Ryan Laney

Reversal Processes

for Piano and SuperCollider

(2017)

Program Note:

At times, the title "Reversal Processes" refers to the reversed sound of a single note, and at others it refers to the reversible roles of the pianist and electronics, and on an even nerdier level, the mathematical reversibility of the stochastic processes used to generate material throughout the piece. The electronic part is comprised almost entirely of sampled piano sounds, including plucked strings, muted strings, scraped strings, and various other extended techniques. Much of the material for this piece was taken directly from other pieces I've written over the past few years – various fragments, forms, melodies, and ideas that I was finally trying to "write out" of my system.

Performance Notes:

- Event numbers are placed at spots in the piece where you should press the pedal to advance to the next event. For the most part, these spots are located on down beats, but in a couple instances, the event should be triggered in the middle of the measure. The trigger never occurs in the middle of a beat, however, so it should be clear in the score where the pedal should be pressed.
- In several passages, the performer is instructed to pluck the string with a guitar pick. The type of pick (soft, medium, hard) is left to your discretion. If you don't have a pick, a similar type of plastic (such as a credit card) will do just fine. The string should be plucked somewhere past the hammer, but the specific location is also left to your discretion.
- In several passages, the performer is instructed to mute the string before striking the key. You should reach inside the piano (somewhere before the hammer/closer to the keys), press the string, then strike the key.
- The click track will turn on in parts of the piece where it will probably be helpful, and it will turn off in sections where it will probably be unnecessary. This is marked in the score with CLICK ON or CLICK OFF.
- You should use the sustain pedal as indicated in the section where it is marked, but in general, use of the sustain pedal is left to the performer's discretion.

Getting started…

Technical Requirements:

- A Mac running OS X 10.10 or later
- SuperCollider 3.8.0 (http://supercollider.github.io/download.html)
- A MIDI foot pedal, or a USB foot pedal programmed to emulate the space bar
- An audio interface with at least three outputs (two for the audio outputs and one for the click track) and phantom power
- Headphones or earbuds for the performer. I've found that headphones with only one side work best.
- Other audio equipment:
    - At least two high-quality speakers
    - Mixer
    - Two condenser mics
    - Two mic stands
    - XLR / TRS to XLR / TRS cables as needed

Adding Extensions:

The components in the "Reversal Process Extensions" folder are required to run the piece. Here's how to properly install them so that SuperCollider can access them (you'll only need to do this once):

- Create the Extensions directory if it doesn't exist
    - Navigate to ~/Library/Application Support/SuperCollider
    - Create a folder called "Extensions" inside this directory
        - If this folder already exists, it's probably best to move it to your Desktop or some other location while you're running the piece, just to make sure that none of the already-existing extensions can interfere.
- Drag the "Reversal Process Extensions" folder inside the "Extensions" directory
- The extensions will be loaded automatically the next time you open SuperCollider

Running the Piece:

- Double-click on "Reversal Processes.app"
    - N.B.: a USB (not MIDI) foot pedal will only work when this window is the main/active/front window on your computer
- Set the audio input and output device to your audio interface
- Select the main output channels on the mixer, the output channel for the headphones click track / mono mix
- Use the sliders to adjust the output level, microphone input level, and click track / mono mix as desired
- After you load the piece, press space bar, the foot pedal, or the right arrow key to go to the next event. Press the left arrow key to go to the previous event. Press ESC to start the piece over.

Reversal Processes

for Piano and SuperCollider

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1

Bright, mechanical, ♩ = 120

2

p

CLICK ON

piano samples, randomly triggered on the 16th note

backwards note

pp

8

3

ff

CLICK OFF

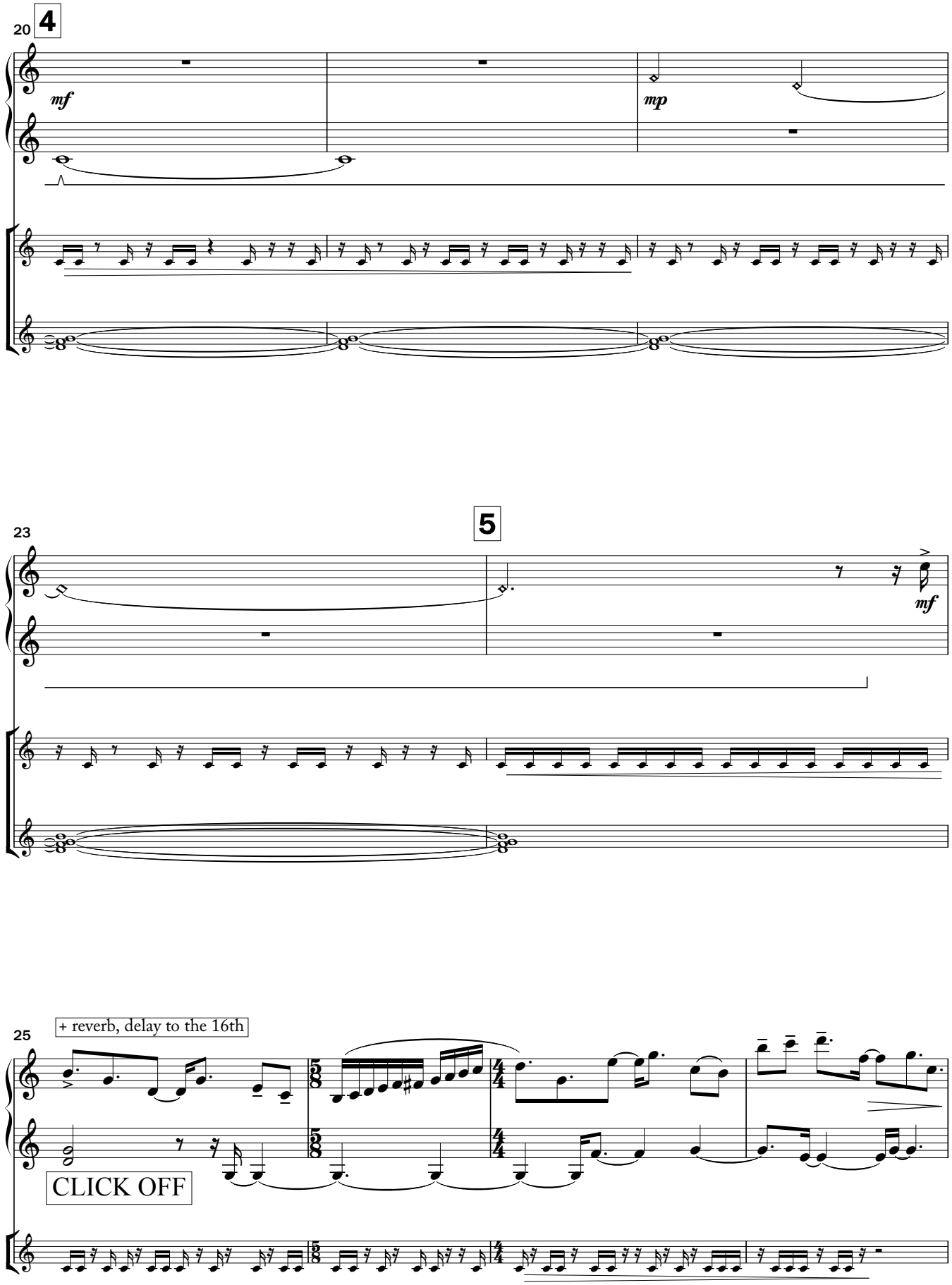
p

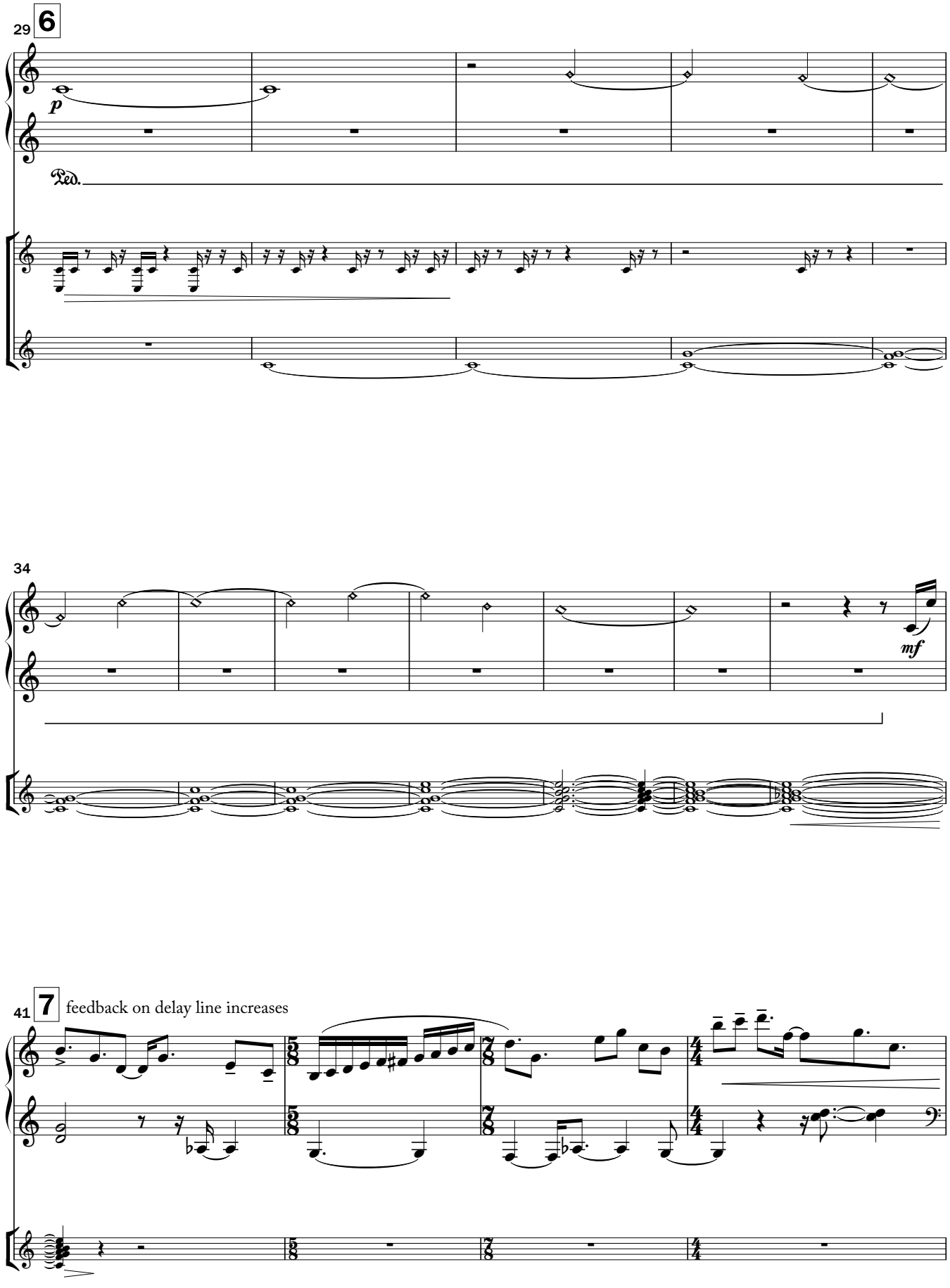
Ped.

