Peter McKenzie Armstrong

Refractions

12–Tone Chords on an All–Interval Row

for autosequencer

Opus 13

Edition Ottaviano Petrucci

NOTES

In the mid ’80s I wrote the first of several algorithms collectively named "IntLens", which, given any pitch class series (probably a 12–tone row), complemented &/or compounded its intervals in all combinations of selection by class, outputting each result as a chord graph with associated statistical goodies.

Now for a sounding realization of that idea, I have chosen input 0 1 4 2 9 5 11 3 8 10 7 6, Mallalieu’s all–interval row (the most perfectly self–similar, with its second half retro–inverting the first), to ensure that chord–to–chord contrast will stem maximally from registral differences and minimally from source–specific quirks.

Viewing the total process as one of expansion, I have assigned importance to relative pitch density at a chord’s extremities (top/bottom), and made such densities determine for each chord both duration (via tempo settings) and volume level.

In order to avoid notehead collision in tighter–registered chords, each chord is scored in two columns: one for black keys, with a collective sharp sign; and a second for whites, with a collective natural sign. The column pair is to be read as sounding at once.

There are two movements, based on alternate ordering criteria. The first sequences chords outerly by range, innerly by density; the second reverses this sort priority.

Not explicit in the score (though implemented in the audio files) is consistent chord arpeggiation. This is applied in Movement I as "rolls" in row–sequence order (rather than up or down), and in Movement II as "unrolls" – correspondingly ragged endings following block–chord attacks.

Refractions is dedicated in memory of Phil Winsor, who mentored the IntLens project during my season at UNT and once corralled me as keyboardist in a chordal adventure of his own. He dared anything graced with discipline.

