysis of Movement II.

	Measures 1-10	Measures 11-16	Measures 16-49
UNIT II			
Meter	REST	4/4	4/4
Rhythmic activity	REST	Groups of nine notes	Groups of nine notes
Texture	REST	Groups of nines notes combined with sustained harmonies	Groups of nine notes combined with sustained harmonies
Harmony	F major	B♭ major	B♭ major
UNIT I			
Meter	3/4	3/4	3/4
Rhythmic activity	None	None	None
Texture	Contrapuntal	Contrapuntal	Chordal
Harmony	F major	B♭ major	B♭ major

Movement III

I composed a violin solo for Unit I to lead the third movement. Again, the entrance of the music for Unit II is delayed, but this time, it enters in measure four with a similar solo line with the alto flute. The different registers in which they are played as well as the slower tempo of the alto flute helps to create a separation between these two lines. As Table 3 shows, the music for Unit I is initially rooted in F major tonally, but abruptly modulates to A♭ major in measure 20. Unit I contains several minor third modulations in this movement. Because of the frequent harmonic shifts, the process of composing music for Unit II was a more complicated process. This complexity becomes even greater due to the length of phrasing of the motivic material of the second Unit. By extending the note values and lengthening the phrasing, the music assigned to Unit II has the illusion of being performed at a

much slower tempo. As a result, the music Unit II performs is an experiment in harmonic fluctuations of thematic material. The quarter note pulse goes through a much longer cycle between downbeats while following the harmonic changes in the music composed for Unit I. Therefore, the harmonic rhythm in the music for Unit II is irregular and at times the harmonic changes are unexpected. After the music performed by Unit II is completed, Unit I concludes their performance with a codetta.

Table 3. Analysis of Movement III.

	Measures 1-7	Measures 8-39	Measures 40-60
UNIT II			
Register	Lower register	Mid-high	Mid-high
Rhythmic activity	None	Solo melodic lines shared by all voices	Solo melodic lines shared by all voices
Texture	Solo legato	Trill texture	Trill texture
Harmony	F major with minor 3rd modulation in m. 5	F major tonality with abrupt modulation to A♭ in m. 20	A♭ major
UNIT I			
Register	Upper register	Middle	Middle
Rhythmic activity	None	Occasional 16th note staccatos	Occasional 16th note staccatos
Texture	Solo legato	Imitative counterpoint	Imitative counterpoint
Harmony	F major with minor 3rd modulation in m. 5	F major tonality with abrupt modulation to A♭ major in m. 20	A♭ major

In conclusion, *Bipolarity* has been primarily an experiment in advanced contrapuntal techniques as well as an exploration of the sonic possibilities when appending two separate works with two separate ensembles. This three-movement work was constructed in such a way as to explore these techniques and possibilities without sacrificing the musicality that I intended to exhibit throughout this piece. My hope is that this *Bipolarity* will be enjoyable for the performer and appealing to the active listener.

CHAPTER V

BIPOLARITY: FULL SCORE

For flute trio and string quartet

Instrumentation

For two ensembles or "units" to be performed simultaneously:

