Hard Data

R. Luke DuBois

for amplified string quartet

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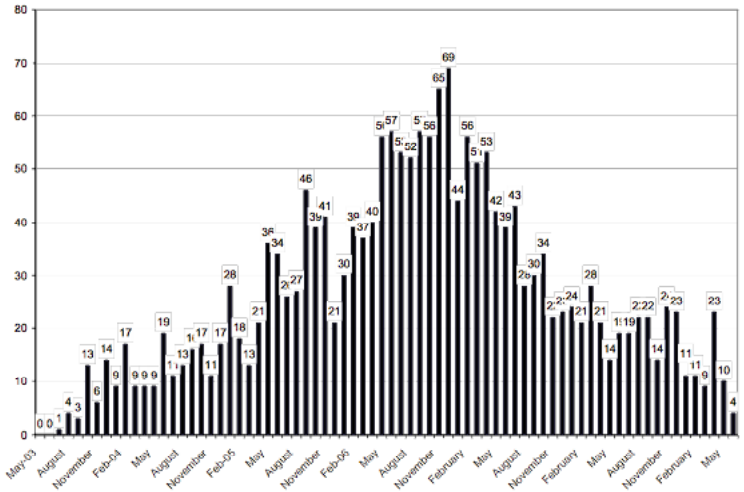
Notation / Performance Instructions:

- **Instruments are to be amplified with transducer (preferred) or close miking.**
- **Amplification should be adjusted so that *col legno* passages marked *pp* are clearly audible.**
- **Accidentals carry through the measure.**
- **Finger and bow tremolo should be in strict measured time.**
- ***sul pont* / *col legno* bowing should be done *senza vibrato*.**
- ***portamento* phrases should land "at pitch" on the beat.**



Hard Data
for amplified string quartet and video in six movements
world première, june 24, 2009
ISSUE PROJECT ROOM, brooklyn, ny

I - men
II - children
III - soldiers
IV - refugees
V - women
VI - missing

Data taken from:
The Brookings Institute
The Iraq Coalition Casualty Count
Iraq Body Count
The U.S. Dept. of State Bureau of Near Eastern Affairs
The Joint Economic Committee of the U.S. Congress
Iraq Today
The New York Times

Six years have gone by since the United States invaded Iraq, in March of 2003. The decision to invade, and the rationale behind it, has emerged as a defining event in the relationship between the United States and the rest of the world, and will be read by history as a watershed moment in the geopolitics of the 21st century. To the people of Iraq, the invasion has brought alternating streams of trauma, displacement, fear, anger, confusion, and - in liminal spaces between and among the wreckage of their country - faint and growing shimmers of hope. To people here in the United States, the Iraq war has been, depending on your frame of reference, a necessary and just response to the provocations of the regime of Saddam Hussein, an unnecessary and wasteful "war of choice" that has bankrupted our moral authority in the world and damaged our future security and stability, or a tragic event that has claimed the life of a loved one, neighbor, classmate, friend, or acquaintance. For many Americans, all three are true, to some degree. But for many of us, the Iraq war is a vague and distant worry, delivered to us through mass media, and embodied most strongly by a stream of numbers.

These numbers are always there, following us, and they seem to be haunted. Living under a 24-hour news cycle, wired to the overwhelming commentary of citizen journalism within a culture obsessed with statistics, has made the Iraq war the first conflict in which, for most of us, we possess more data than knowledge. This is partly a shortcoming of the mediatized Iraq presented to us in video, sound, and images, which gives us a monolithically stark and necessarily limited view of a human conflict that, whether issued as soundbite or photo essay, we shy away from. But the real reason for our ab- stract understanding of this conflict is our willingness to seek solace in facts. Our volunteer military (in which only a fraction of our society participates) fights overseas against insurgent elements (in a country few of us have visited) in the hopes of stabilizing a country (with which we have little com- mon cultural currency). This is not a fact, but a complex and devastating concept, and many of us find our mind's eye strained; so instead of shock as we watch news reports, read an entire spectrum of press coverage, and consume anecdotal summaries, we learn the numbers of war. We anesthetize ourselves with hard data.

If confusing information with experience is a vice then our country is guilty. I have spent the last six months looking at the facts, figures, statistics, and documents of the Iraq war. I know three vet- erans of the Iraq conflict personally, none of whom are inclined to look charitably on the fact that we prefer to understand this war largely in information space and fret about it far more in terms of fiscal and moral damage than human cost. Americans like to know numbers. 50 states. 300 million people. I am guilty, too.

Ian MacKaye, of the band Fugazi, once wrote that *we need an instrument / to find out, how loss could weigh*. This couplet seemed prophetic to me in high school, as I elated to the militant anti-capitalism and dense, sad anger of its double message. What seemed so important to me about that lyric then has been forgotten, but the lyric now seems incredibly to the point. The Iraq War, delivered to most of us as a real-time stream of data, is all about loss. We have lost lives; we have lost fiscal certitude; we have lost our moral compass; and we have lost a vital element of our national integrity thanks to the partisanship of those who have scored political points over this war. In order for us to make sense of this loss, it has to resonate beyond facts and figures, because the hard data we look at is "hard" in that other way. Not reliable, but unbearable. We need that instrument. Badly.

Which brings me to this project. A work-in-progress if there ever was one.

The composer Iannis Xenakis had a unique gift for creating kinetic masses of sound out of statistical processes. More important here (and the reason why I mention him), his experiences as a partisan in the Second World War and his training as an architect under Le Corbusier gave him a unique com- petence to compose music that sounded like war. Aware of the acute difference between strategy and tactics, Xenakis created music that perfectly evoked the dialectic of a situation that, though well- planned and executed on a macro-scale (stragetic), was incomprehensible and chaotic at the event level (tactical). Furthermore, Xenakis' interdisciplinary acumen as an architect/composer led him to develop a theory of 'meta-art', based around the idea that any medium can serve to realize the same artistic expression.

Hard Data is a data-mining and sonification project based around data from the American military actions in Iraq. The aim of the piece is to create an open-source score which can be realized by any number of people in any medium. The version presented here tonight is an arrangement of some of this information into six movements for amplified string quartet with video projection. Conceptually, it riffs off of Xenakis understanding of formalized music, though musically it mixes in more than a little Stravinsky, Messiaen, and Crumb, three composers who wrote *in tempore belli*. Most importantly, however, this realization is grounded in an algorithmic realization of the source data through the filter of that country's current national anthem, Mohammad Flaifel's setting of Ibrahim Touqan's 1934 poem *Mawtini*.

Hard Data was a 2009 commission of New American Radio and Performing Arts, Inc. for its Tur- bulence web site (turbulence.org). This was made possible with funding from the New York City Department of Cultural Affairs. I'd like to thank Helen Thorington and Jo-Ann Green for their faith in the project; the Mivos String Quartet for premiering the work; Toni Dove, Michael Joaquin Grey, Laura Blereau, and Susan Gladstone; Zach Layton and Nick Hallett for programming the piece as part of their Darmstadt "Institute"; the Issue Project Room and Suzanne Fiol, for giving me such a great space in which to perform.

Enjoy.

R. Luke DuBois New York City June, 2009

Hard Data: I

R. Luke DuBois

♩=100

strong and mournful...