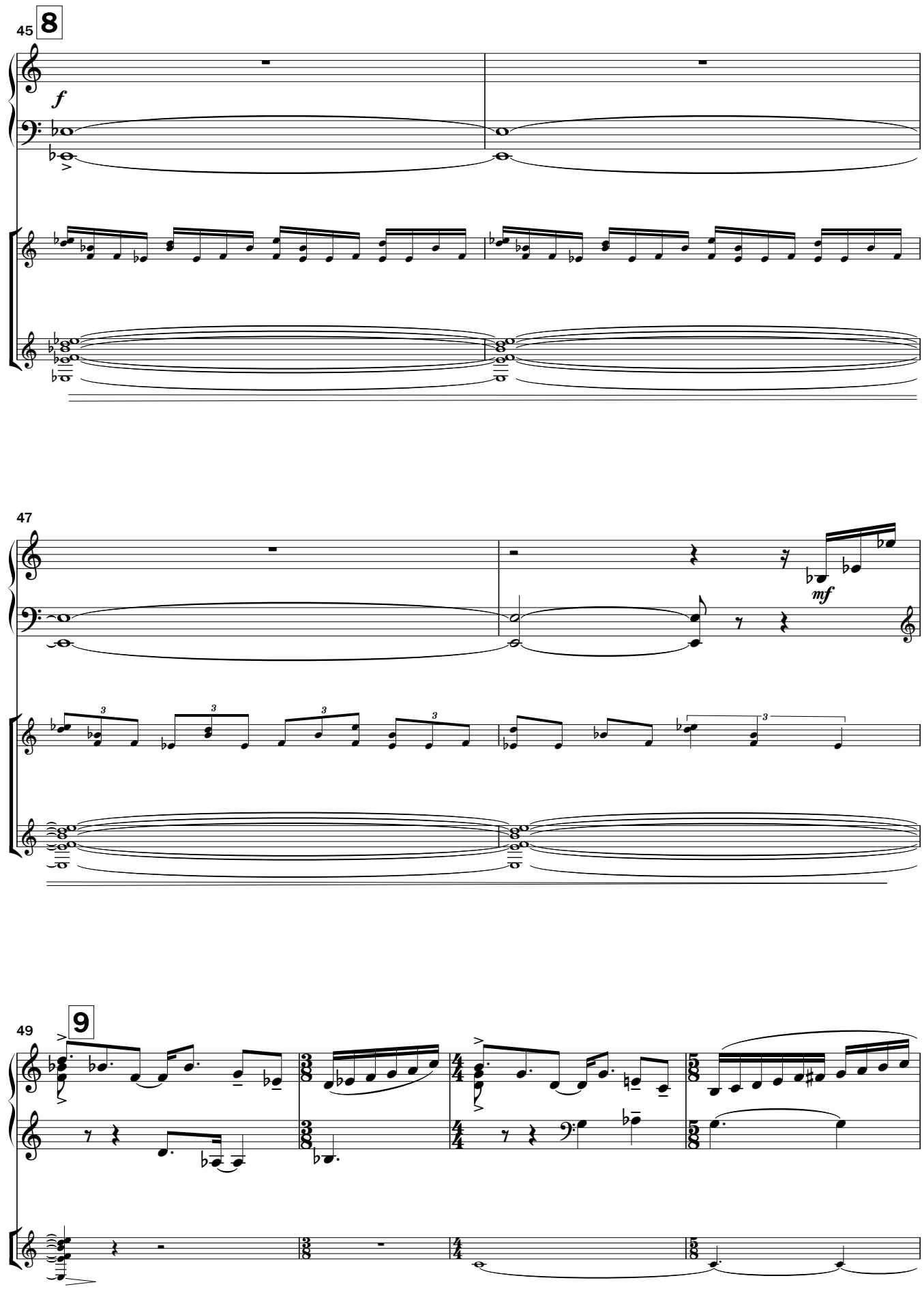
CLICK ON

12

pluck strings with guitar pick


20
4
mf
mp
23
5
mf
25
+ reverb, delay to the 16th
CLICK OFF


29
6
p
Ped.
34
mf
41
7
feedback on delay line increases


45
8
f
47
mf
49
9

10

53

molto rit.

a tempo

p

CLICK ON

57

mp

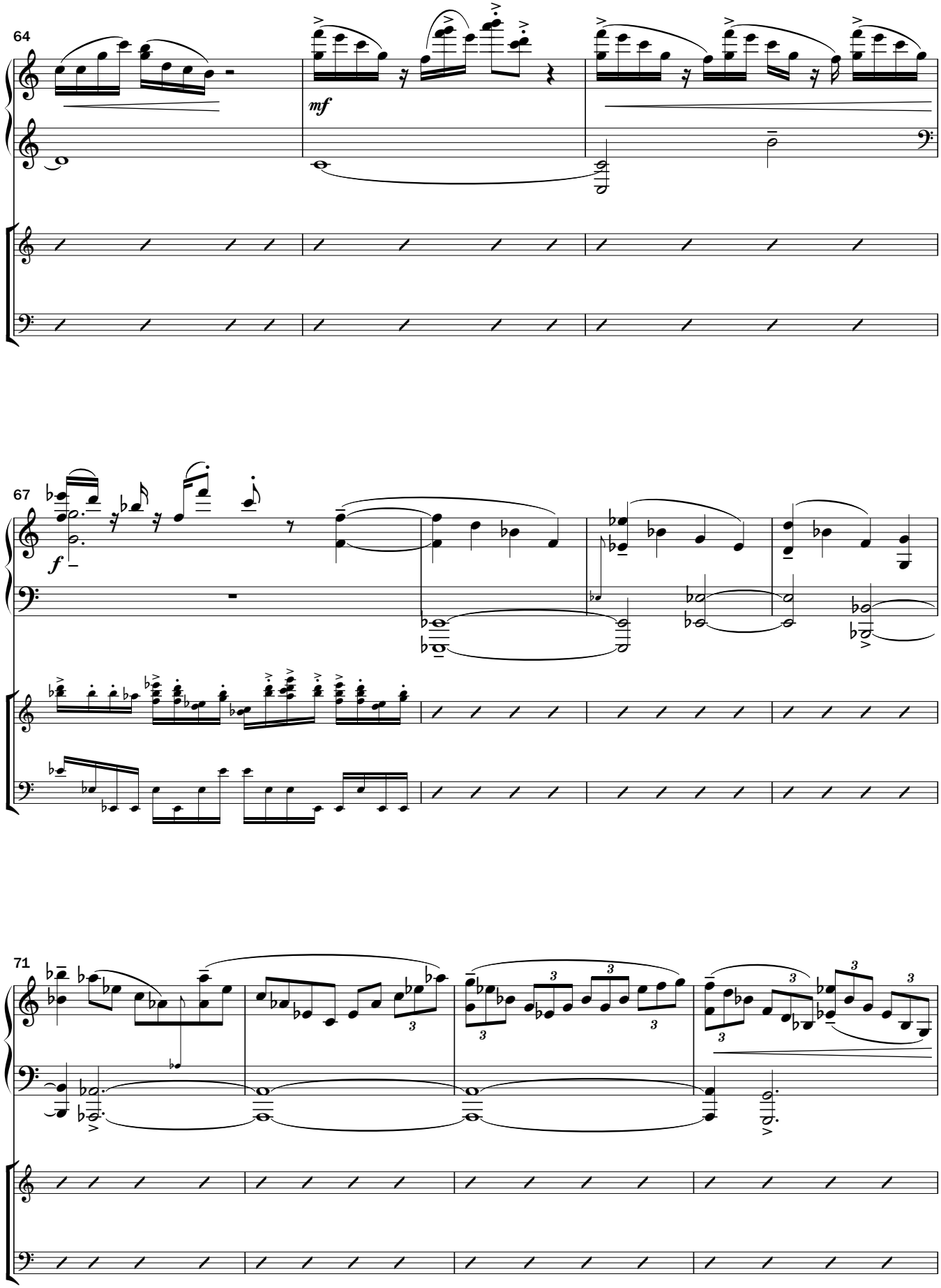
(p)

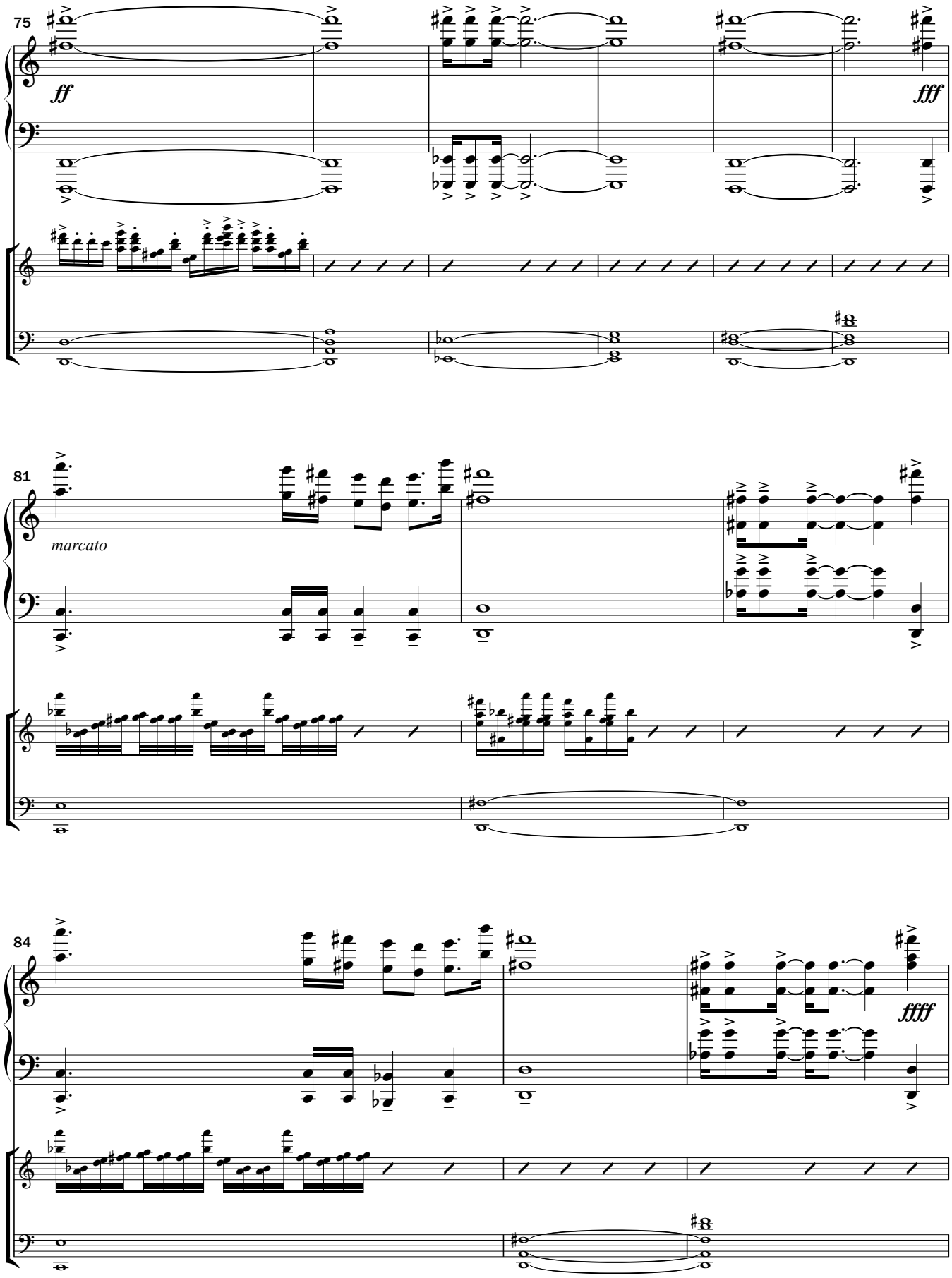
randomly selected licks, recurring more and more frequently