Unit II

Flute 1

Flute 2

Alto Flute

Unit I

Violin I

Violin II

Viola

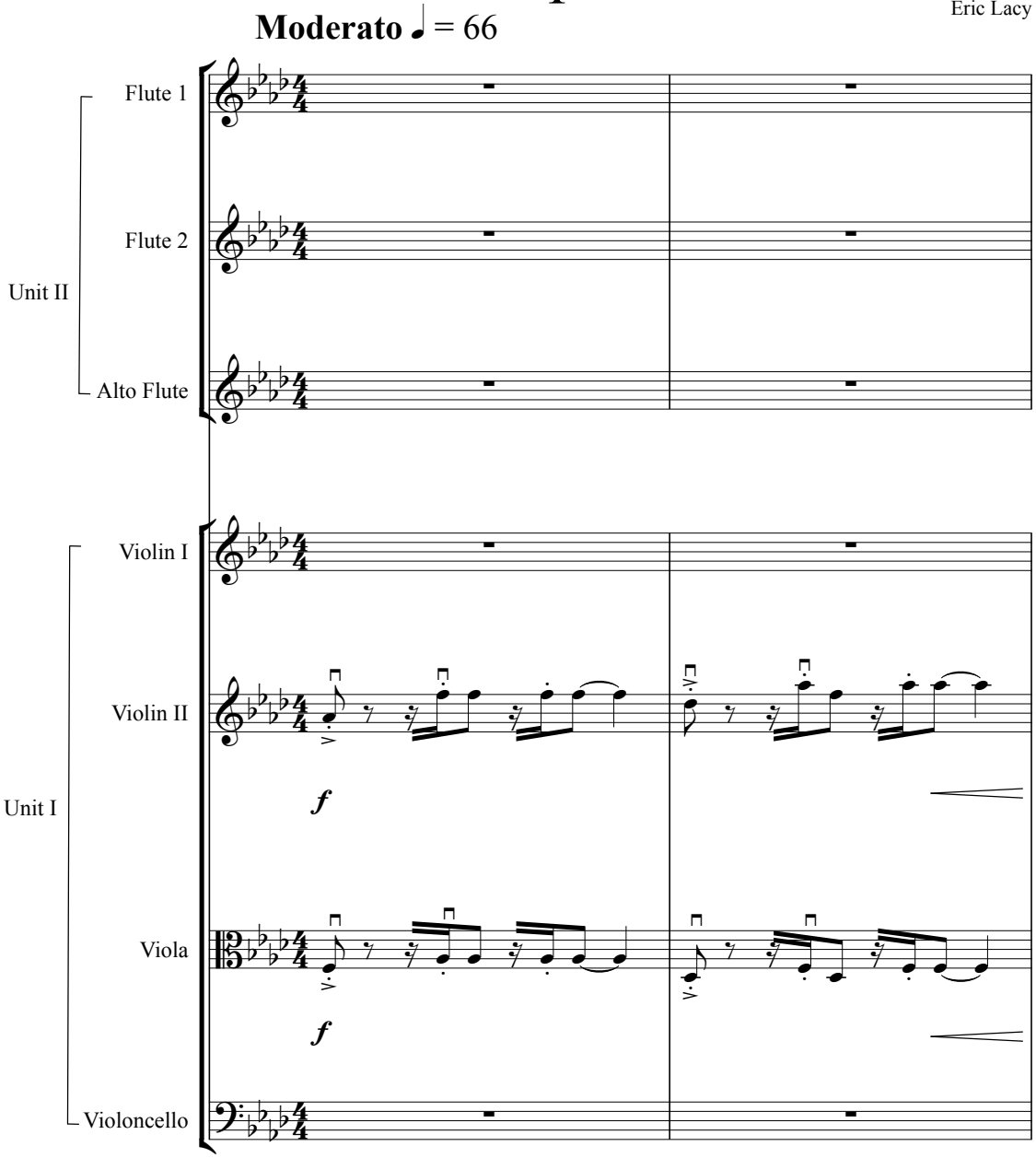
Violoncello

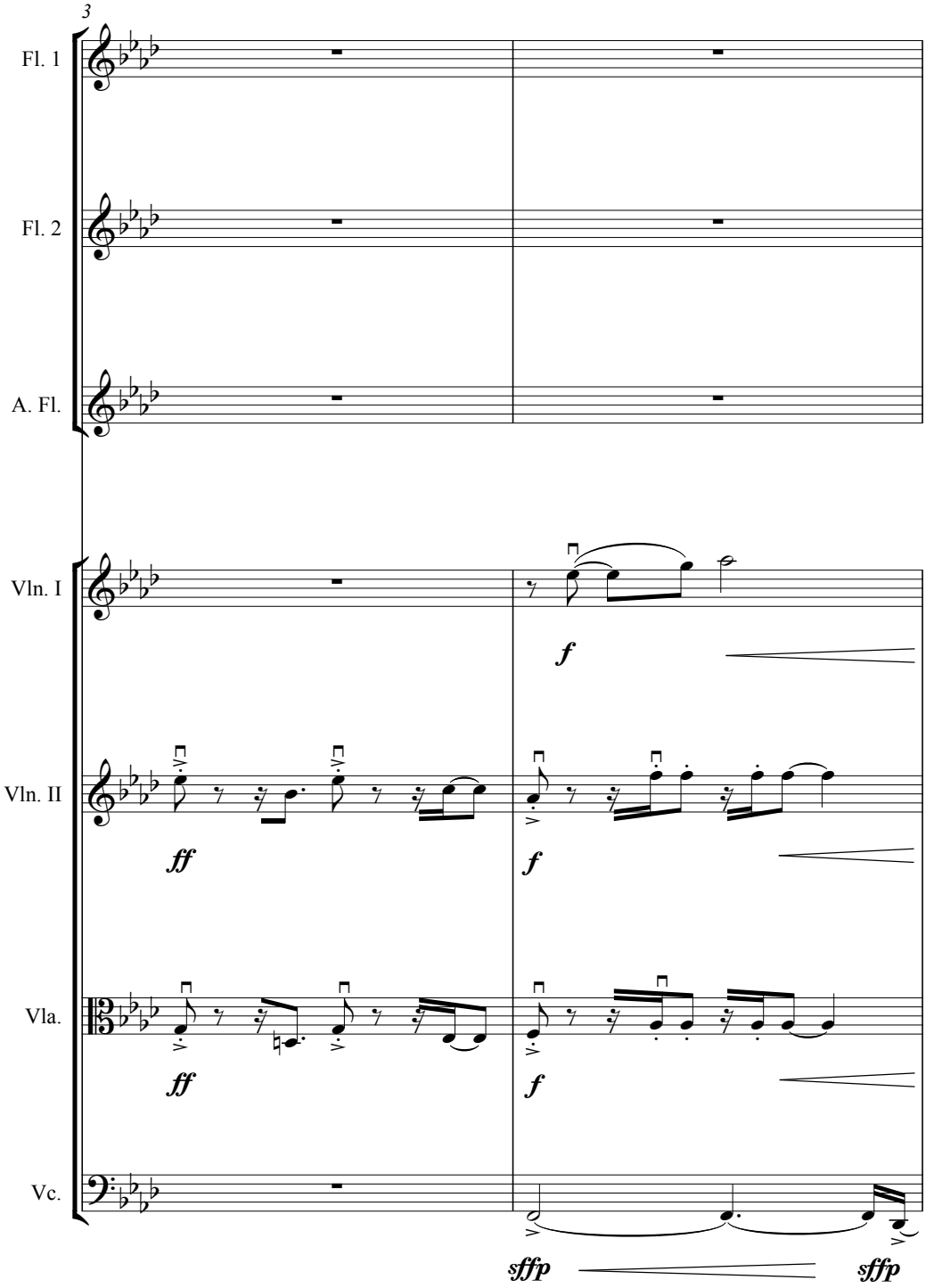
Duration: Approximately 10 Minutes

Bipolarity

I

Eric Lacy

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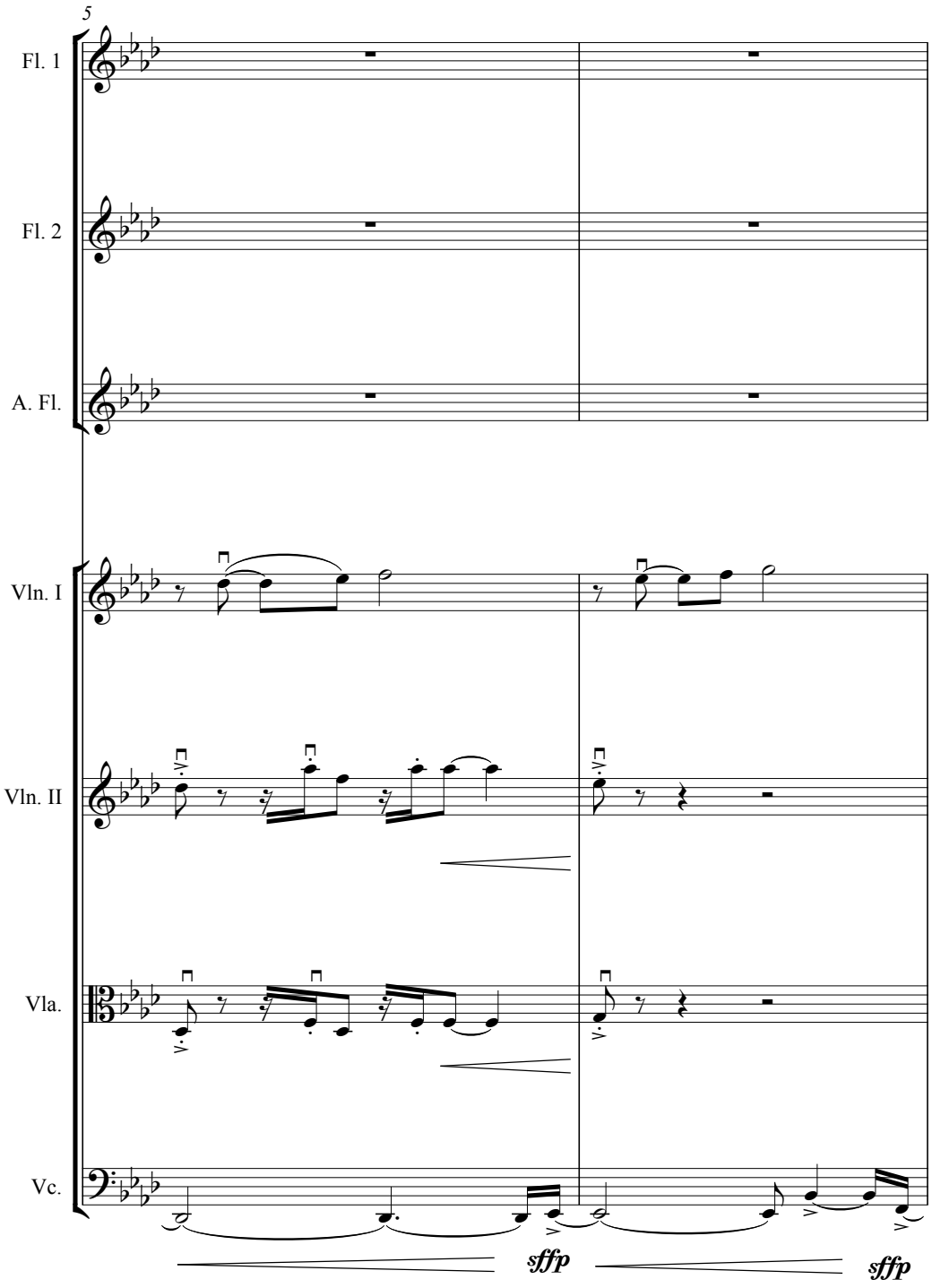
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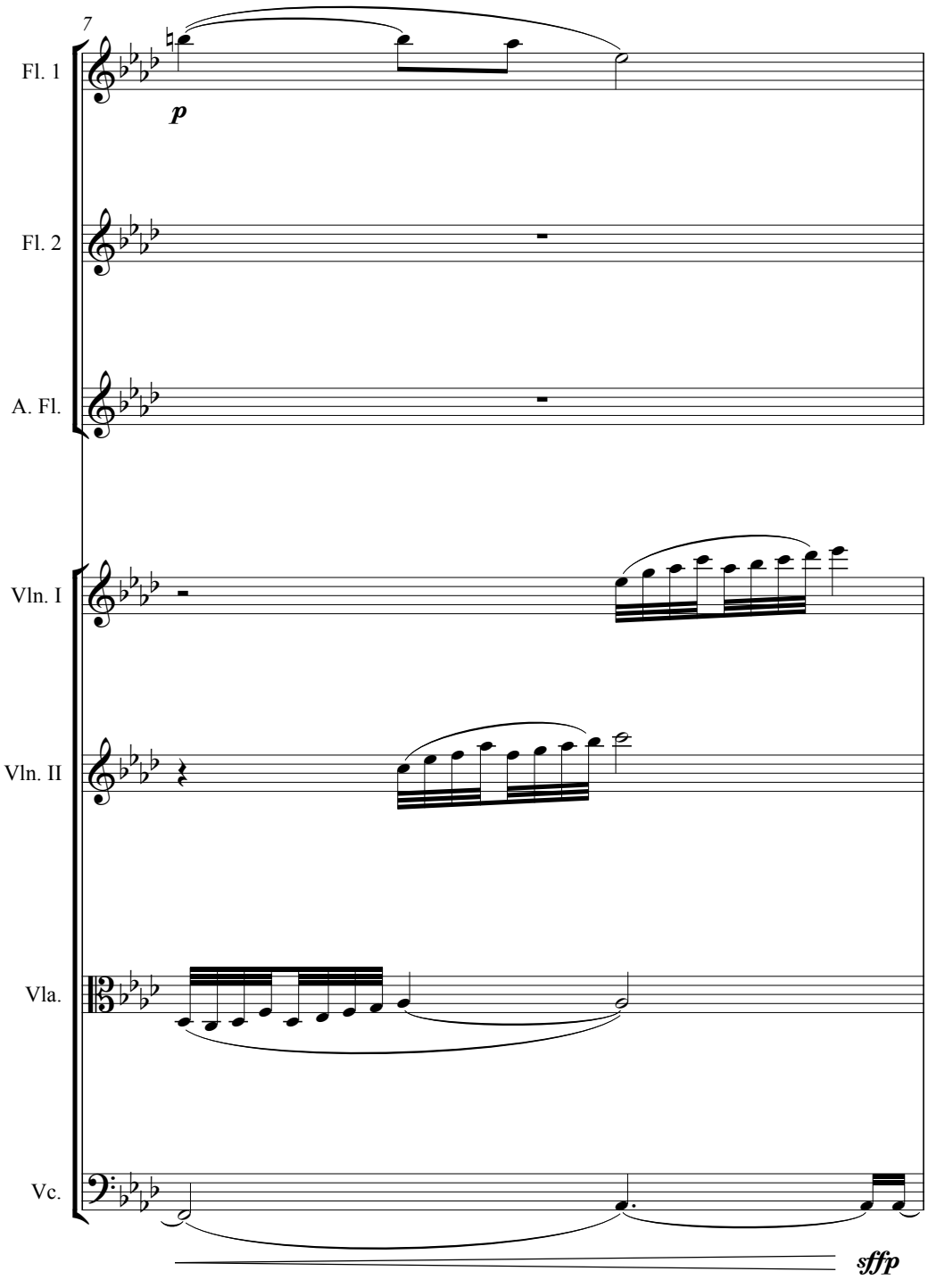
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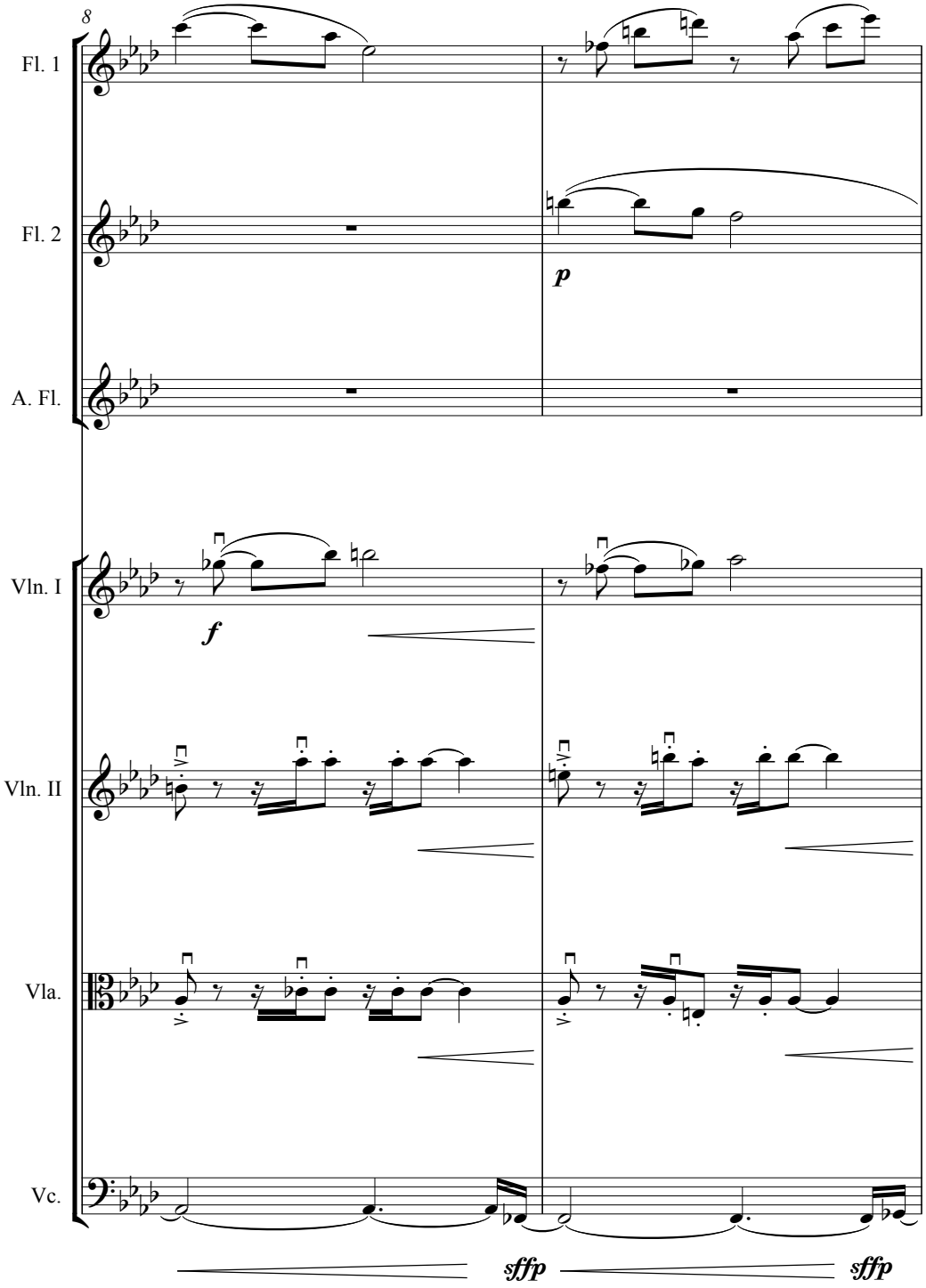
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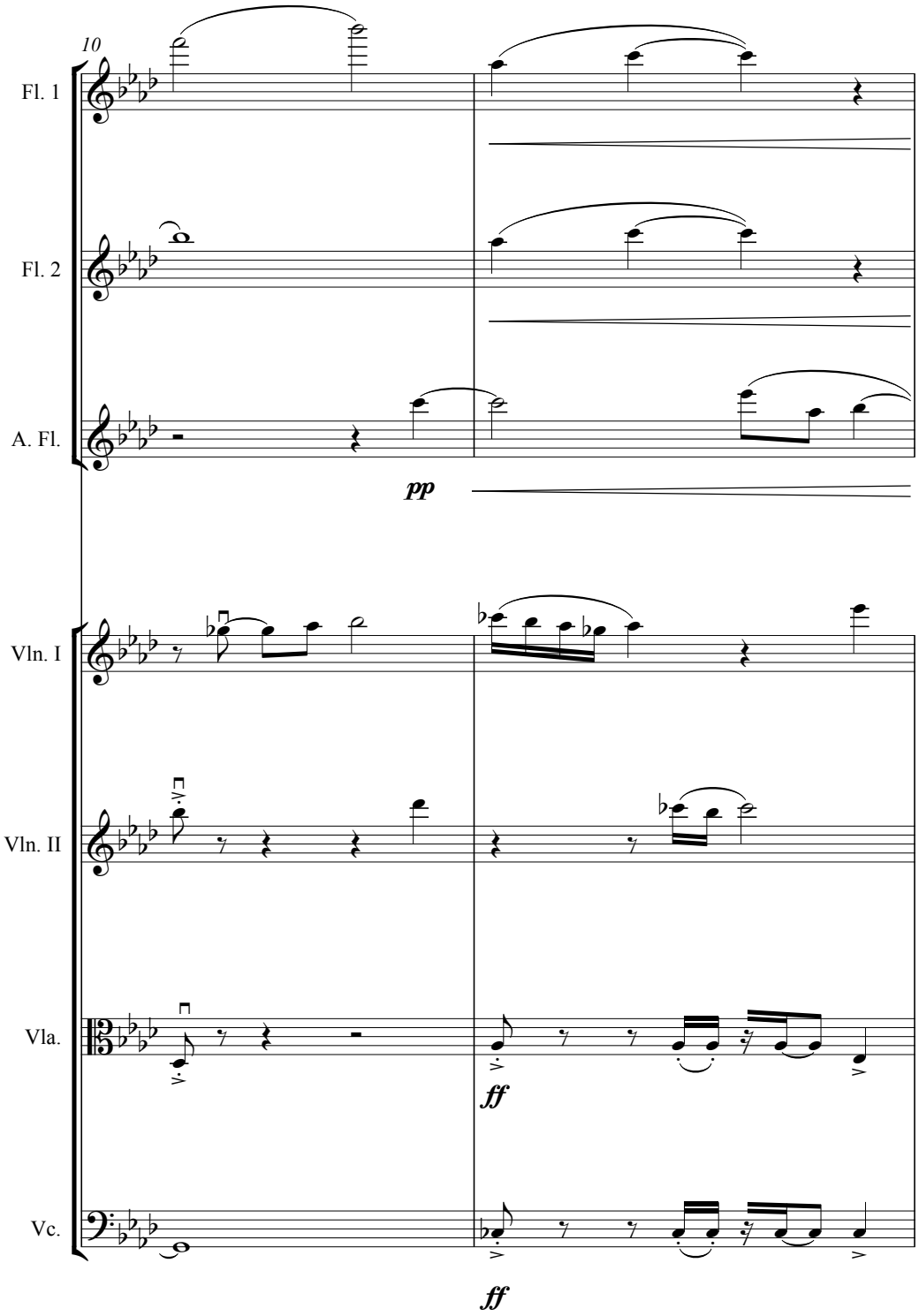
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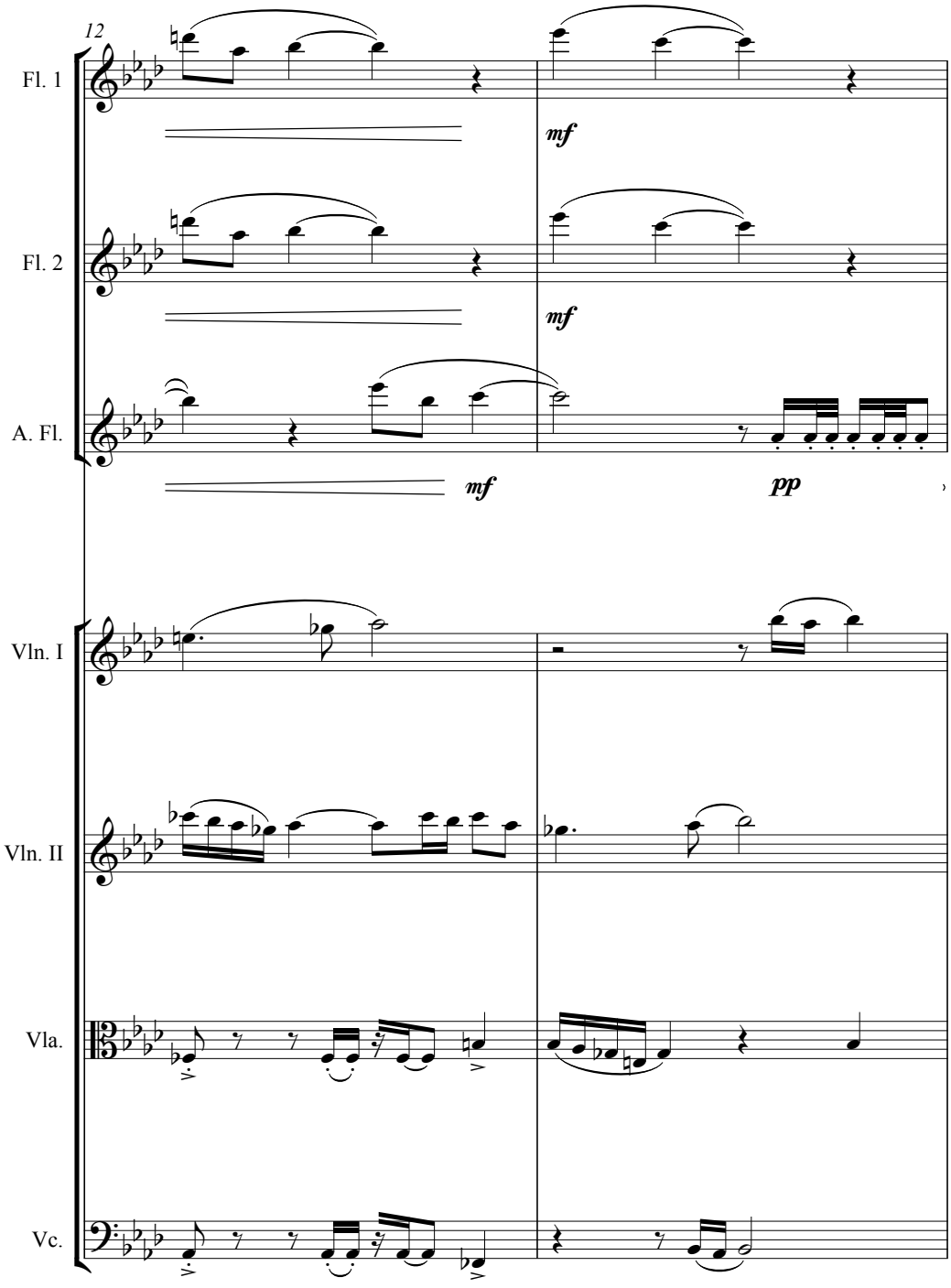
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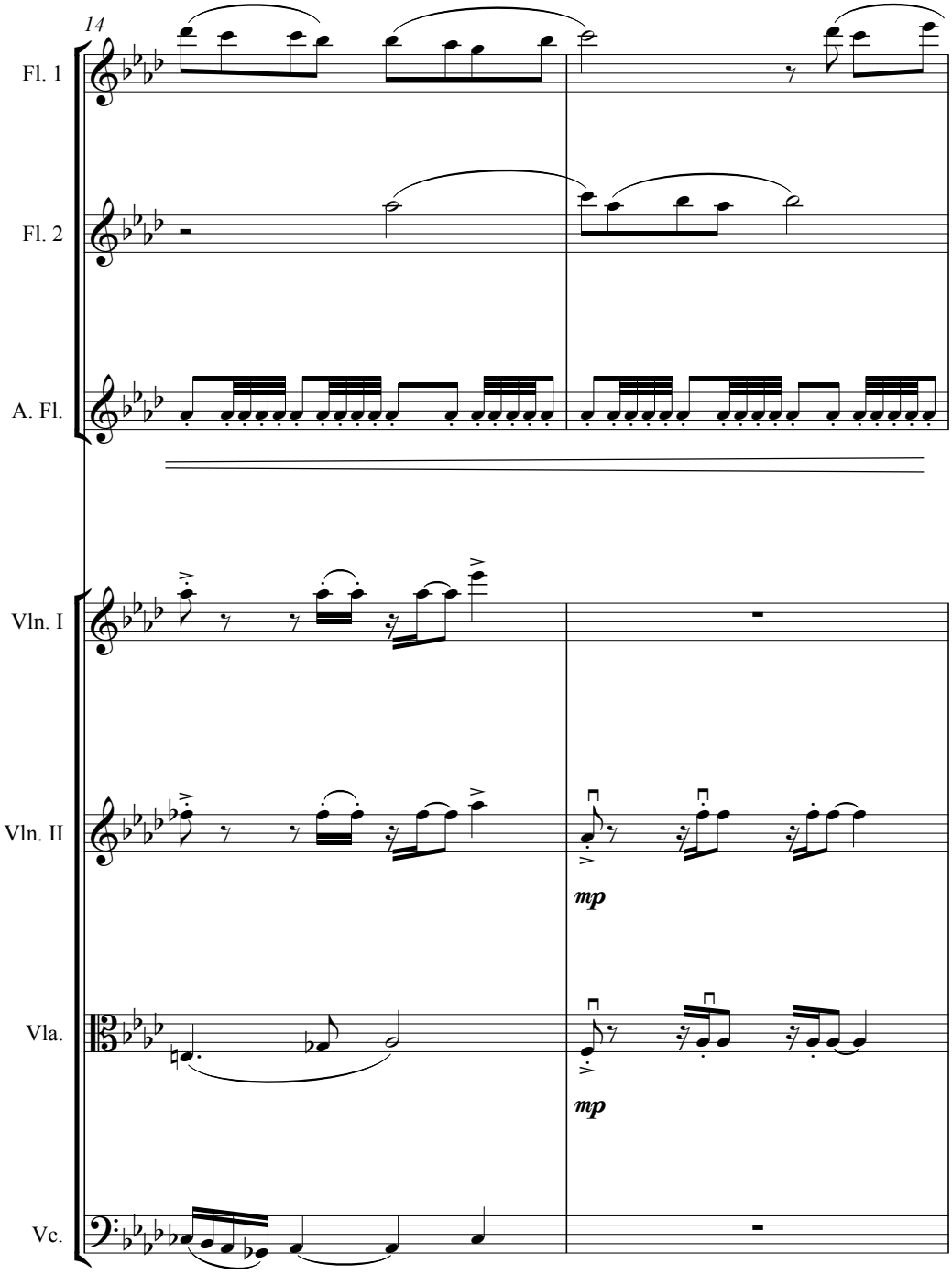
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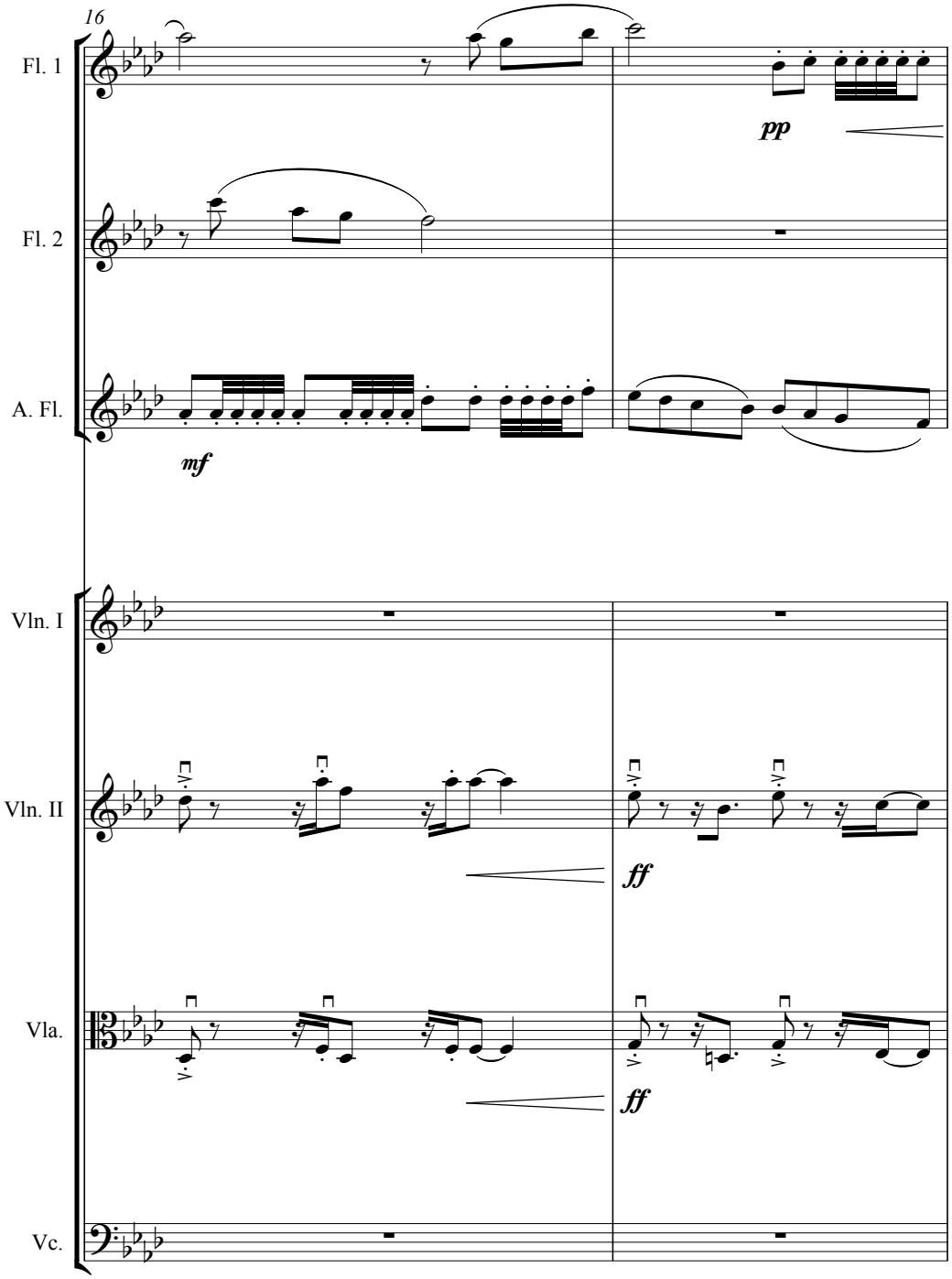
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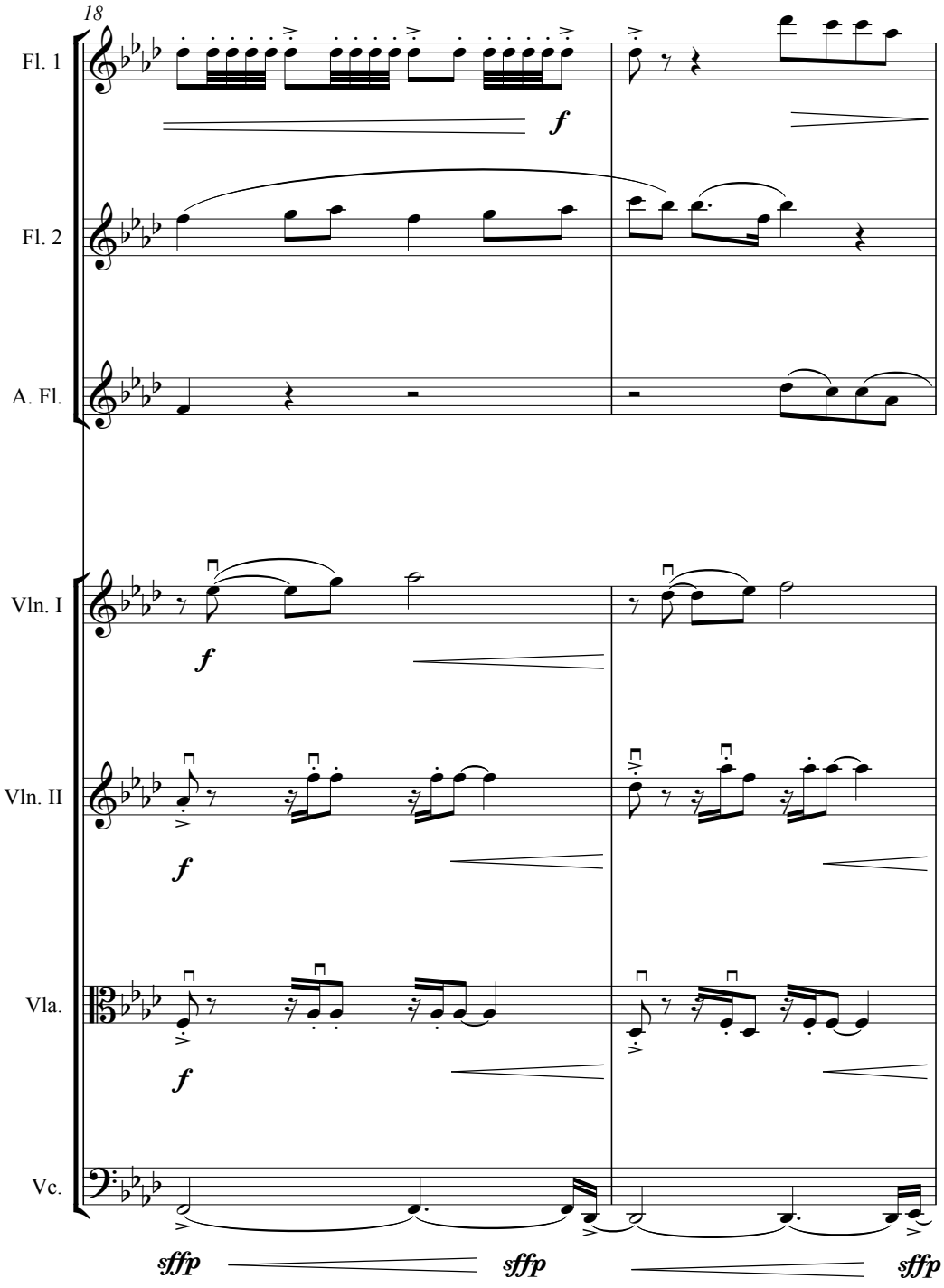
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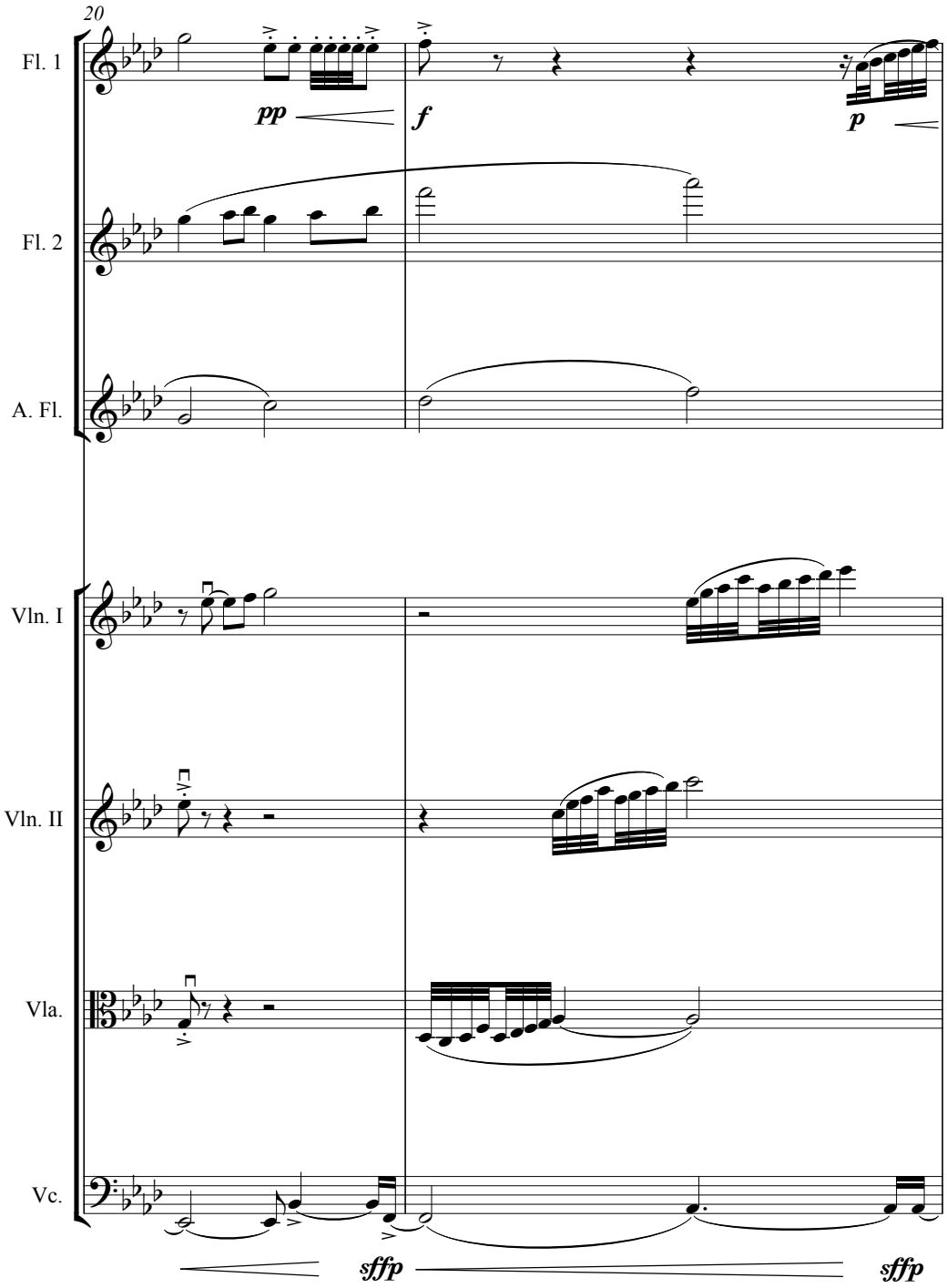
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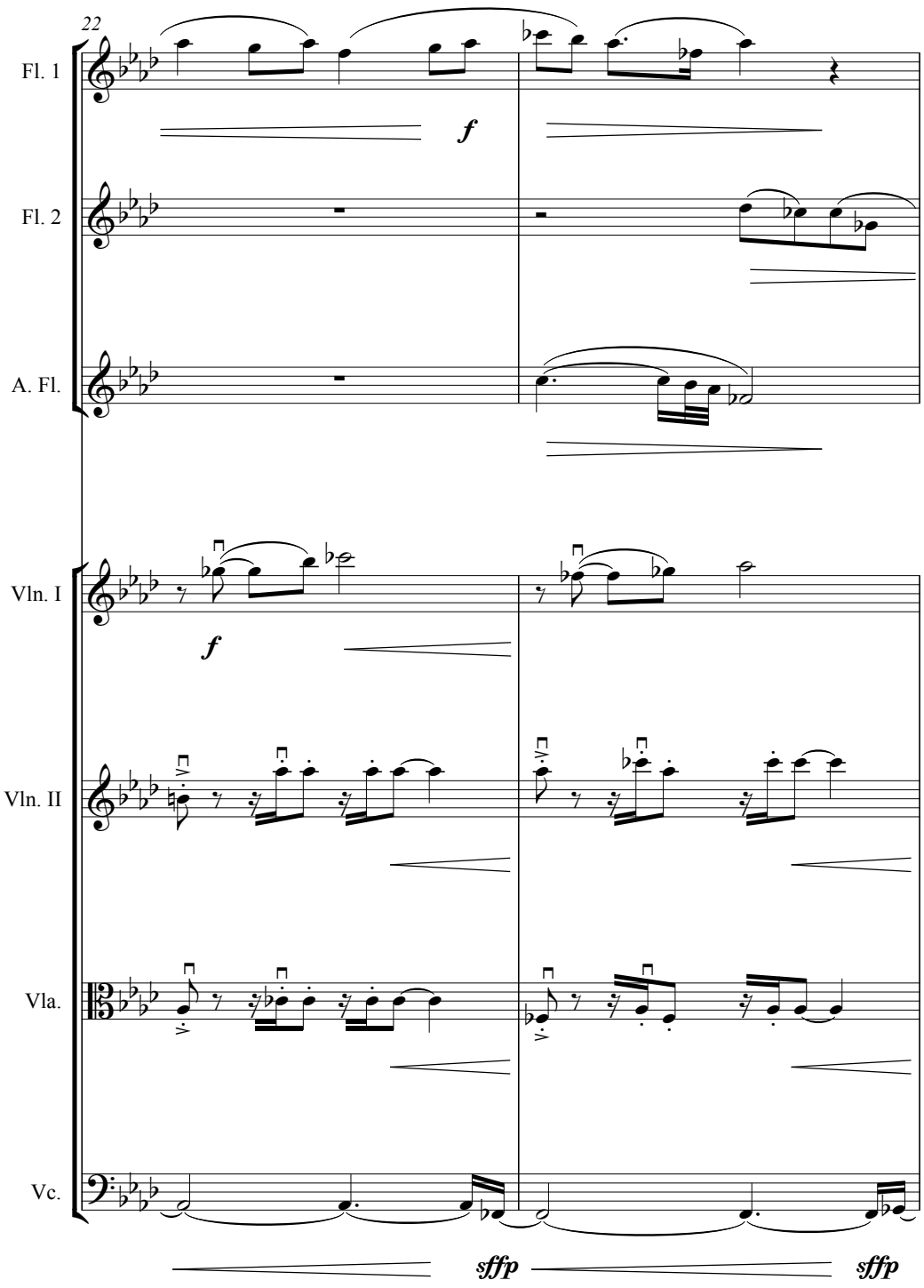