Violin I
Violin II
Viola
Violoncello

arco *ff*

14

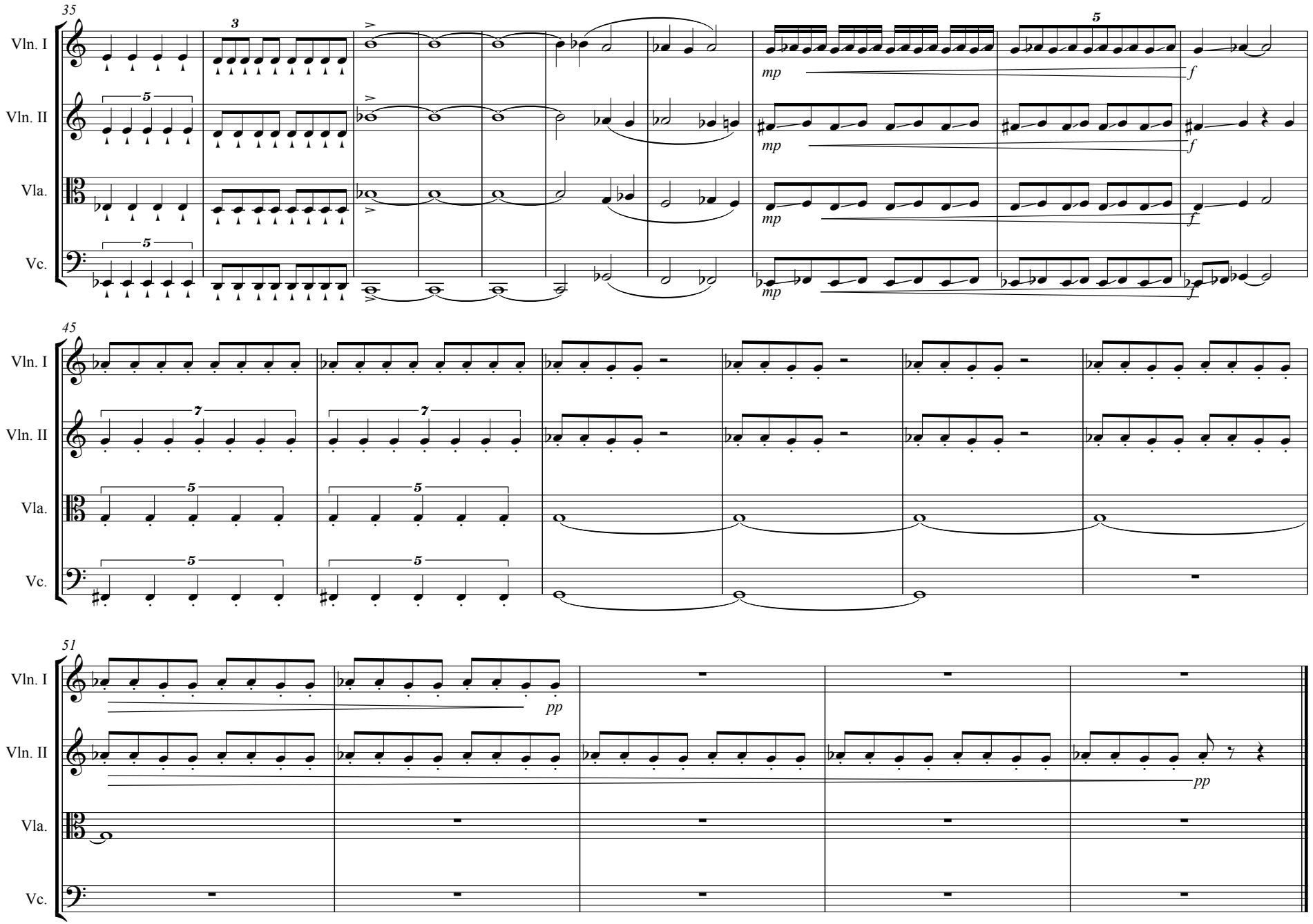
Vln. I
Vln. II
Vla.
Vc.