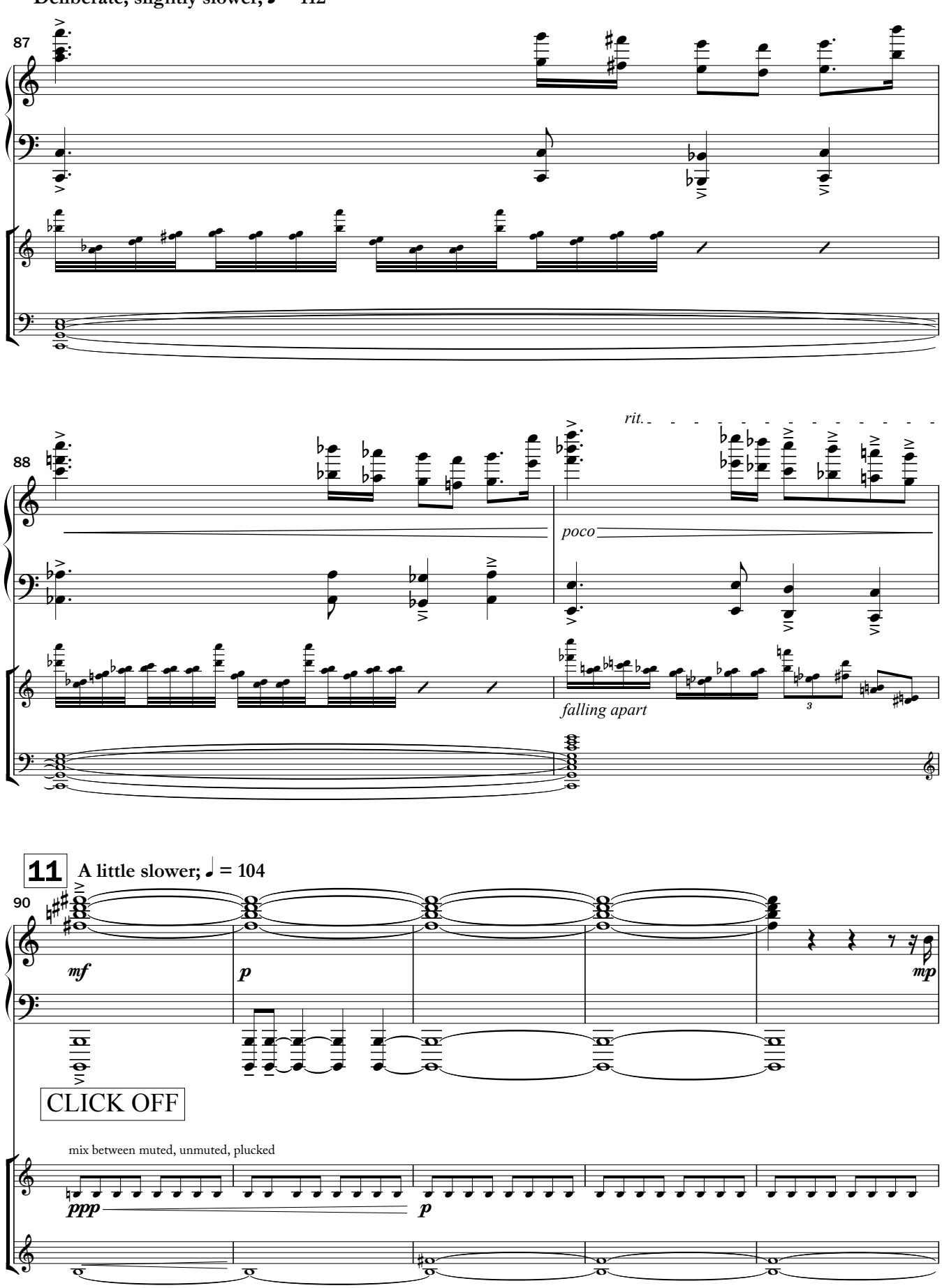
mostly muted strings, some loud notes

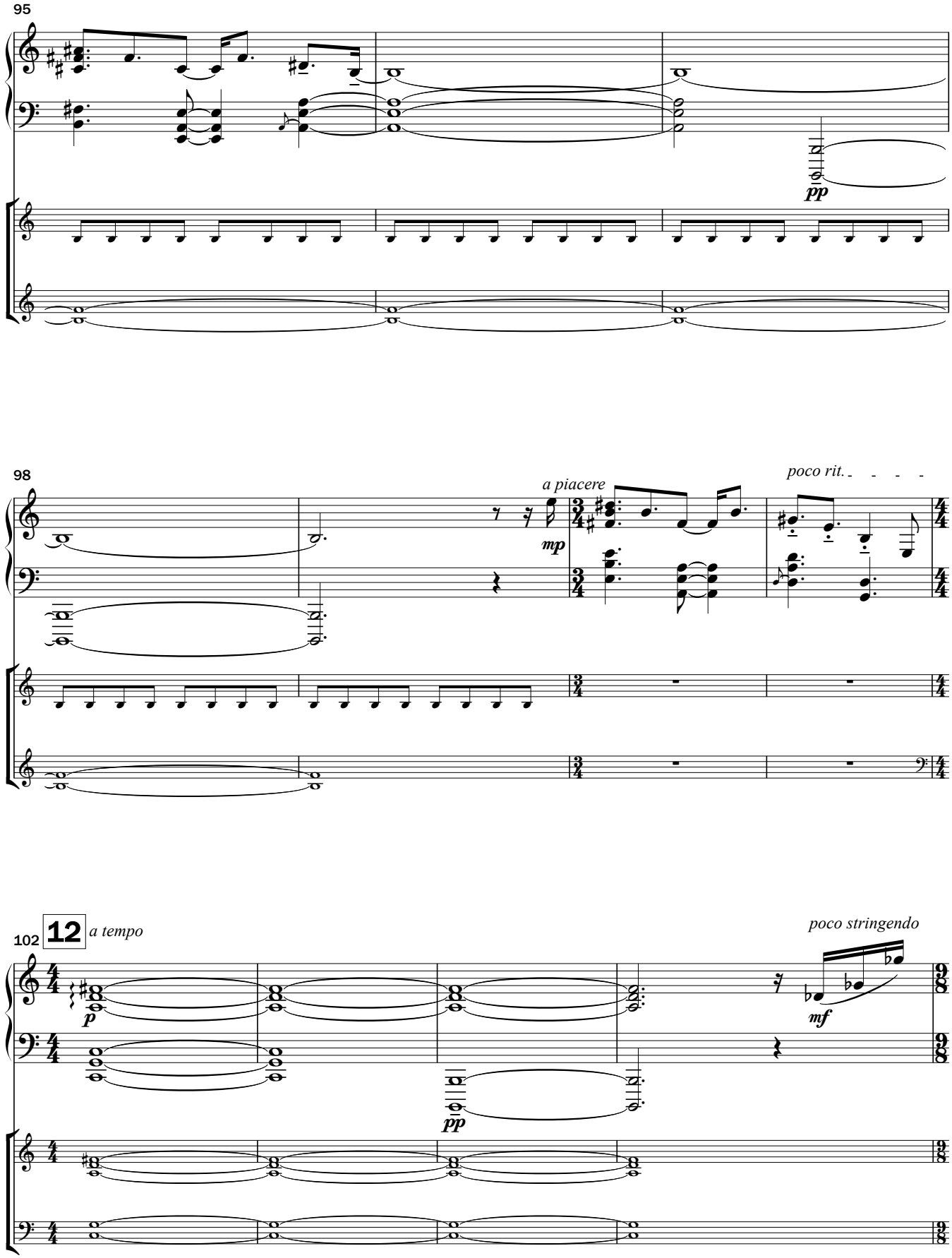
61

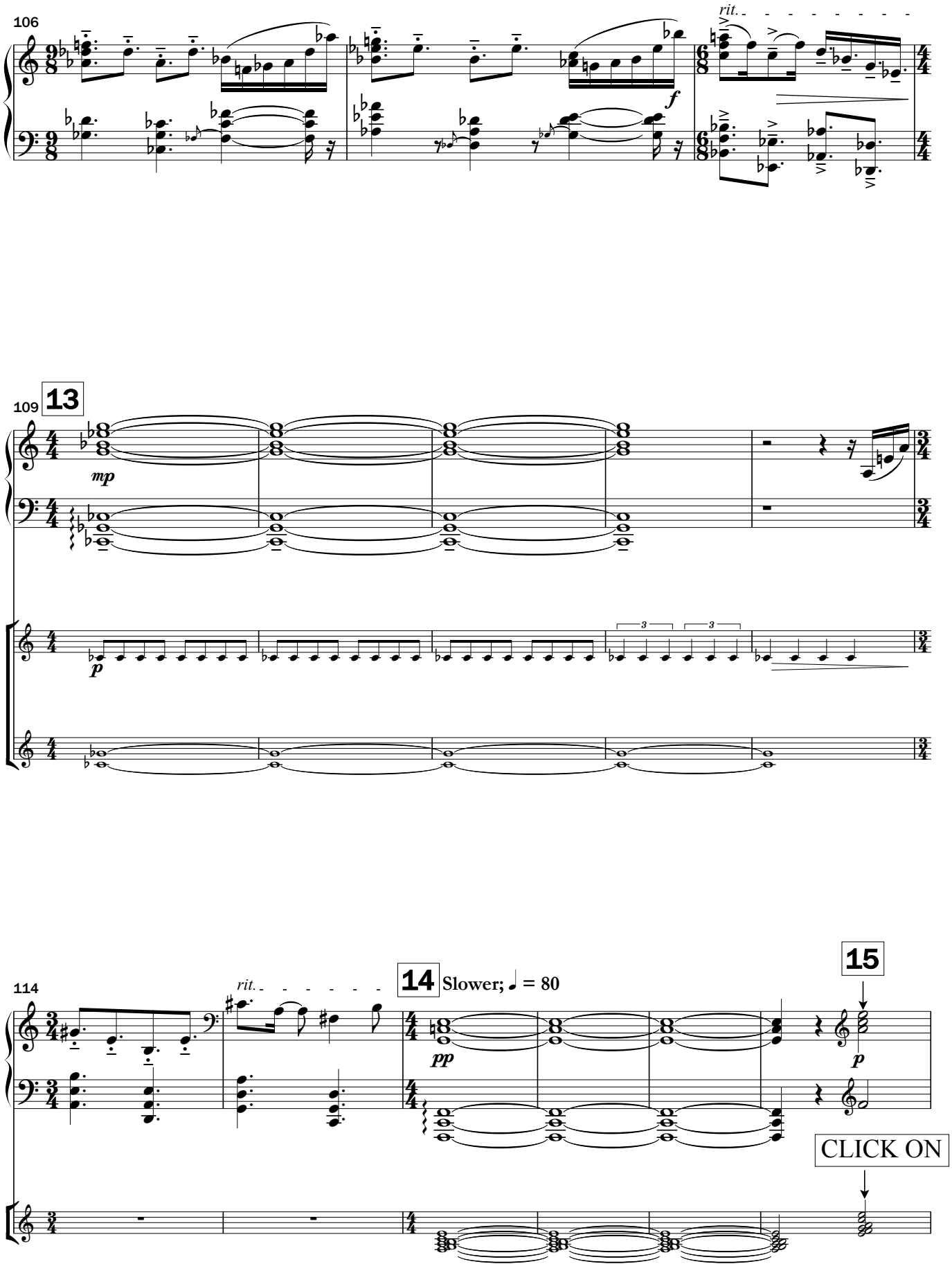
no longer licks, more of a continuous 16th-note layer