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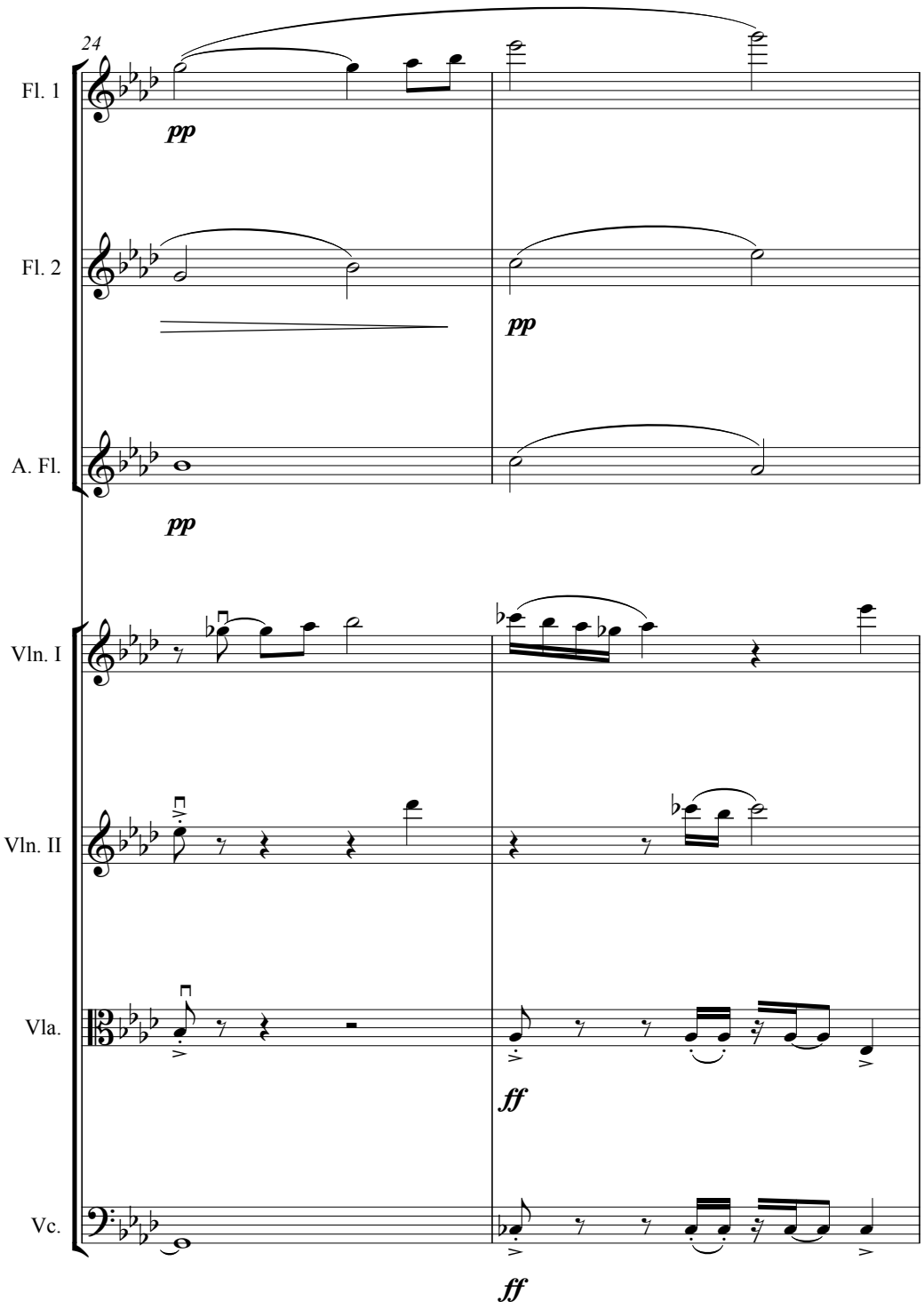
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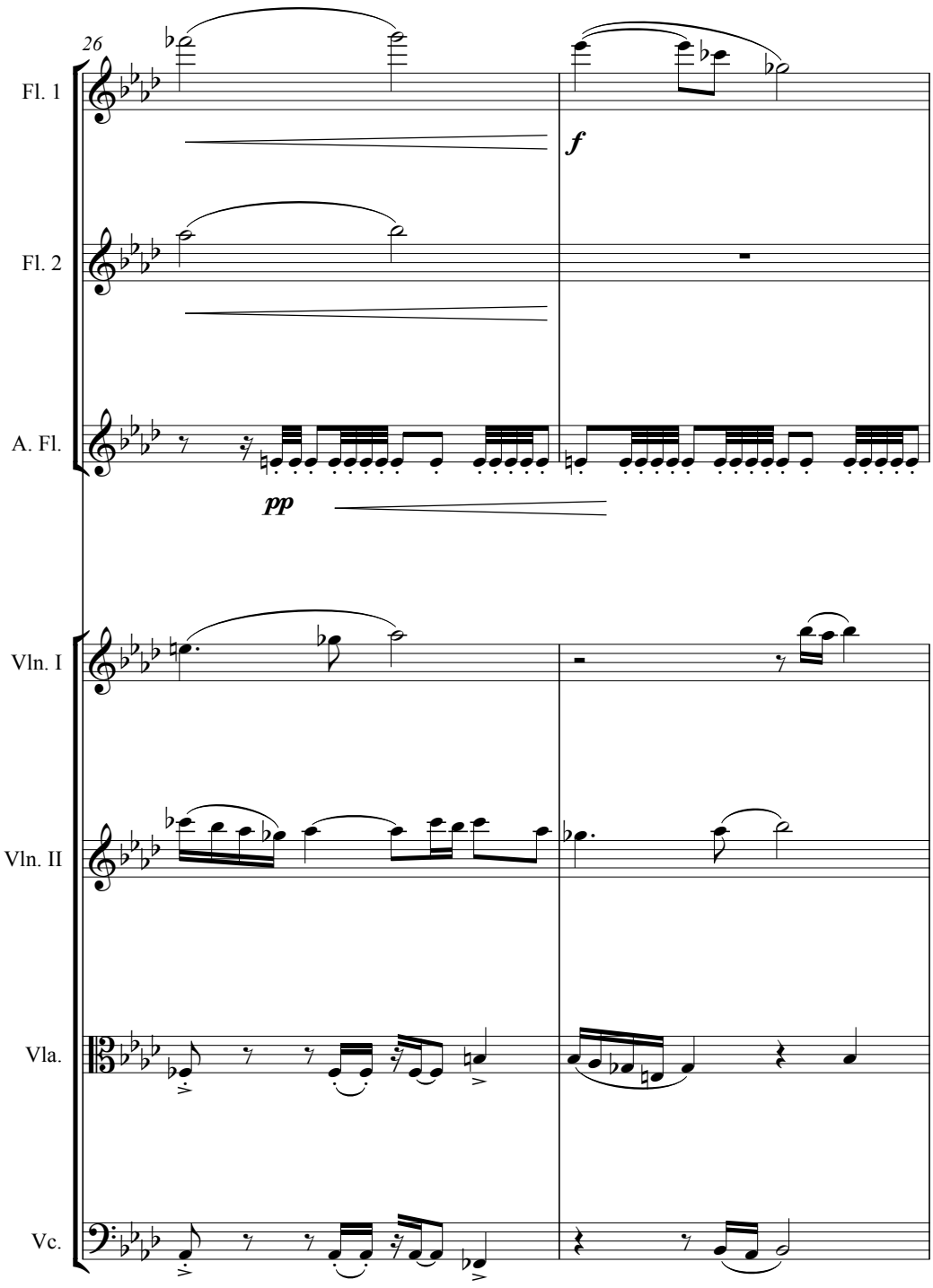
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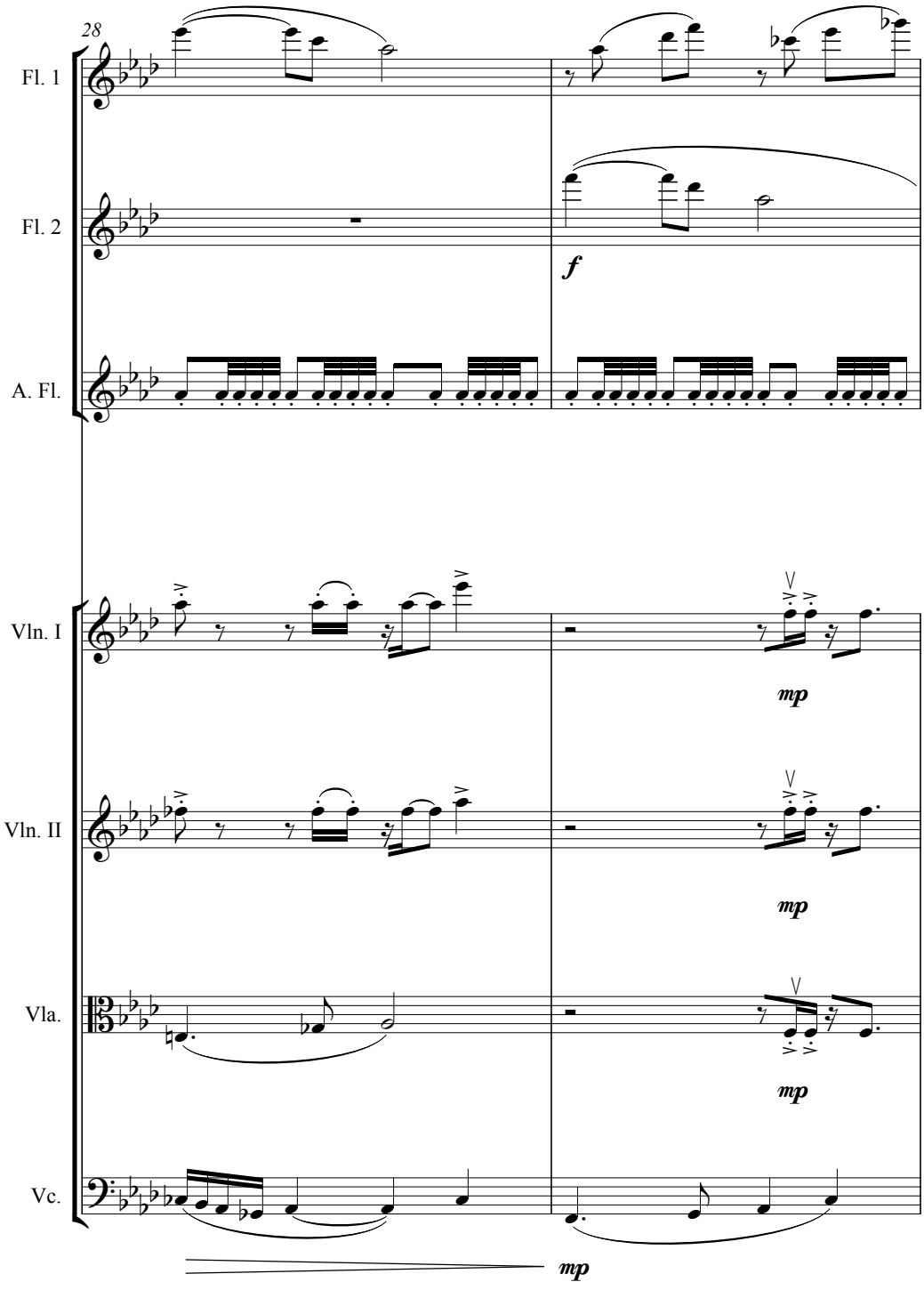
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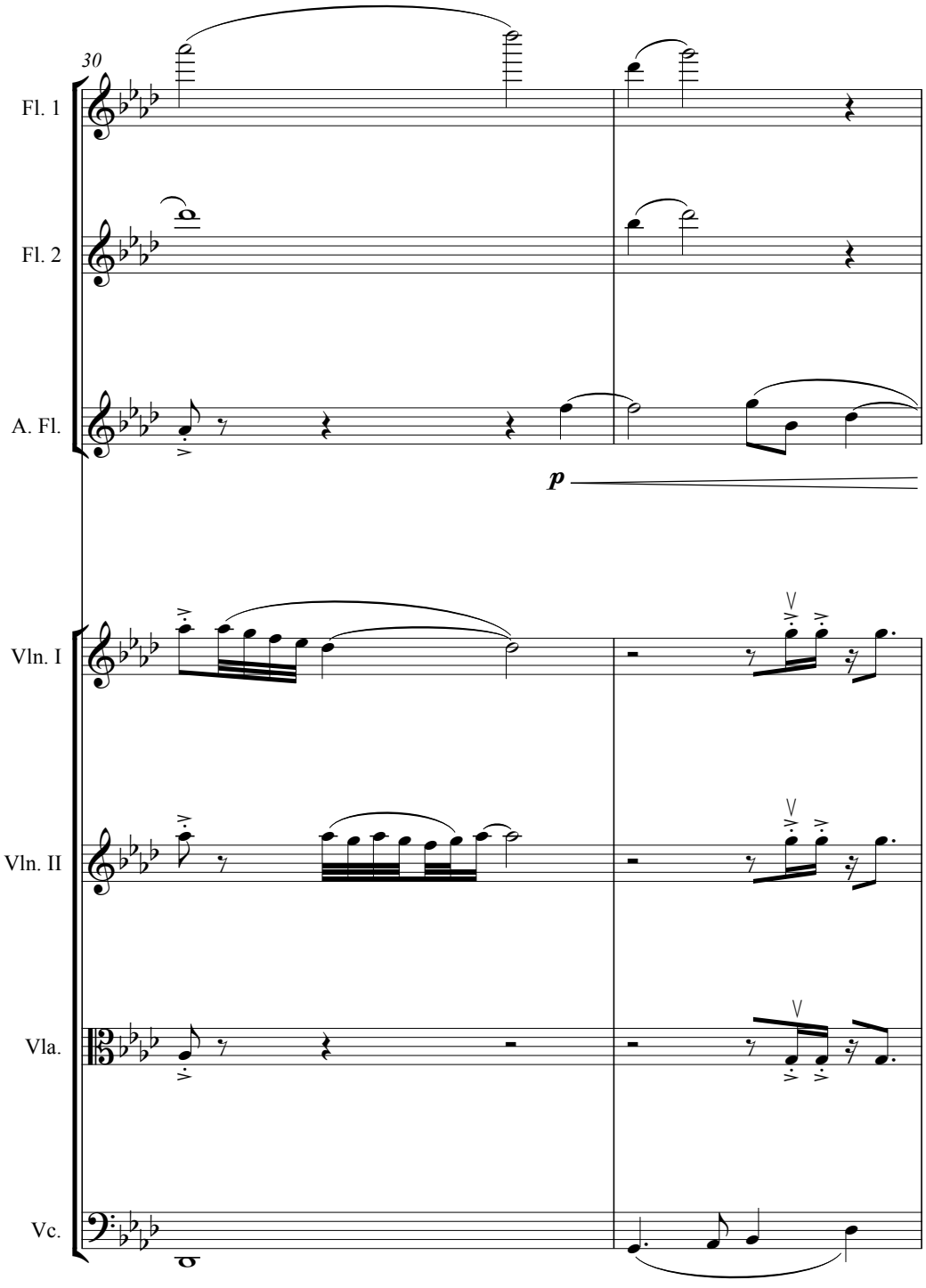
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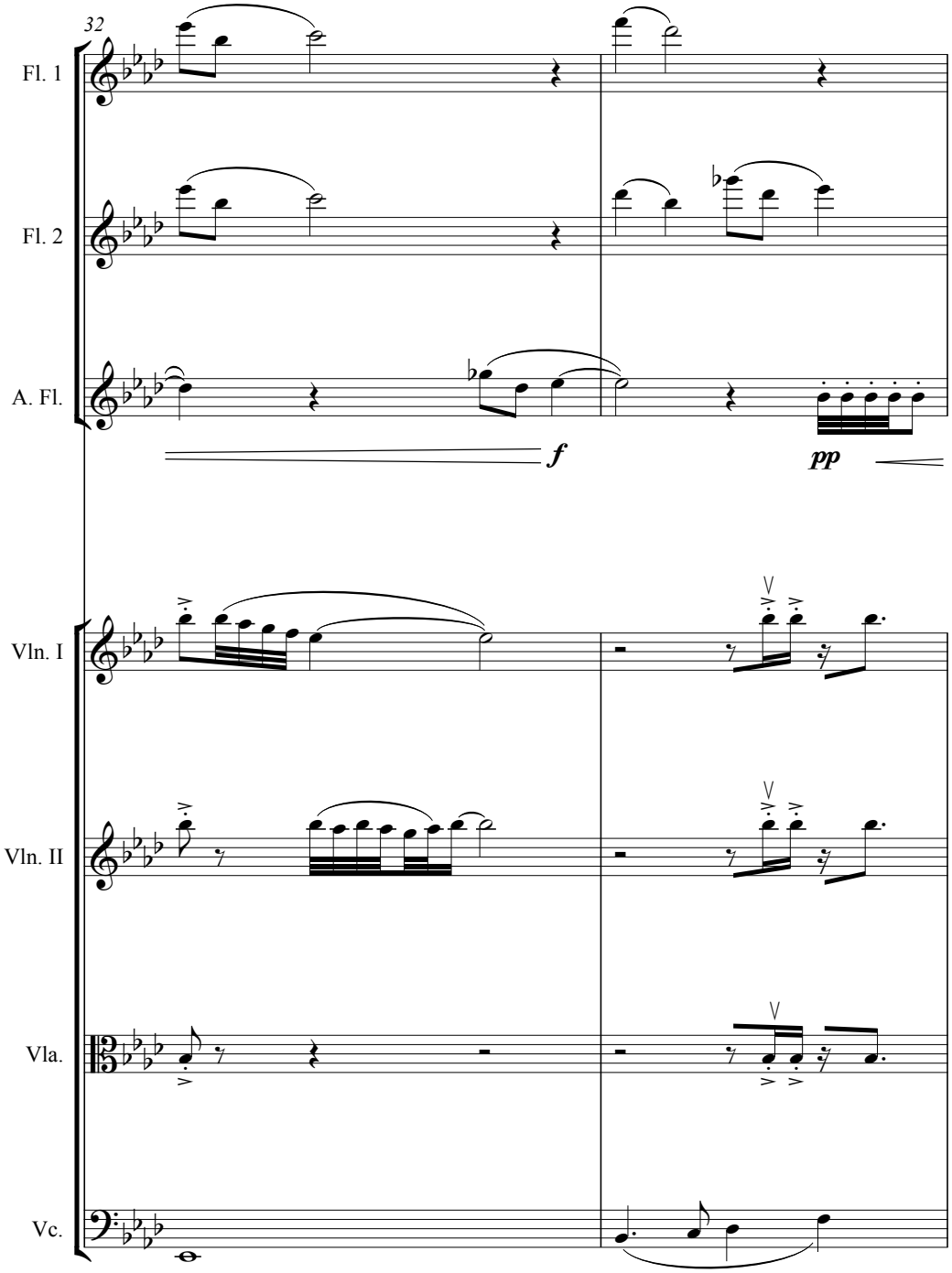
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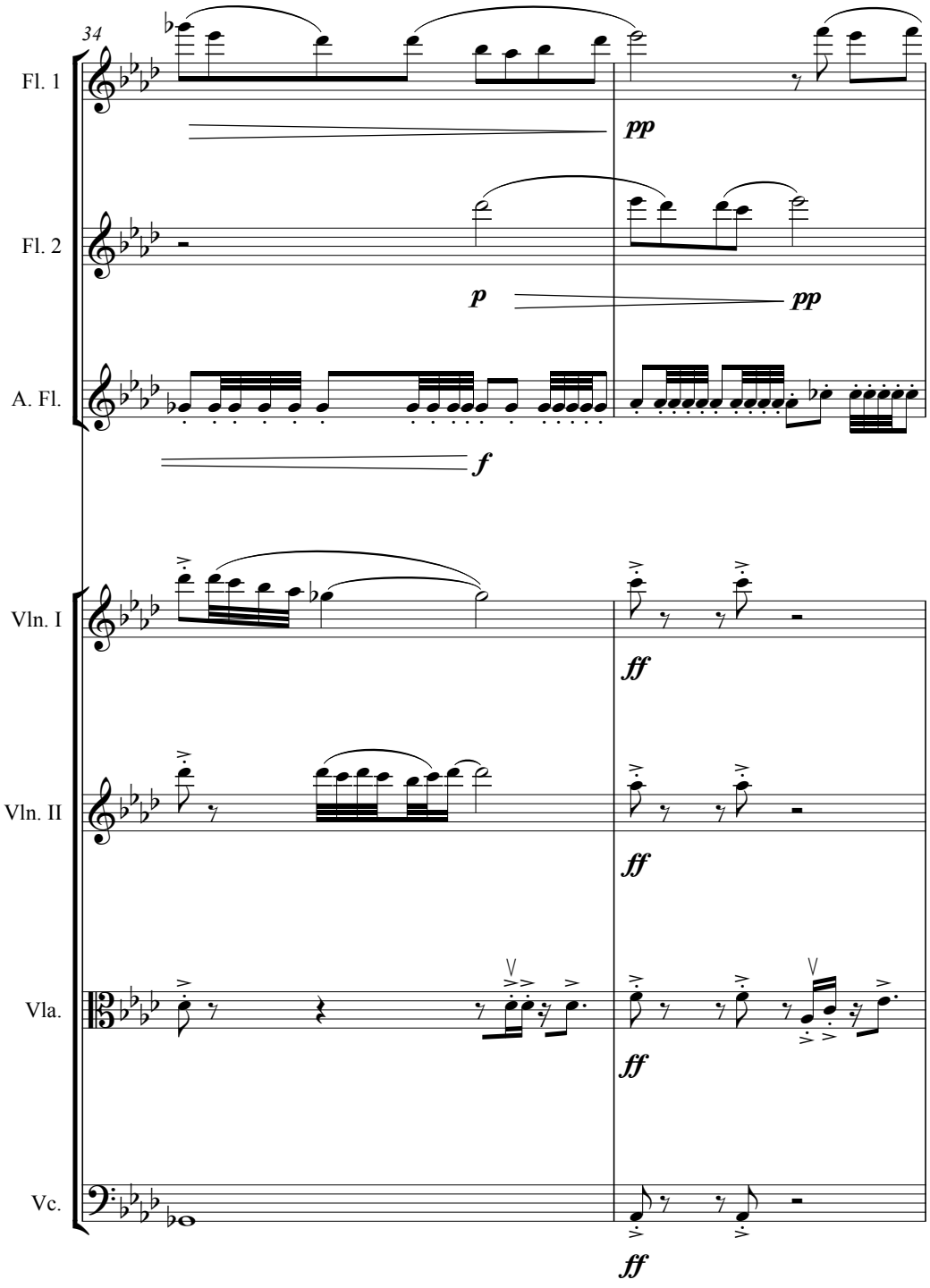
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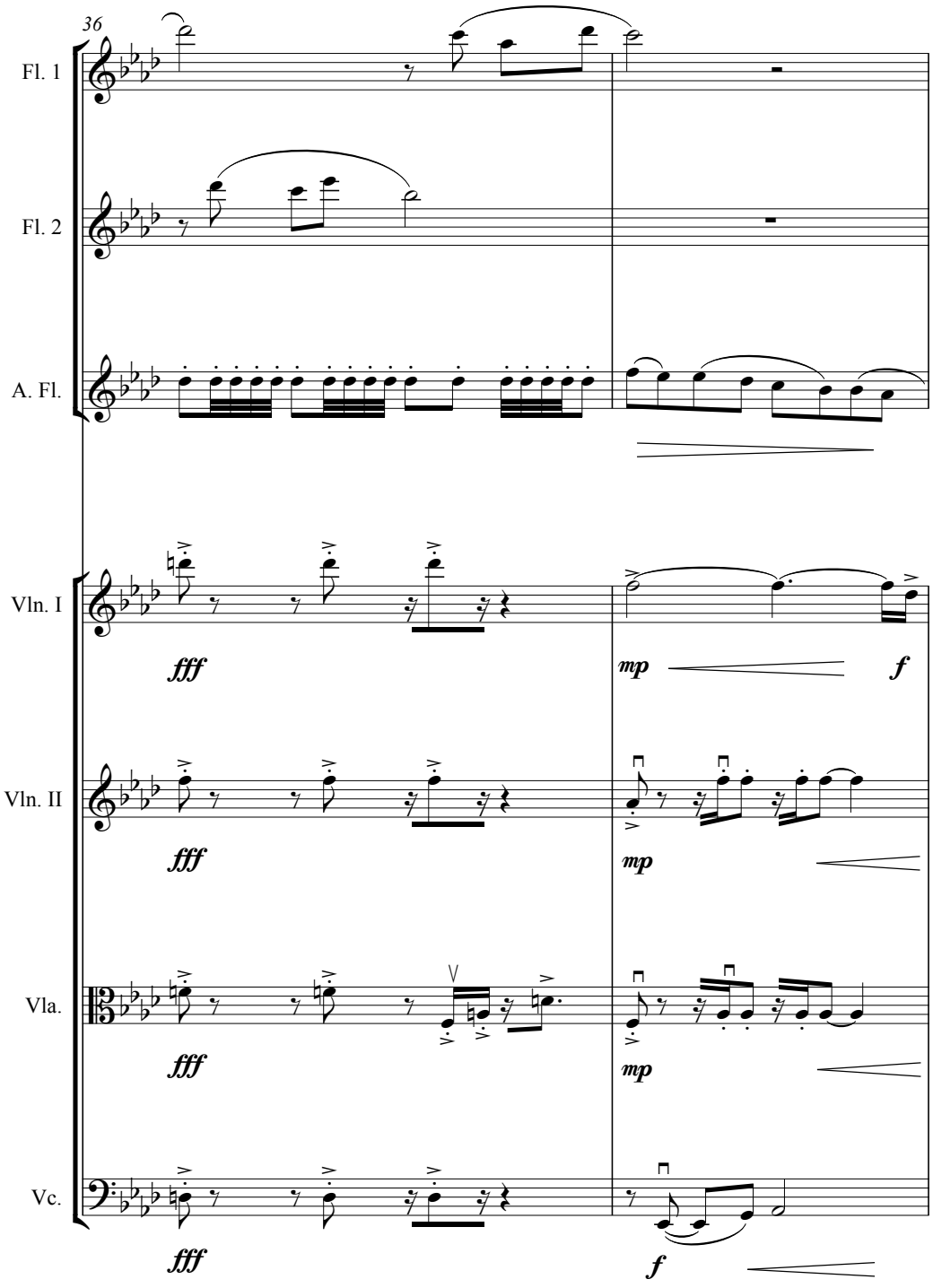
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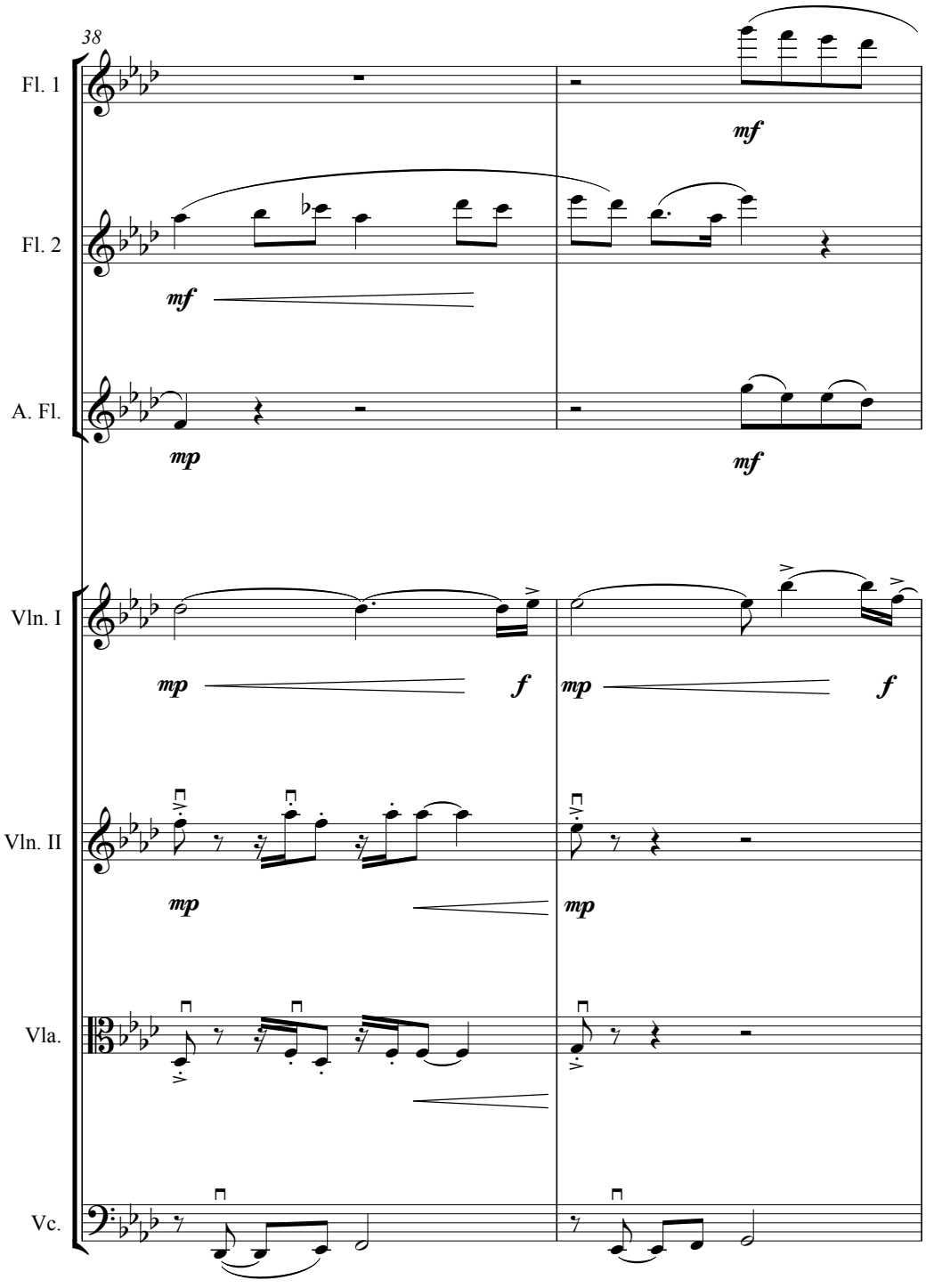
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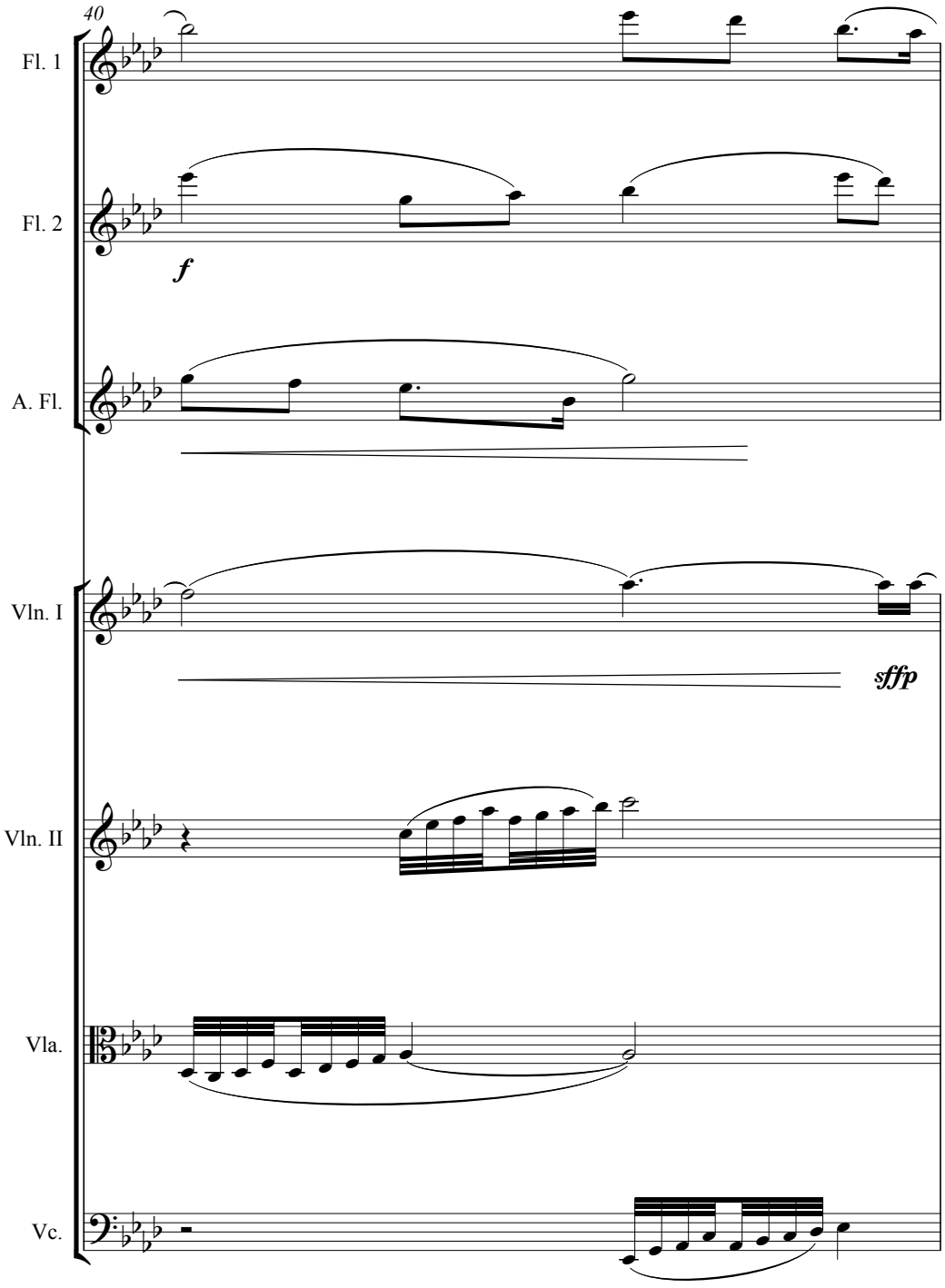
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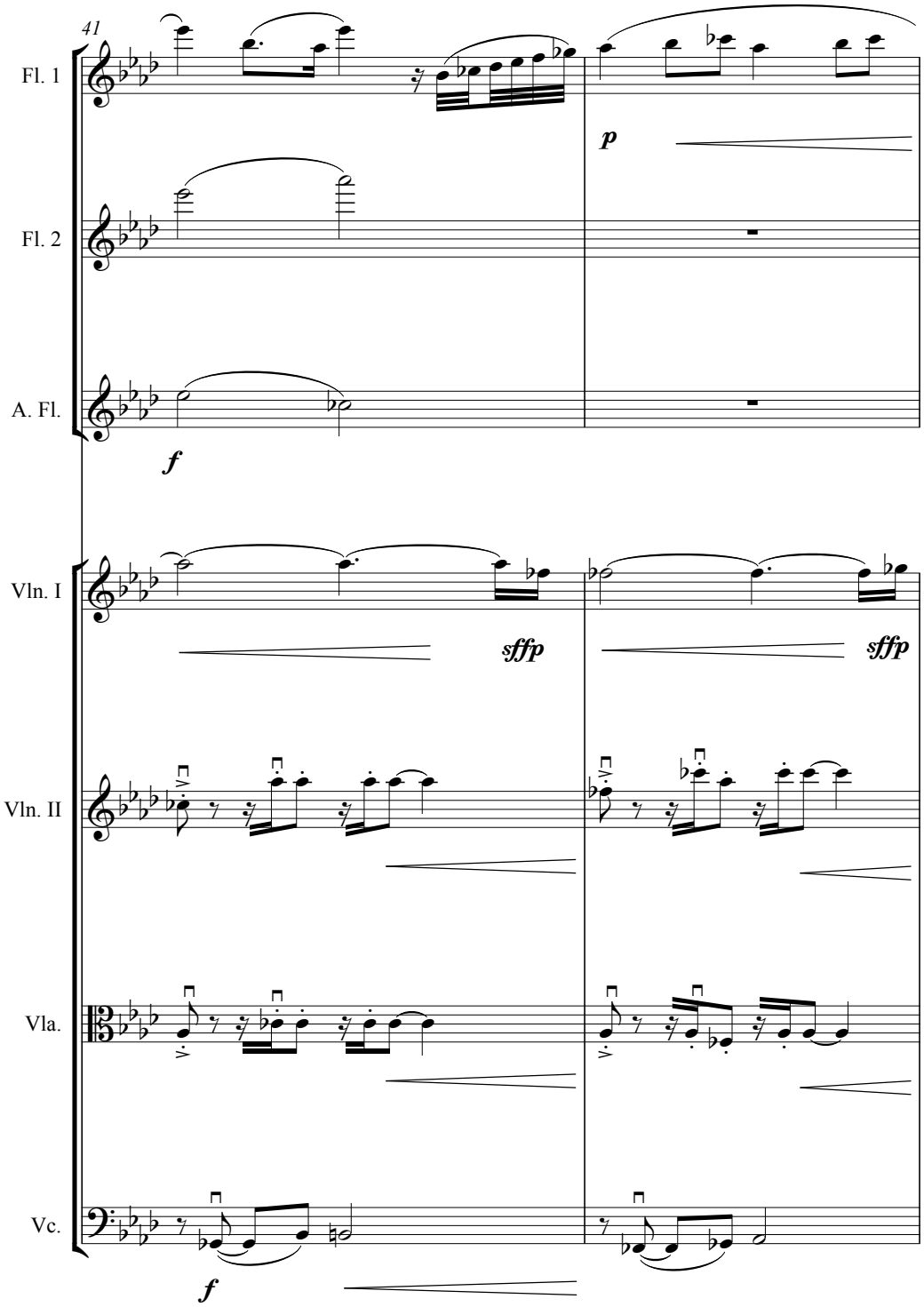
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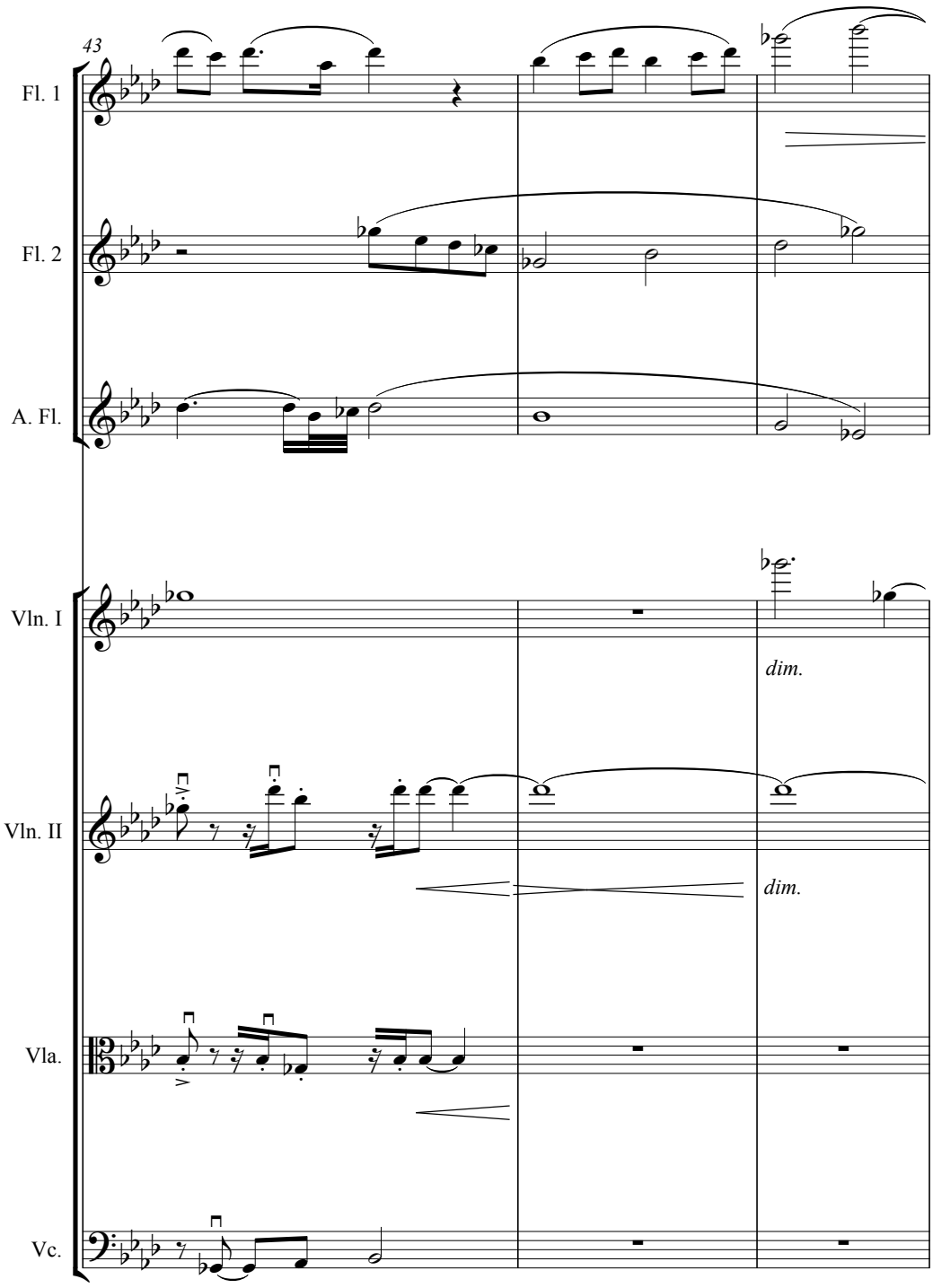
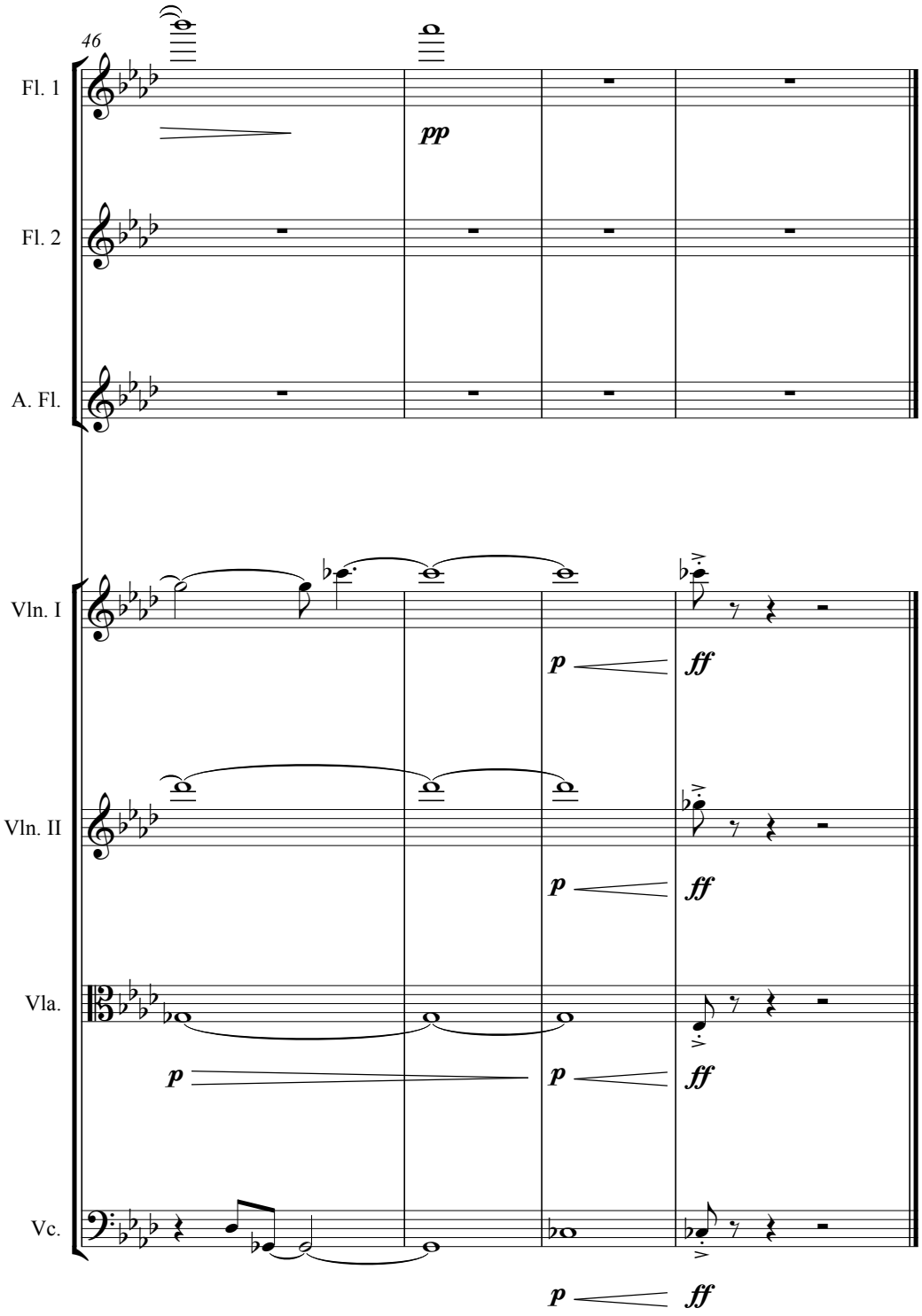
Vln. I
Vln. II
Vla.
Vc.
p
f
sffp
sffp
f