pizz. *pp*

arco *mf*

26

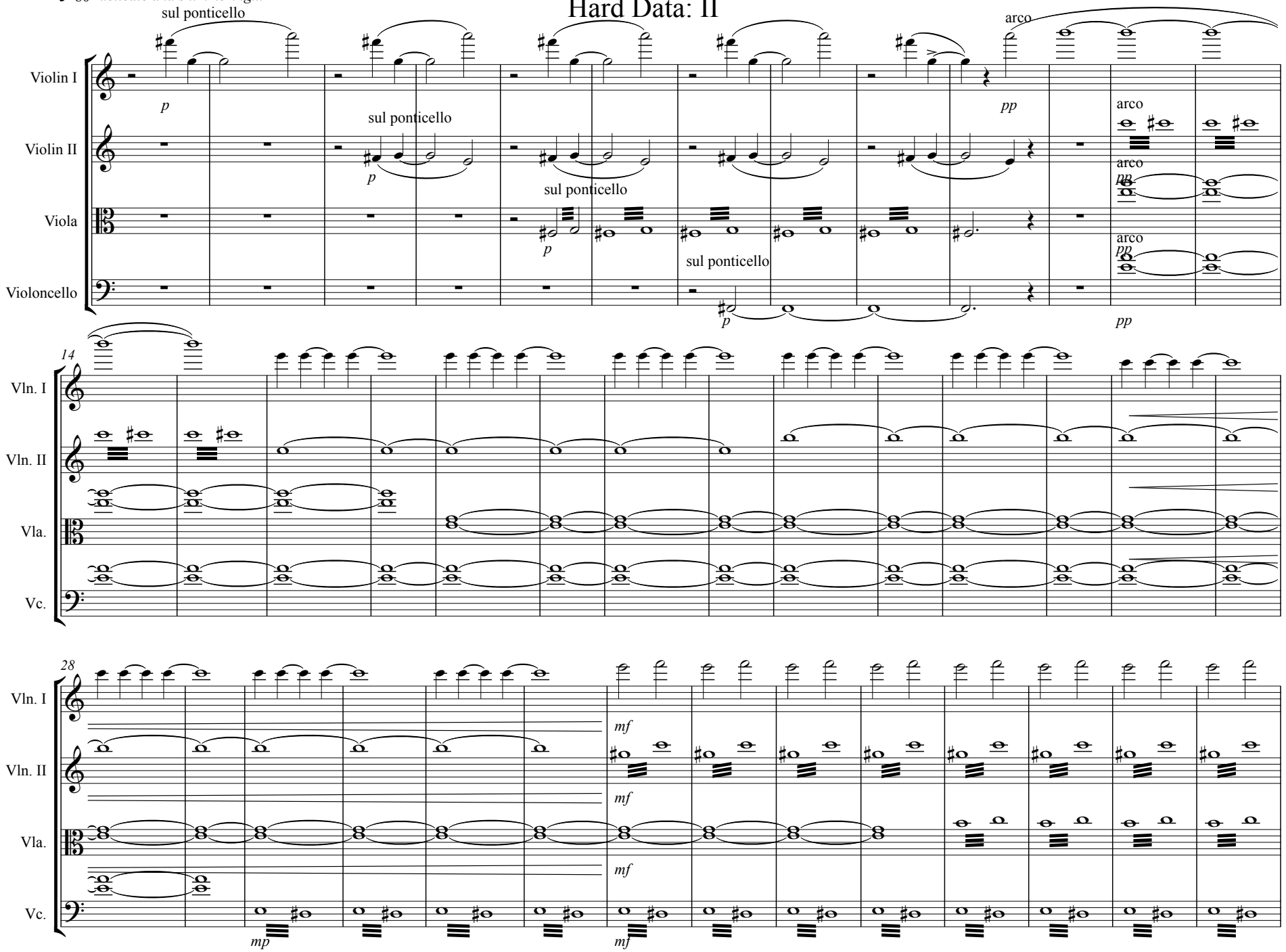
ff

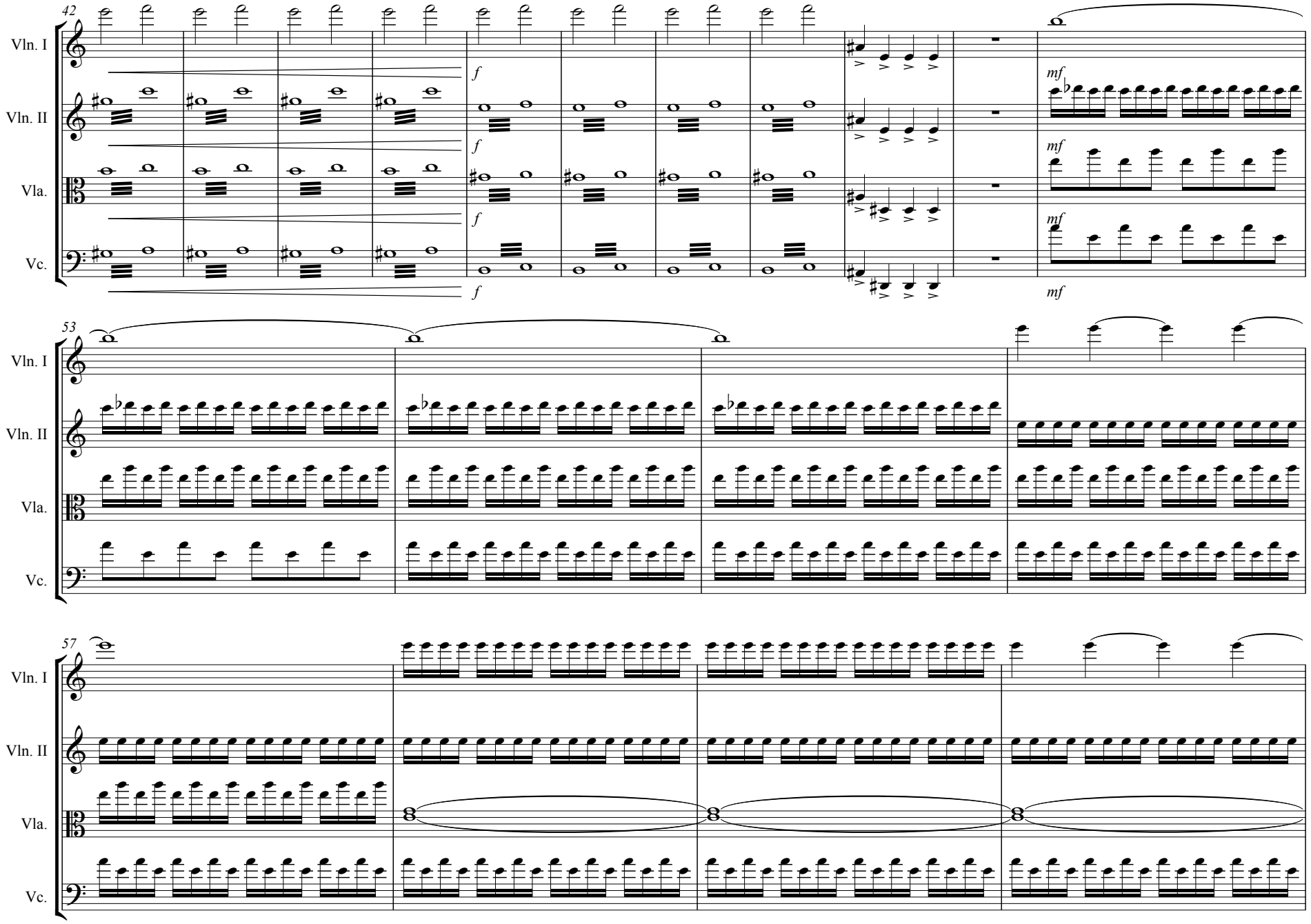

35
Vln. I
Vln. II
Vla.
Vc.
mp
f
45
7
5
51
pp

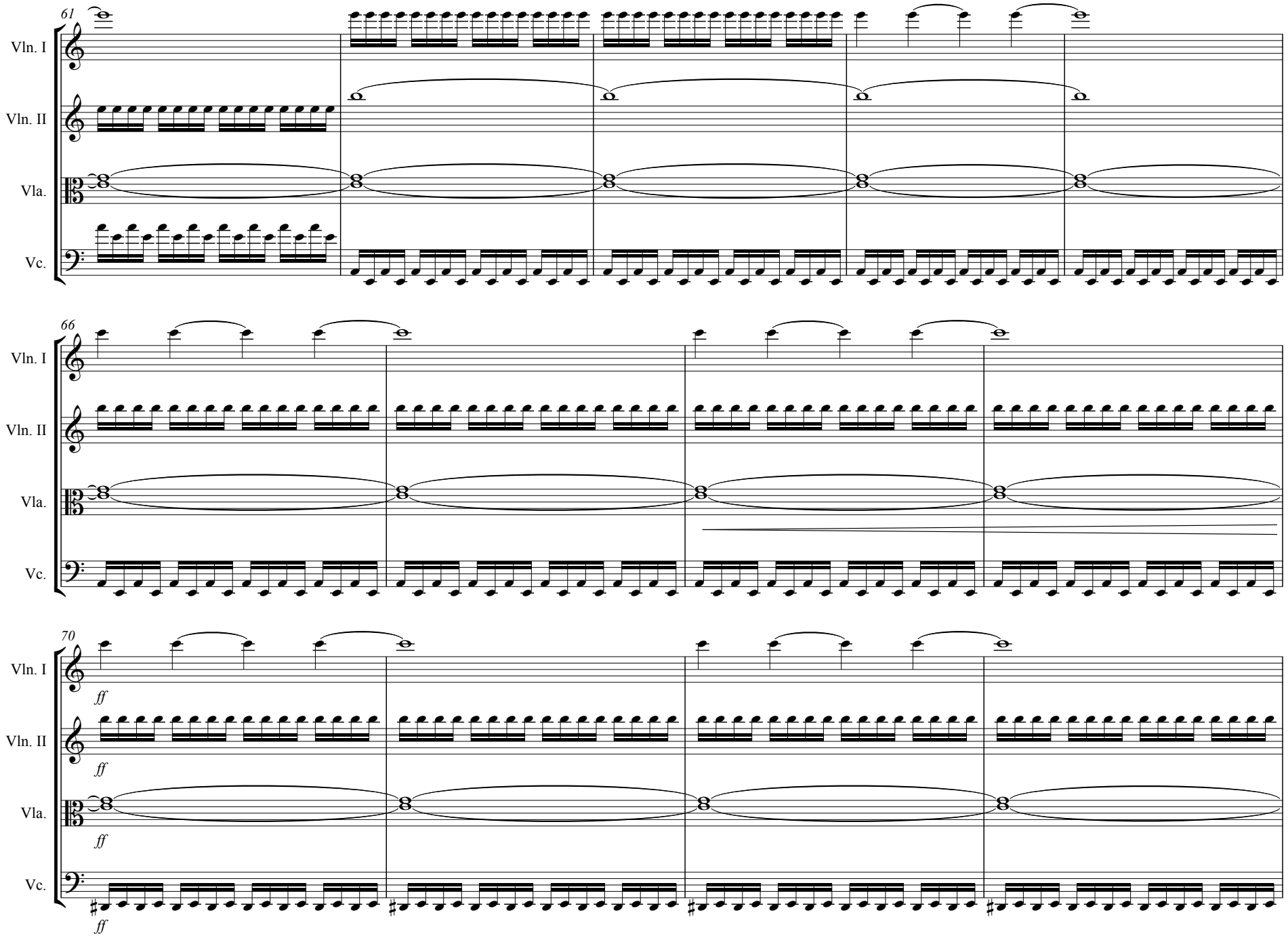
Hard Data: II

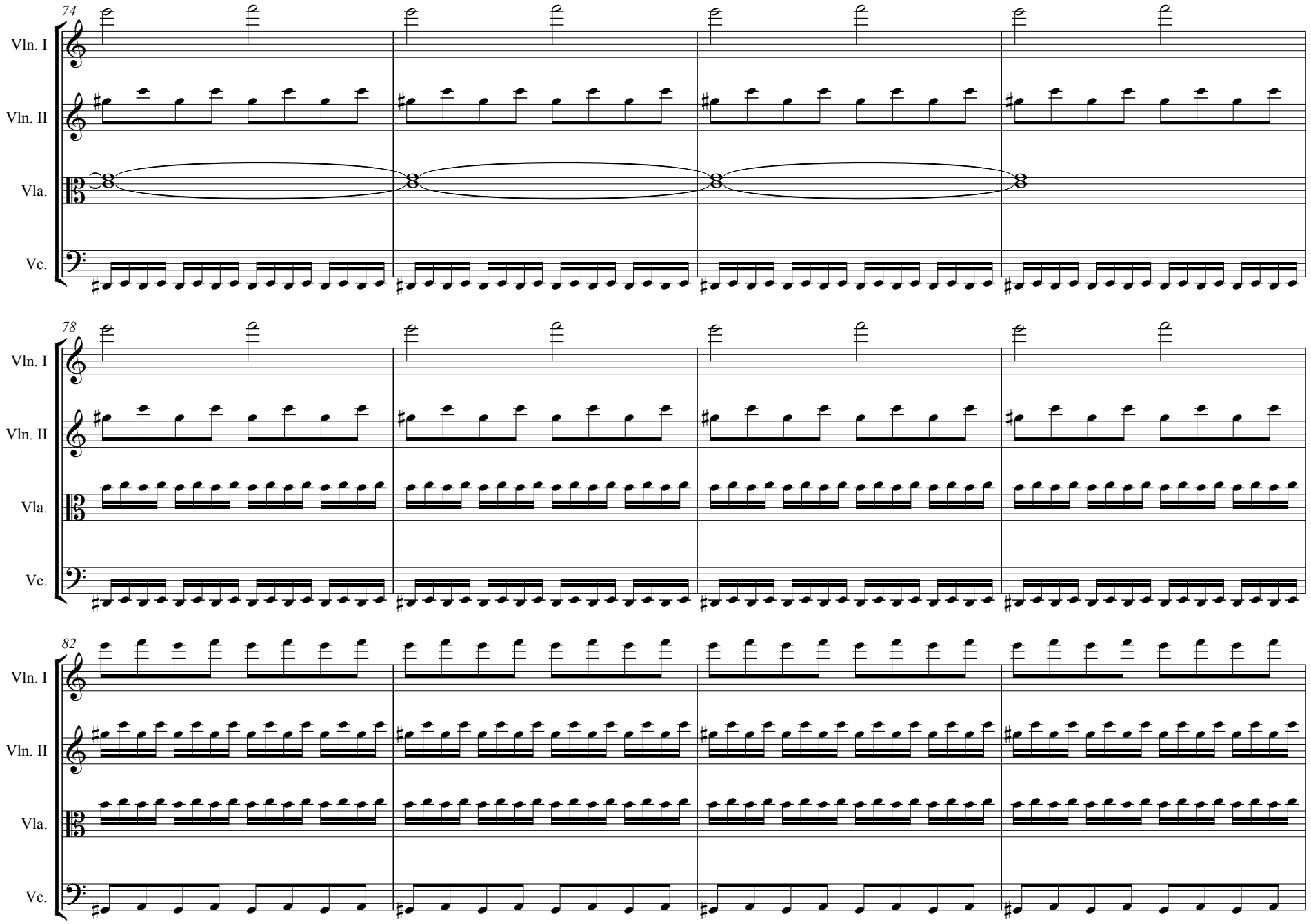
R. Luke DuBois

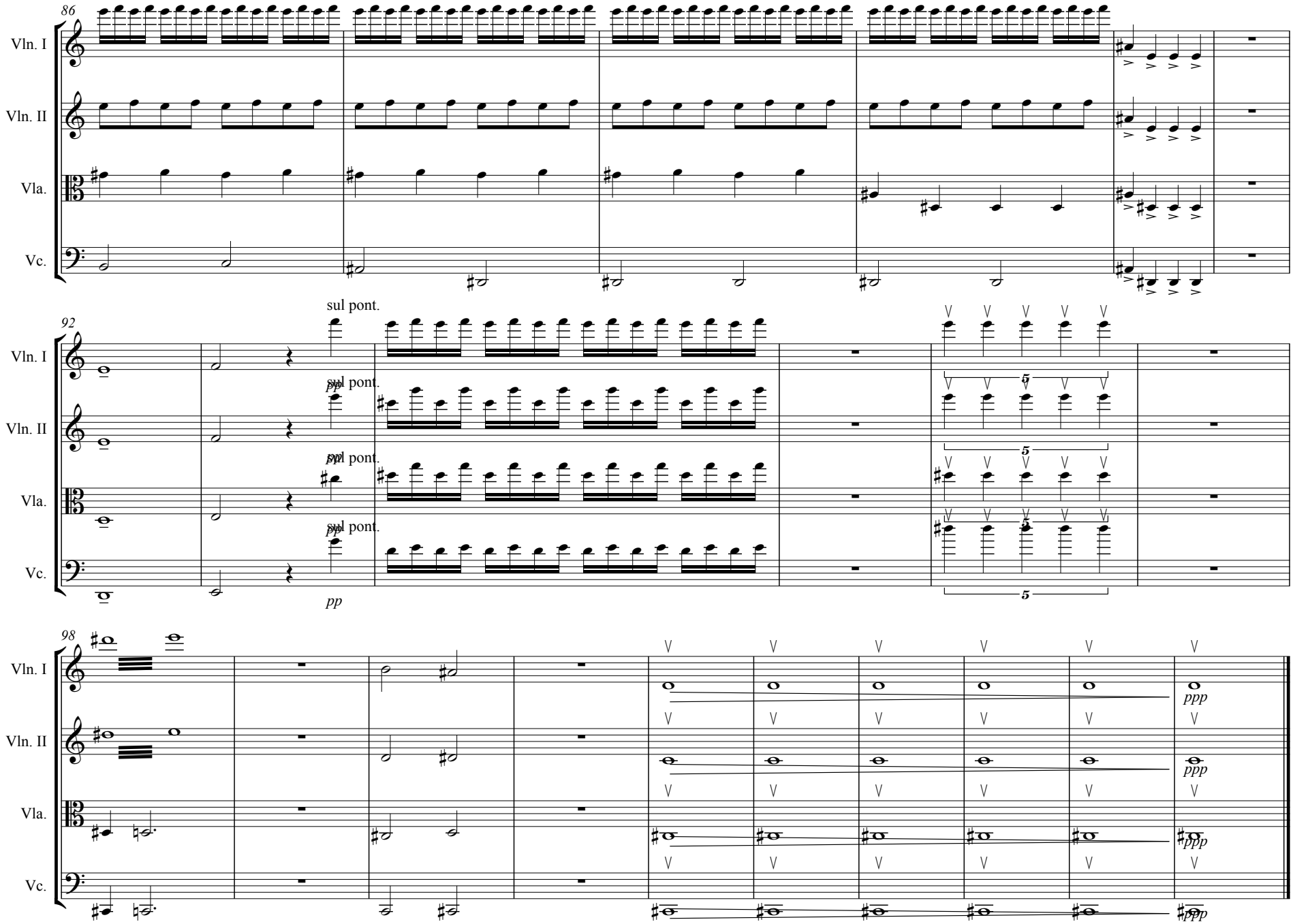
♩=80 *delicate and shimmering...*