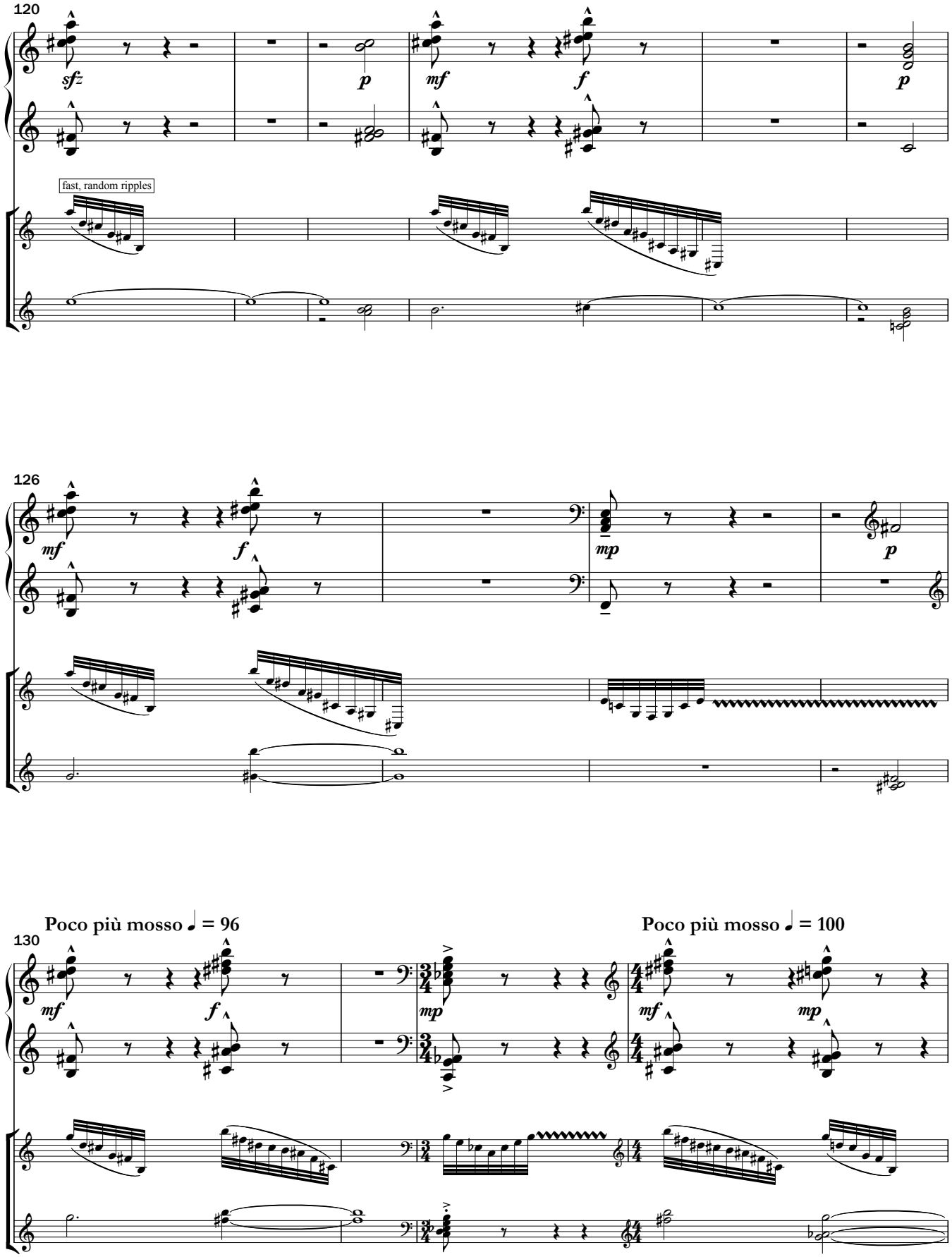

64
mf
67
f
71

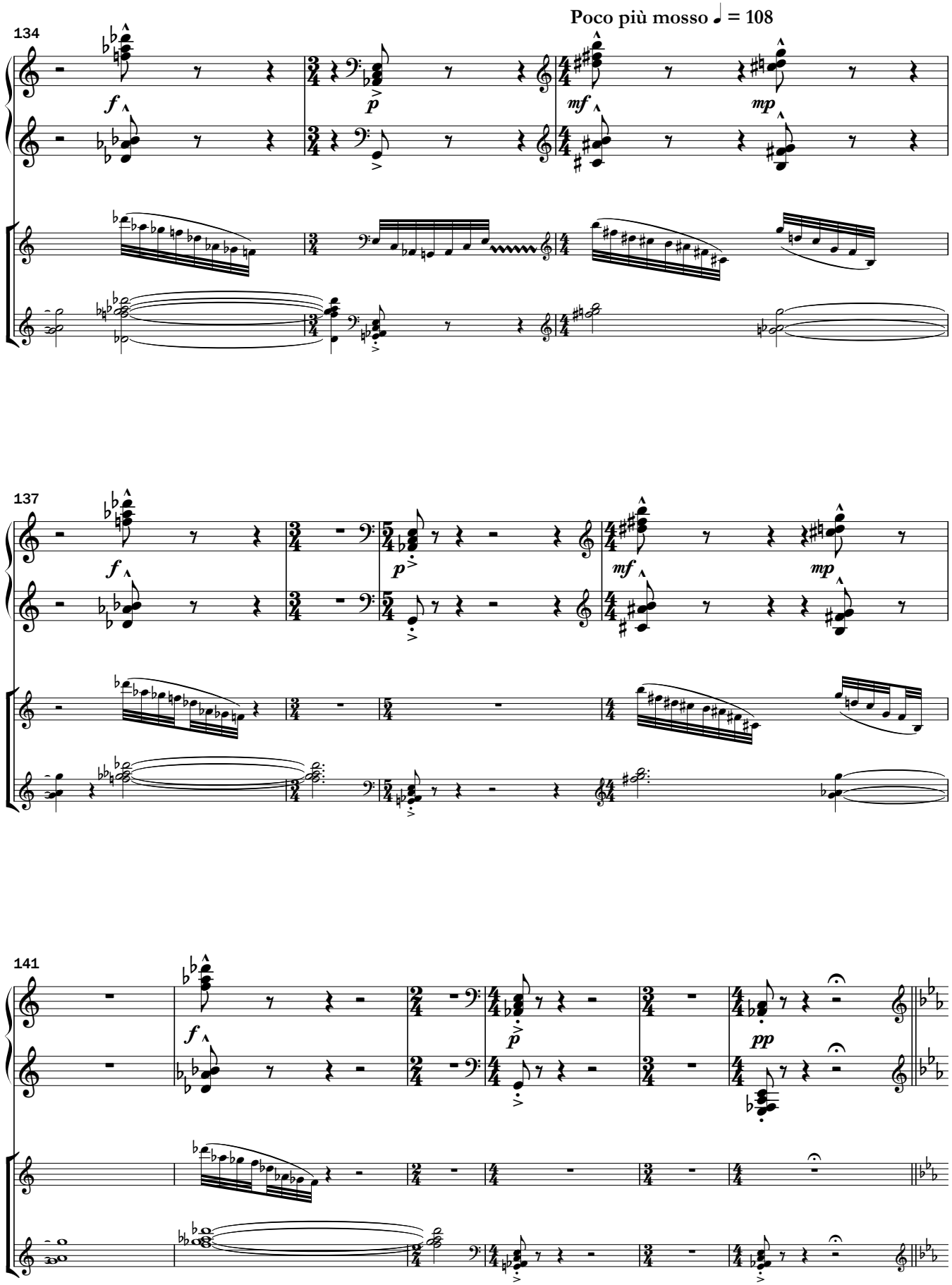

75
ff
fff
81
marcato
84
ffff


Deliberate, slightly slower; ♩ = 112
87
88
rit.
poco
falling apart
11
A little slower; ♩ = 104
90
mf
p
mp
CLICK OFF
mix between muted, unmuted, plucked
ppp
p


95
pp
98
a piacere
mp
poco rit.
102
12
a tempo
p
pp
poco stringendo
mf

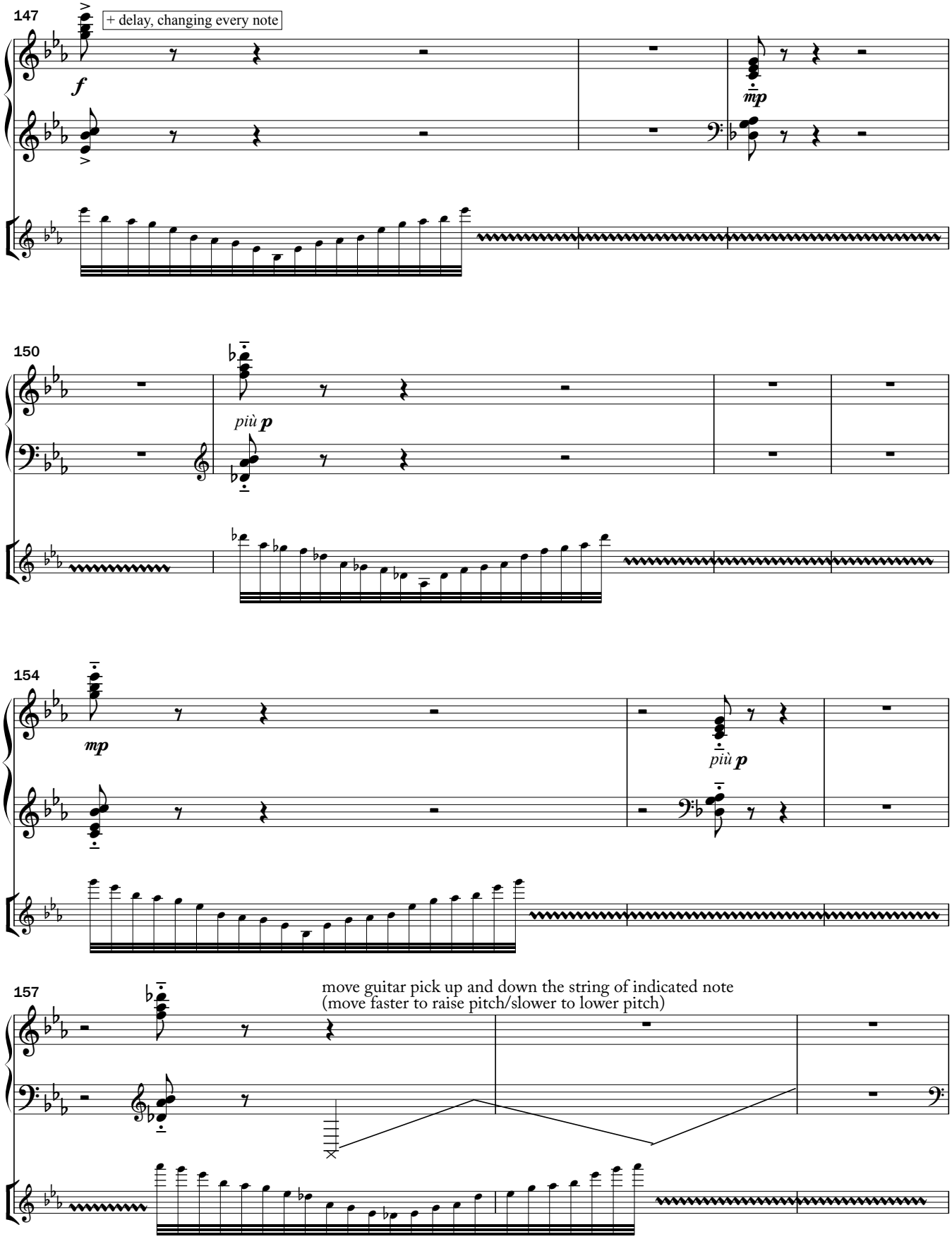

106
rit.
f
109
13
mp
p
114
rit.
14
Slower; ♩ = 80
pp
15
p
CLICK ON

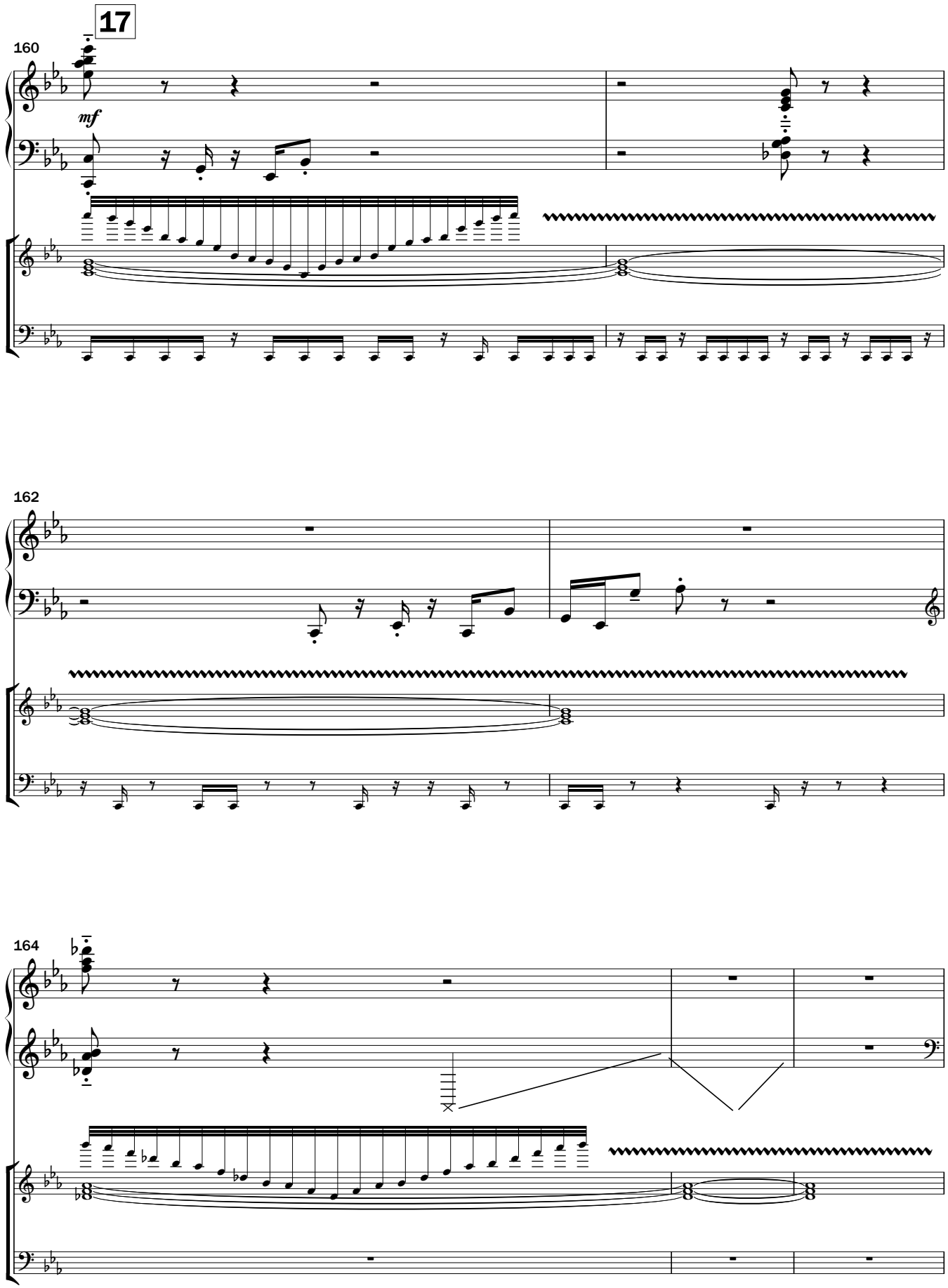

120
sfz
p
mf
f
p
fast, random ripples
126
mf
f
mp
p
Poco più mosso ♩ = 96
130
mf
f
mp
Poco più mosso ♩ = 100
mf
mp