43
Fl. 1
Fl. 2
A. Fl.
Vln. I
dim.
Vln. II
dim.
Vla.
Vc.

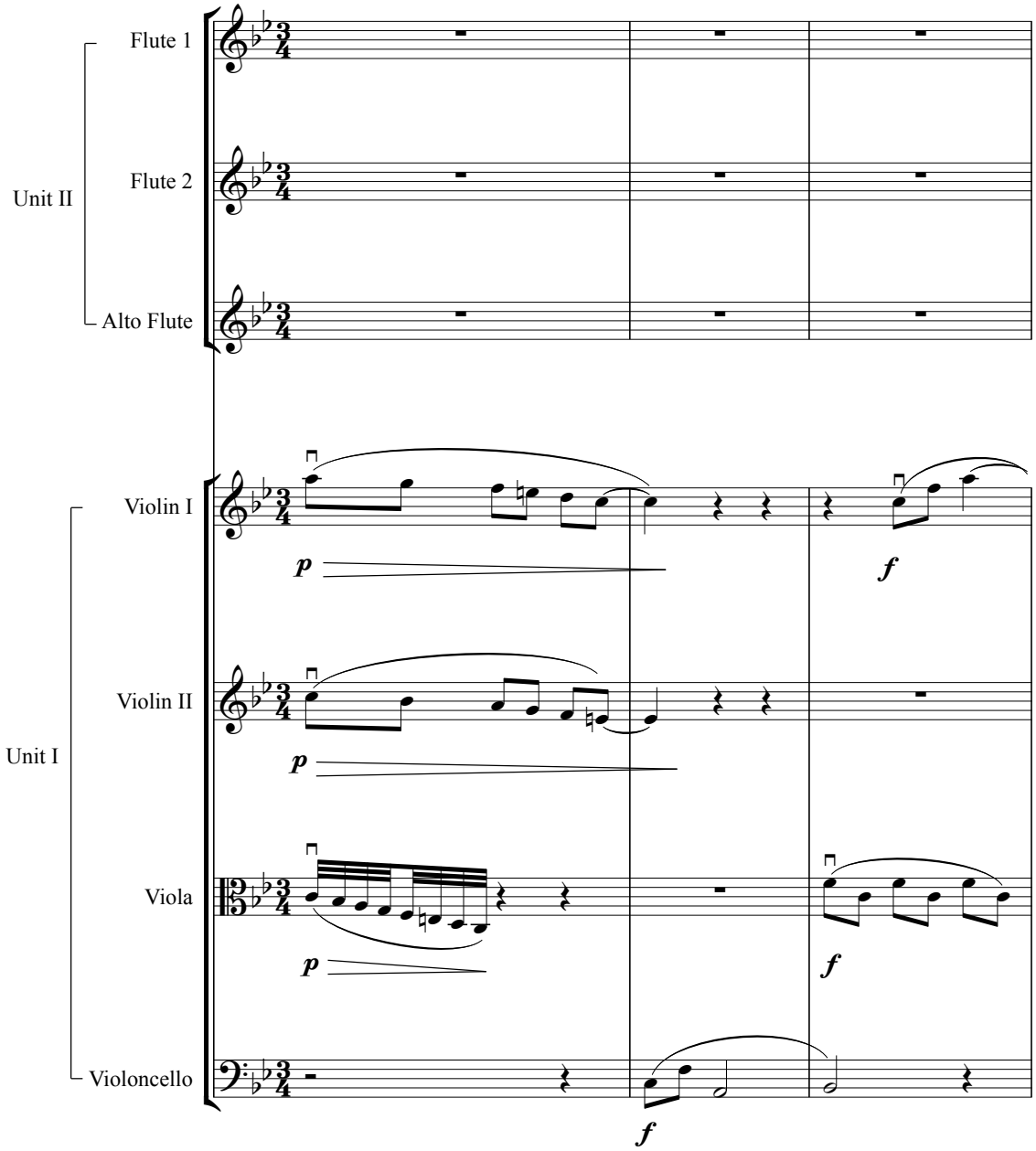

46
Fl. 1
pp
Fl. 2
A. Fl.
Vln. I
p
ff
Vln. II
p
ff
Vla.
p
p
ff
Vc.
p
ff

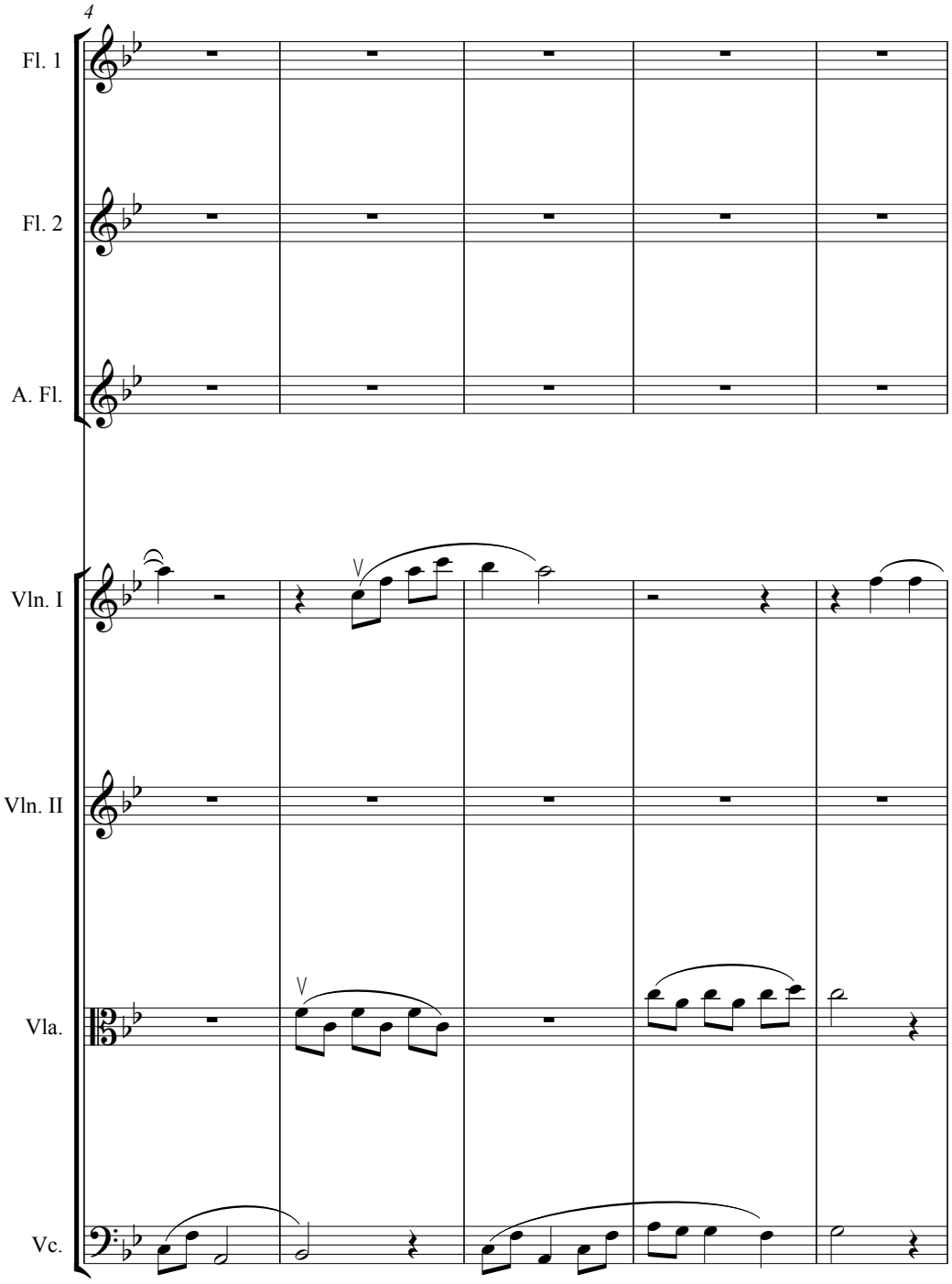
Bipolarity

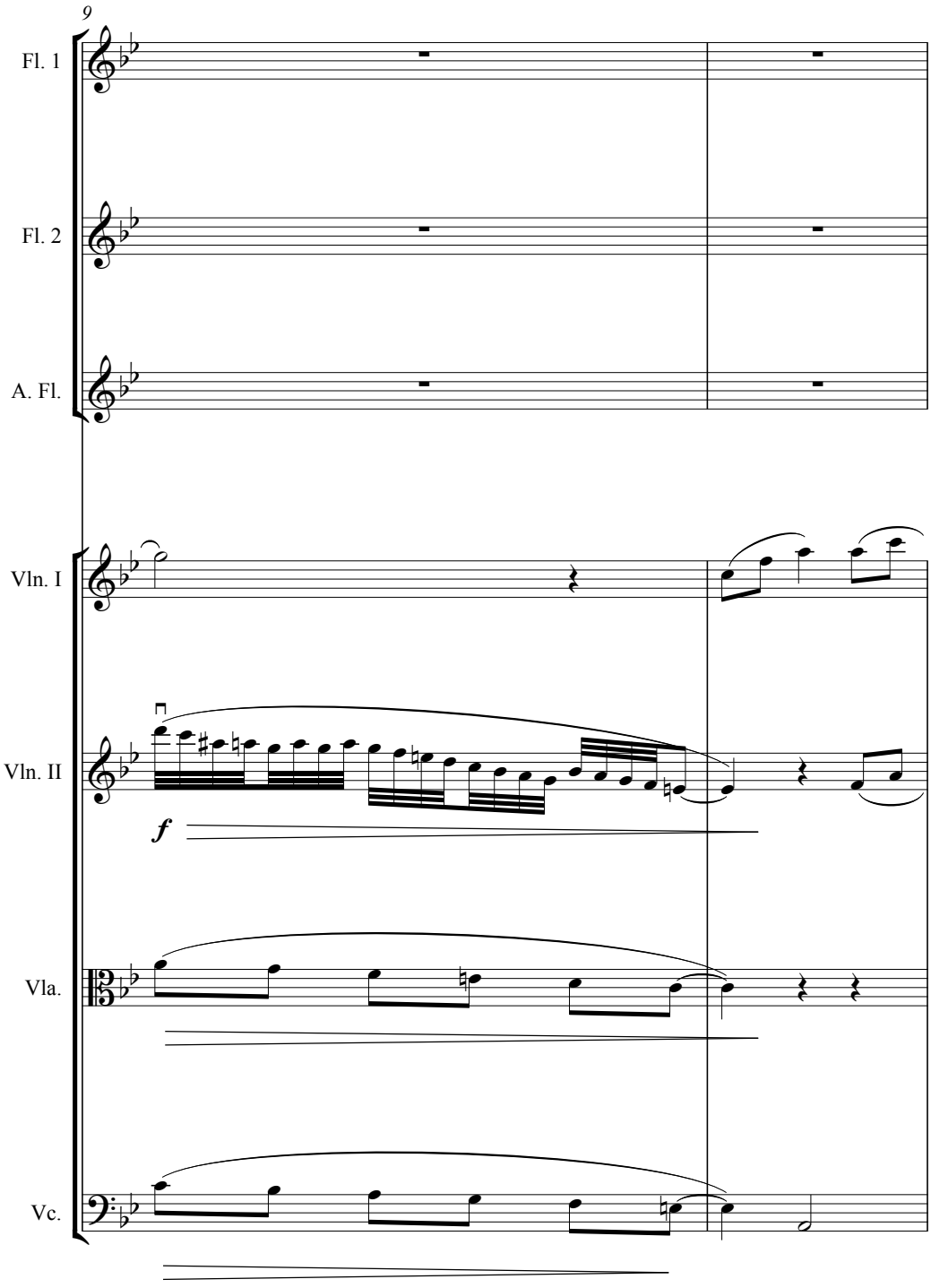
II

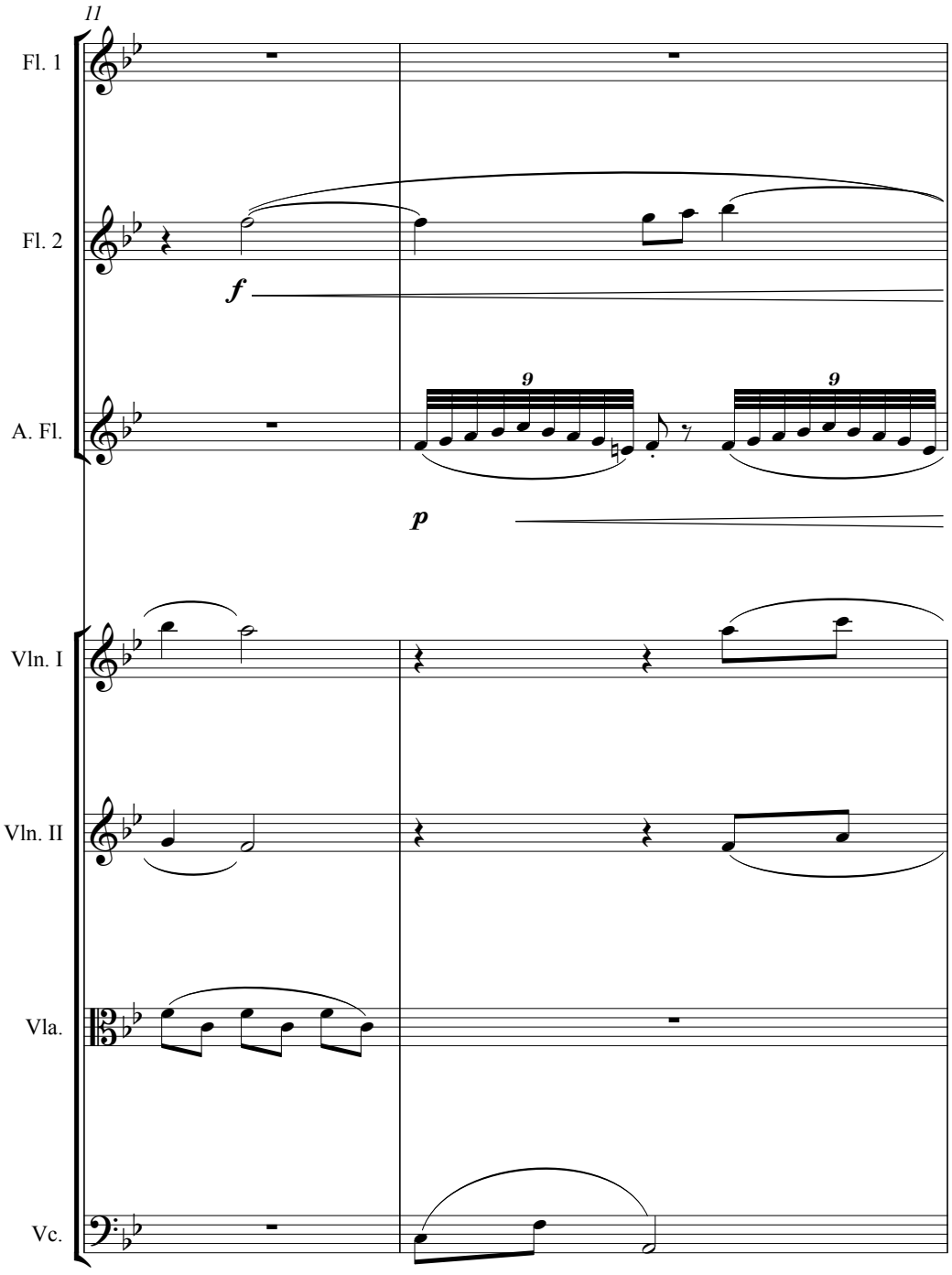
Eric Lacy

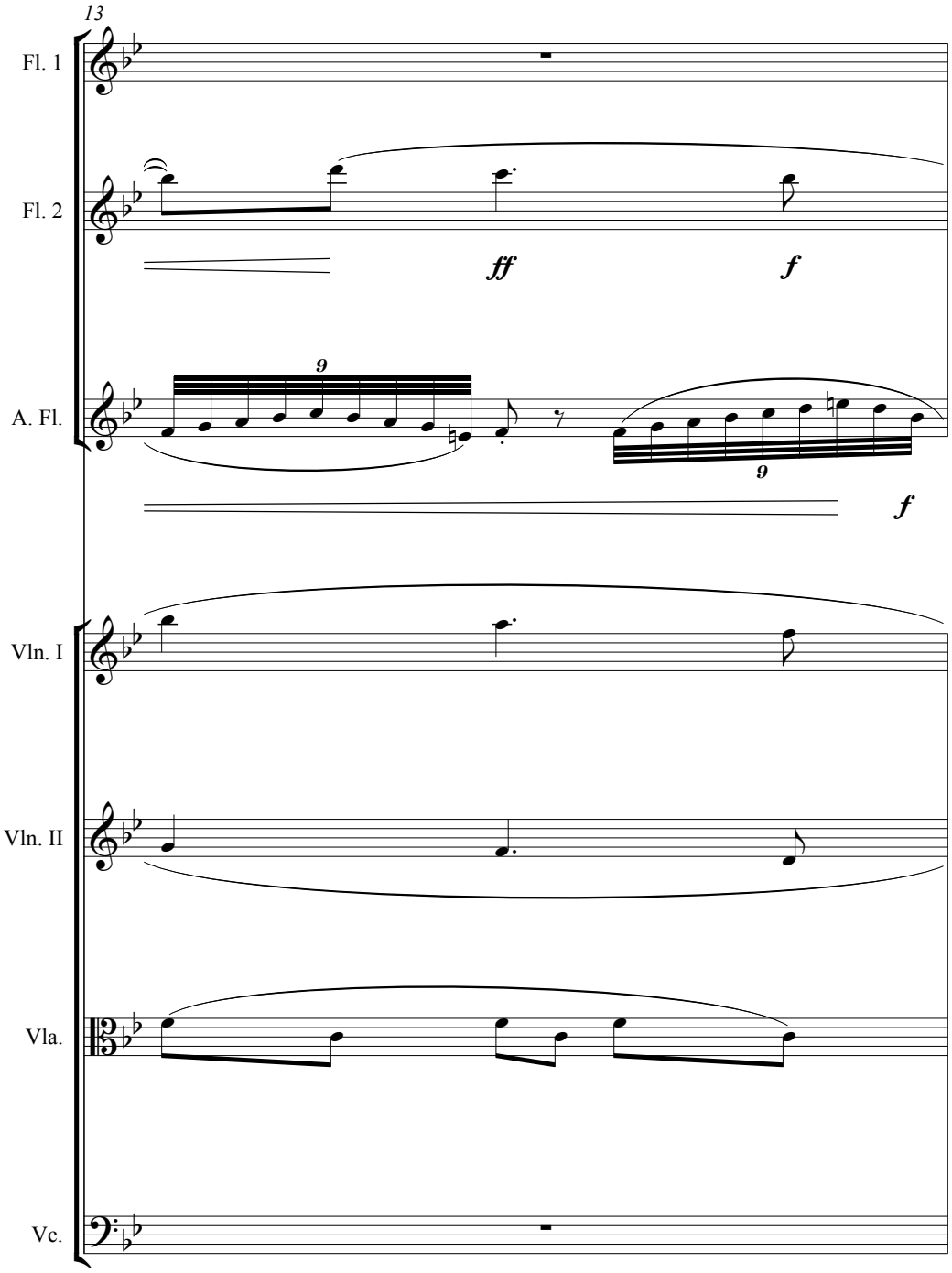
Adagio ♩ = 72

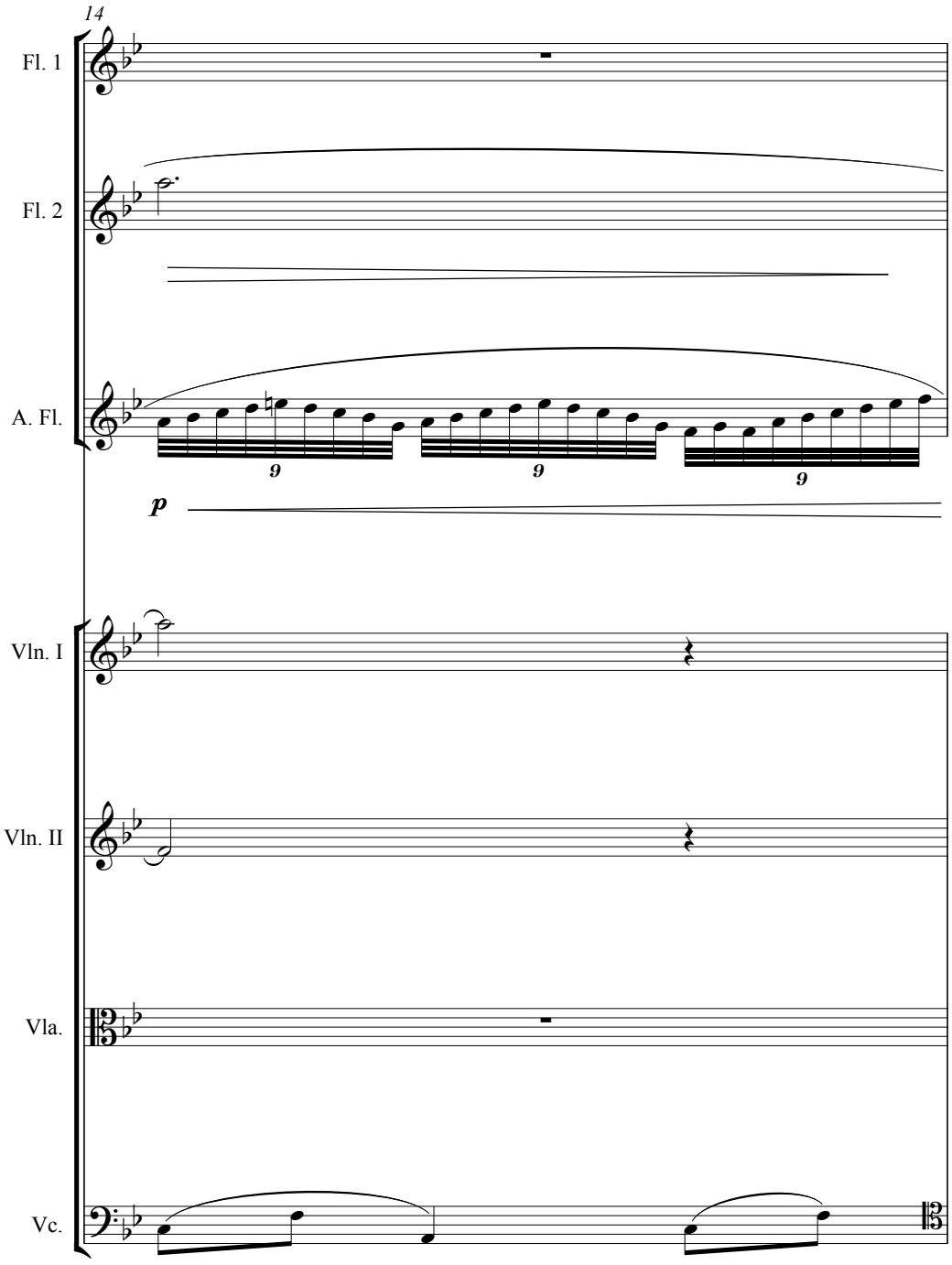


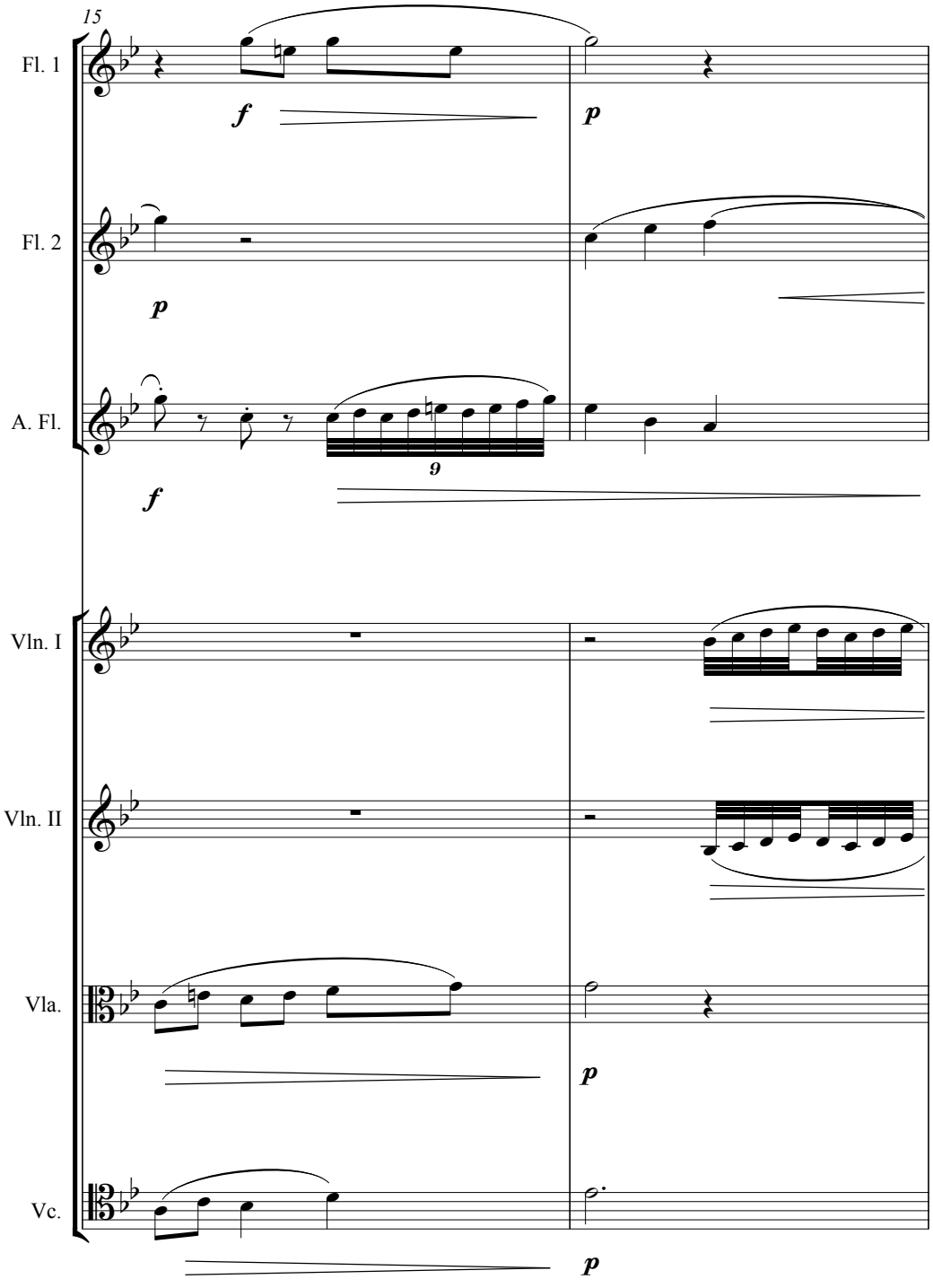

4
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.

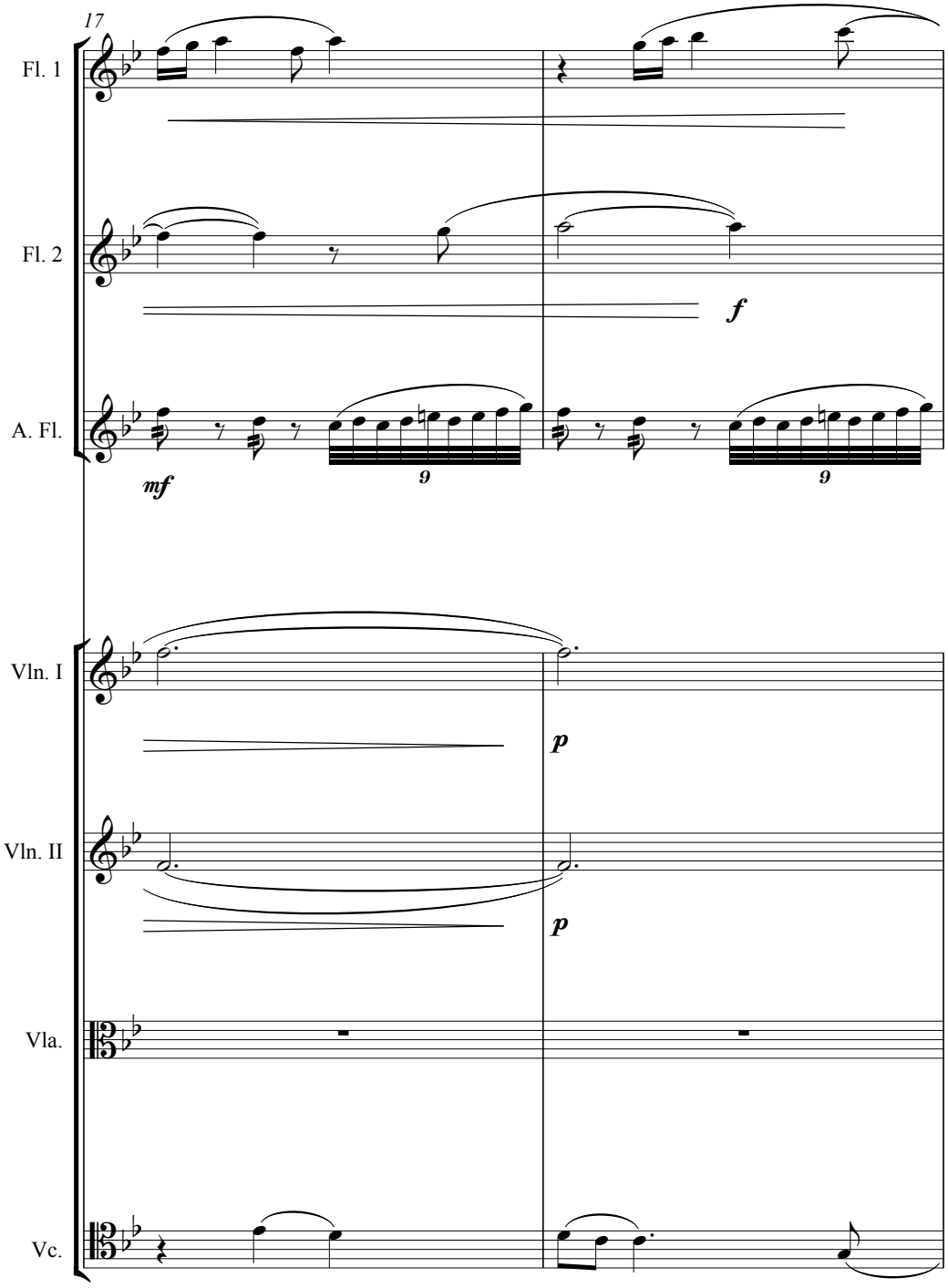

9
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
f
Vla.
Vc.