42
Vln. I
Vln. II
Vla.
Vc.
f
mf
53
57


61
Vln. I
Vln. II
Vla.
Vc.
66
Vln. I
Vln. II
Vla.
Vc.
70
Vln. I
ff
Vln. II
ff
Vla.
ff
Vc.
ff


74
Vln. I
Vln. II
Vla.
Vc.
78
Vln. I
Vln. II
Vla.
Vc.
82
Vln. I
Vln. II
Vla.
Vc.

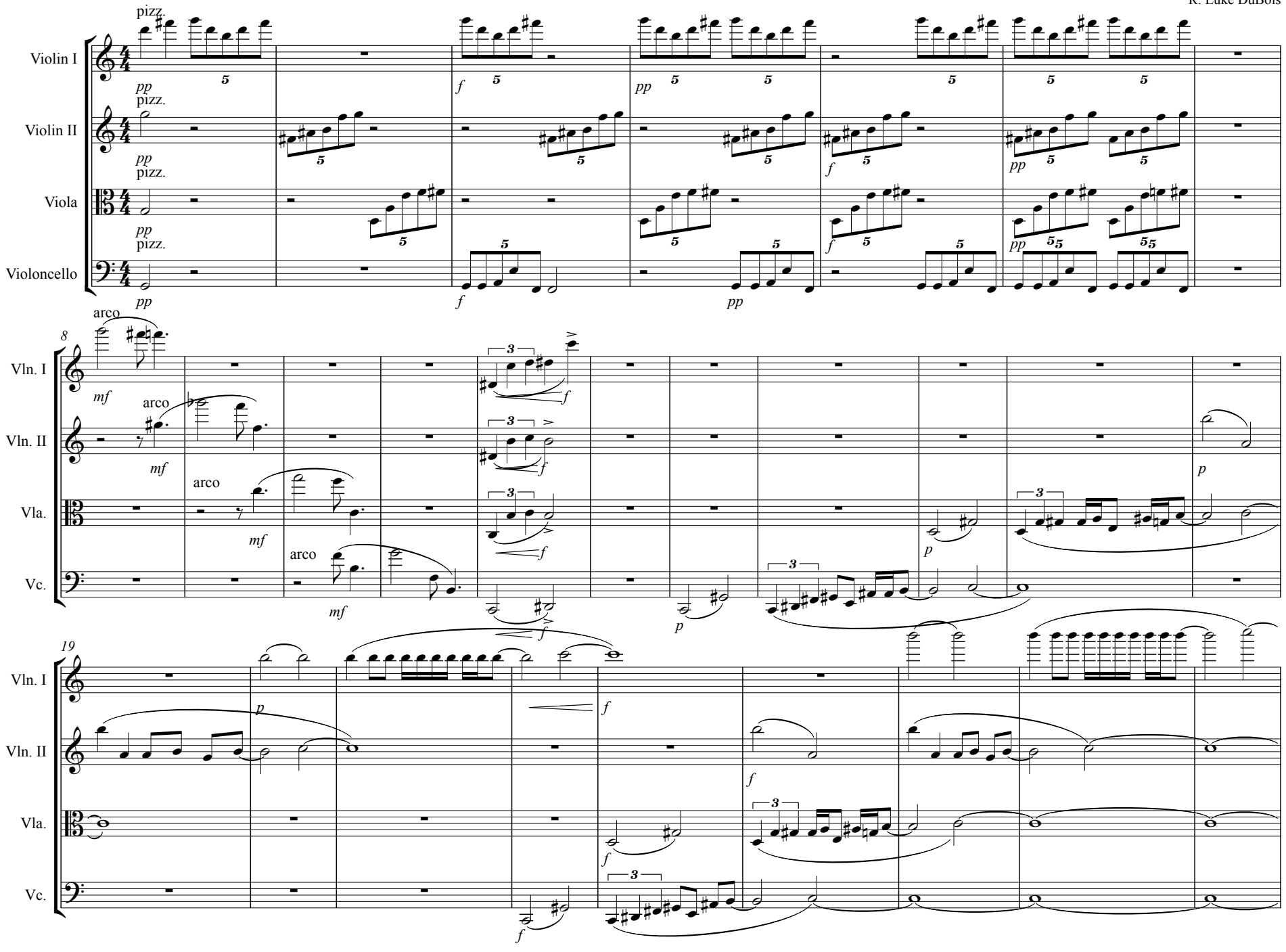

86
Vln. I
Vln. II
Vla.
Vc.
92
sul pont.
pp
sul pont.
pp
sul pont.
pp