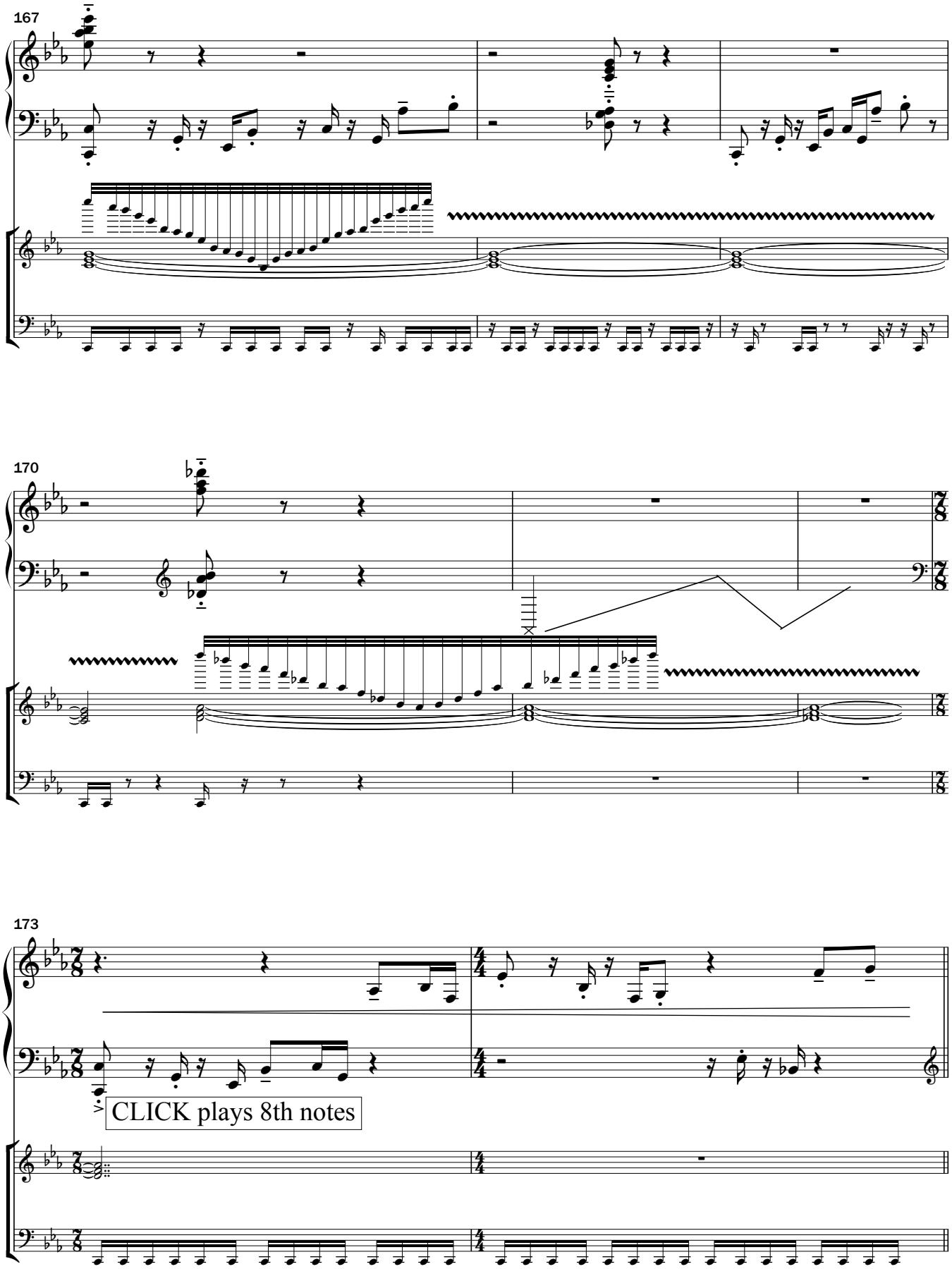

Poco più mosso ♩ = 108
134
137
141

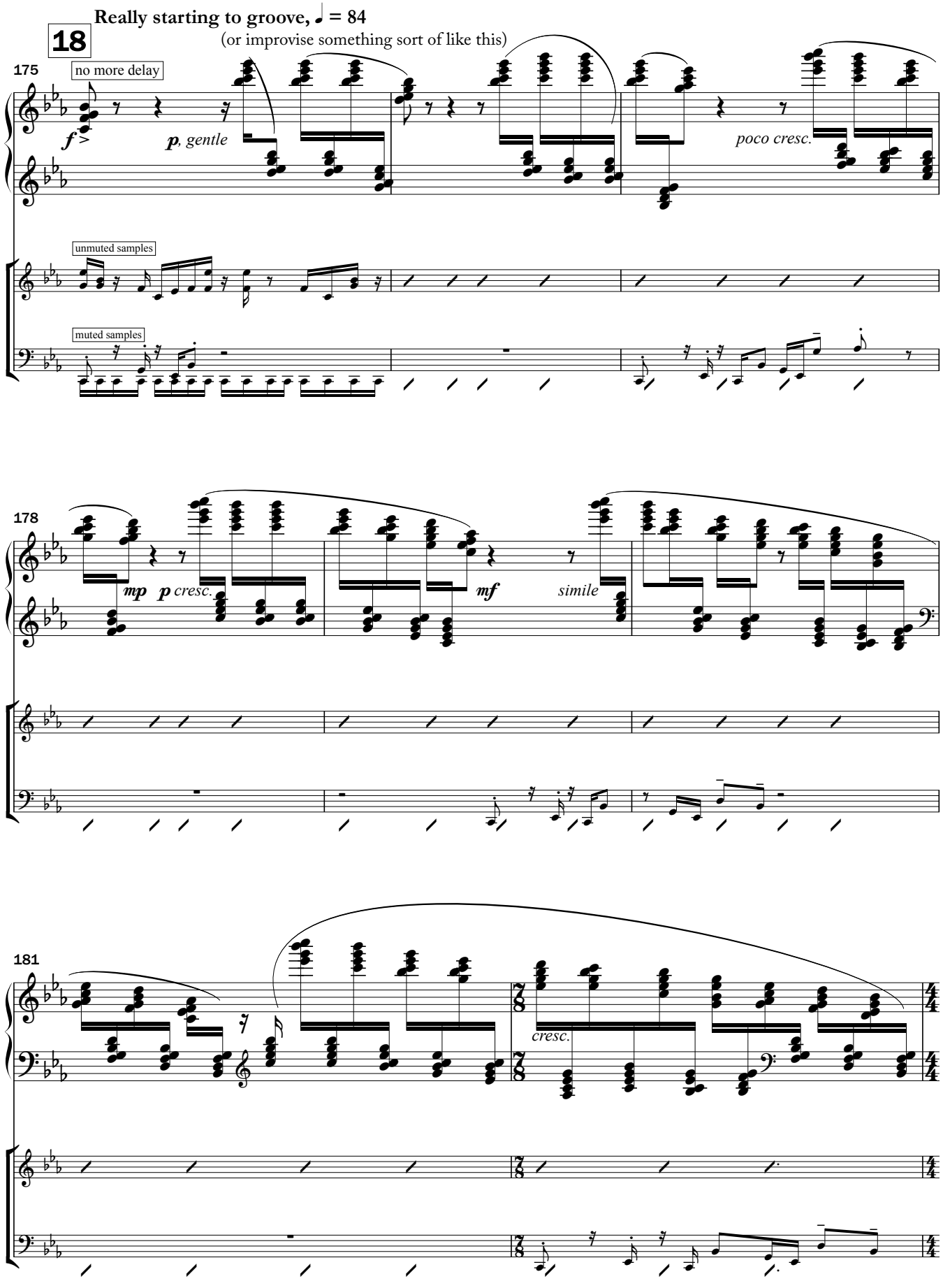
16

Ethereal and light, without a sense of time
(follow the computer at ♩ = 84)




17
160
mf
162
164


167
170
173
CLICK plays 8th notes


Really starting to groove, ♩ = 84
(or improvise something sort of like this)
18
175
no more delay
f >
p, gentle
poco cresc.
unmuted samples
muted samples
178
mp
p cresc.
mf
simile
181
cresc.