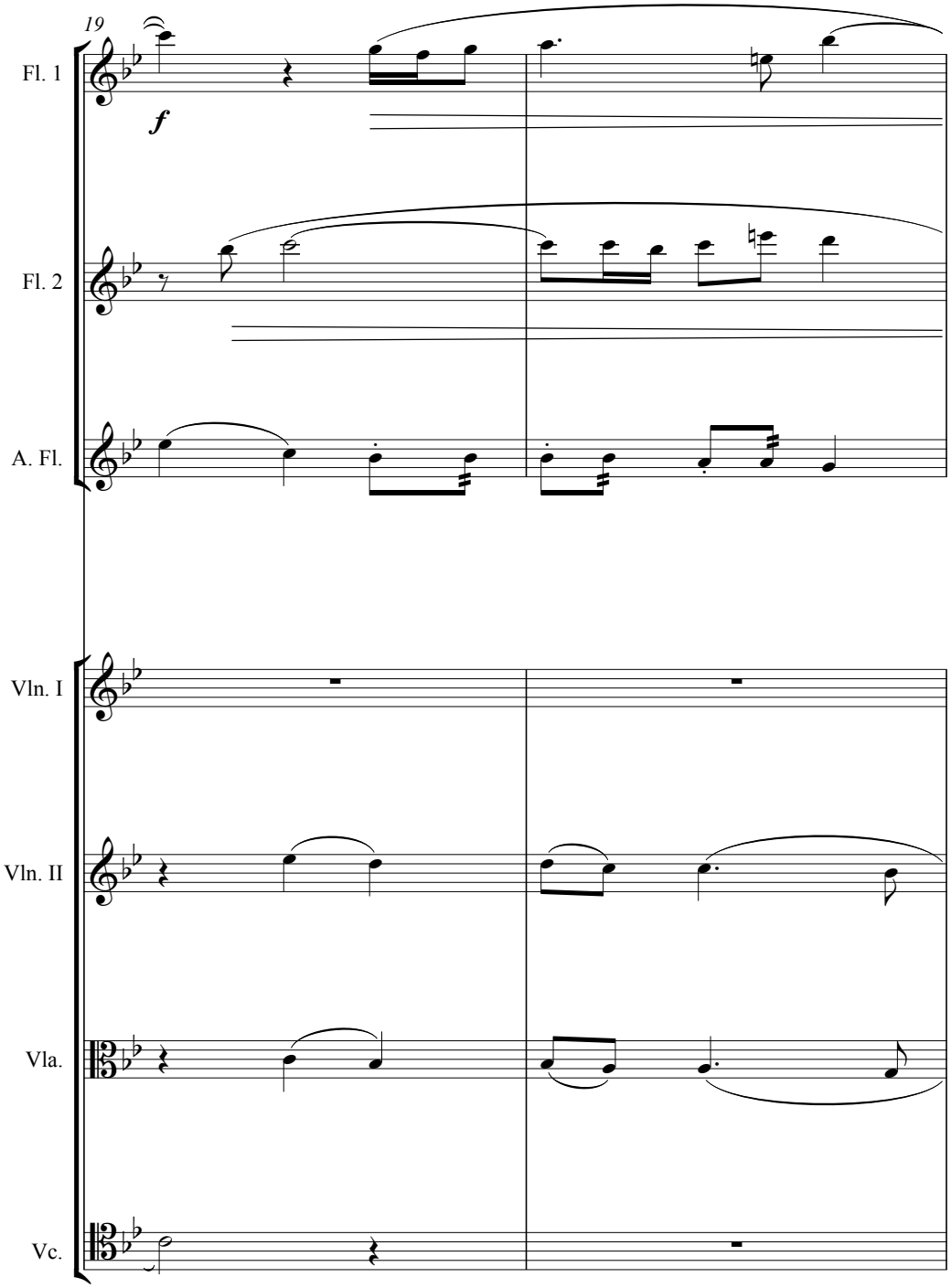

11
Fl. 1
Fl. 2
f
A. Fl.
9
9
p
Vln. I
Vln. II
Vla.
Vc.

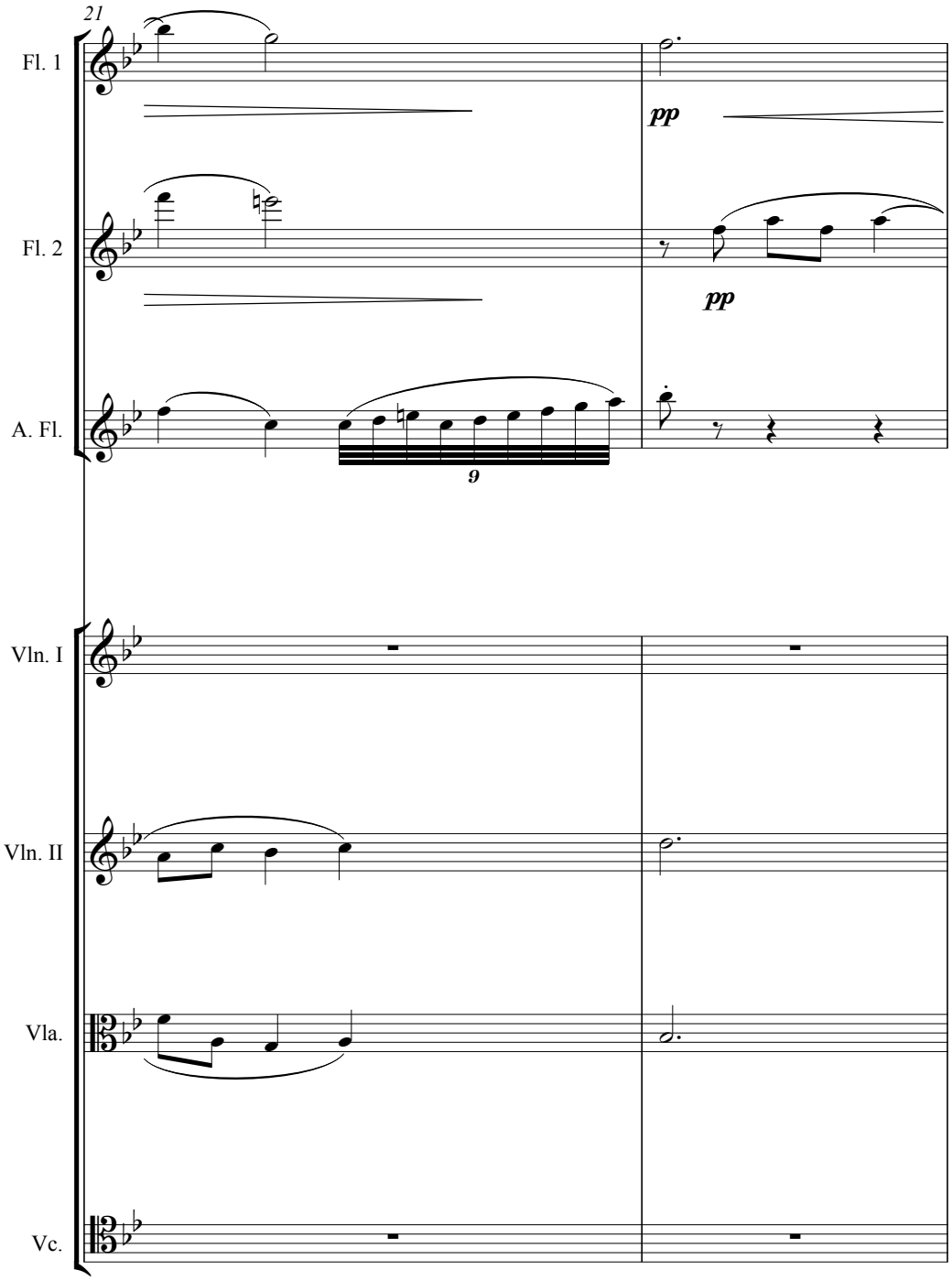

13
Fl. 1
Fl. 2
ff
f
A. Fl.
9
9
f
Vln. I
Vln. II
Vla.
Vc.

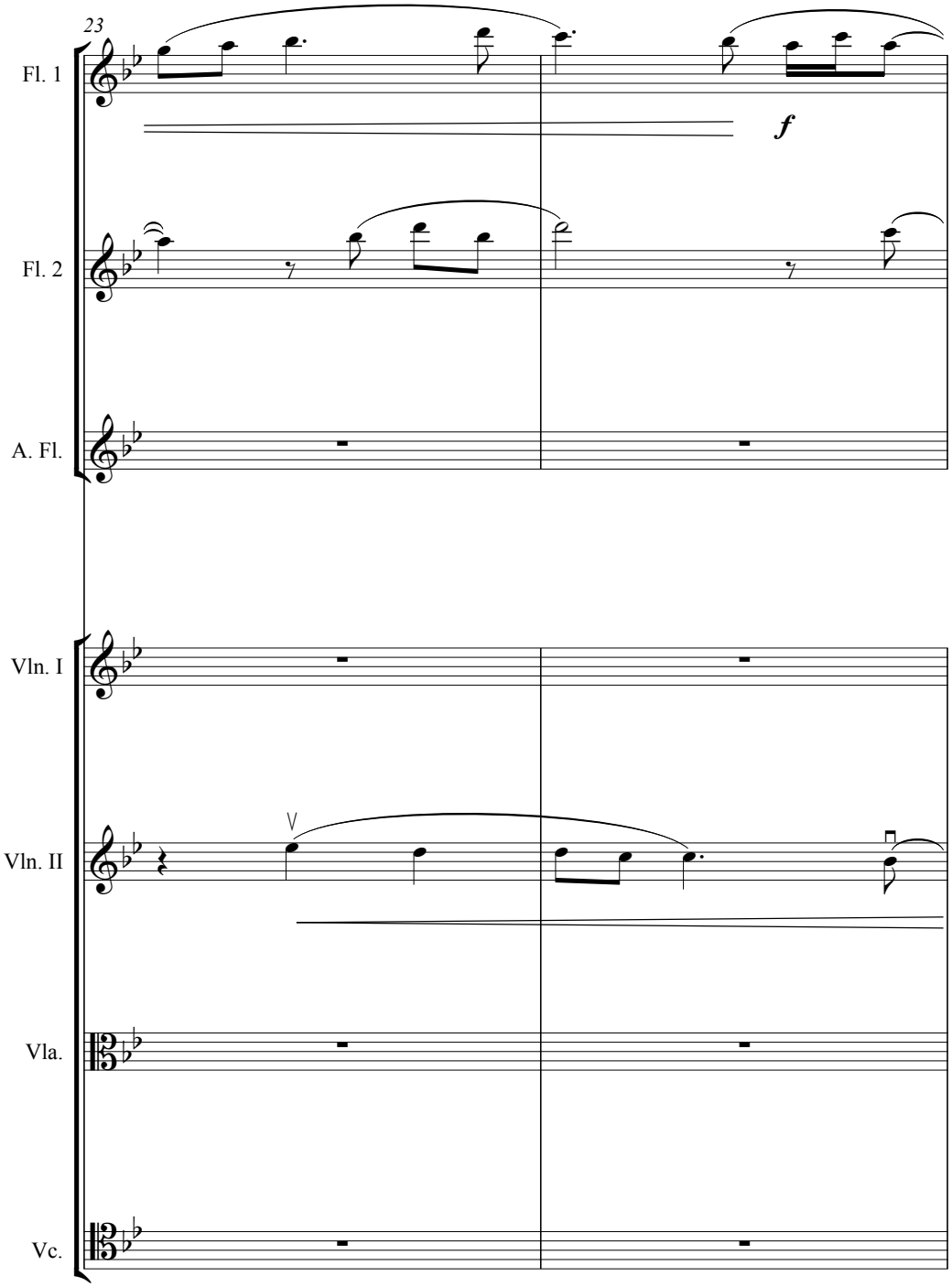

14
Fl. 1
Fl. 2
A. Fl.
9
9
9
p
Vln. I
Vln. II
Vla.
Vc.

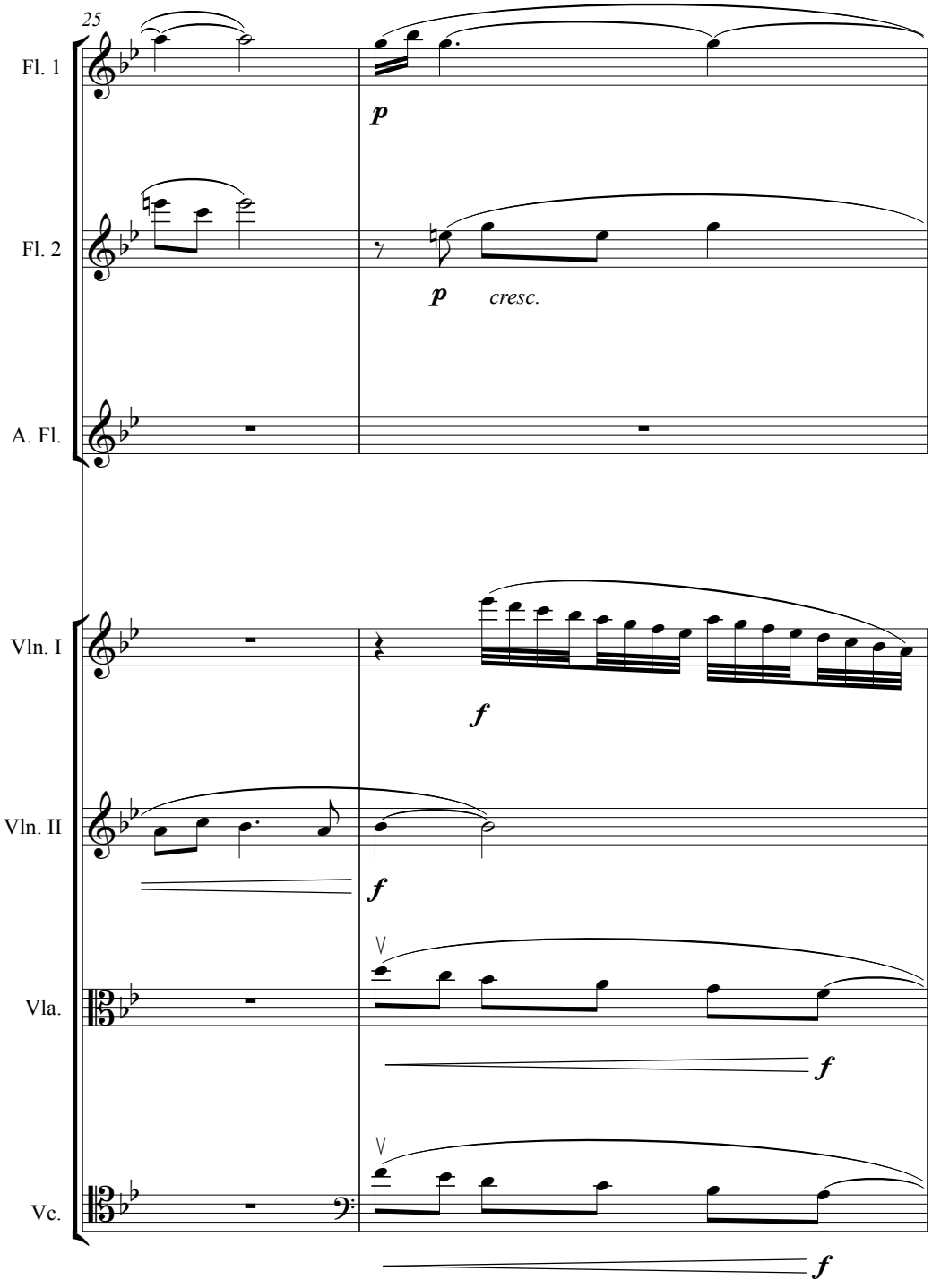

15
Fl. 1
f
p
Fl. 2
p
A. Fl.
9
f
Vln. I
Vln. II
Vla.
p
Vc.
p

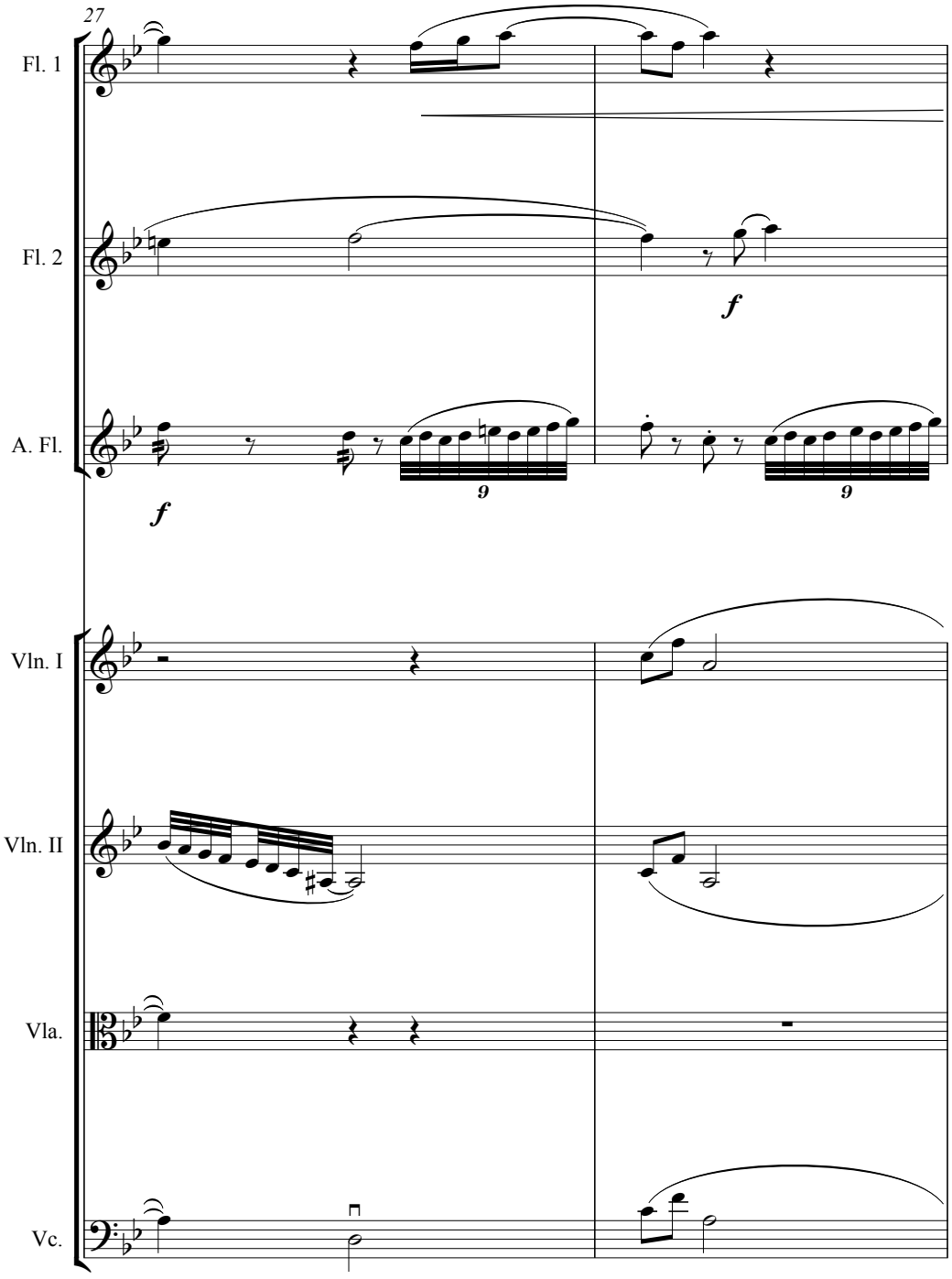

17
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
mf
f
p
p
9
9

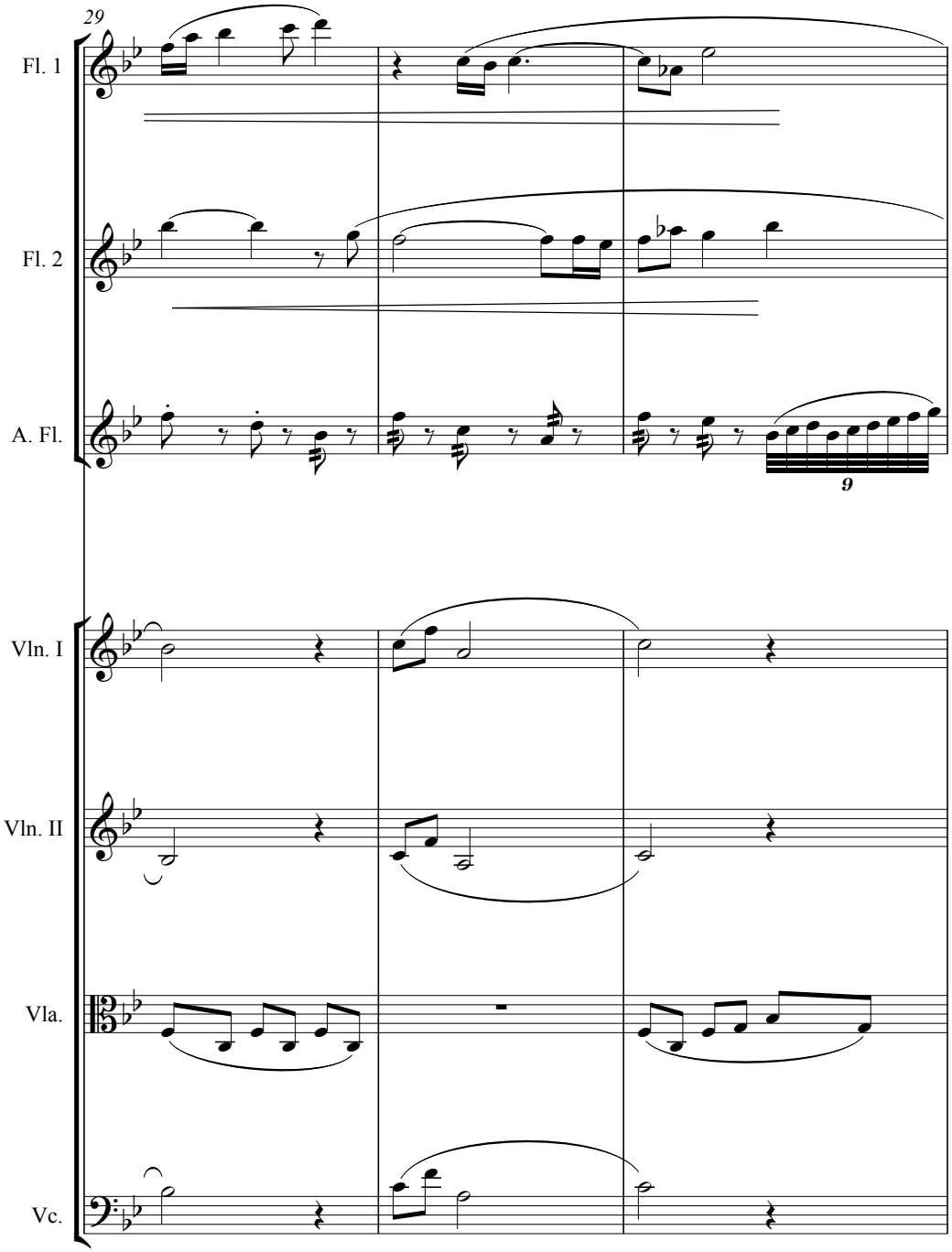

19
Fl. 1
f
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.

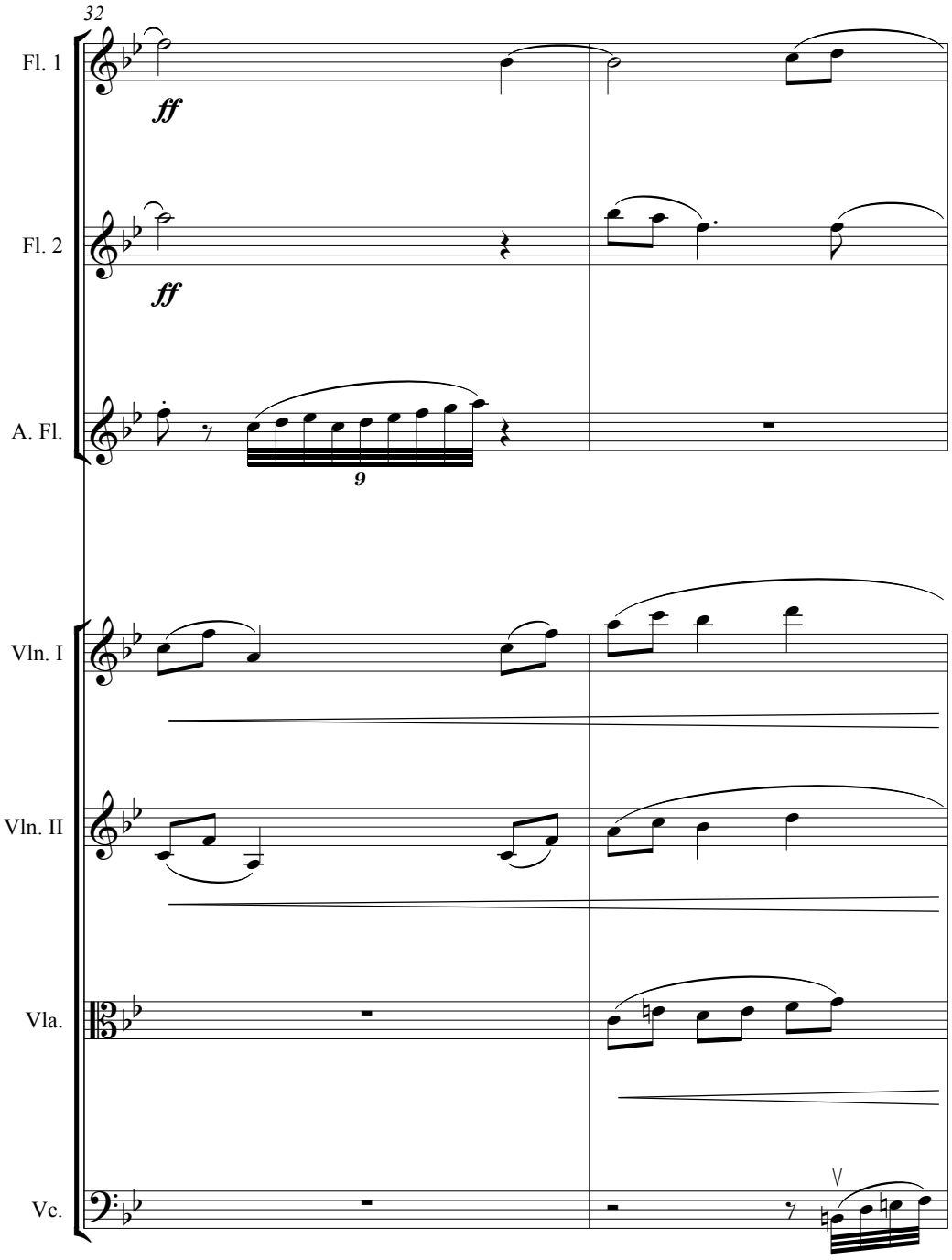

21
Fl. 1
pp
Fl. 2
pp
A. Fl.
9
Vln. I
Vln. II
Vla.
Vc.

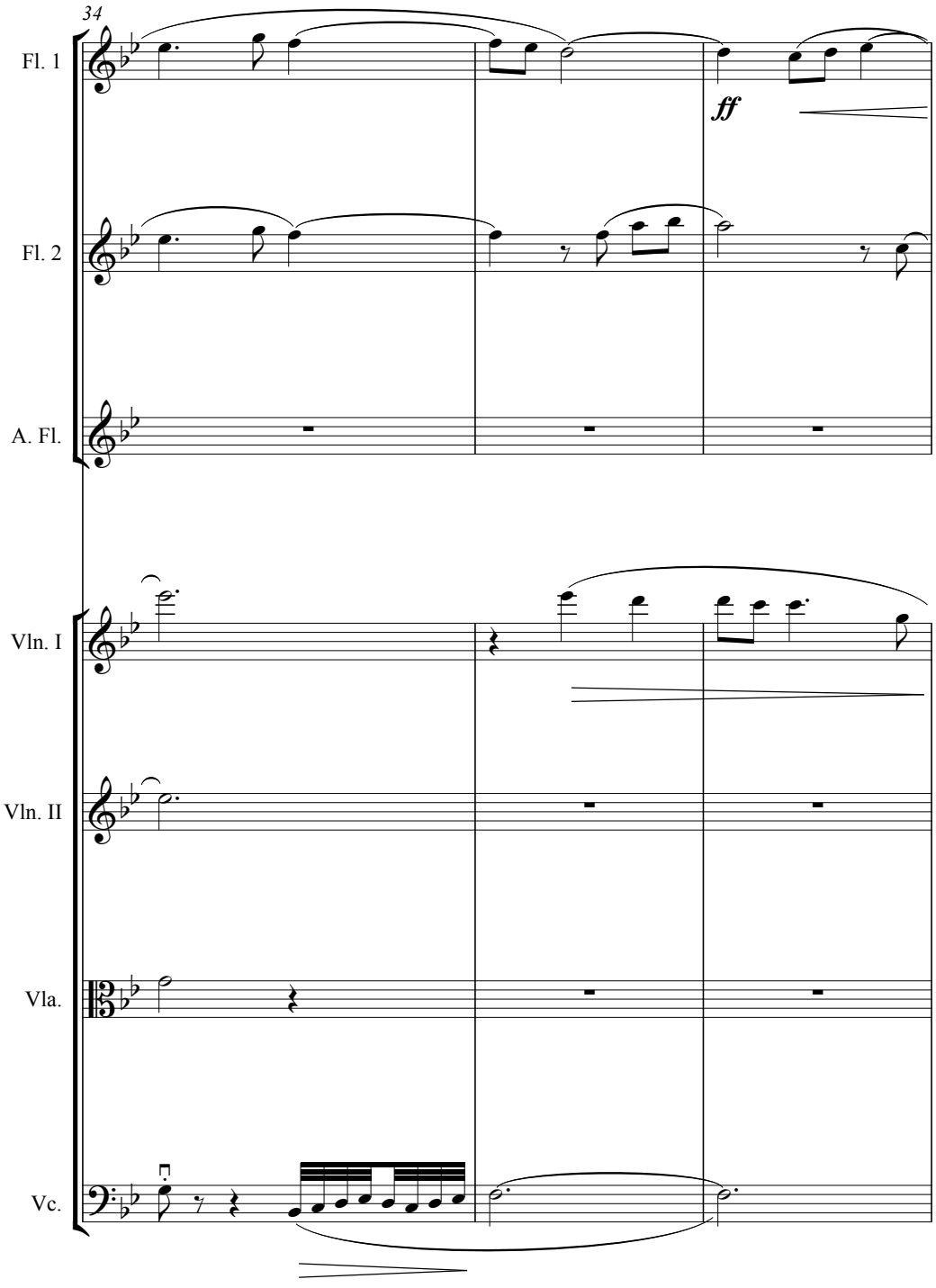

23
Fl. 1
f
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.

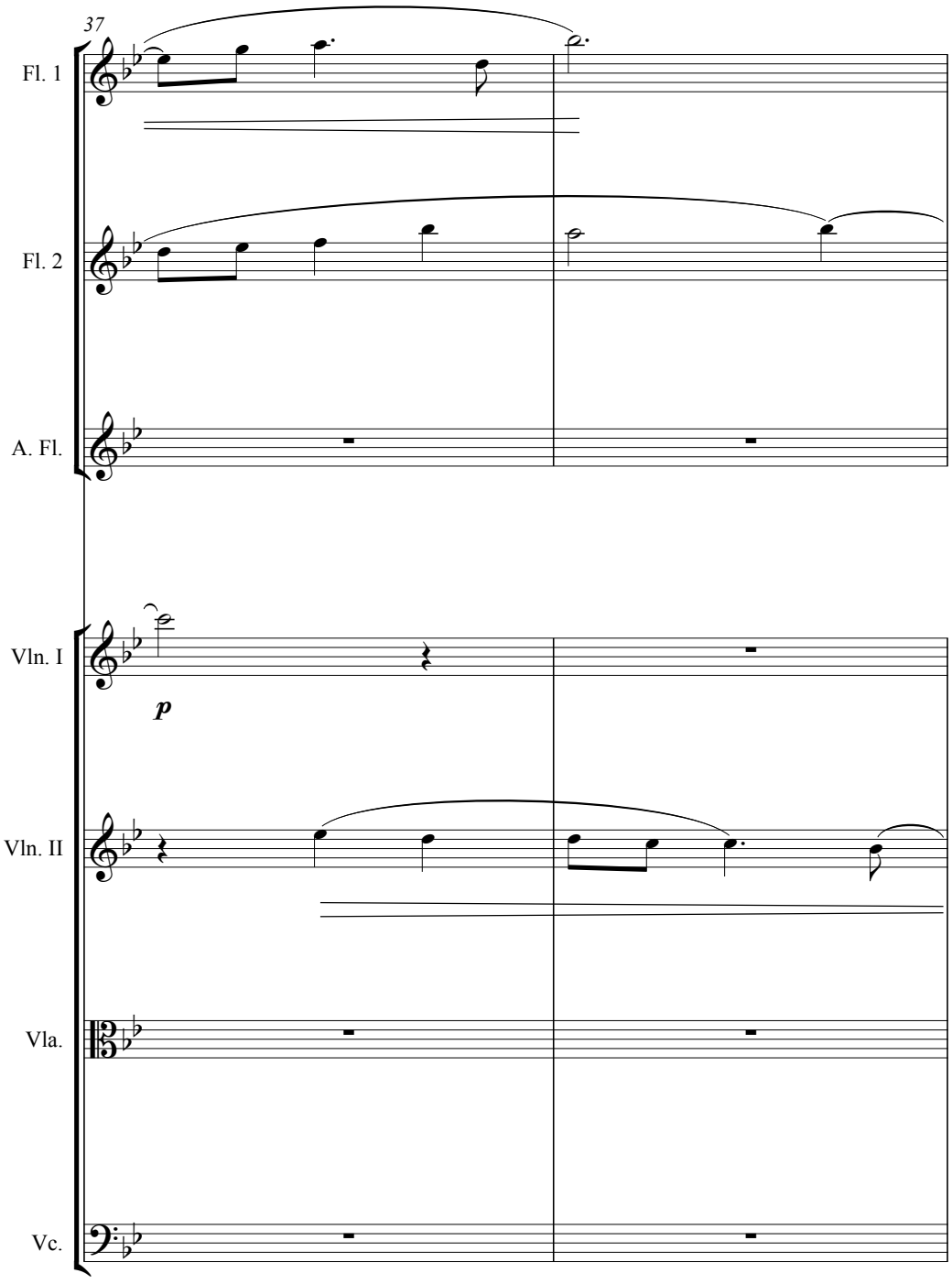

25
Fl. 1
p
Fl. 2
p
cresc.
A. Fl.
Vln. I
f
Vln. II
f
Vla.
f
Vc.
f

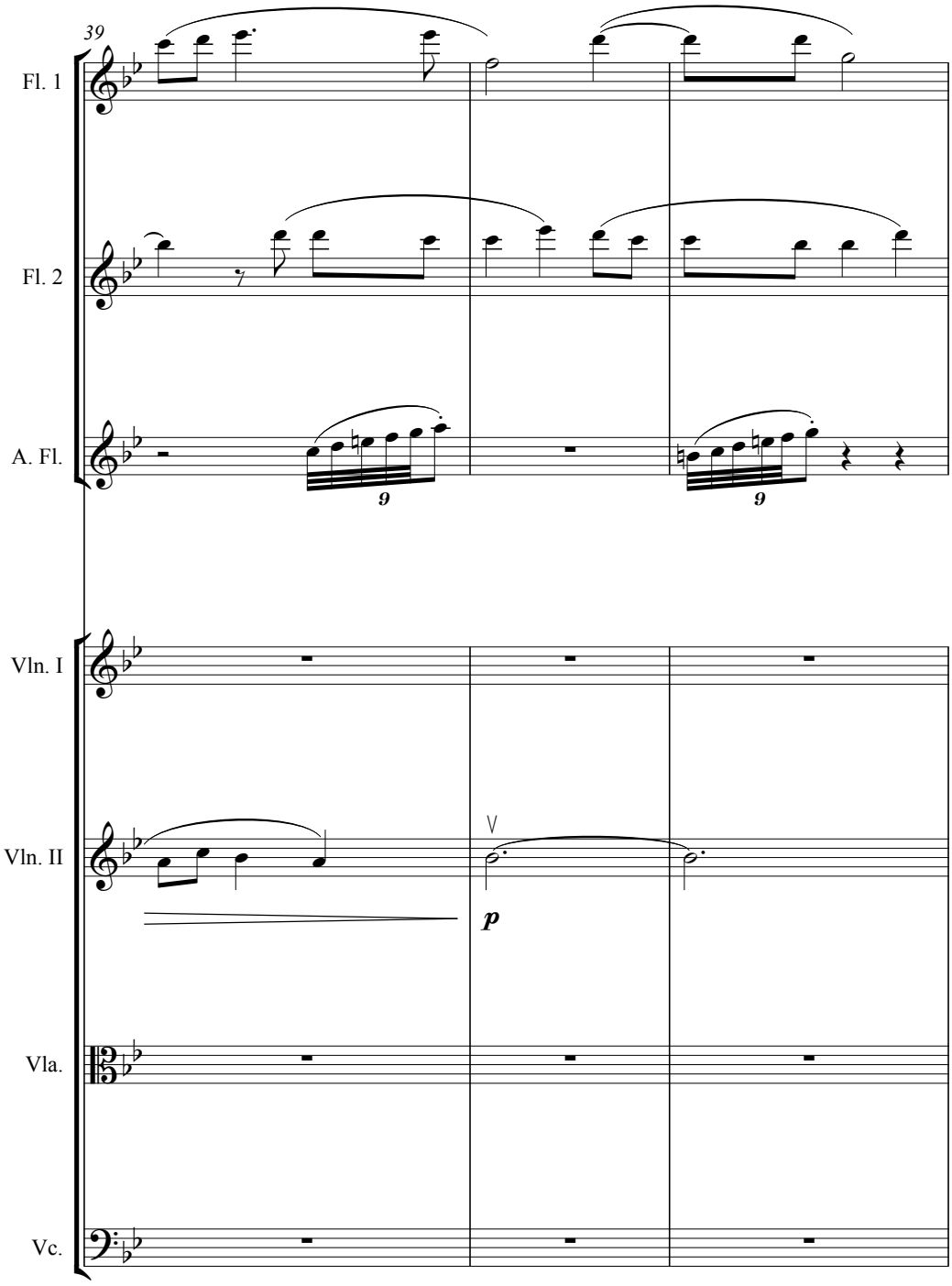

27
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
f
f
9
9

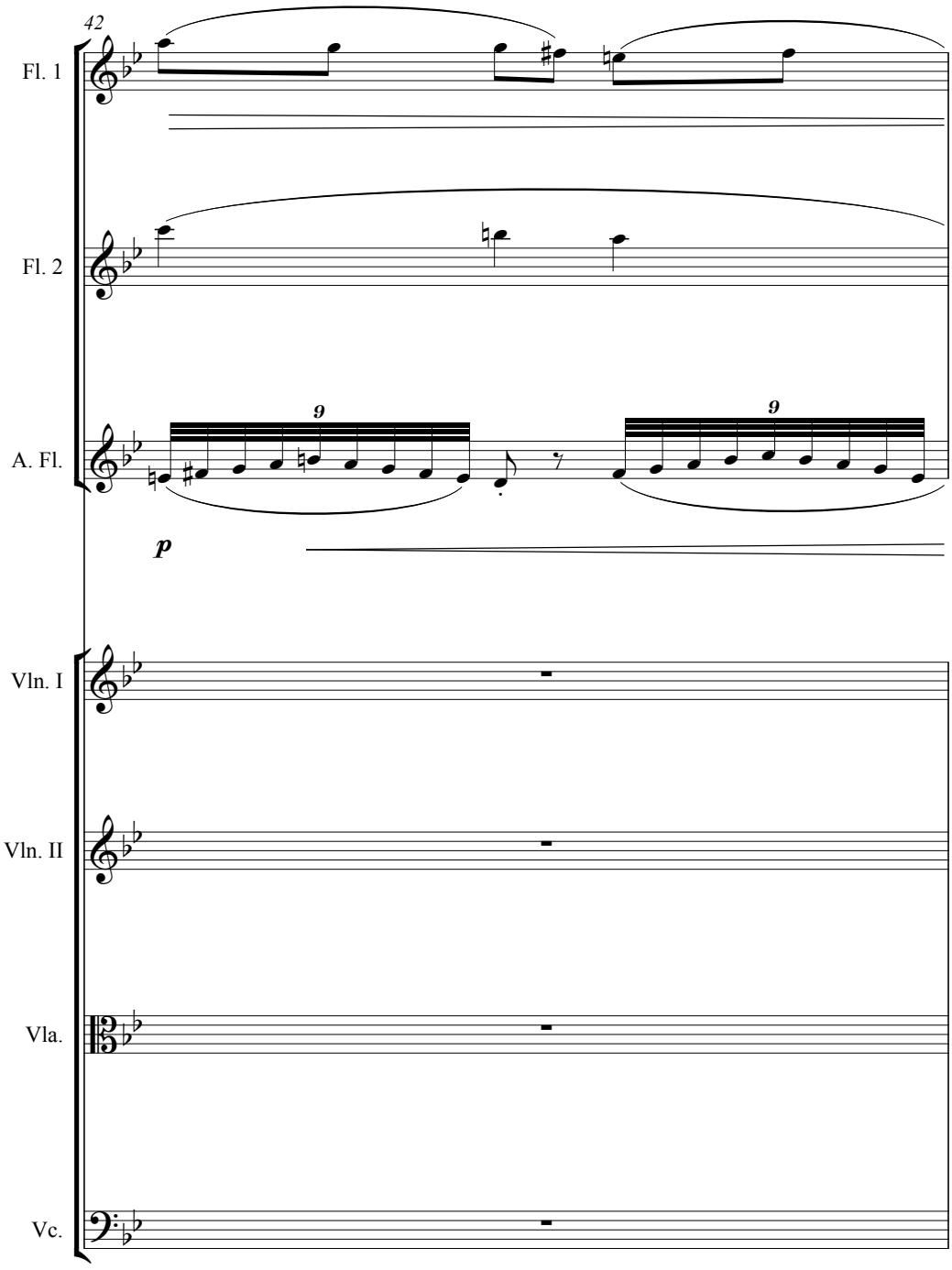

29
Fl. 1
Fl. 2
A. Fl.