sul pont.
pp
5
5
5
98
ppp
ppp
ppp
ppp

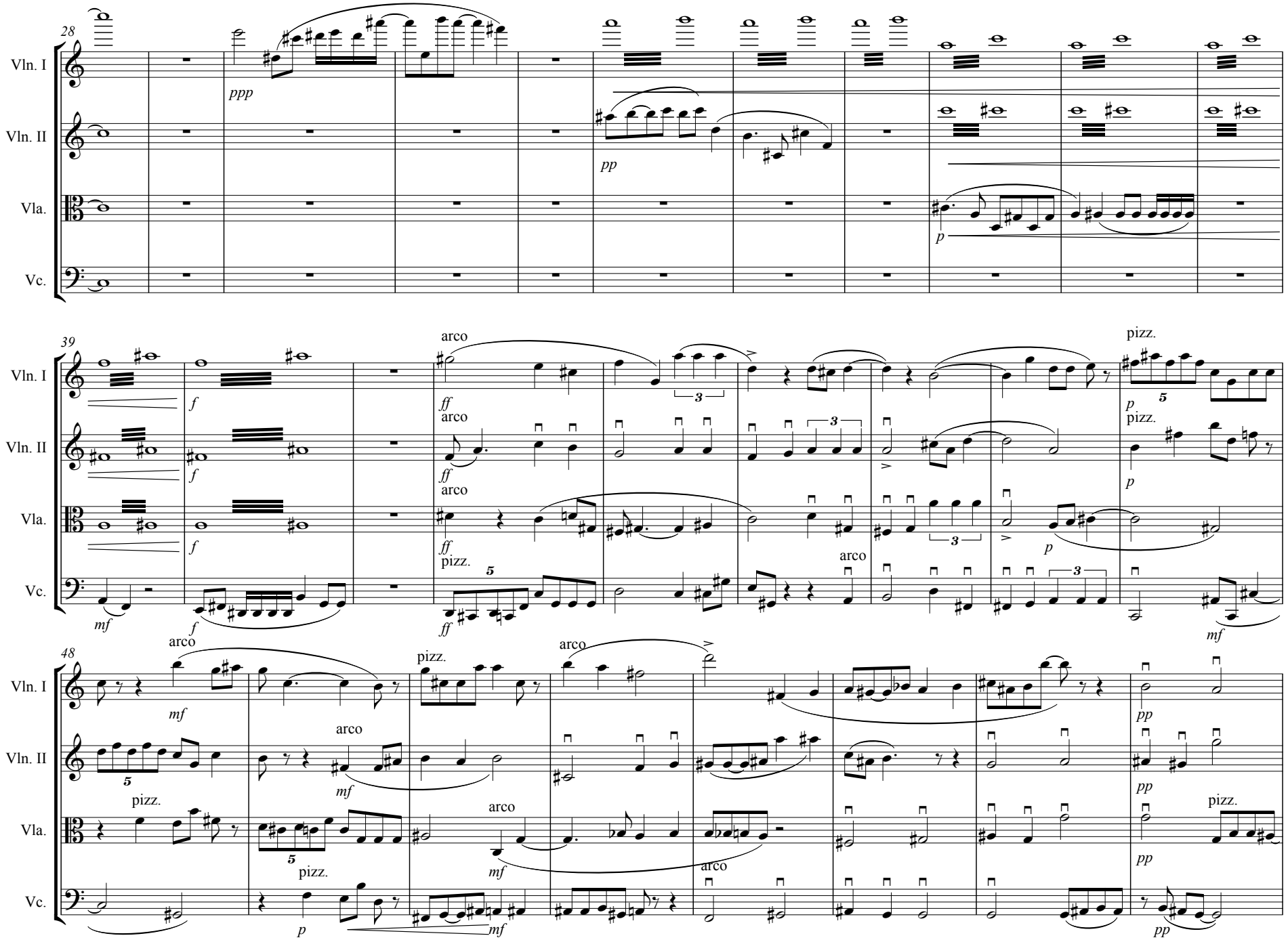
Hard Data: III

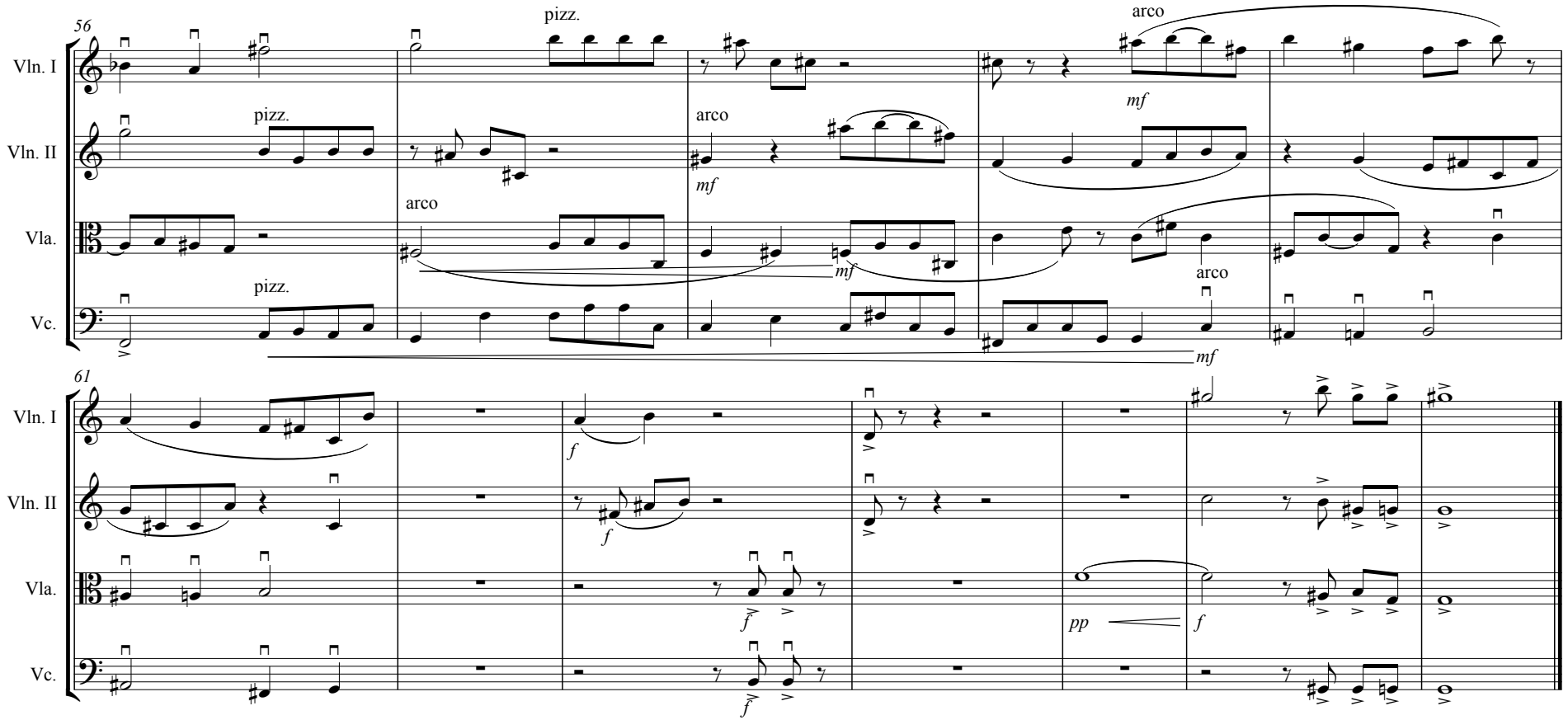
R. Luke DuBois

♩=120

with false bravado...




28
Vln. I
Vln. II
Vla.
Vc.
ppp
pp
p
39
arco
pizz.
f
ff
mf
48
arco
pizz.
mf
pp


56
Vln. I
Vln. II
Vla.
Vc.
pizz.
arco
mf
61
f
pp

Hard Data: IV

R. Luke DuBois