play fast, mostly downward arpeggios on these chords

183

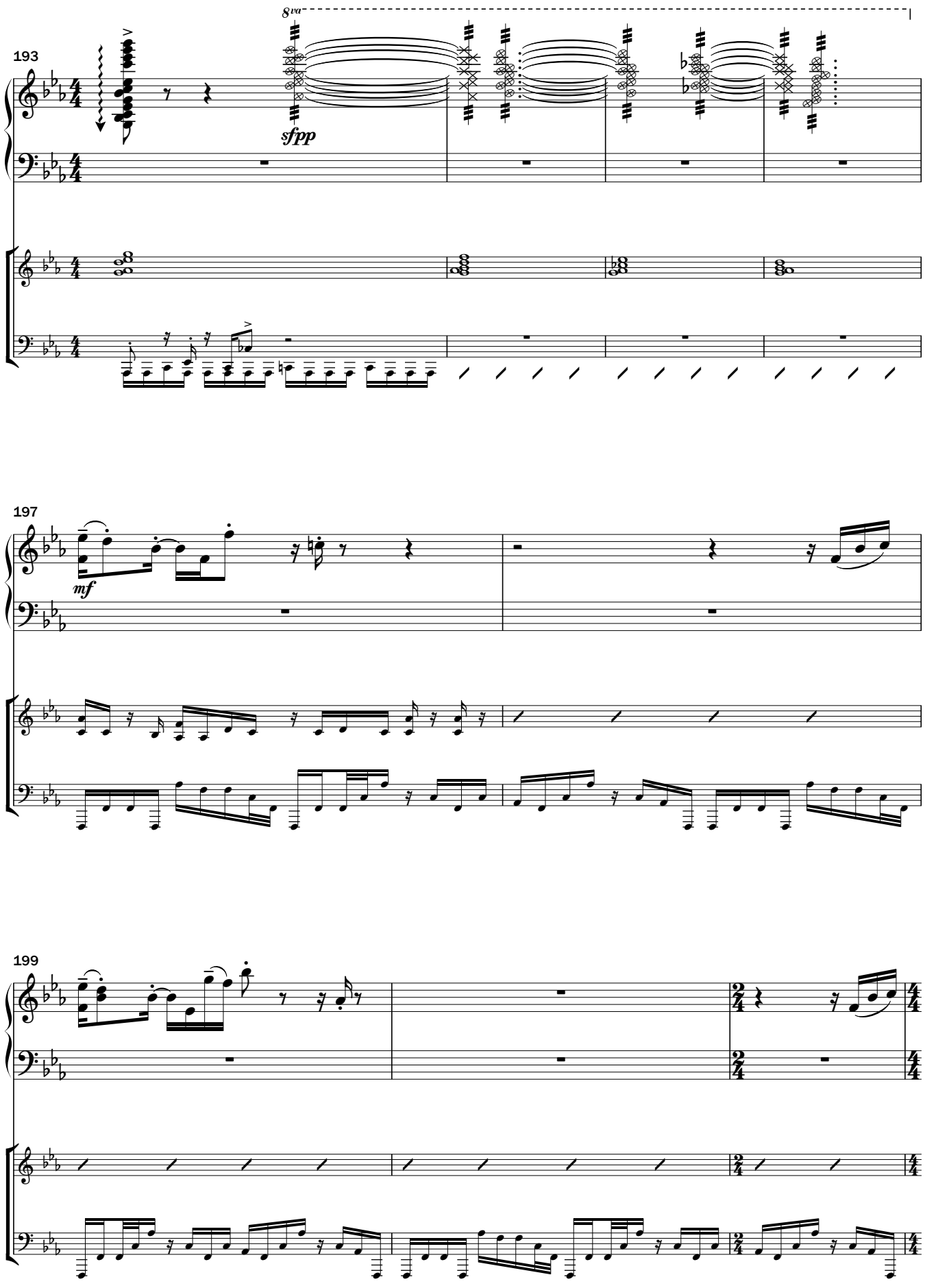
f *mf*

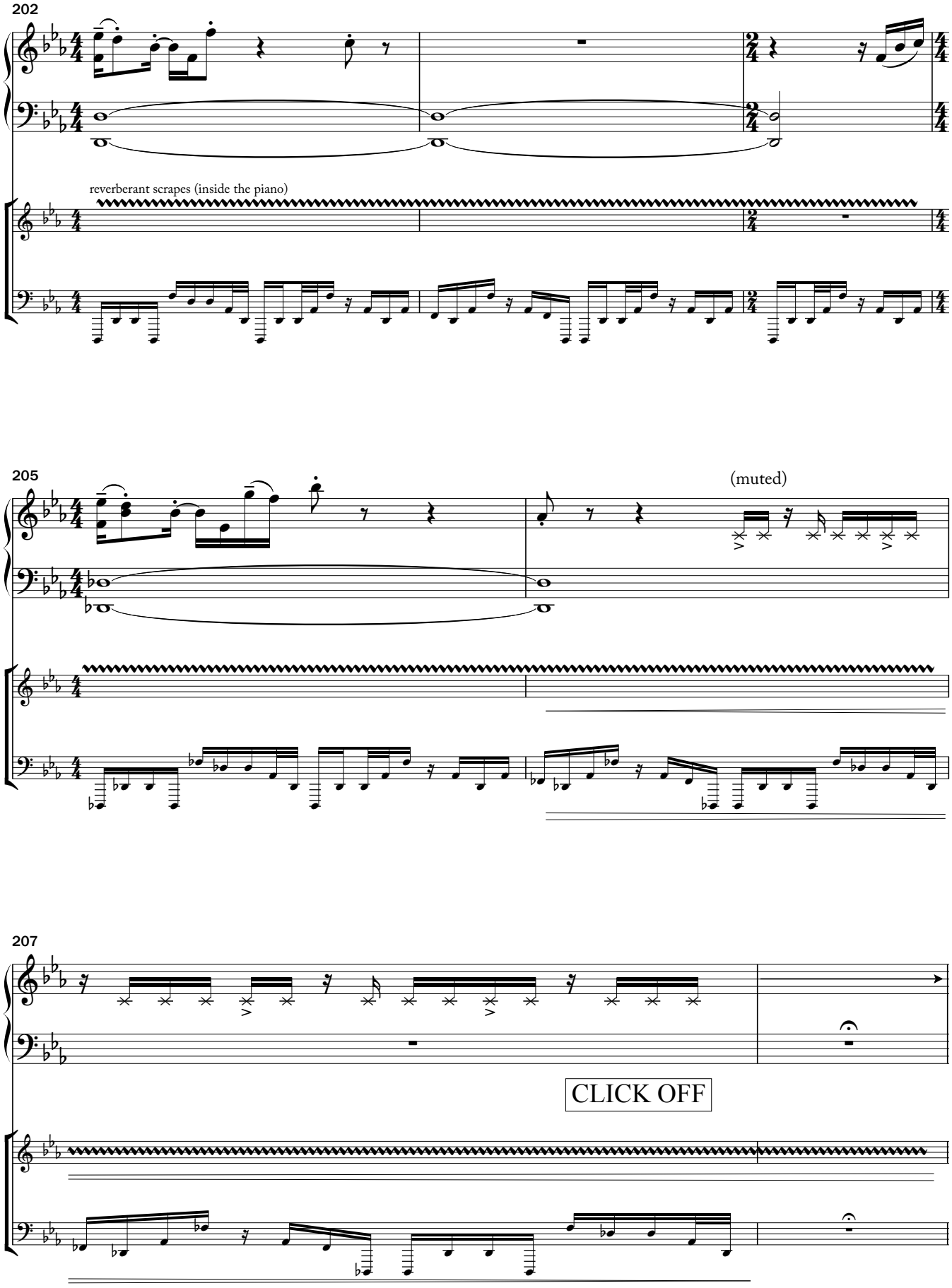
187

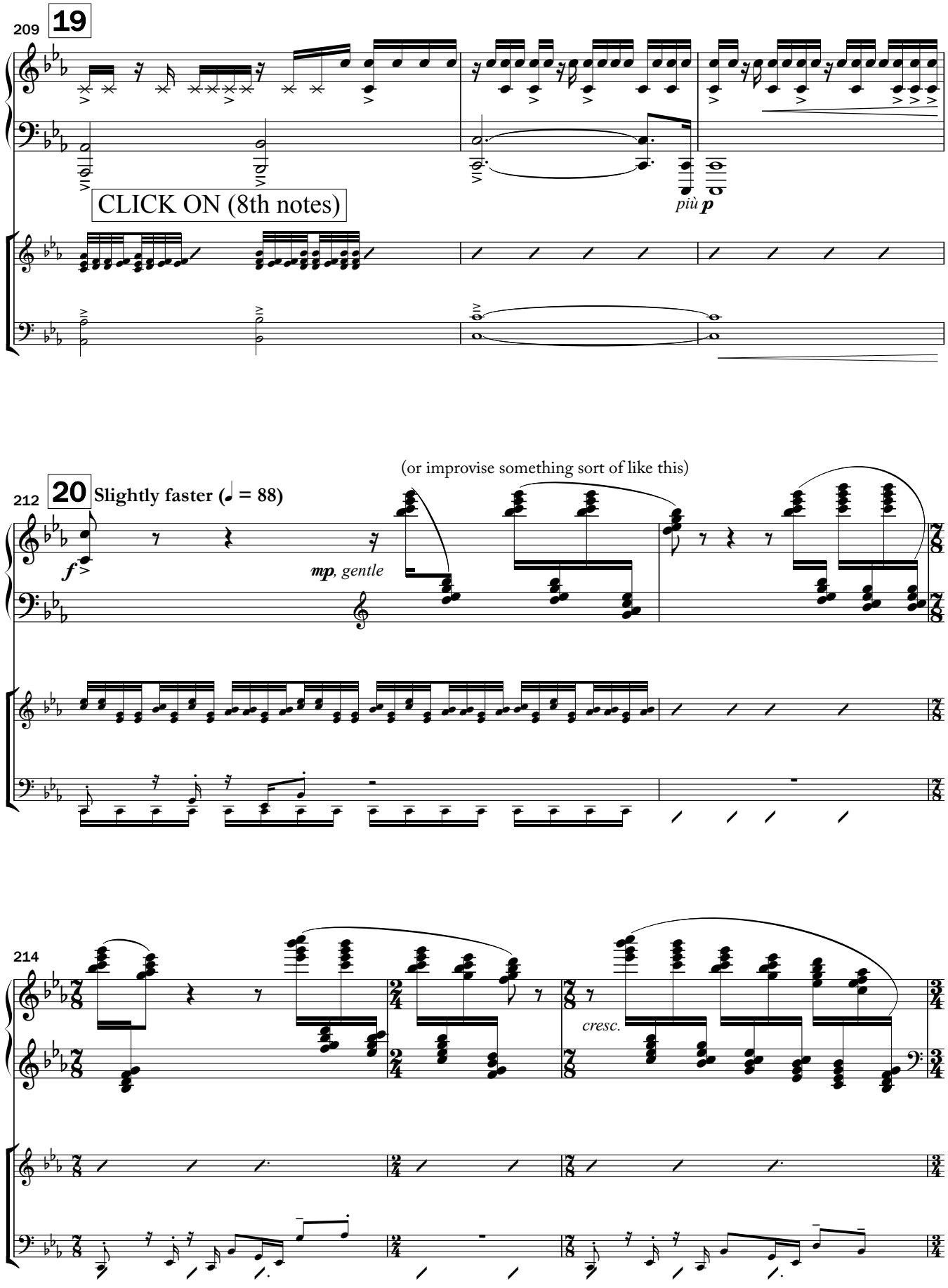
p mute the strings

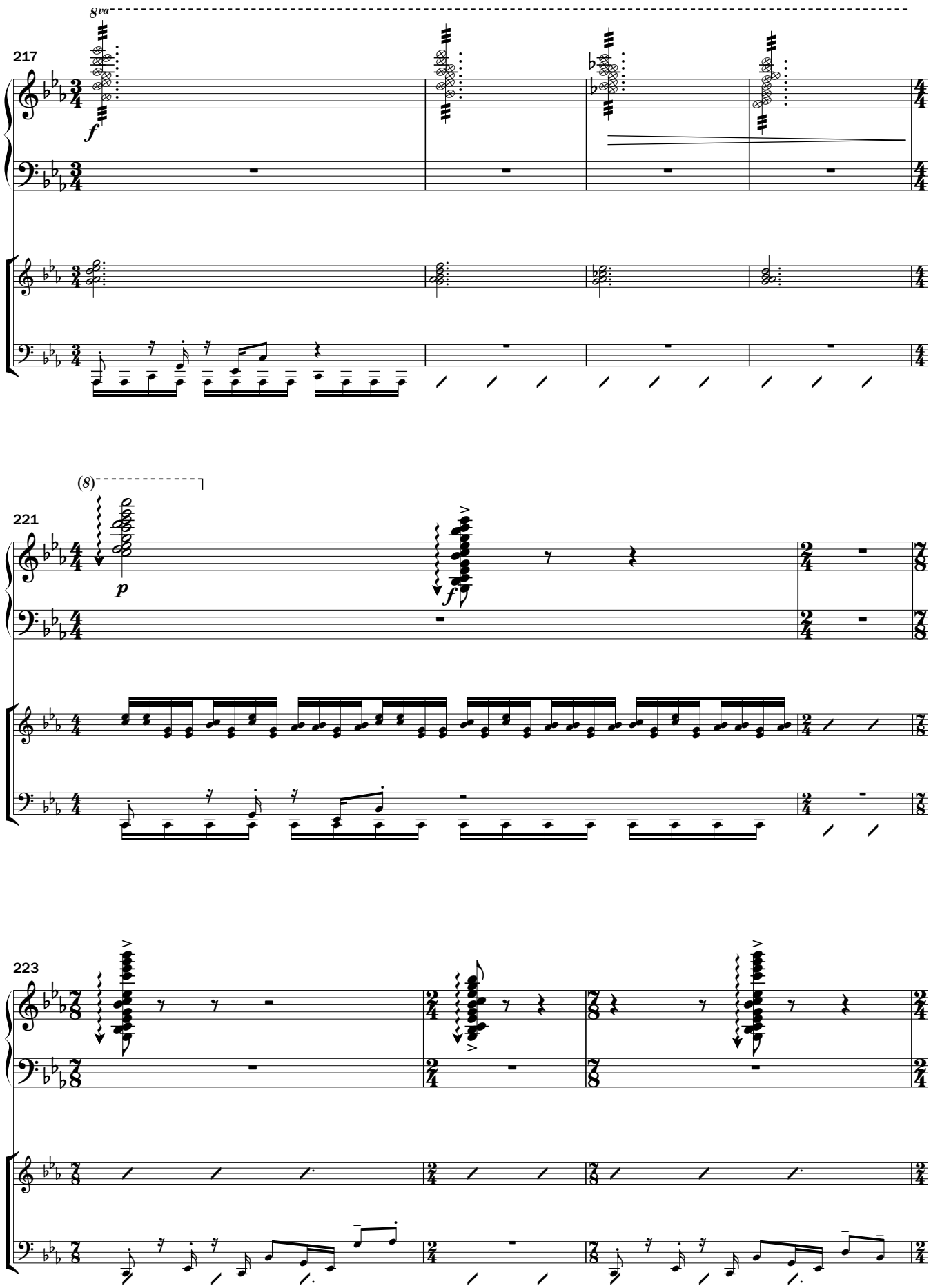
189

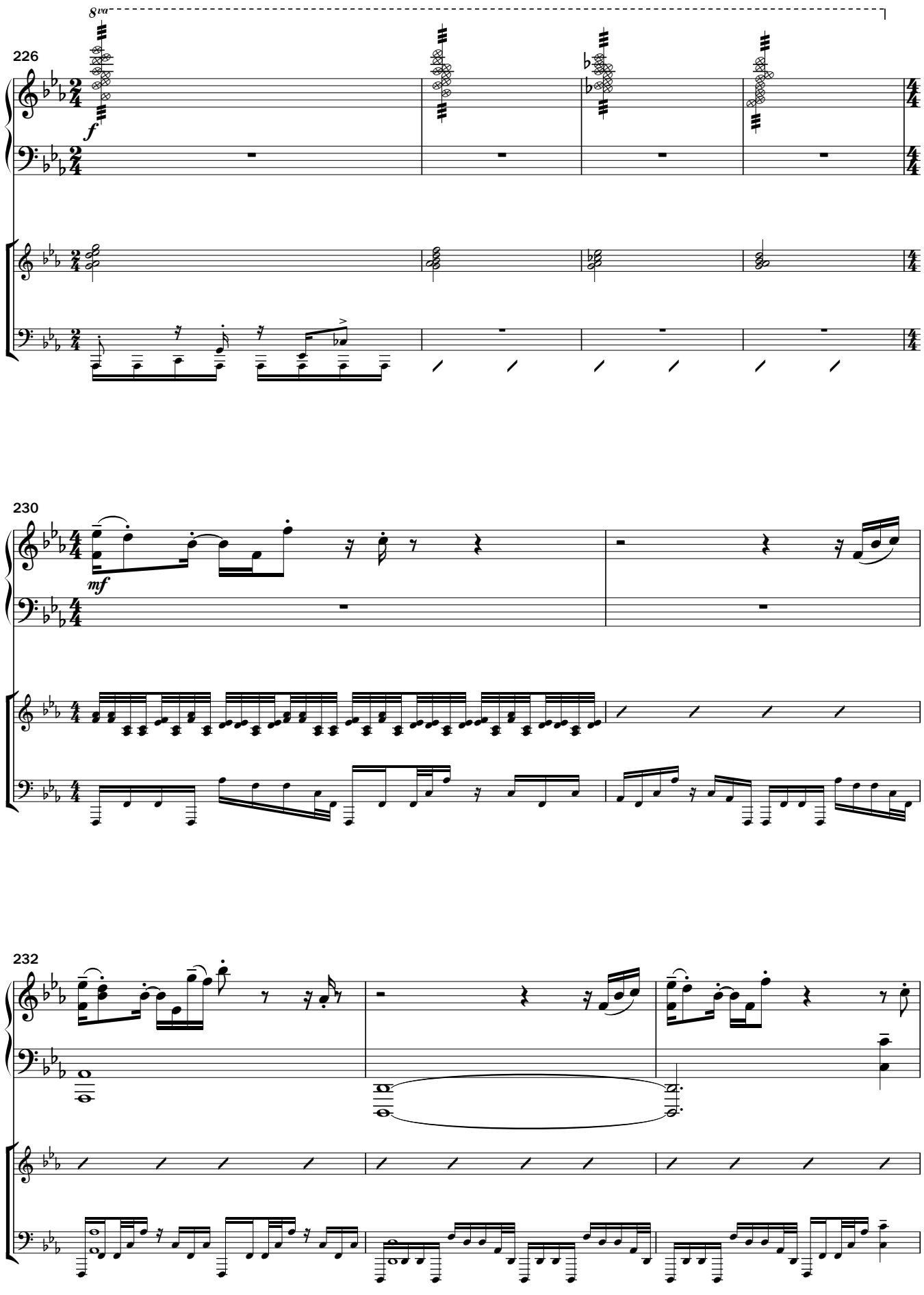
mf

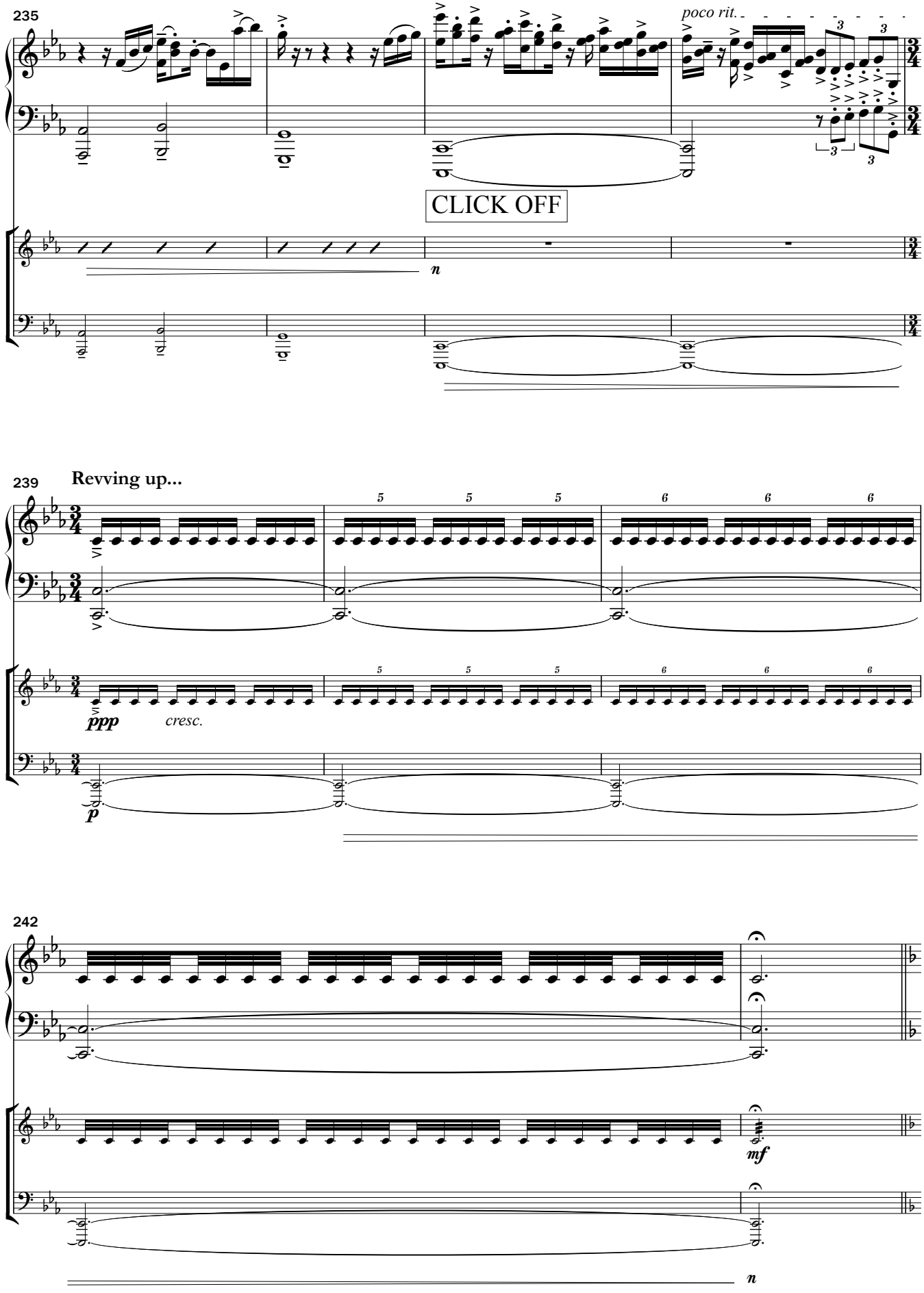