9
Vln. I
Vln. II
Vla.
Vc.

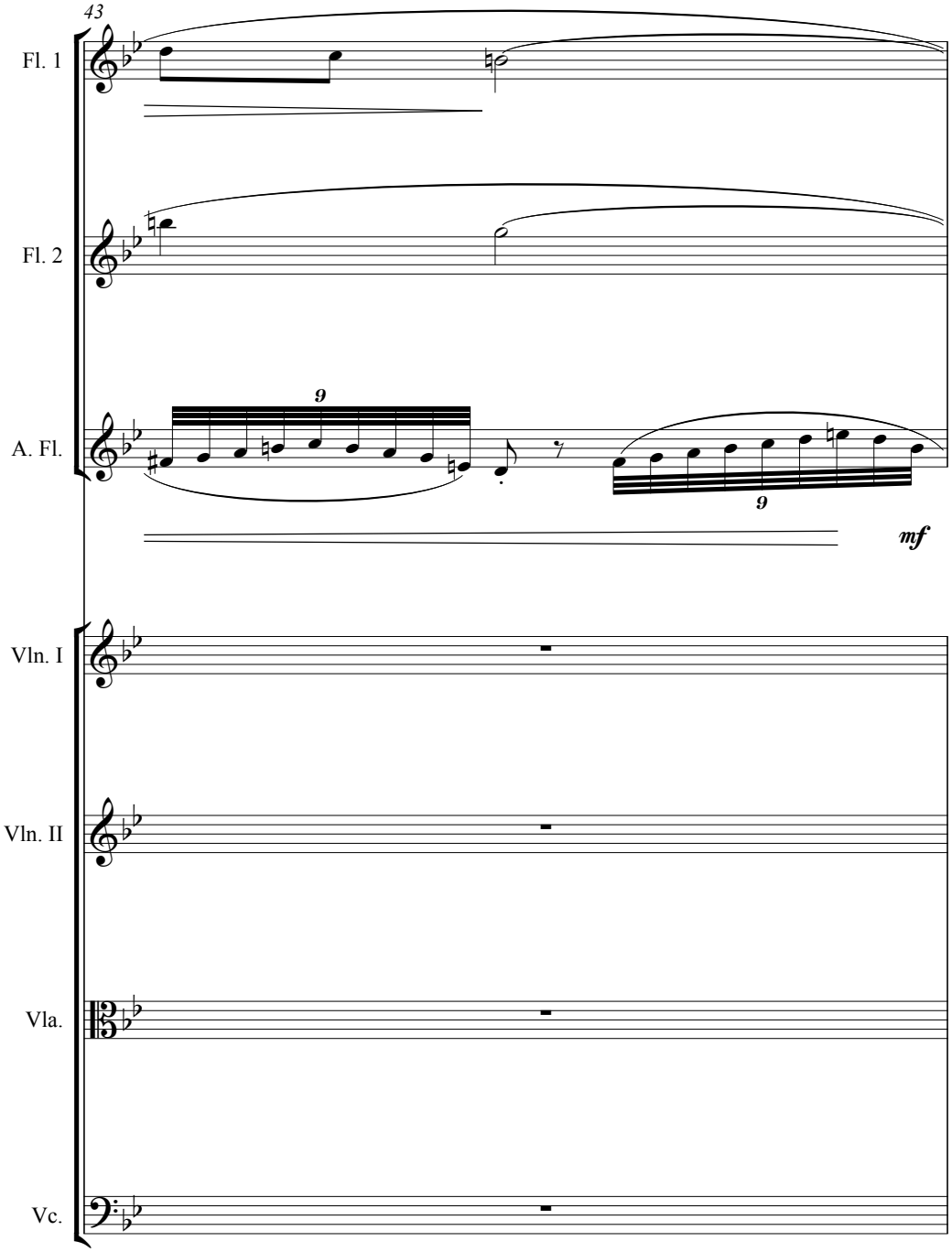

32
Fl. 1
ff
Fl. 2
ff
A. Fl.
9
Vln. I
Vln. II
Vla.
Vc.
V

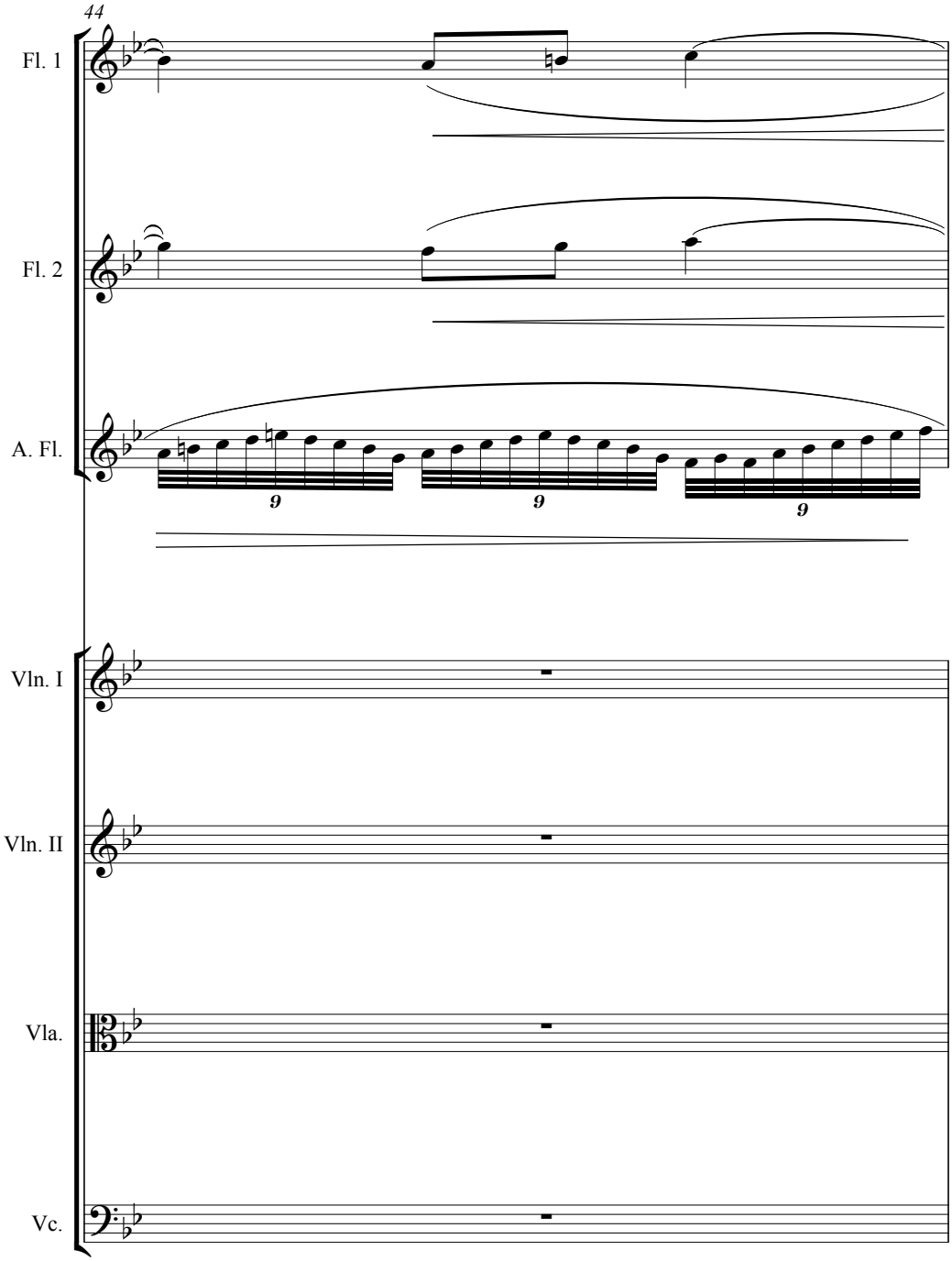

34
Fl. 1
ff
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.

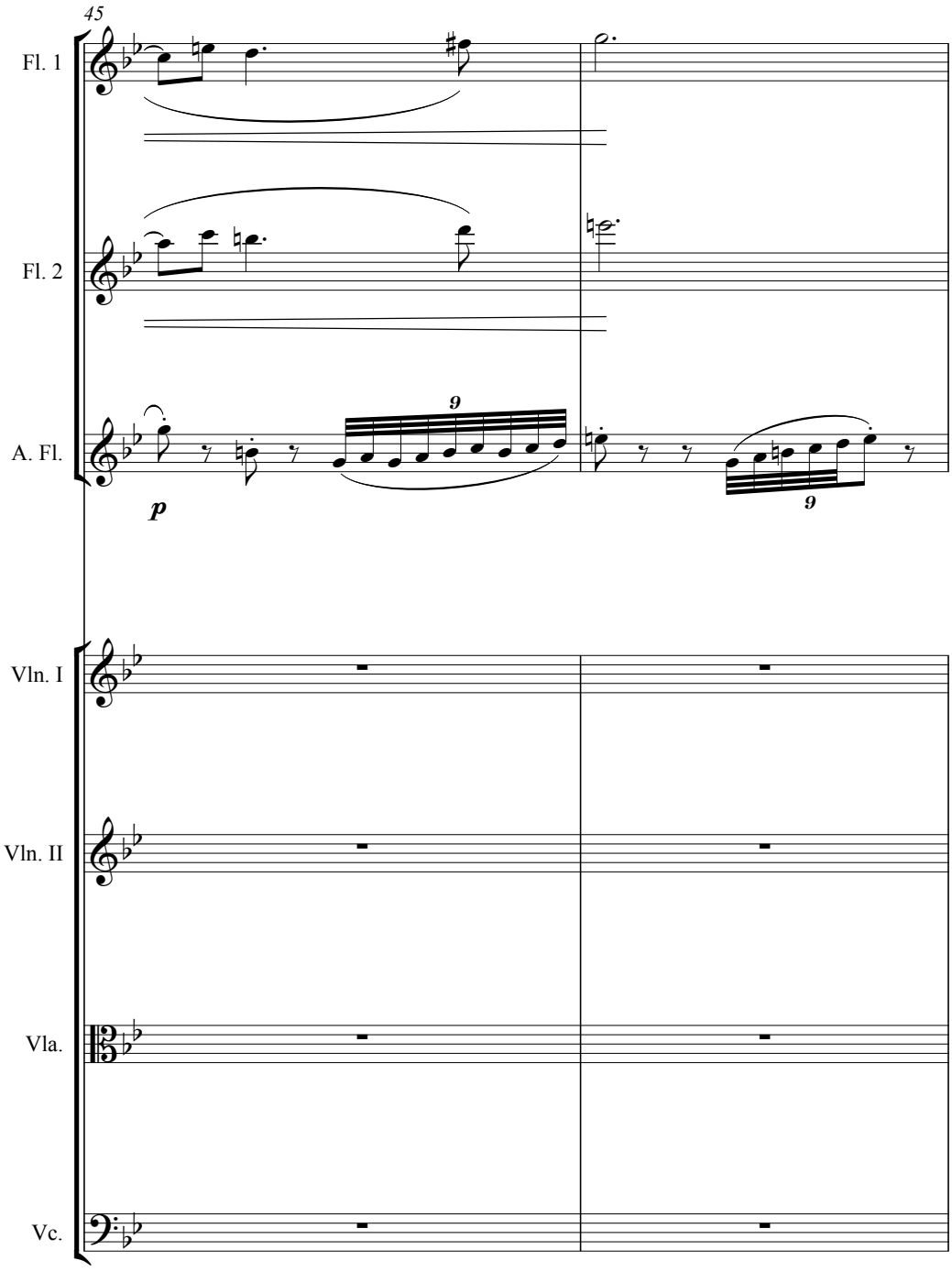

37
Fl. 1
Fl. 2
A. Fl.
Vln. I
p
Vln. II
Vla.
Vc.

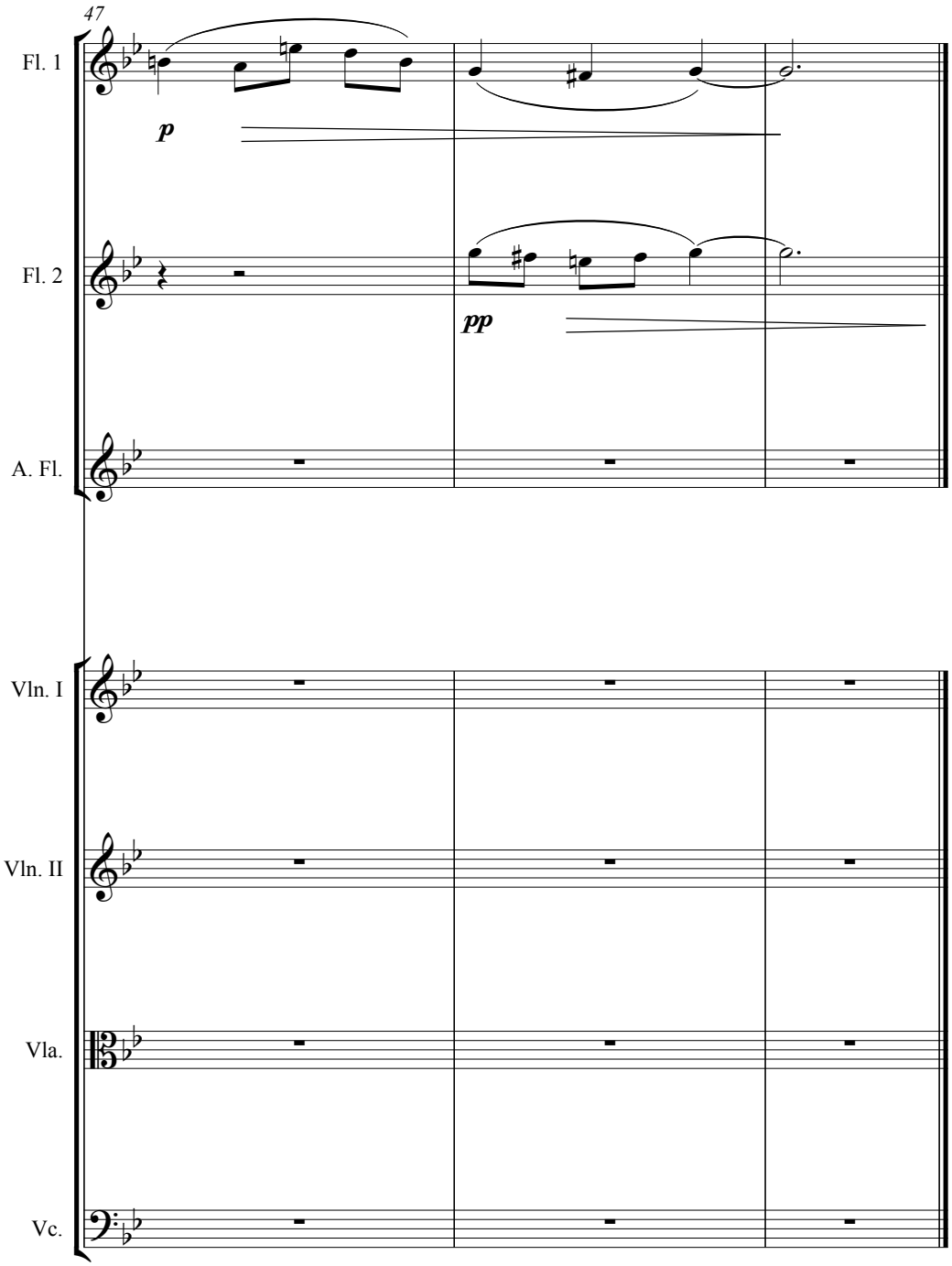

39
Fl. 1
Fl. 2
A. Fl.
9
9
Vln. I
Vln. II
V
p
Vla.
Vc.


42
Fl. 1
Fl. 2
A. Fl.
9
9
p
Vln. I
Vln. II
Vla.
Vc.


43
Fl. 1
Fl. 2
A. Fl.
9
9
mf
Vln. I
Vln. II
Vla.
Vc.


44
Fl. 1
Fl. 2
A. Fl.
9
9
9
Vln. I
Vln. II
Vla.
Vc.

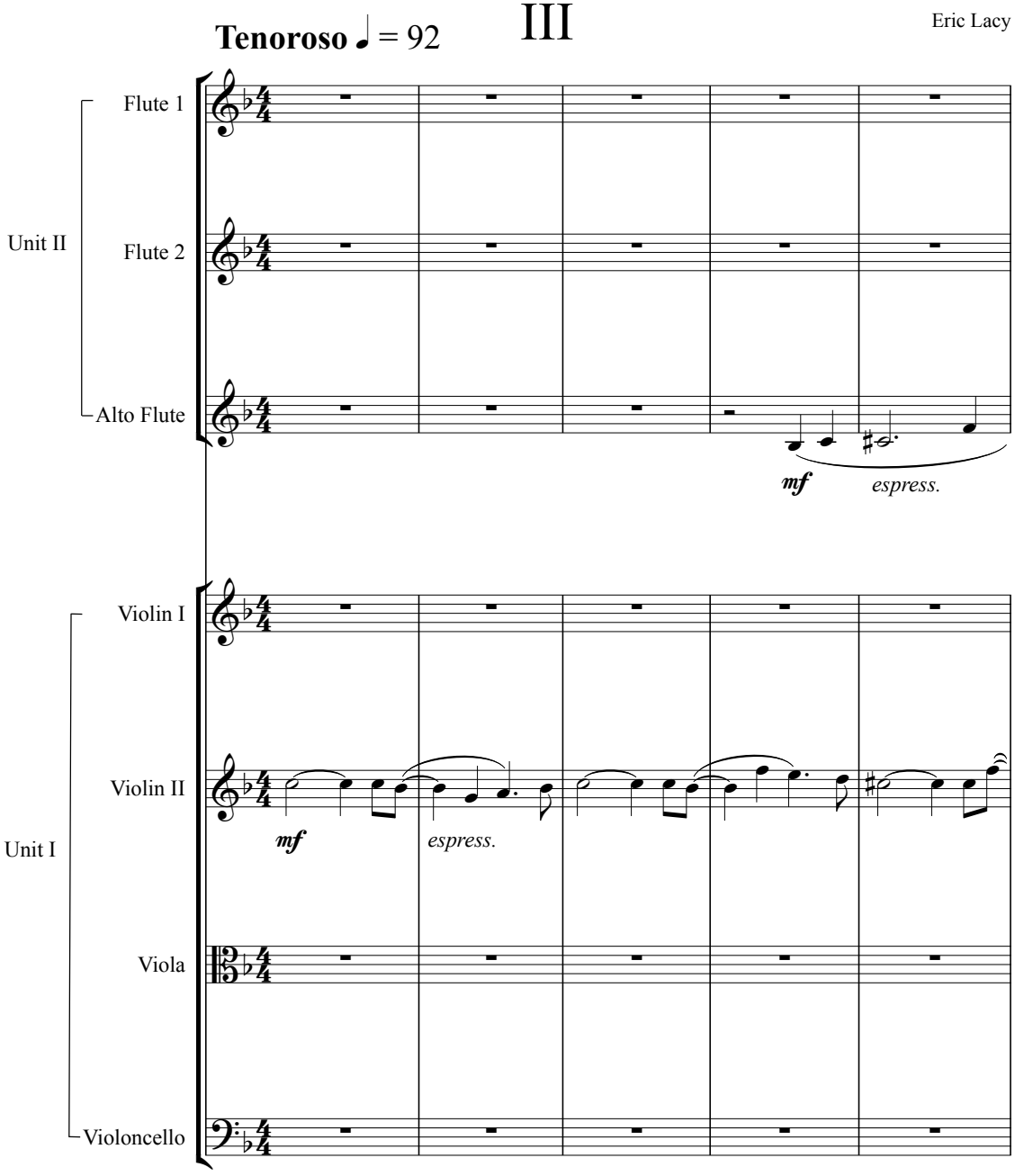

45
Fl. 1
Fl. 2
A. Fl.
p
9
9
Vln. I
Vln. II
Vla.
Vc.

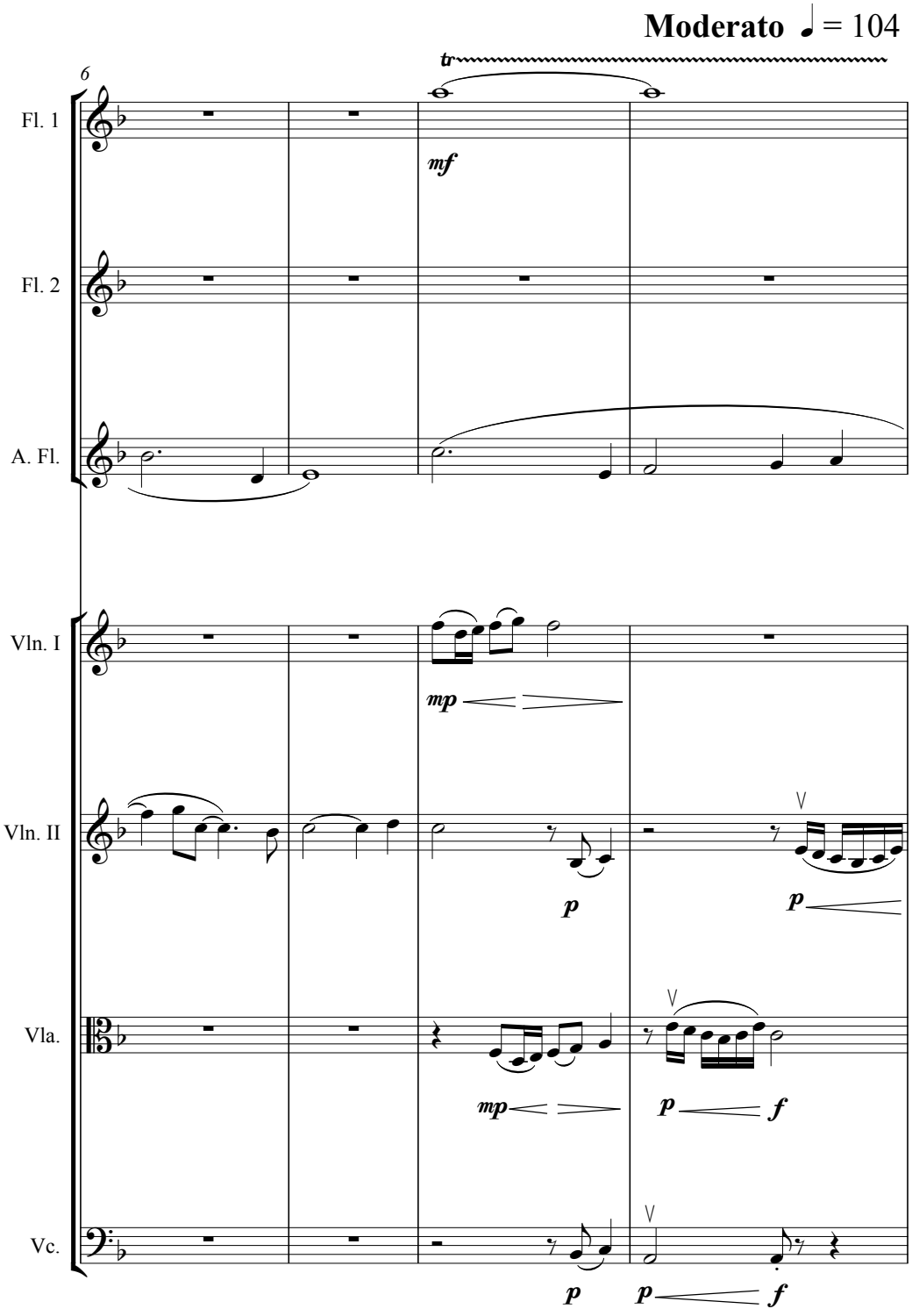

47
Fl. 1
p
Fl. 2
pp
A. Fl.
Vln. I
Vln. II
Vla.
Vc.

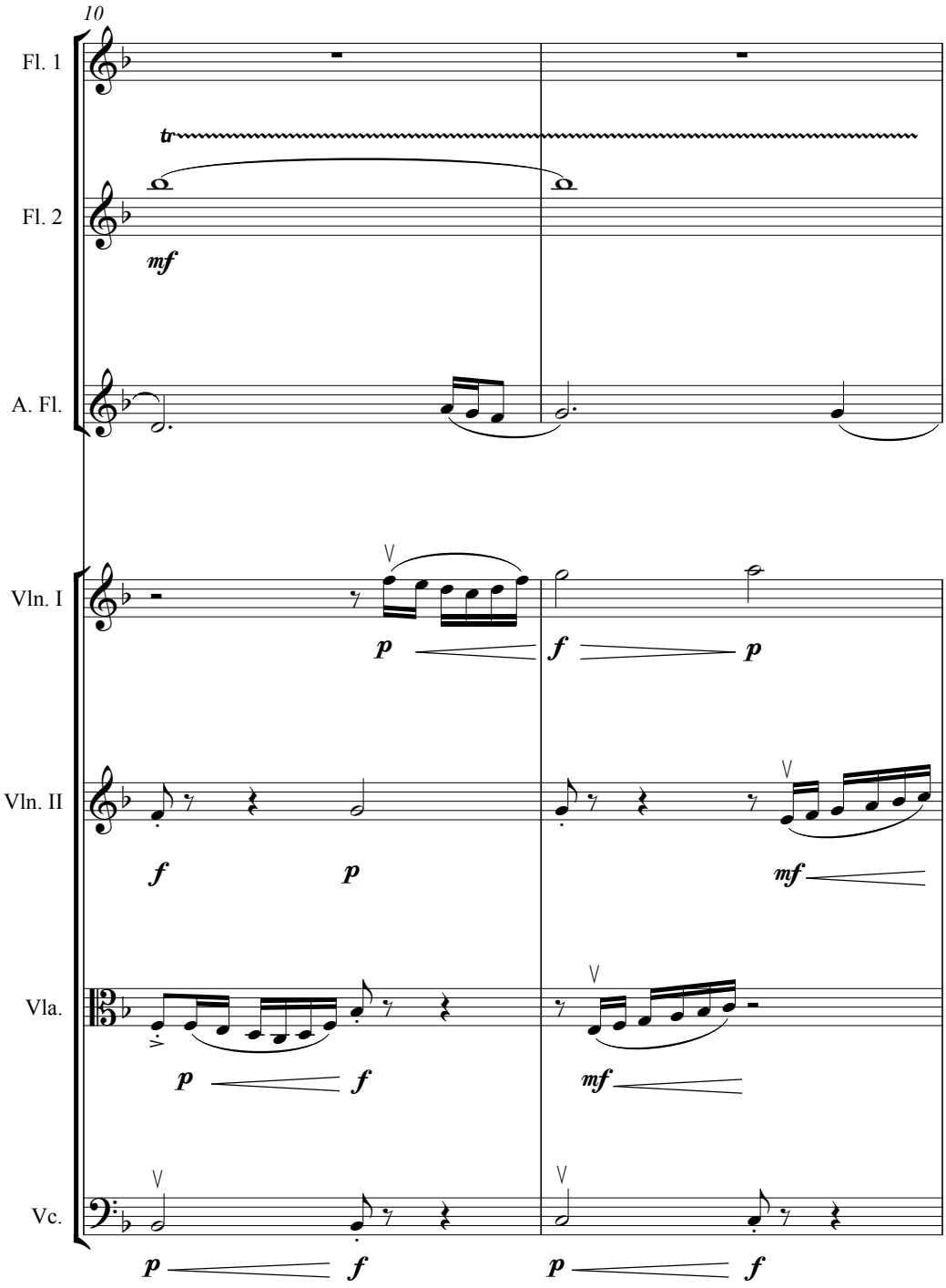
Bipolarity

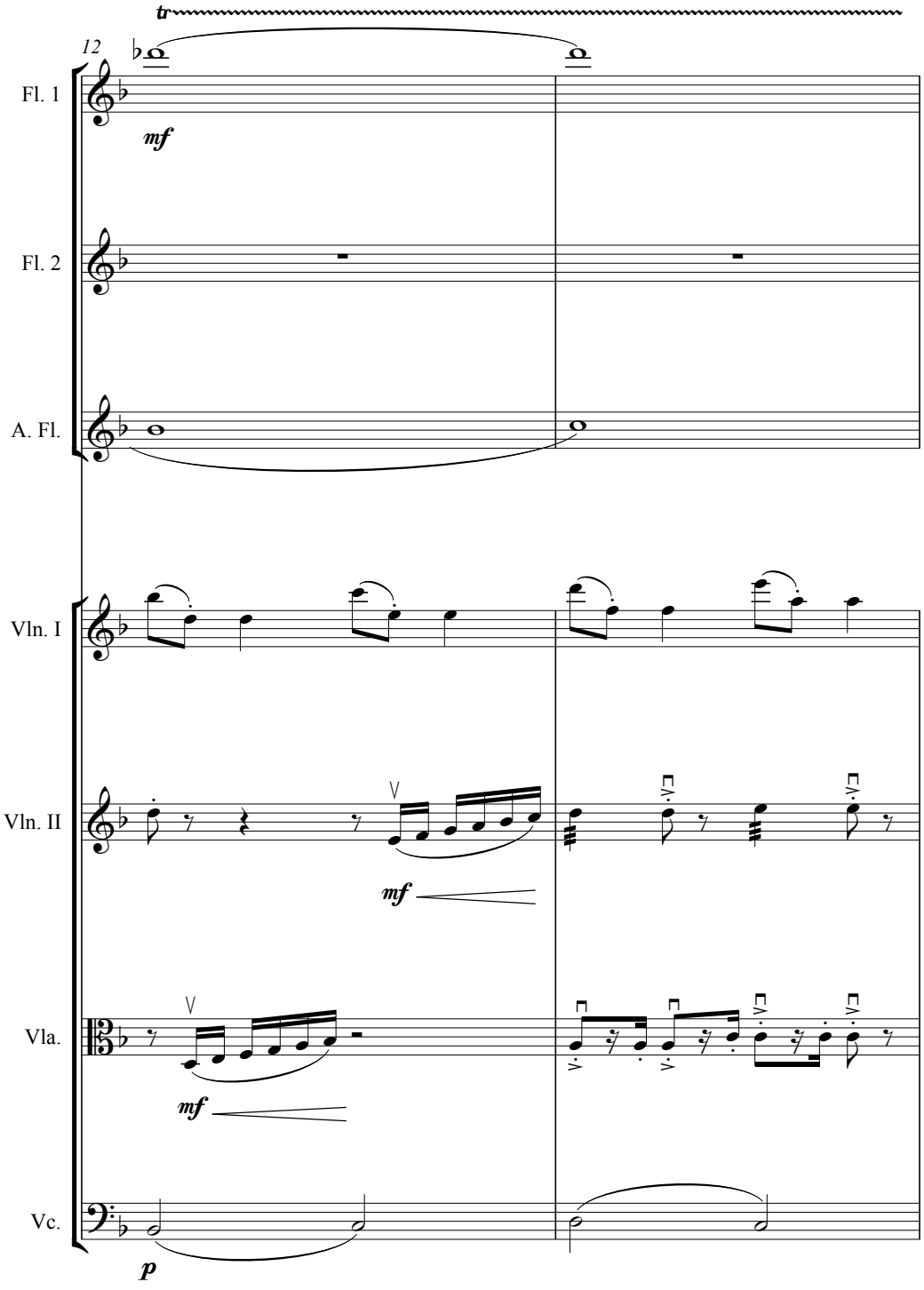
III

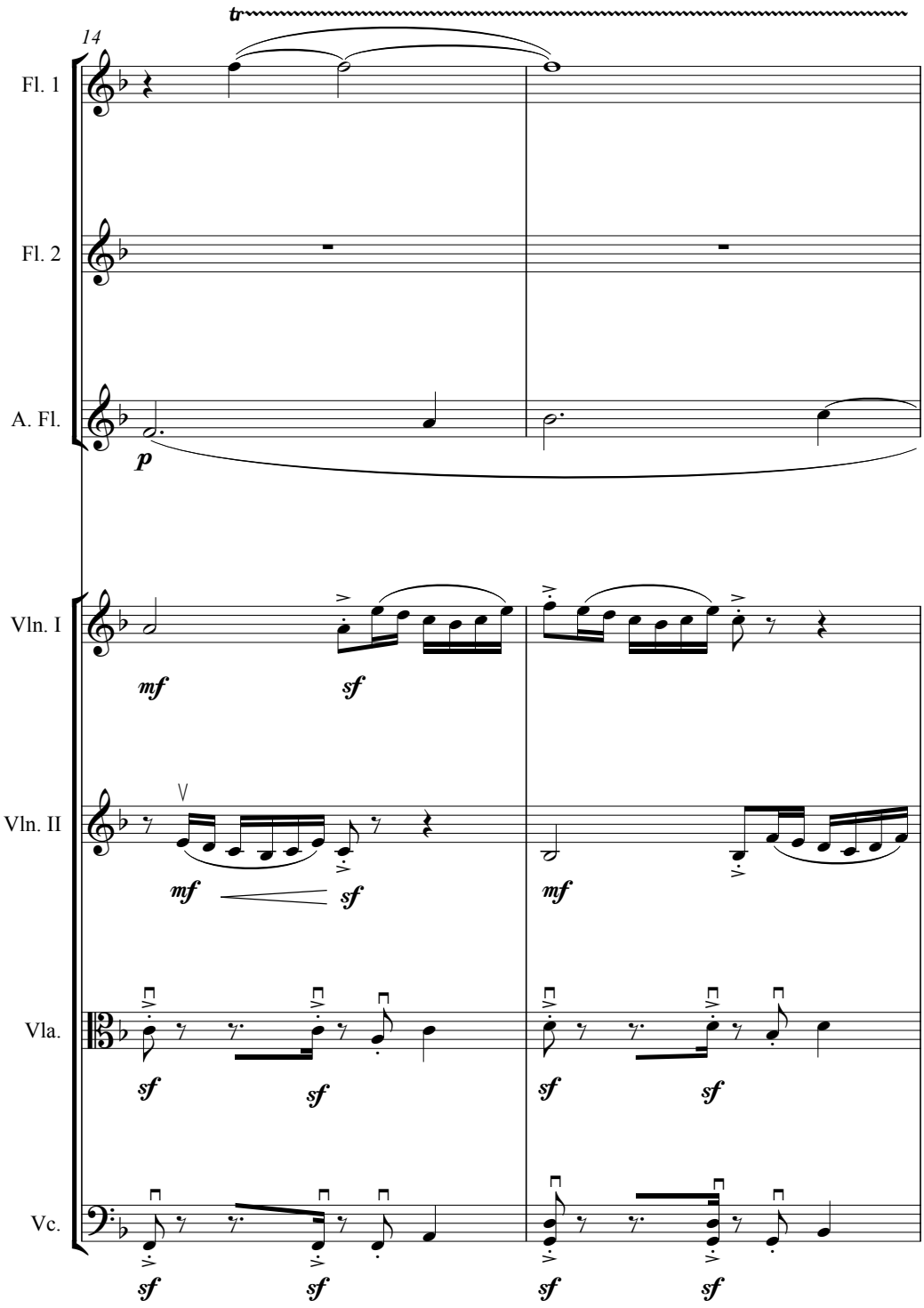
Eric Lacy

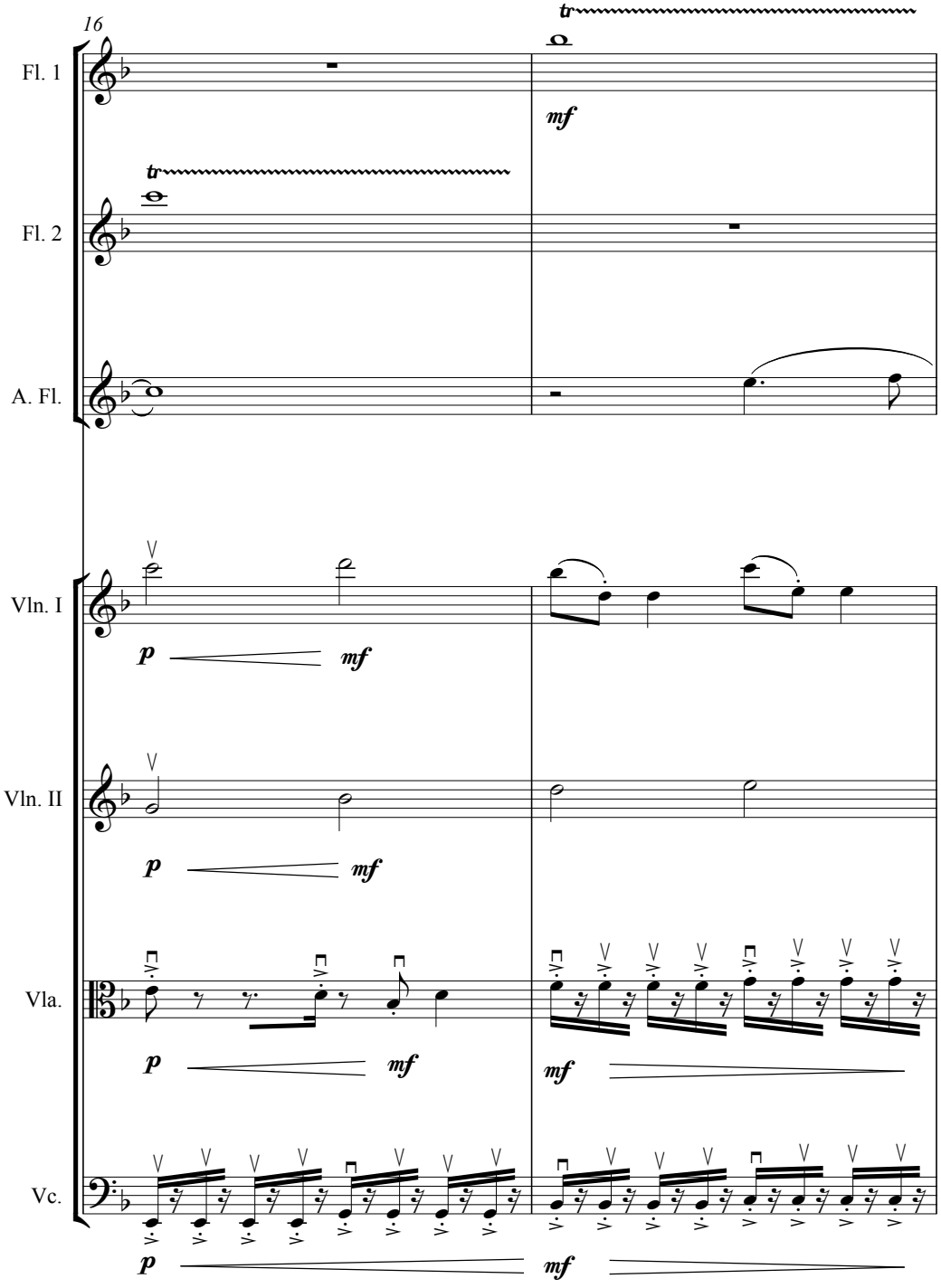


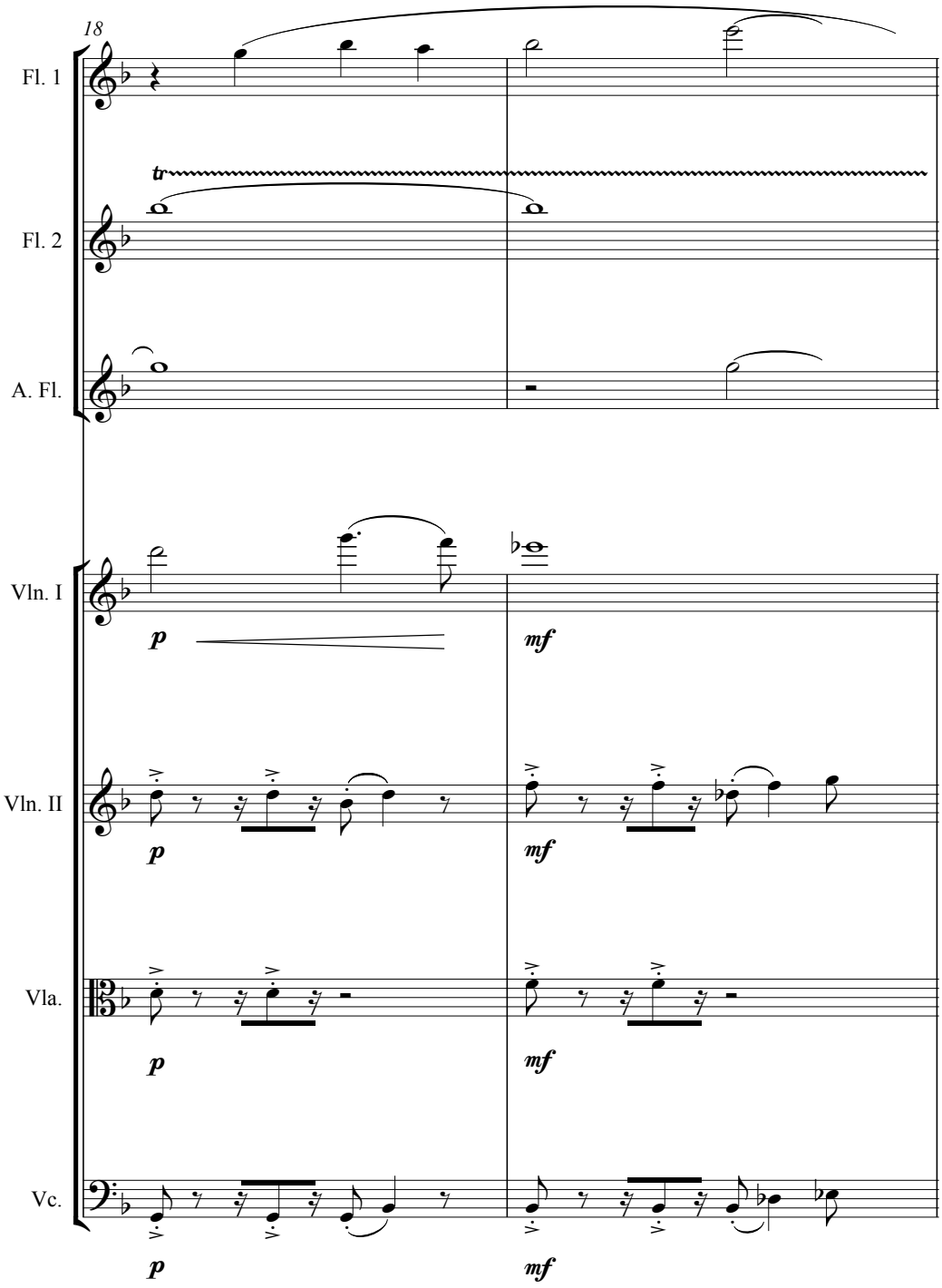

Moderato ♩ = 104
6
tr
Fl. 1
mf
Fl. 2
A. Fl.
Vln. I
mp
Vln. II
p
p
Vla.
mp
p
f
Vc.
p
p
f