♩=100

thin and haunting...

Violin I

Violin II

col legno (battuto / tratto)

Viola

mf

Violoncello

p

14

col legno (battuto / tratto)

Vln. I

f

Vln. II

col legno (battuto / tratto)

p

f

Vla.

f

col legno (battuto / tratto)

Vc.

p

f

p

27

Vln. I

f

Vln. II

p

f

Vla.

p

f

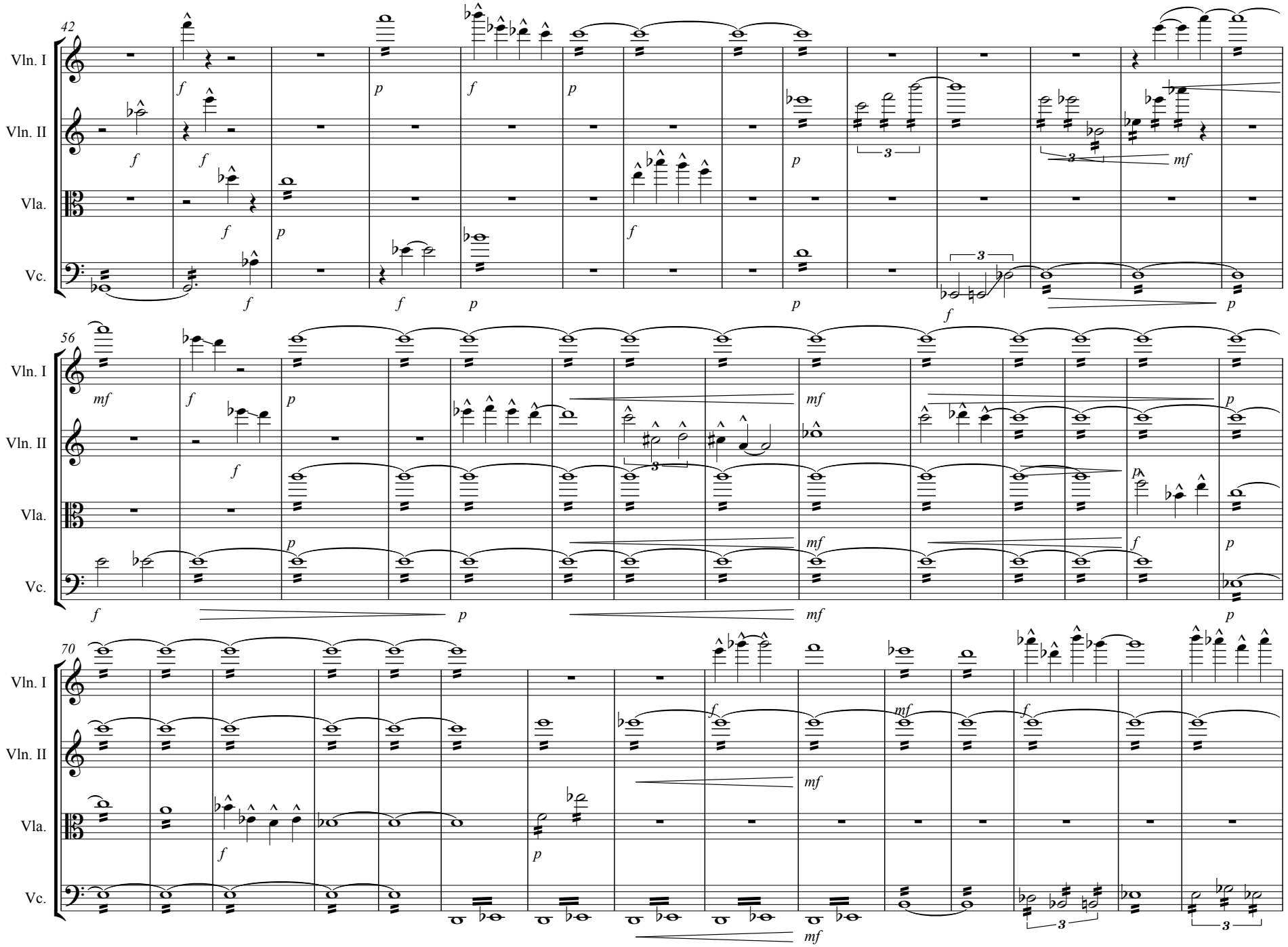
Vc.