193
8va
sfpp
197
mf
199

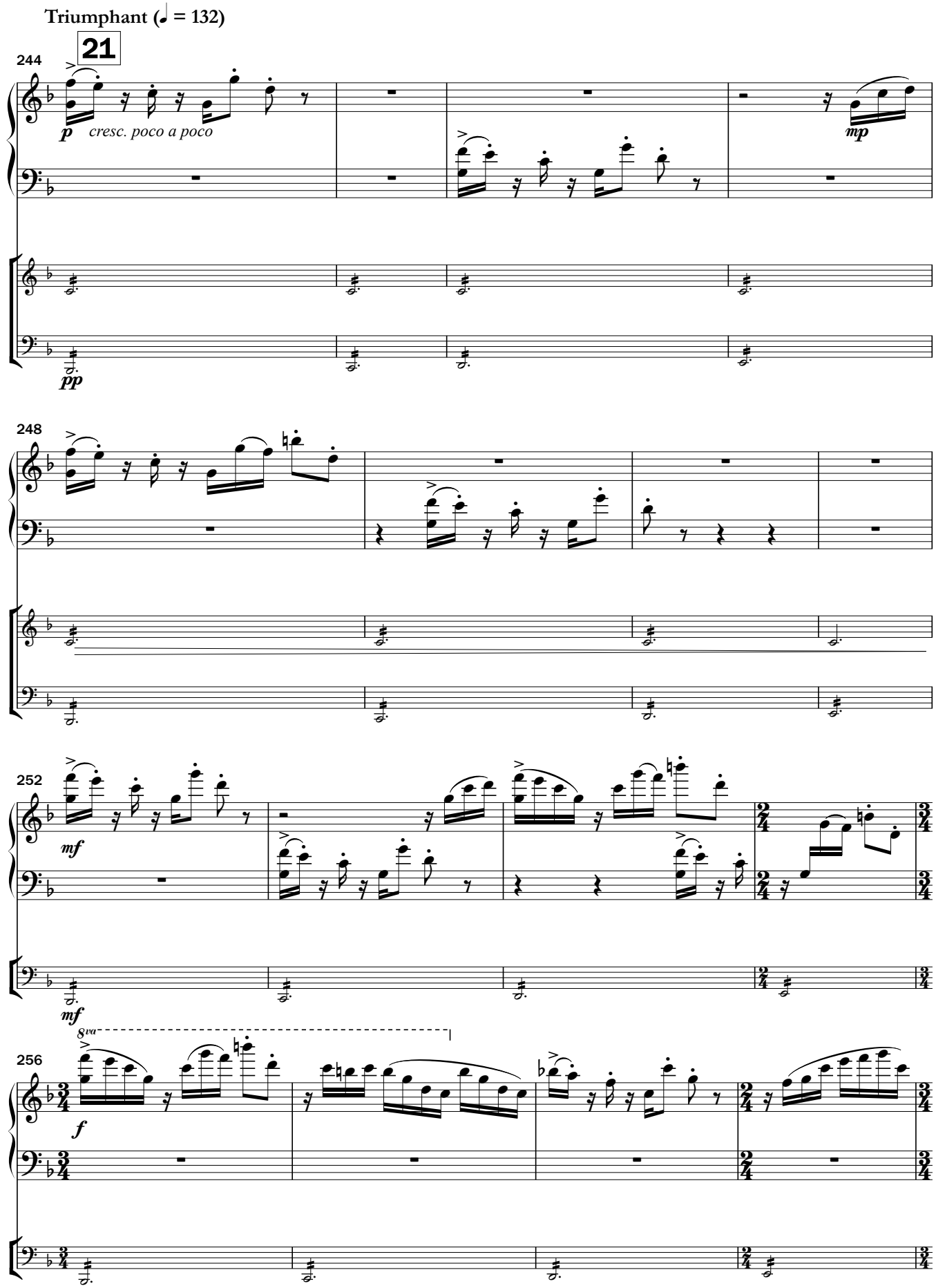

202
reverberant scrapes (inside the piano)
205
(muted)
207
CLICK OFF

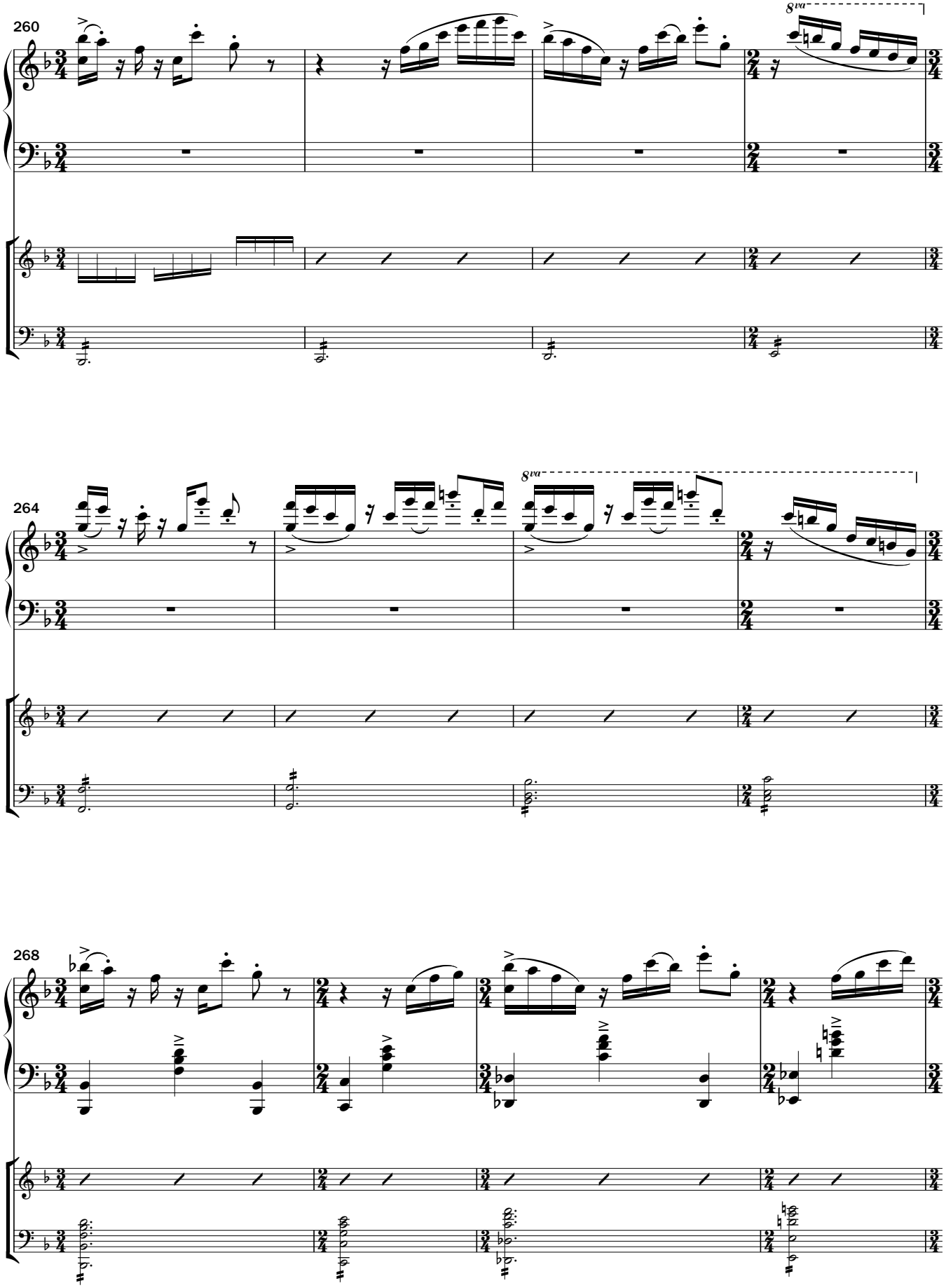

209
19
CLICK ON (8th notes)
più p
(or improvise something sort of like this)
212
20
Slightly faster (♩ = 88)
f
mp, gentle
214
cresc.