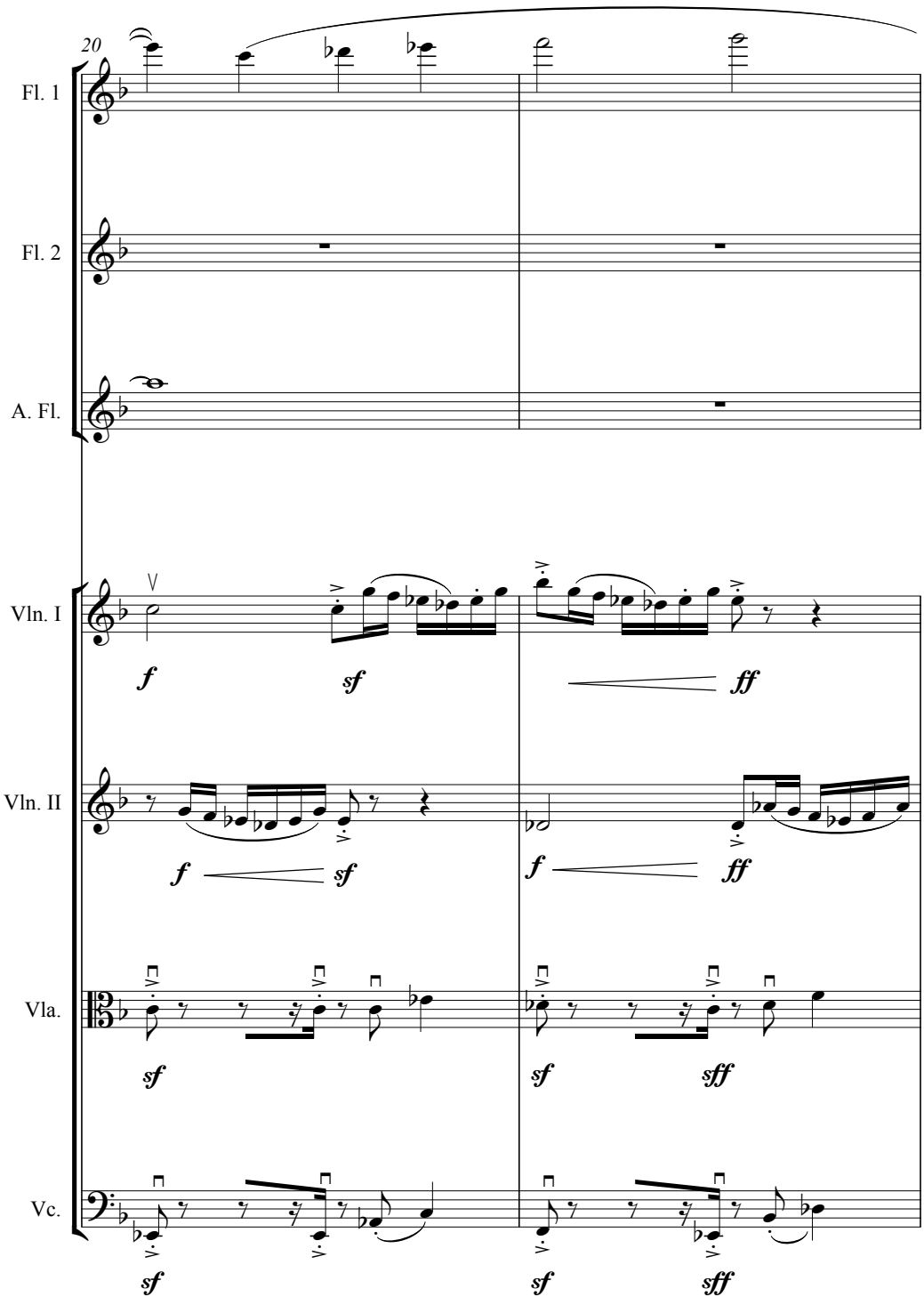

10
Fl. 1
tr
Fl. 2
mf
A. Fl.
Vln. I
p
f
p
Vln. II
f
p
mf
Vla.
p
f
mf
Vc.
p
f
p
f


tr
12
Fl. 1
mf
Fl. 2
A. Fl.
Vln. I
Vln. II
mf
Vla.
mf
Vc.
p


14
tr
Fl. 1
Fl. 2
A. Fl.
p
Vln. I
mf
sf
Vln. II
mf
sf
mf
Vla.
sf
sf
sf
sf
Vc.
sf
sf
sf
sf


16
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
tr
mf
p
mf


18
Fl. 1
tr
Fl. 2
A. Fl.
Vln. I
p
mf
Vln. II
p
mf
Vla.
p
mf
Vc.
p
mf


20
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
f
sf
ff
f
sf
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ff
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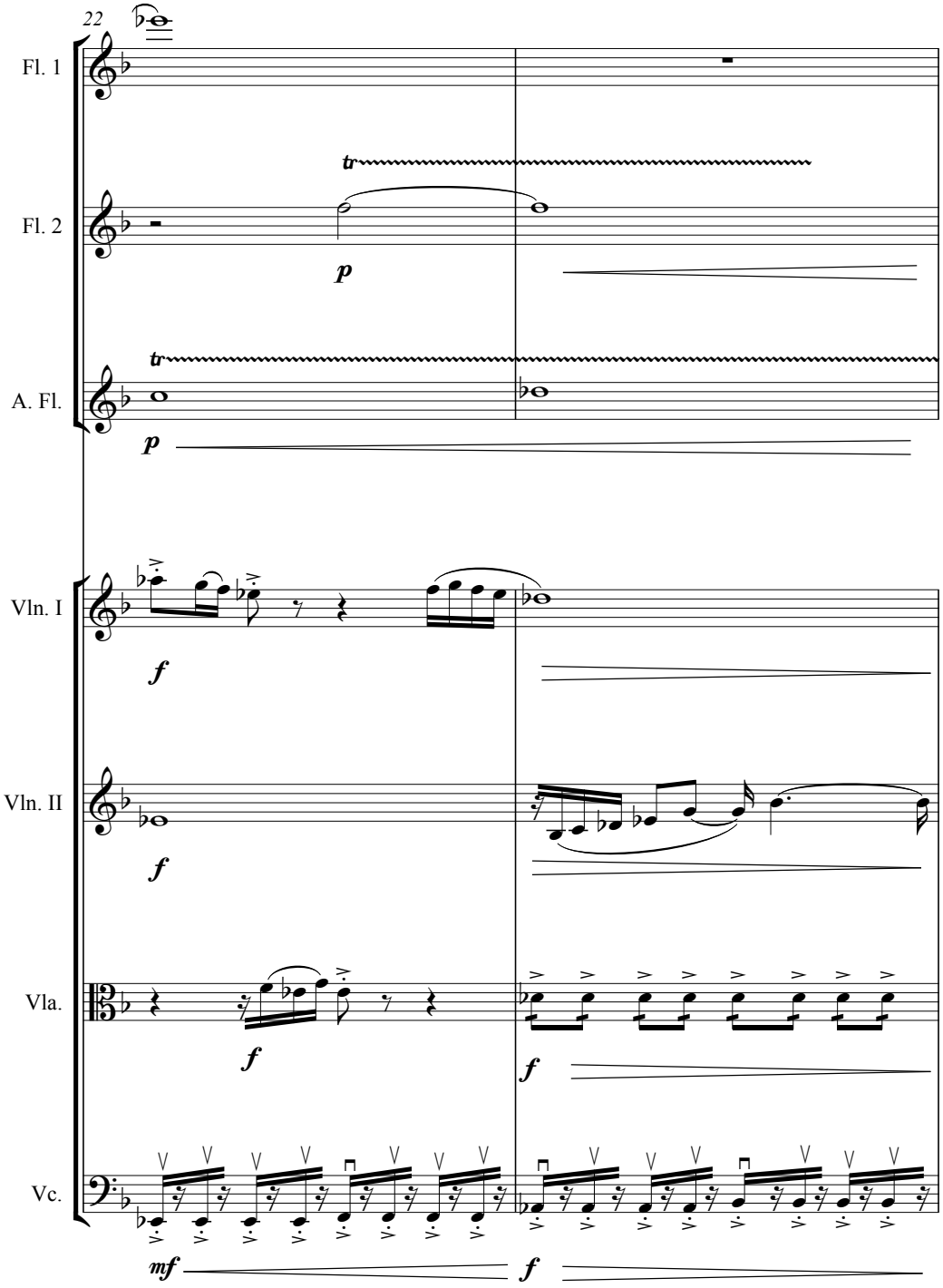
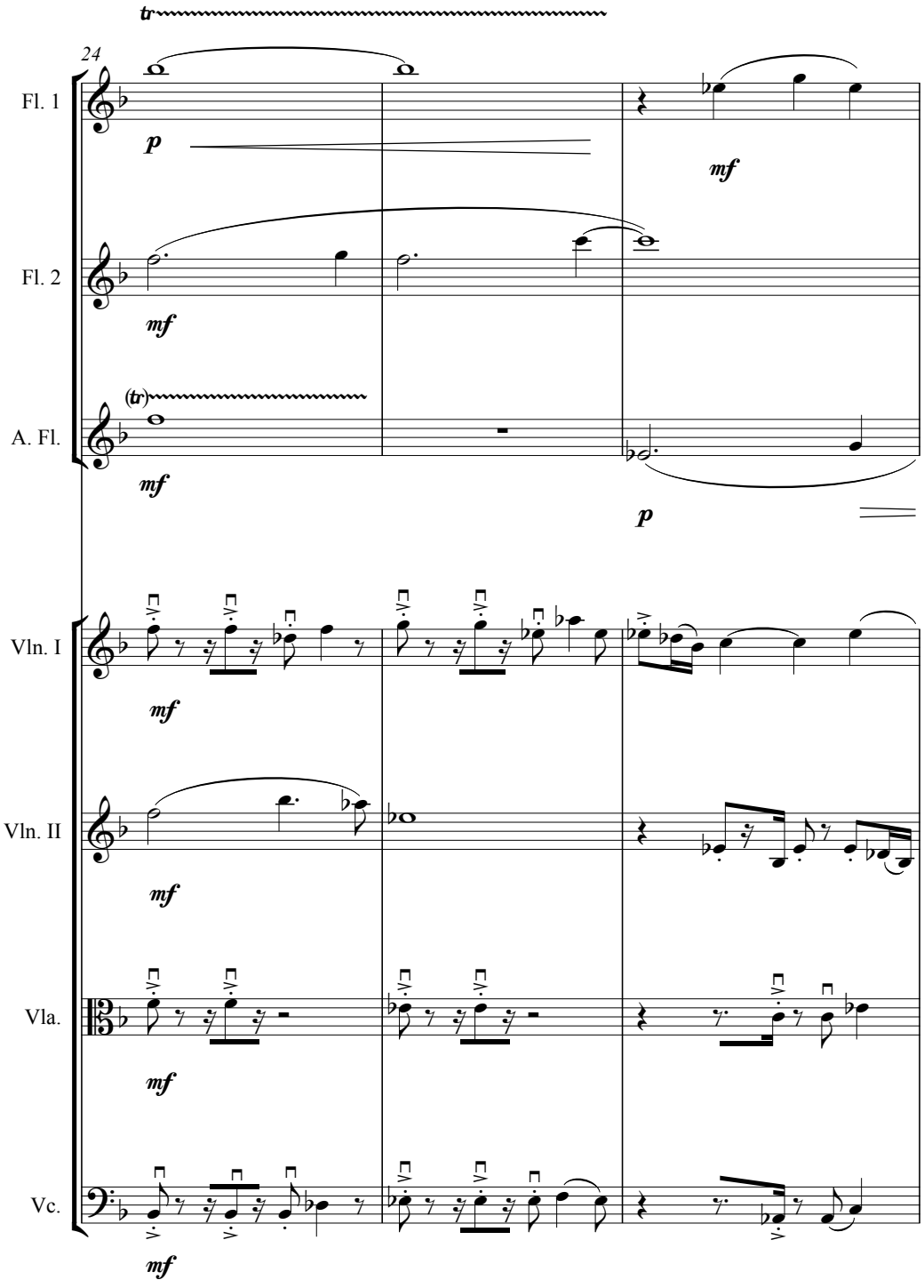
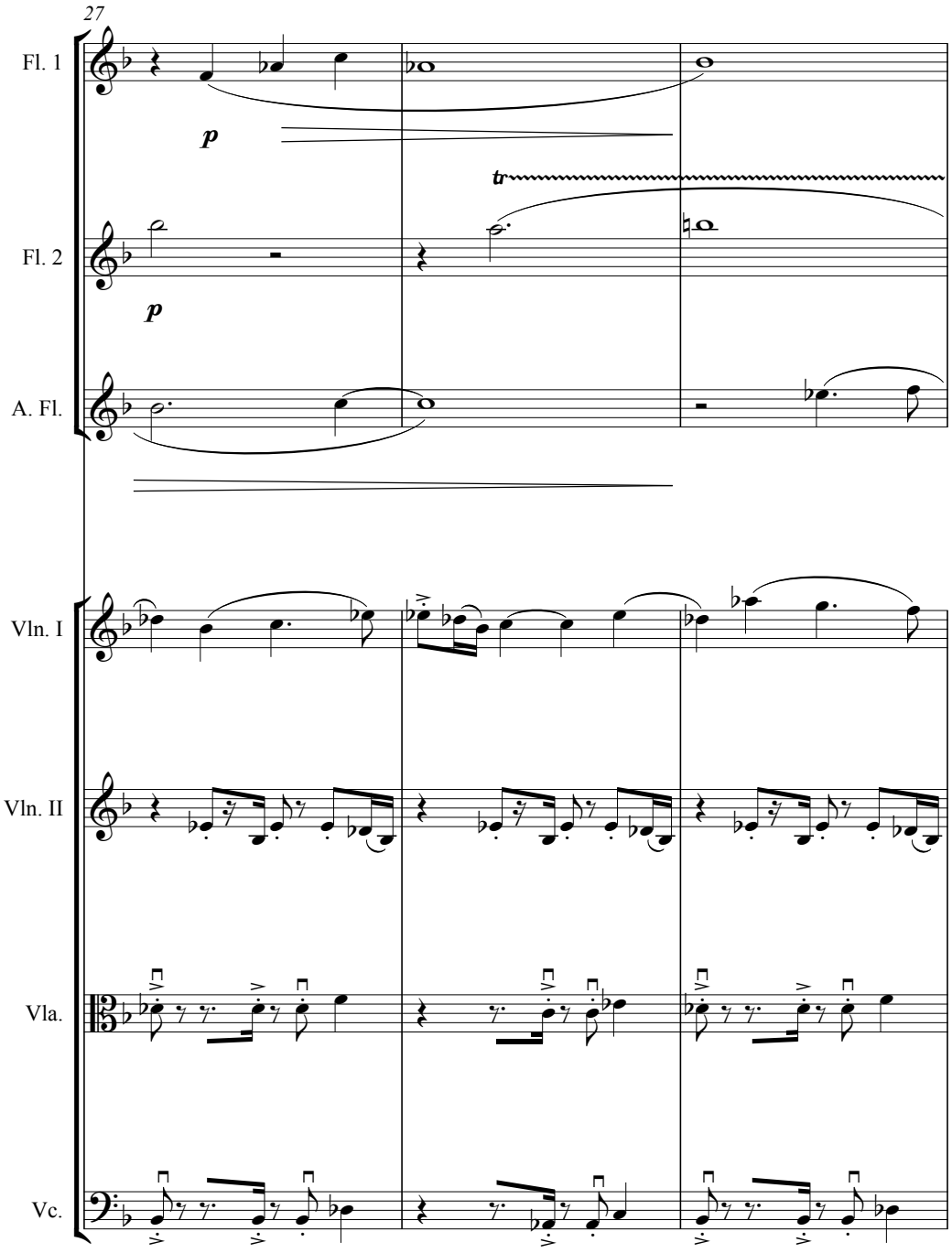
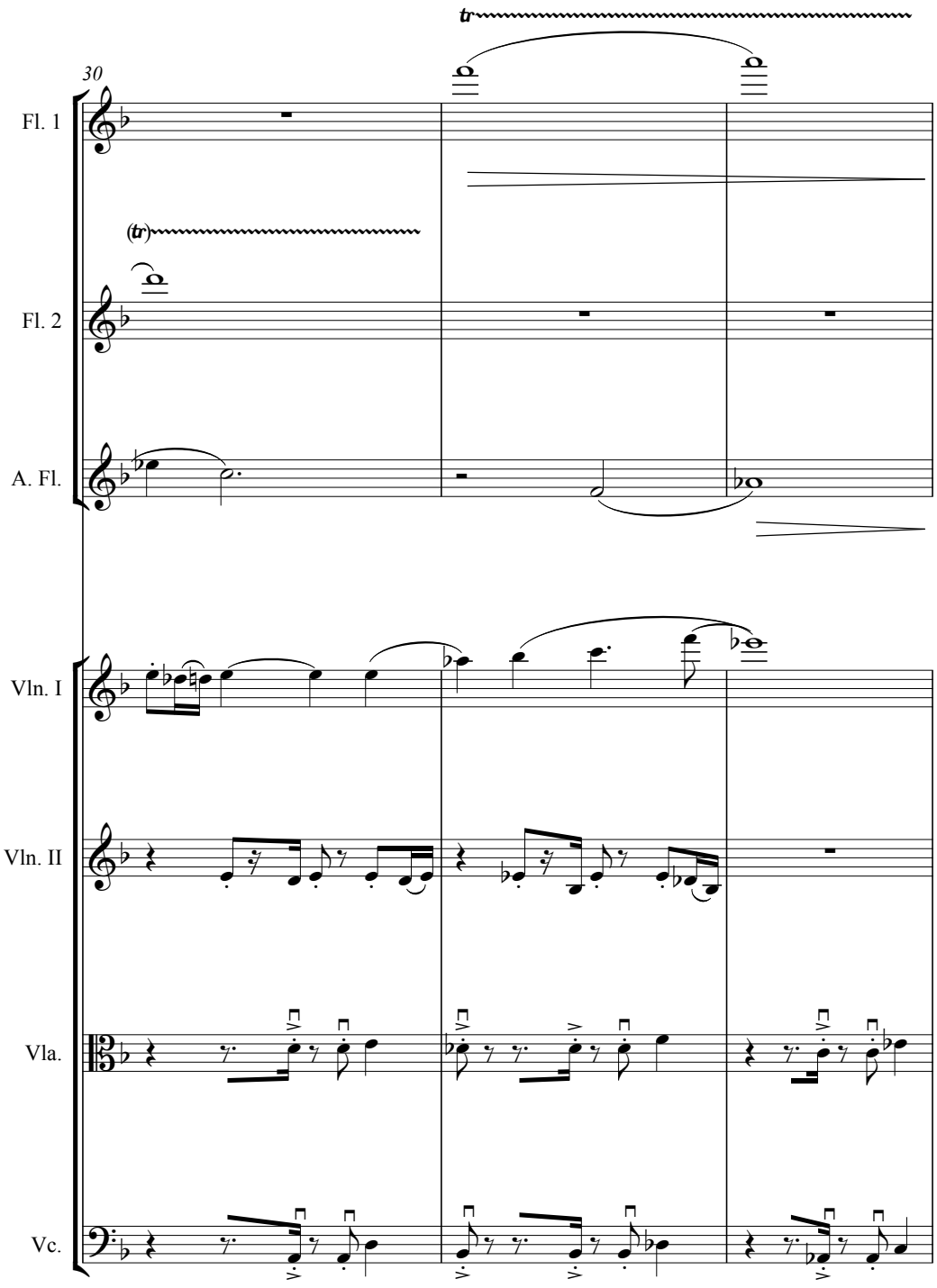
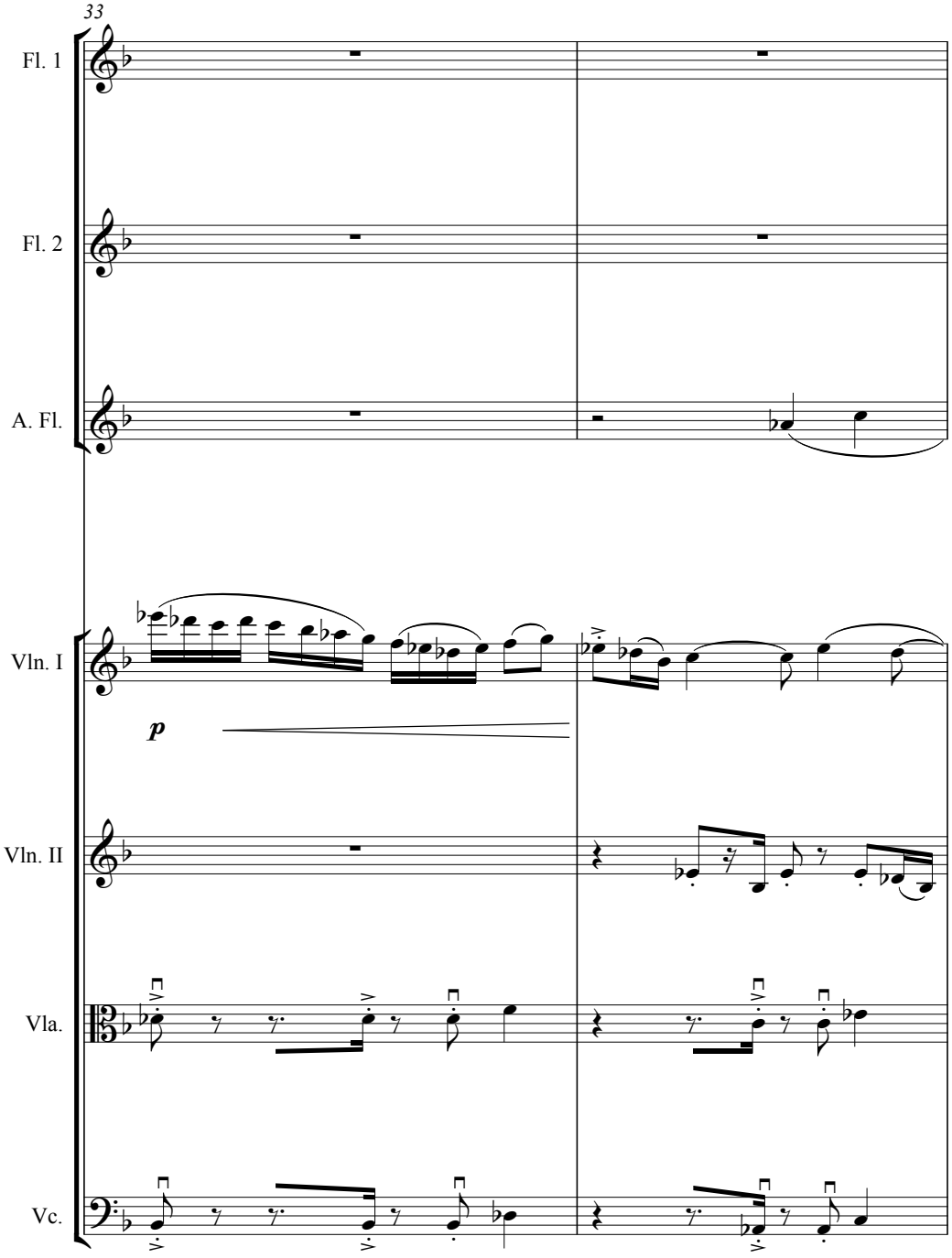
sff
sf
sf
sff