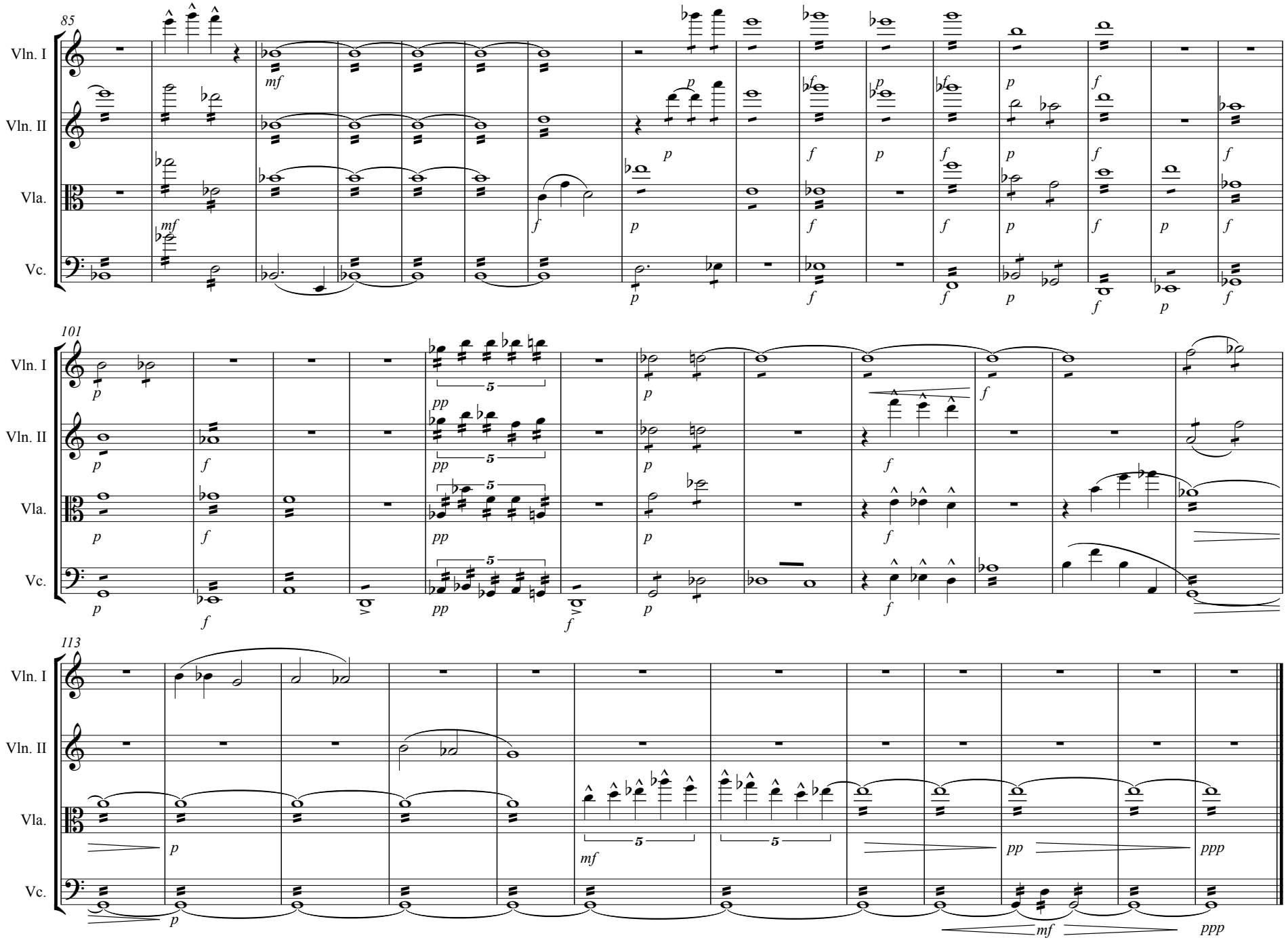
p

f

p

3


42
Vln. I
Vln. II
Vla.
Vc.
56
70

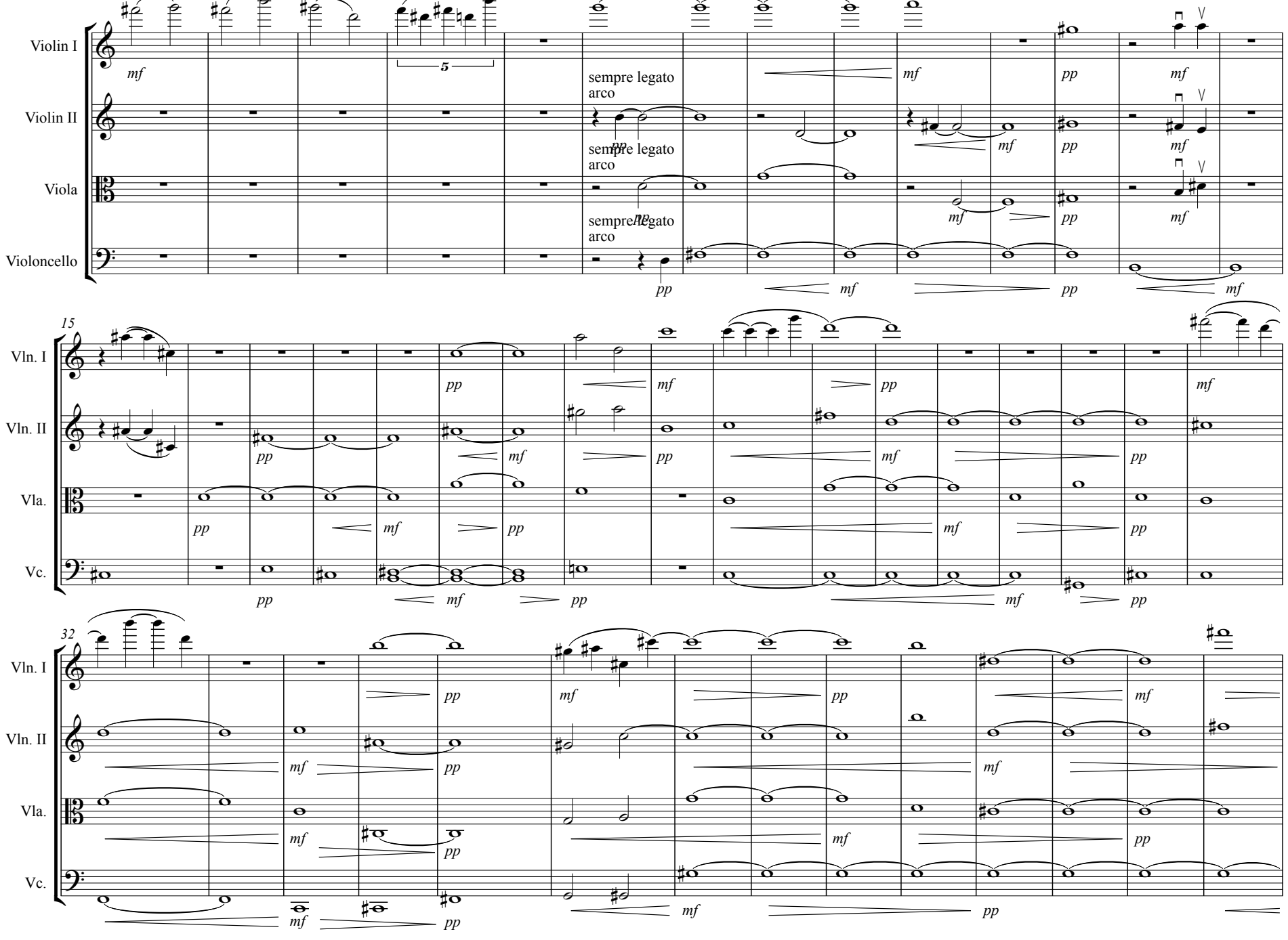

85
Vln. I
Vln. II
Vla.
Vc.
101
113
ppp

Hard Data: V

R. Luke DuBois

choral...
sempre legato
arco

♩=60

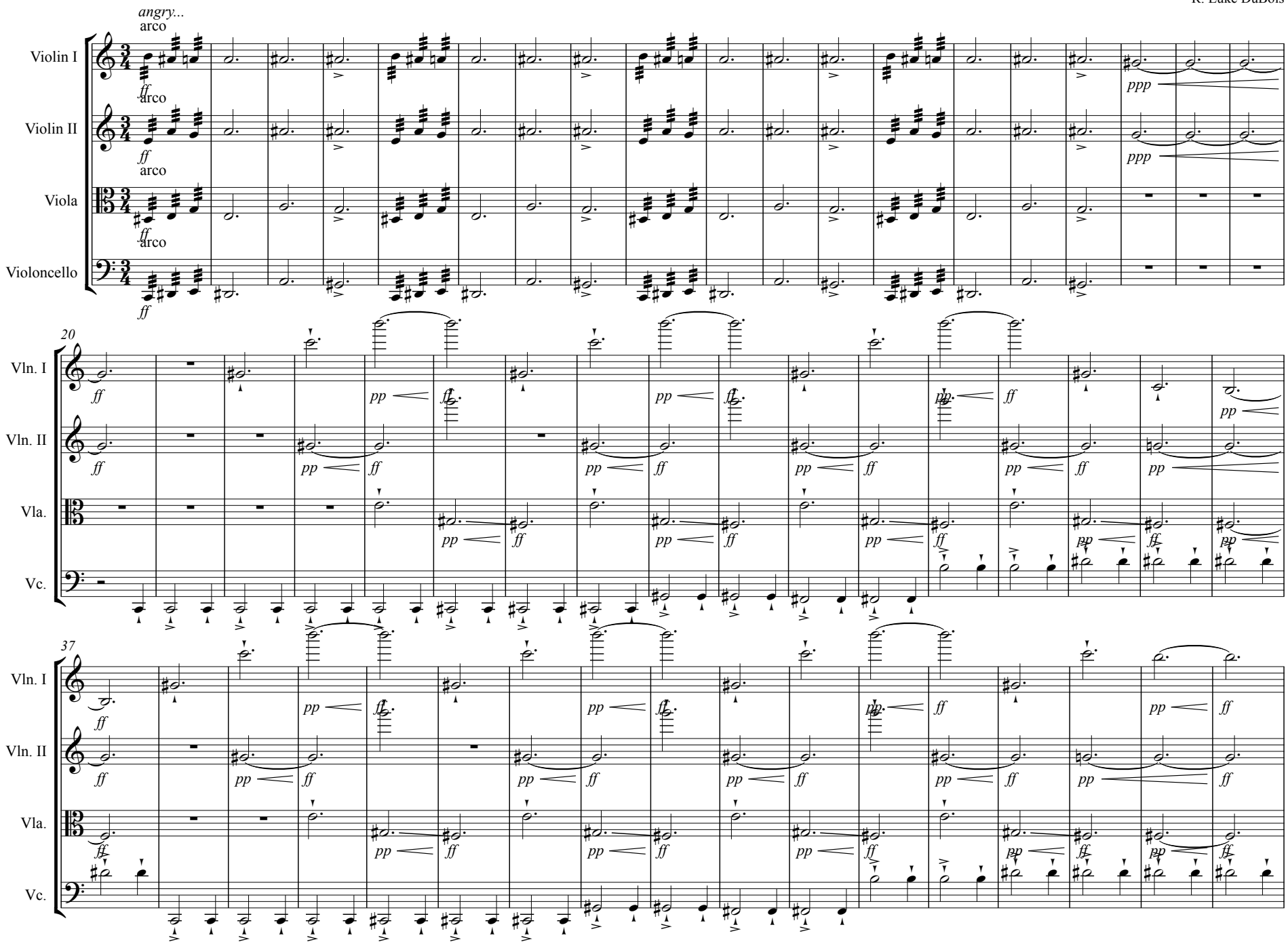