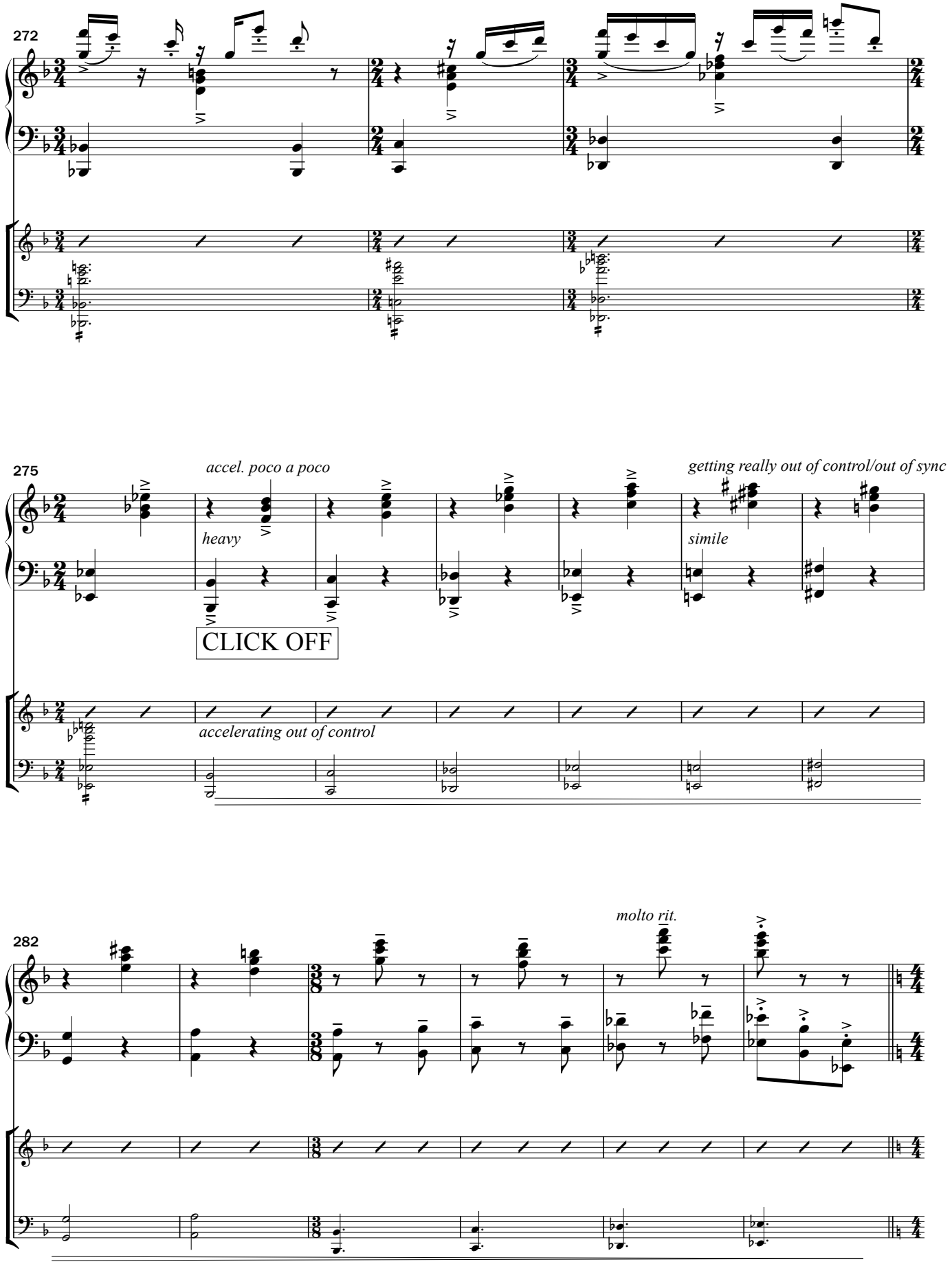

8va
217
f
(8)
221
p
f
223


8va
226
f
230
mf
232


235
poco rit.
CLICK OFF
n
239
Revving up...
ppp
cresc.
p
242
mf
n


Triumphant (♩ = 132)
21
244
p
cresc. poco a poco
mp
pp
248
252
mf
mf
256
8va
f


260
8va
264
8va
268


272
275
accel. poco a poco
getting really out of control/out of sync
heavy
simile
CLICK OFF
accelerating out of control
molto rit.
282

Slower; forceful (♩ = 100)

22

288

fff *dim. poco a poco*

f

CLICK ON

f *dim. e rit. molto*

3

291

mp

3 3 3

pp

294 Losing energy (♩ = 92)

23

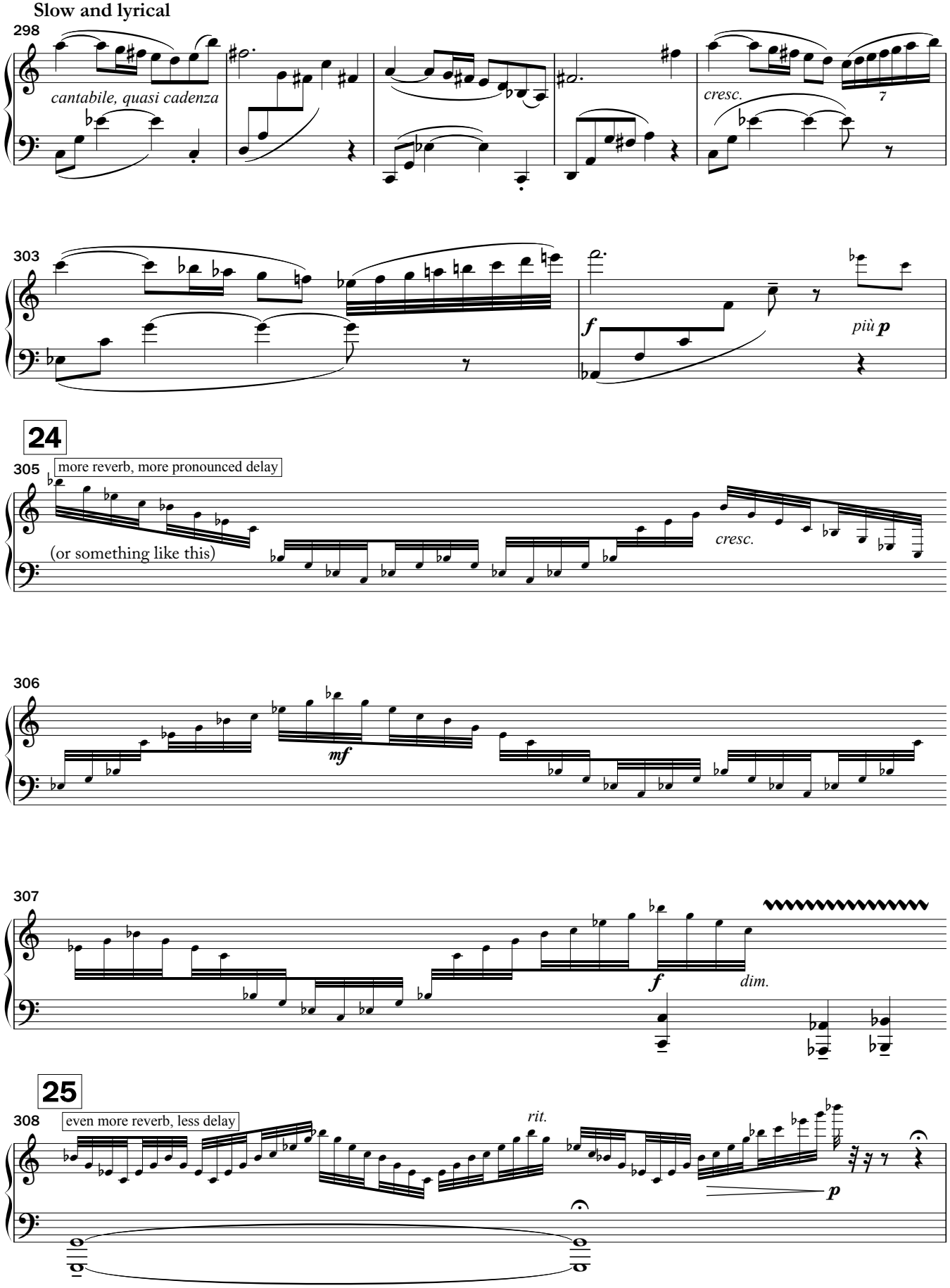
+ reverb, delay

p

pp

mp

CLICK OFF


Slow and lyrical
298
cantabile, quasi cadenza
cresc.
7
303
f
più p
24
305
more reverb, more pronounced delay
(or something like this)
cresc.
306
mf
307
f
dim.
25
308
even more reverb, less delay
rit.
p

26 With a sense of peace (♩ = 112)

27 Gently receding (♩ = 106)

310 no more delay

p

pp

pp

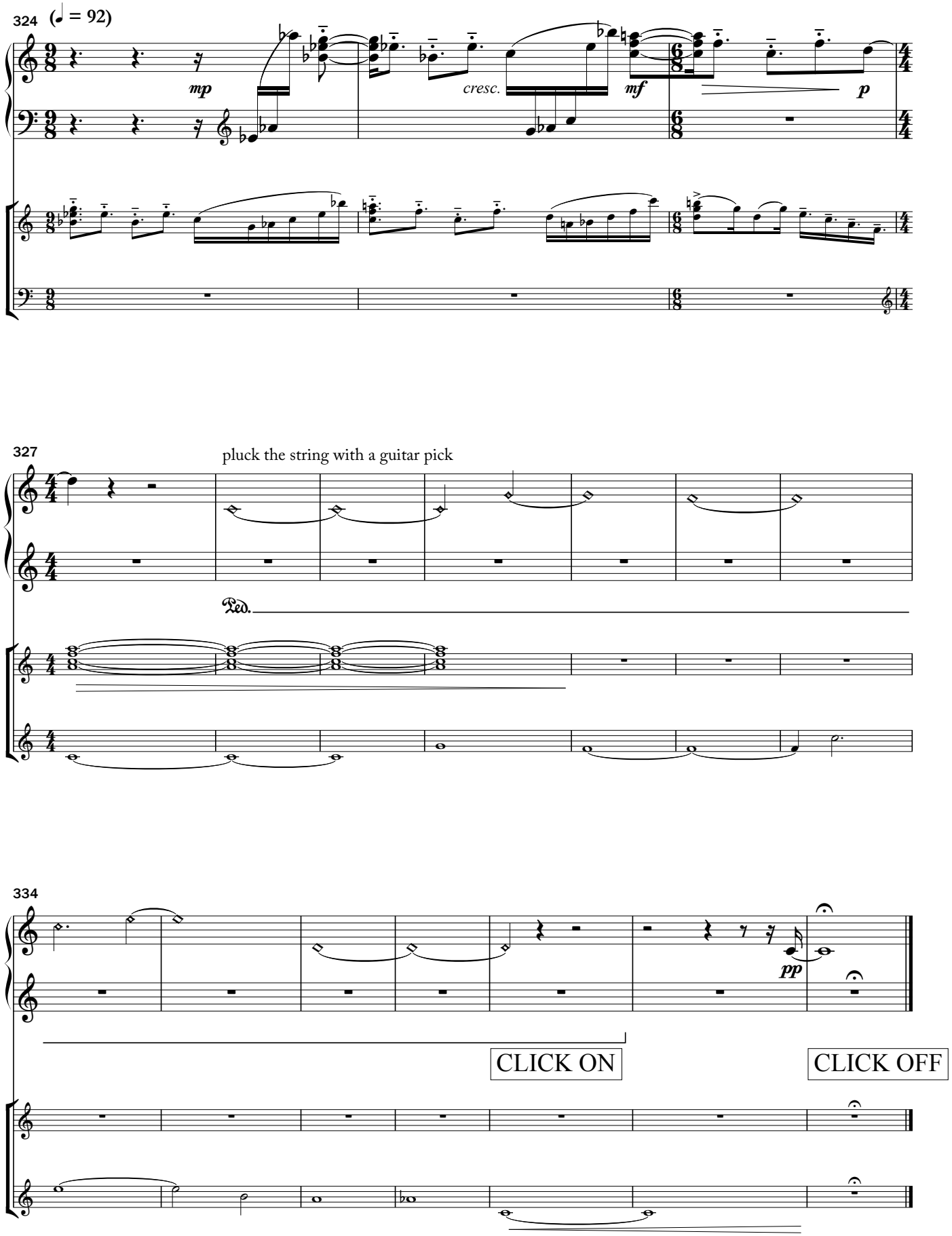
314 follow the computer part for the rest of the piece

317

320 (♩ = 100)

mp

p


324
(♩ = 92)
mp
cresc.
mf
p
327
pluck the string with a guitar pick
Ped.
334
pp
CLICK ON
CLICK OFF