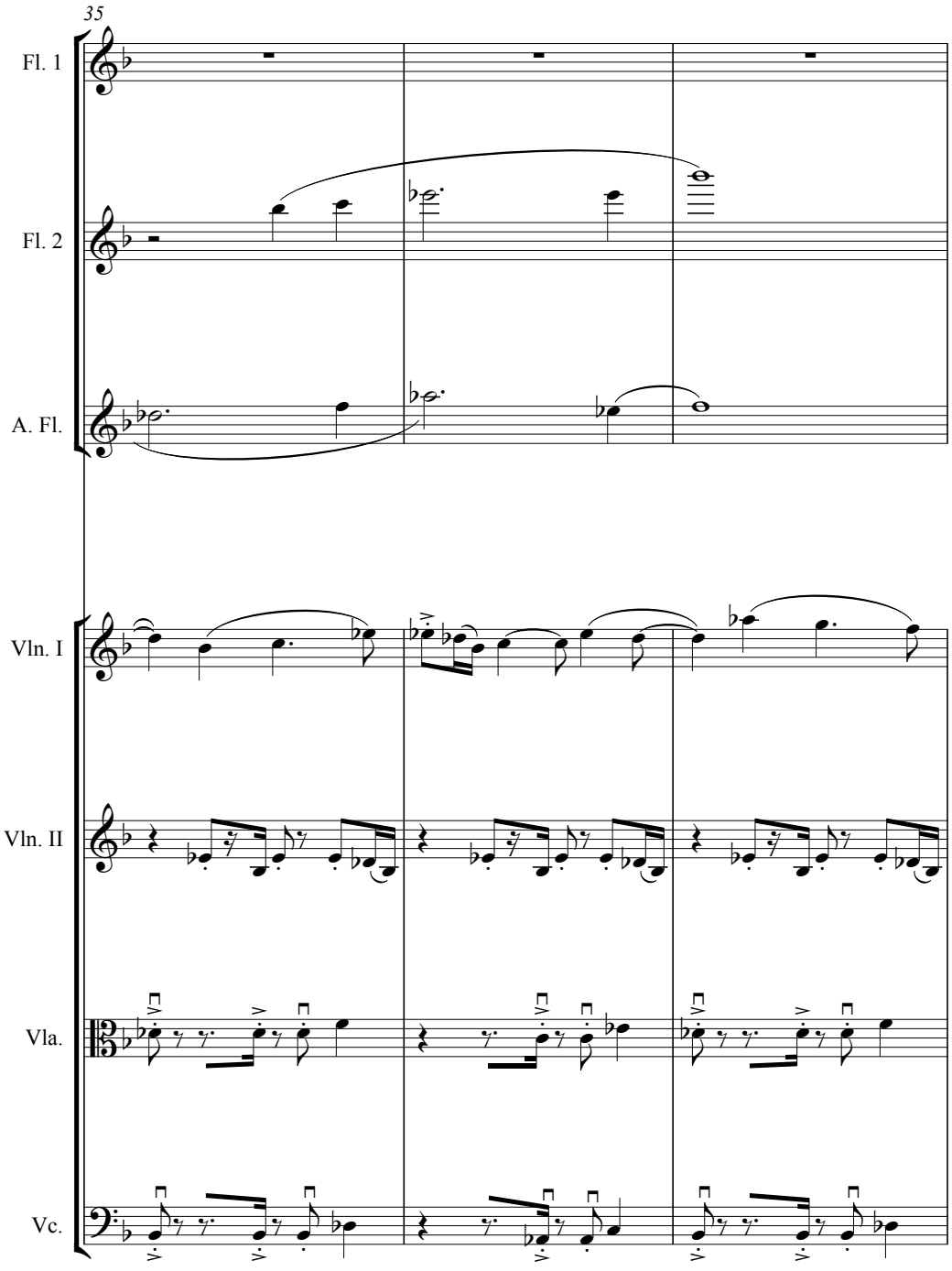

22
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
tr
tr
p
p
f
f
f
f
mf
f

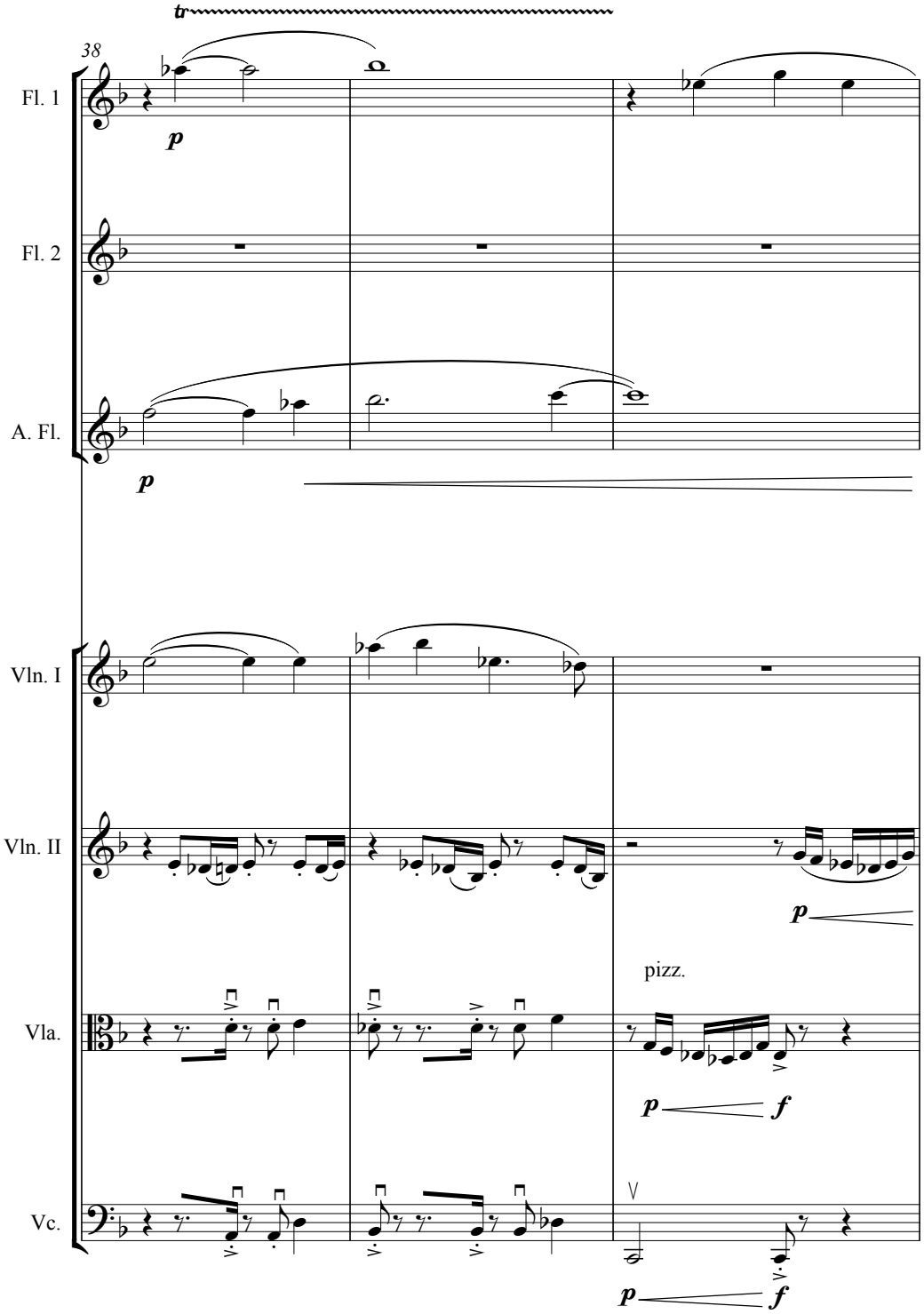

24
tr
Fl. 1
p
mf
Fl. 2
mf
(tr)
A. Fl.
mf
p
Vln. I
mf
Vln. II
mf
Vla.
mf
Vc.
mf

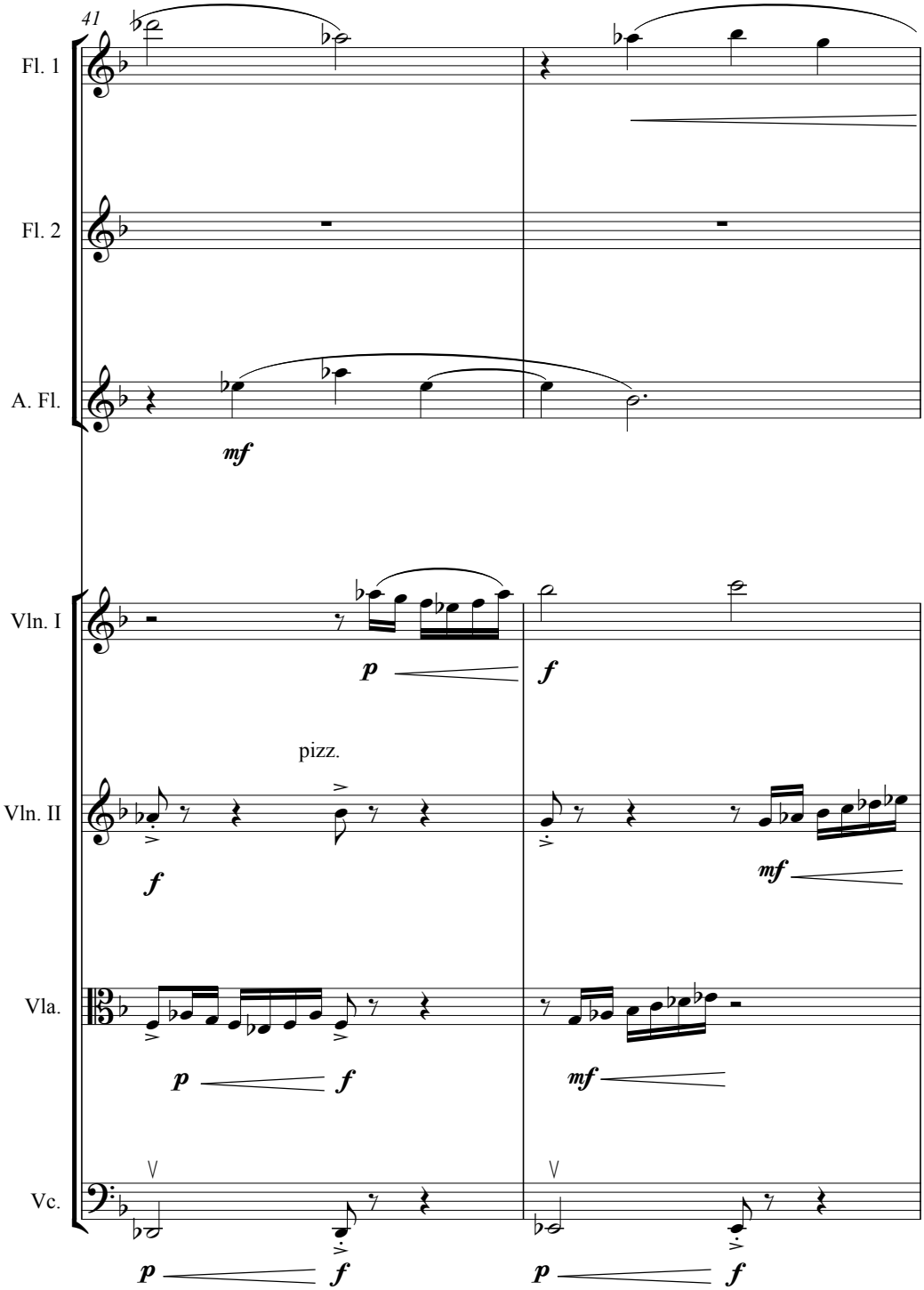

27
Fl. 1
p
tr
Fl. 2
p
A. Fl.
Vln. I
Vln. II
Vla.
Vc.

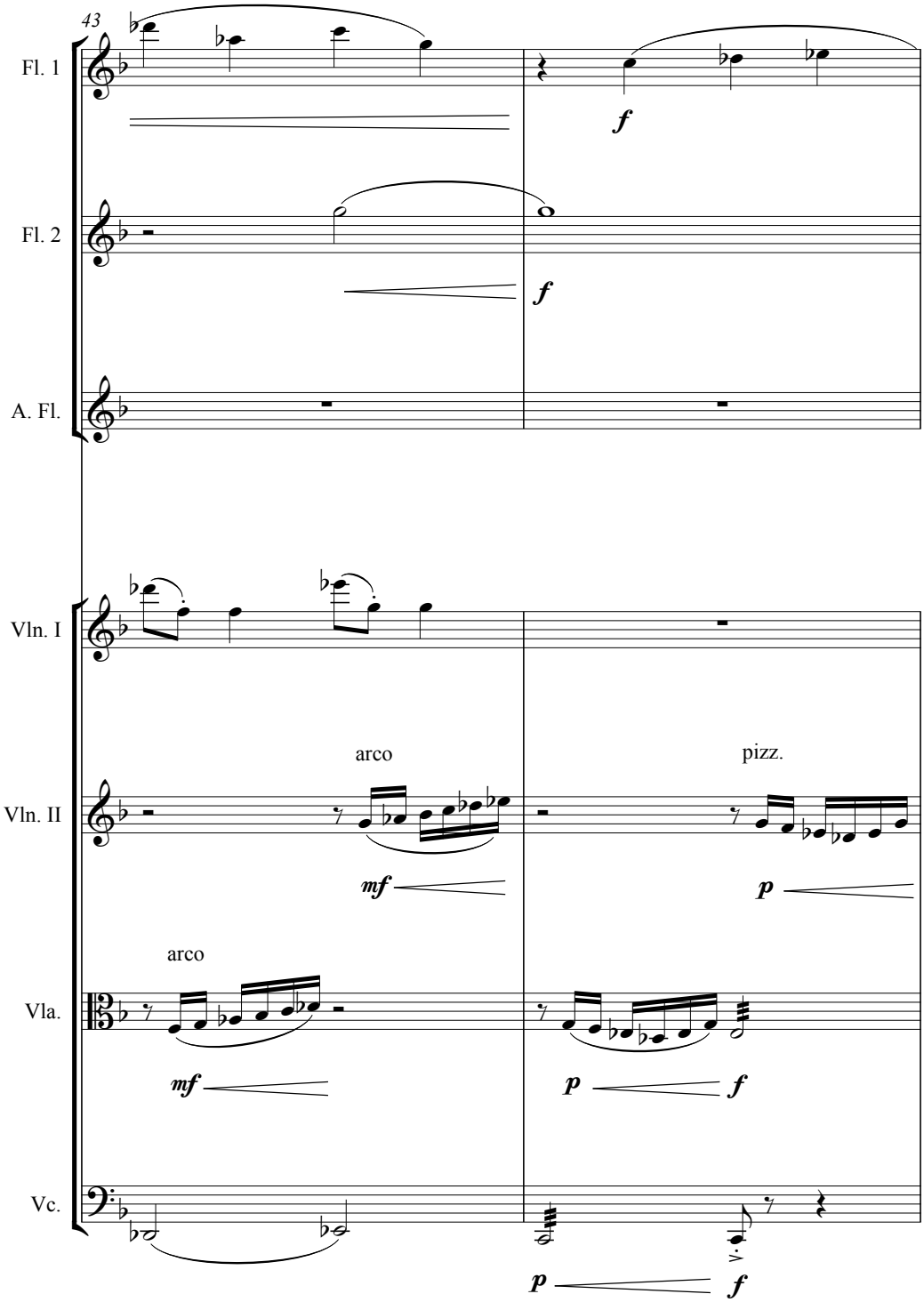

30
tr
(tr)
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.

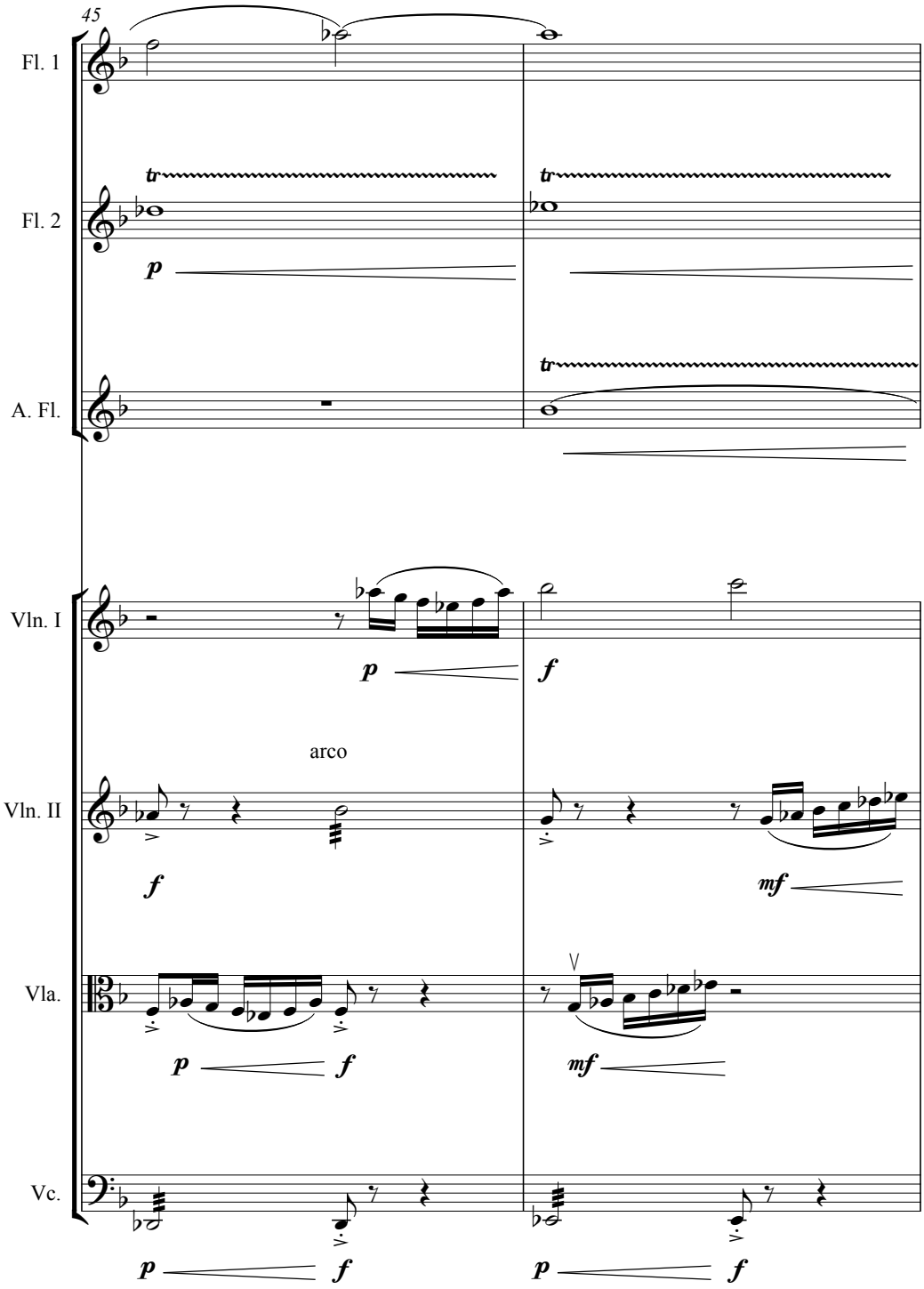

33
Fl. 1
Fl. 2
A. Fl.
Vln. I
p
Vln. II
Vla.
Vc.

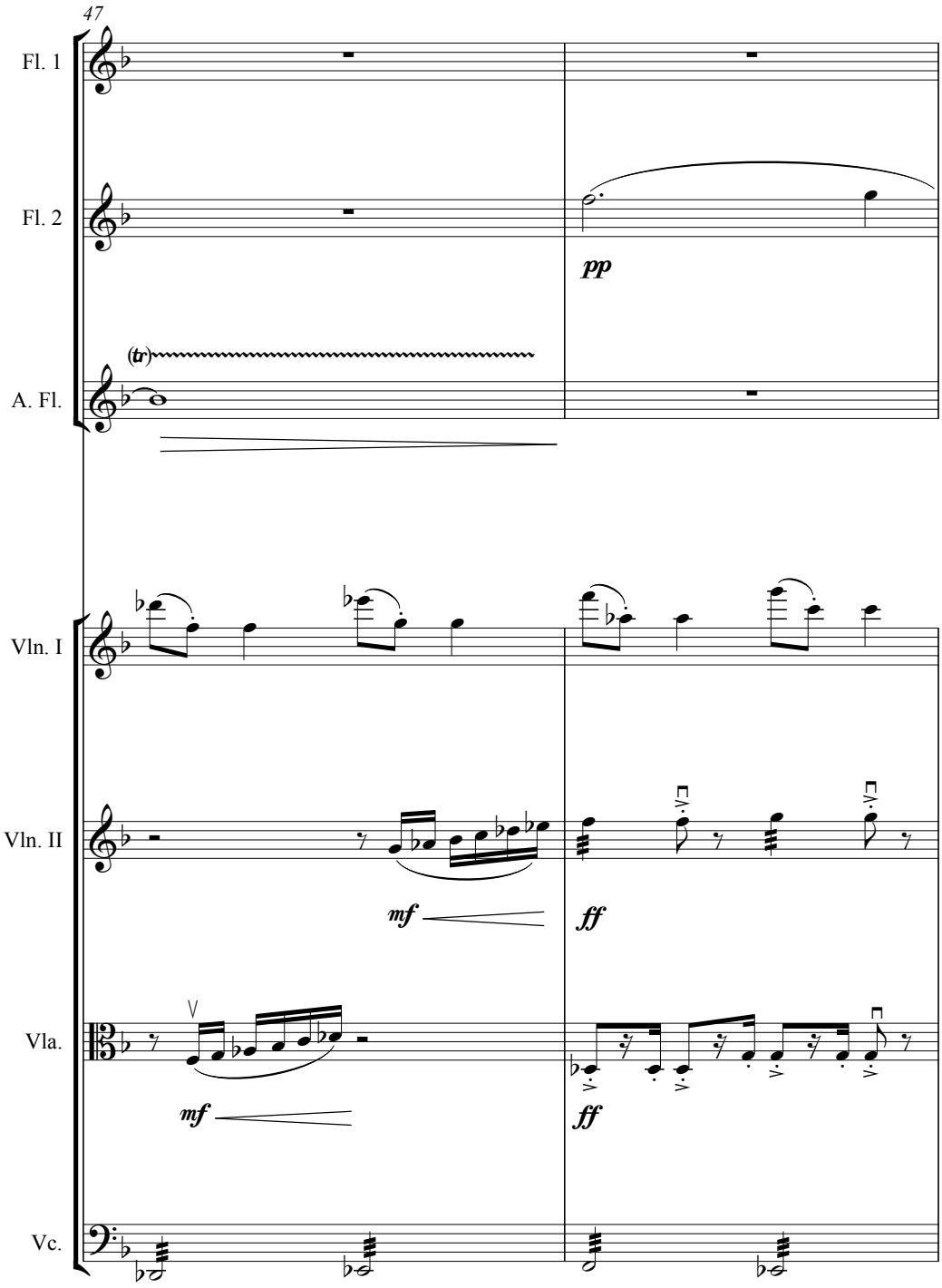

35
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.

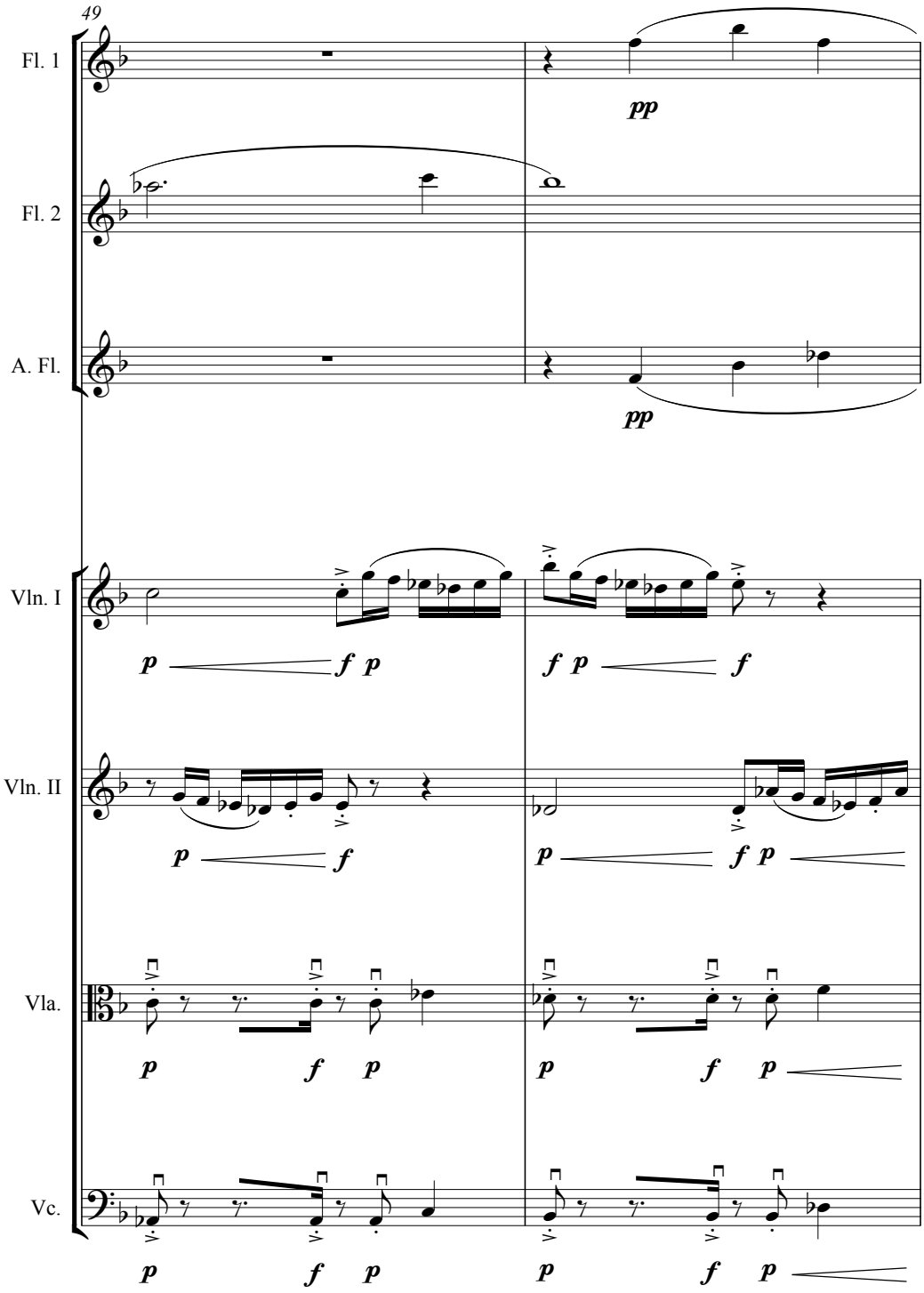

38
tr
Fl. 1
p
Fl. 2
A. Fl.
p
Vln. I
Vln. II
p
pizz.
Vla.
p
f
Vc.
p
f

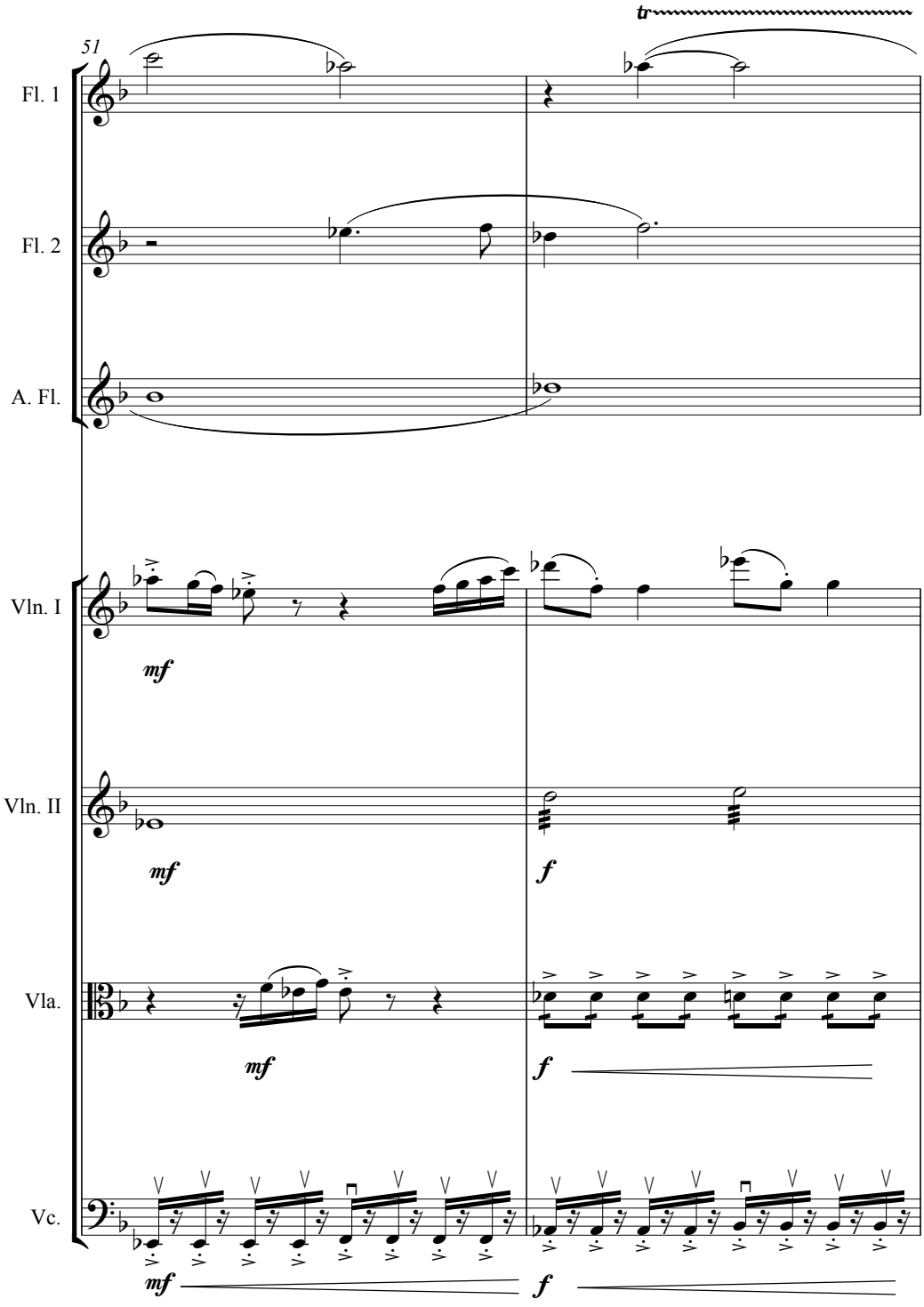

41
Fl. 1
Fl. 2
A. Fl.
mf
Vln. I
p
f
pizz.
Vln. II
f
mf
Vla.
p
f
mf
Vc.
p
f
p
f

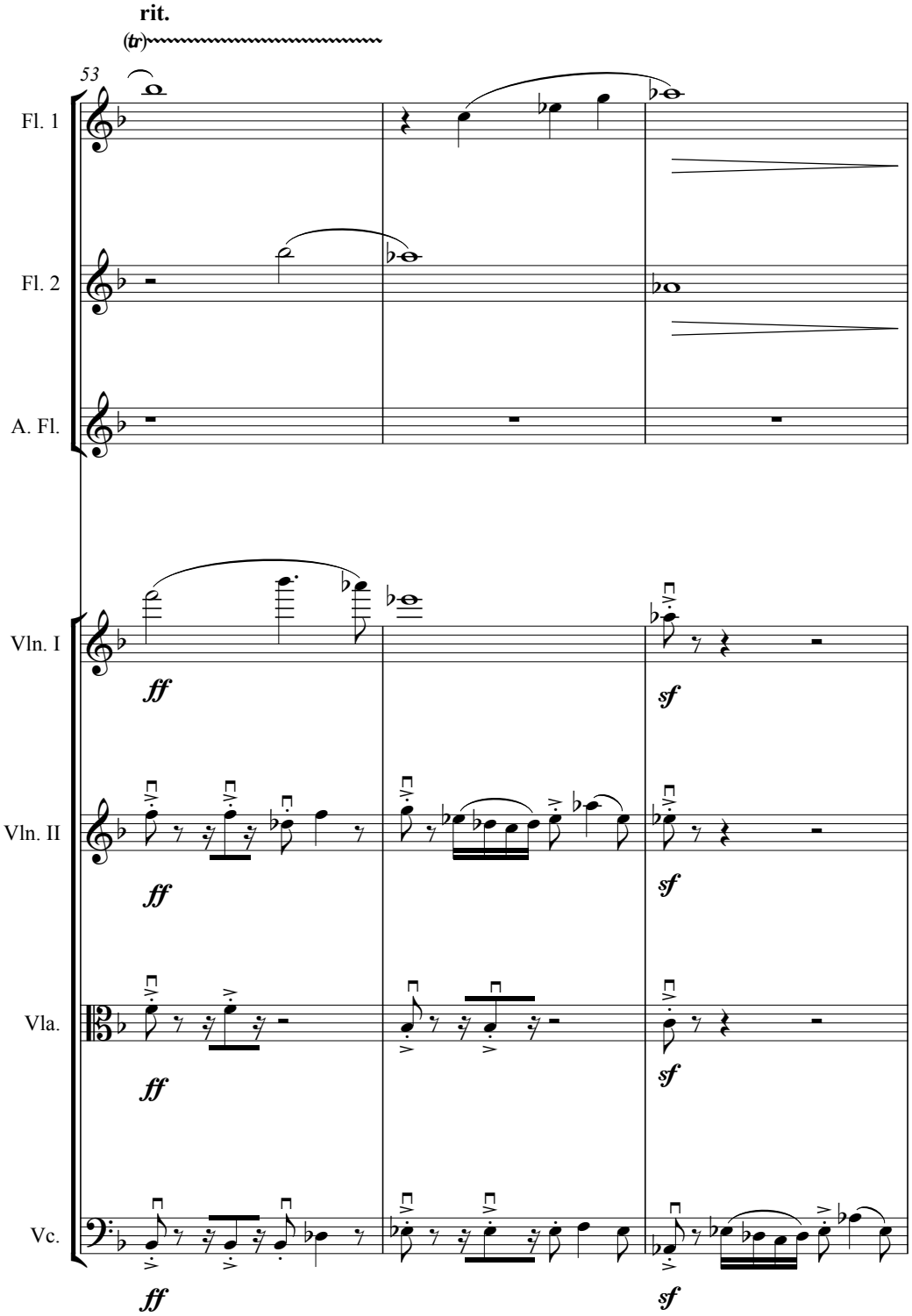

43
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
arco
pizz.
arco
f
f
mf
p
mf
p
f
p
f

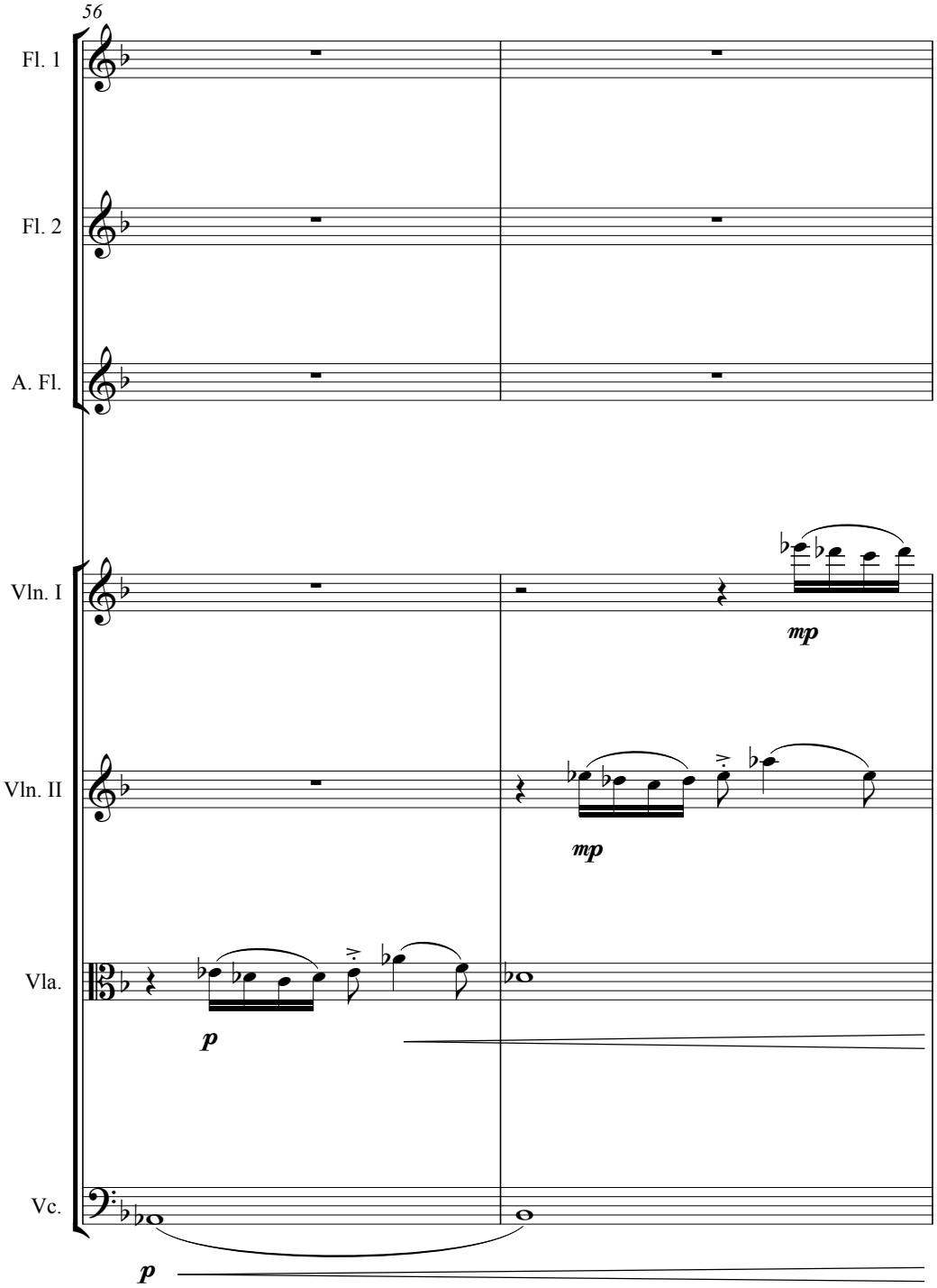

45
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
tr
p
f
mf
arco

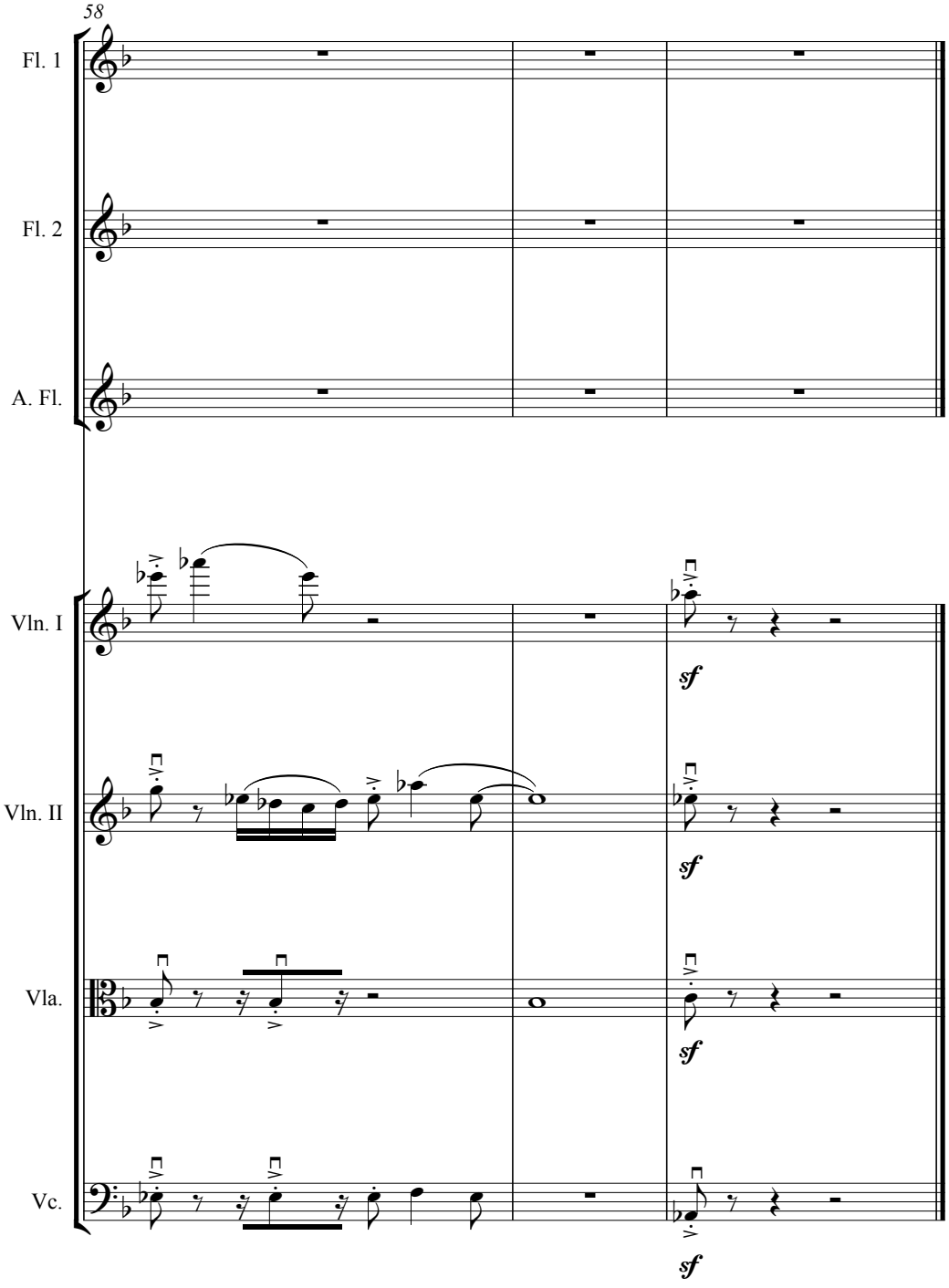

47
Fl. 1
Fl. 2
pp
(tr)
A. Fl.
Vln. I
Vln. II
mf
ff
Vla.
mf
ff
Vc.


49
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
pp
pp
p f p
f p f
p f
p f p
p f p
p f p
p f p
p f p


51
tr
Fl. 1
Fl. 2
A. Fl.
Vln. I
mf
Vln. II
mf
f
Vla.
mf
f
Vc.
mf
f


rit.
(tr)
53
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
ff
sf


56
Fl. 1
Fl. 2
A. Fl.
Vln. I
mp
Vln. II
mp
Vla.
p
Vc.
p


58
Fl. 1
Fl. 2
A. Fl.
Vln. I
Vln. II
Vla.
Vc.
sf
sf
sf
sf

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