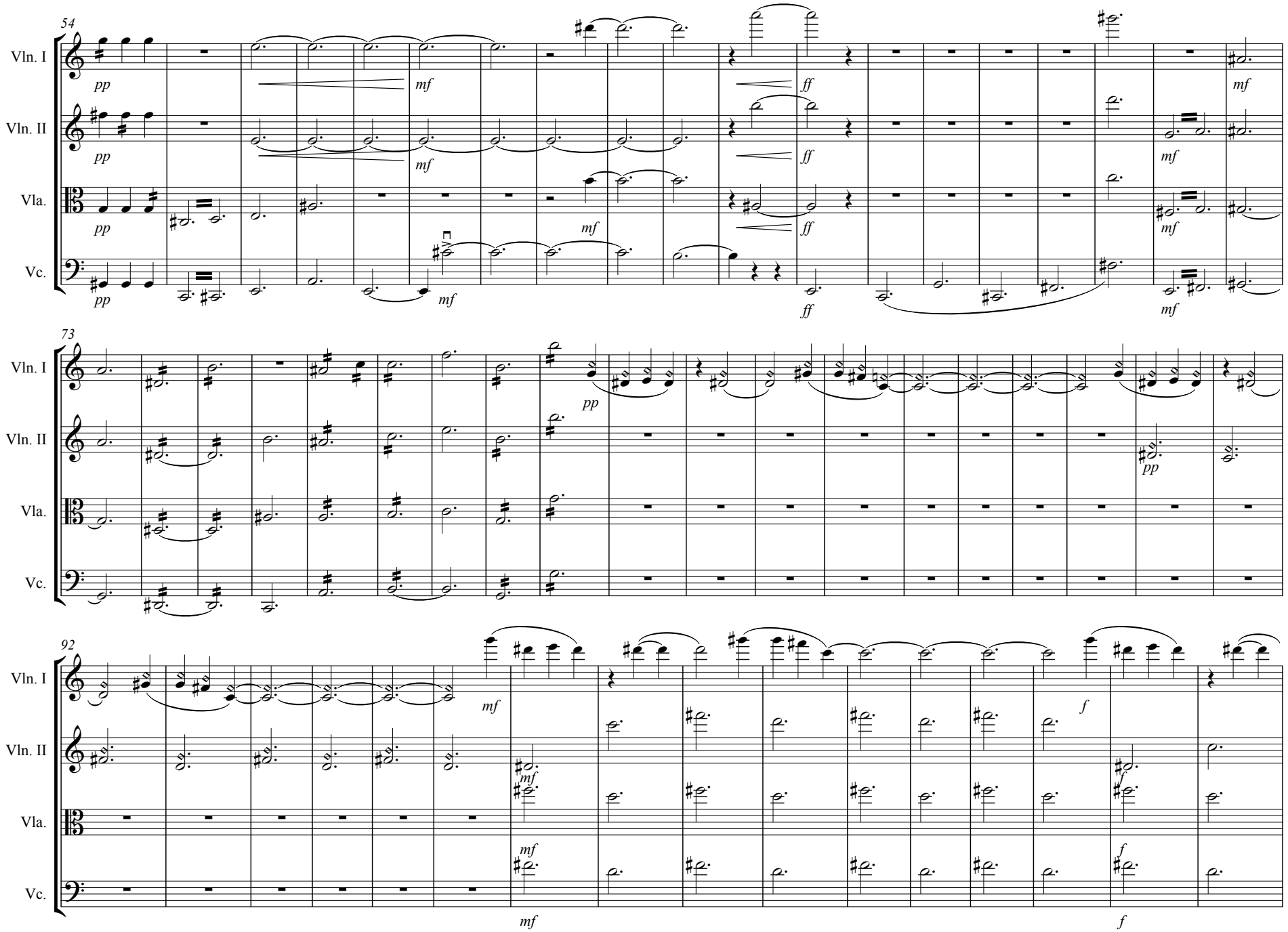
46
Vln. I
Vln. II
Vla.
Vc.
pp
mf
pp
pp
mf
pp
mf
pp
pp
mf
pp
mf
pp
mf
pp

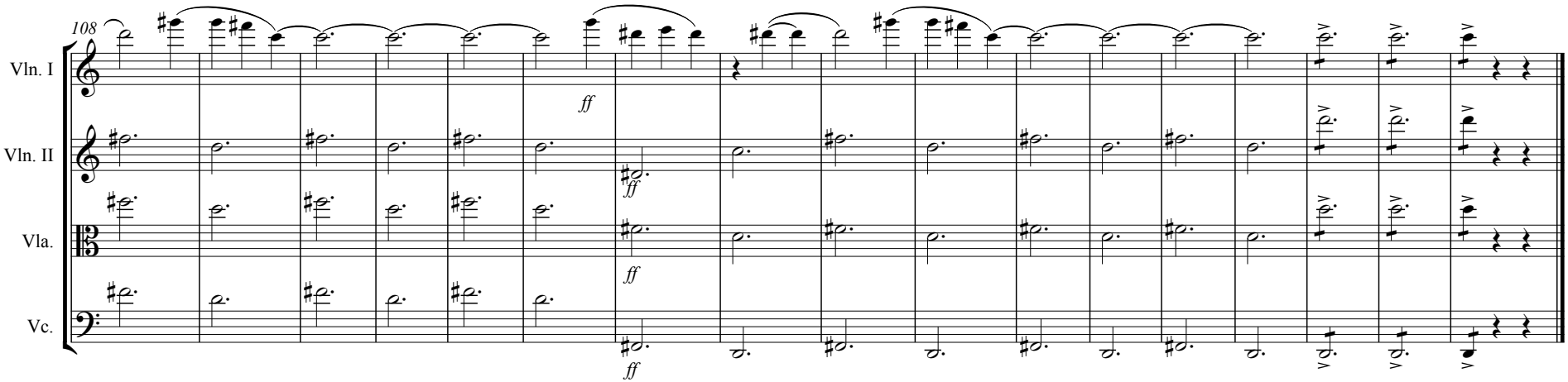
♩=100

Hard Data: VI

R. Luke DuBois




54
Vln. I
Vln. II
Vla.
Vc.
pp
mf
ff
73
92
f


108
Vln. I
Vln. II
Vla.
Vc.
ff
ff
ff
ff