– PMA

in memoriam Phil Winsor

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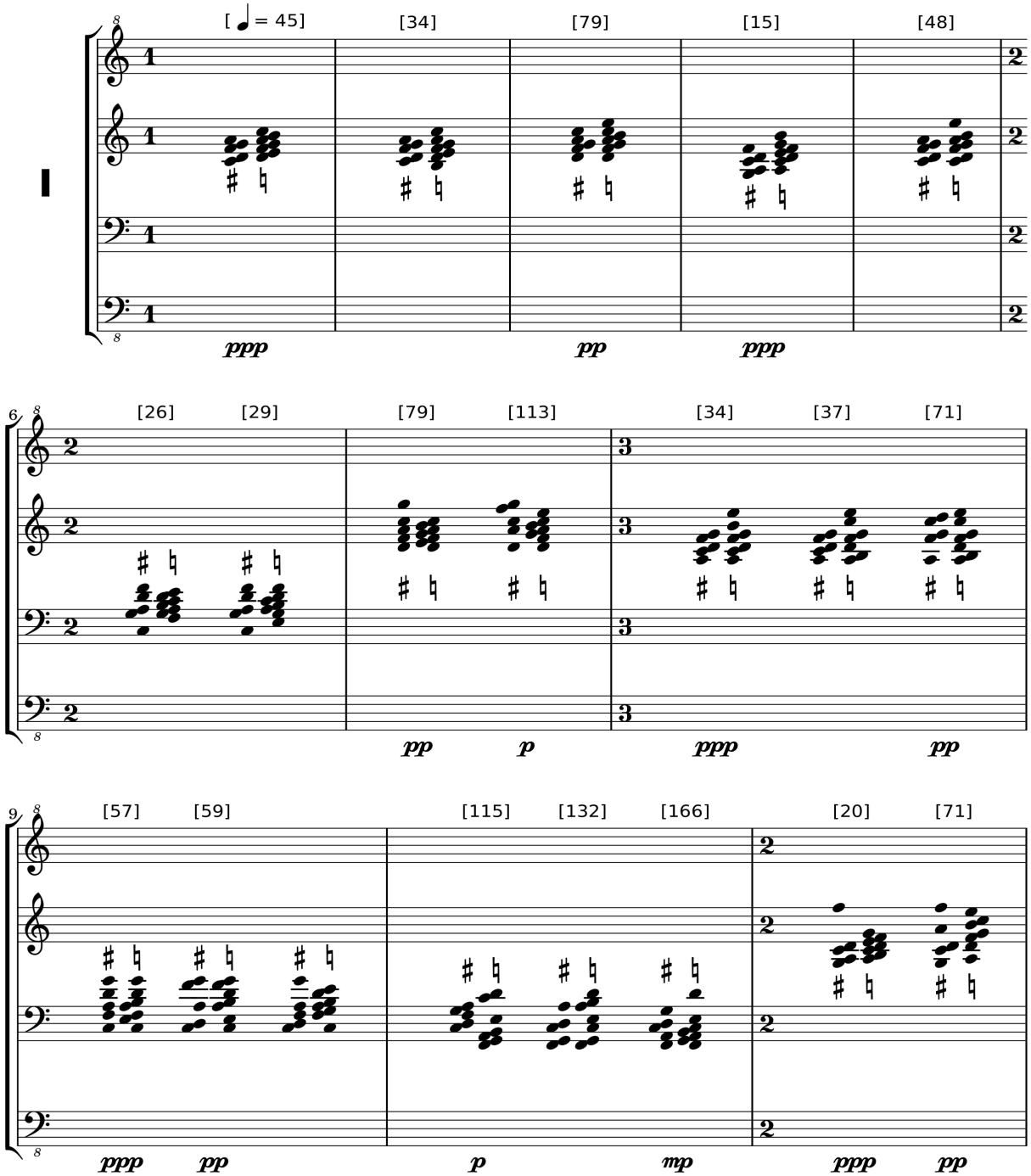
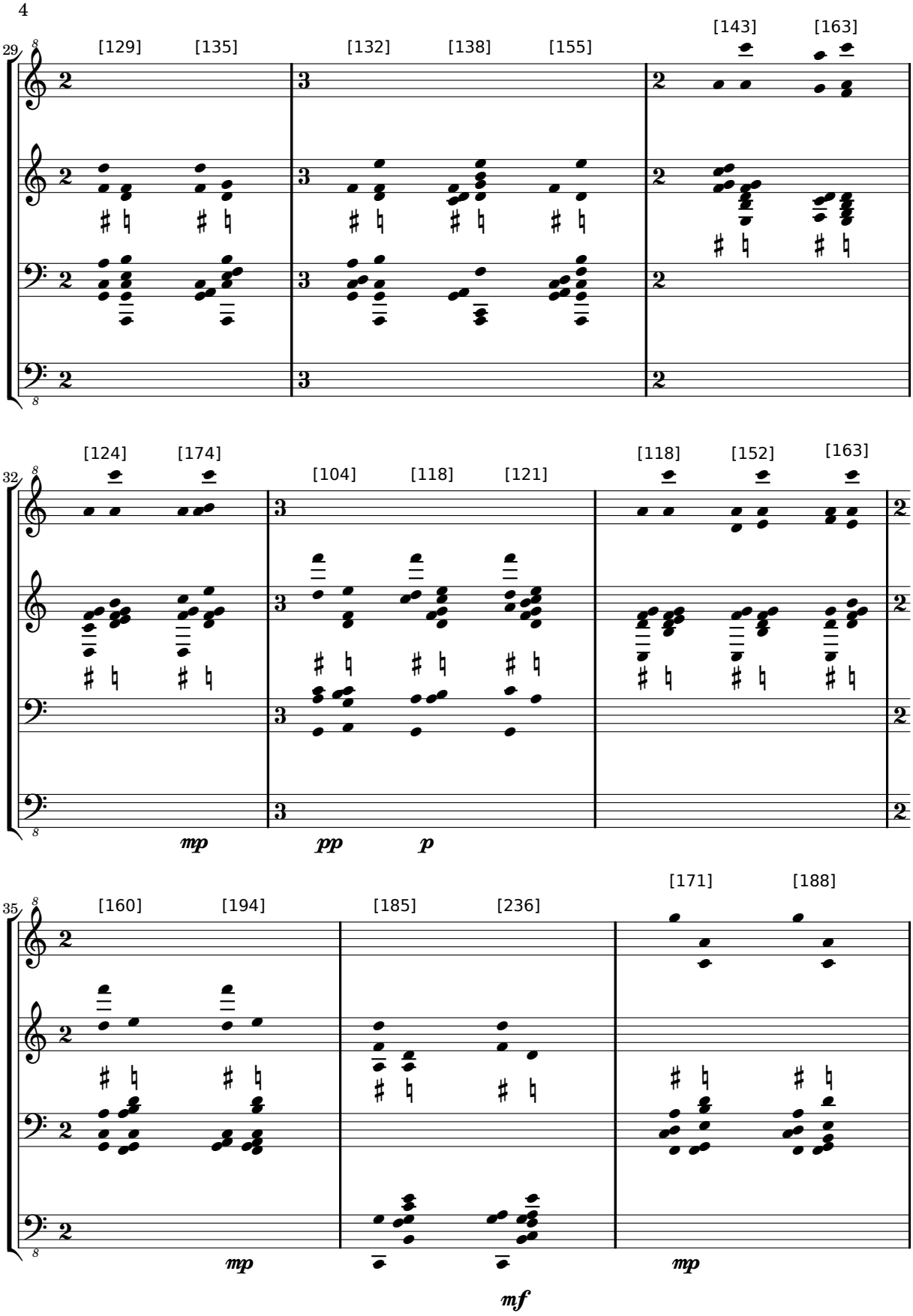



12
[79]
[96]
[93]
[113]
[152]
[115]
[149]
p
15
[118]
[135]
[152]
[146]
[180]
[264]
[213]
[247]
mp
mf
mp
mf
18
[113]
[264]
[281]
[62]
[76]
[79]
[93]
[107]
[141]
p
mf
f
pp
p


21
[124]
[160]
[163]
[247]
[264]
[281]
[314]
mf
f
23
[113]
[146]
[199]
[267]
[300]
[281]
[314]
p
mp
mf
f
26
[113]
[149]
[141]
[174]
[104]
[129]
[152]
p
mp
pp
p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[118]
[152]
[163]
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pp
p
35
[160]
[194]
[185]
[236]
[171]
[188]
mp
mf
mp


38
[169]
[171]
[194]
[211]
[208]
[225]
[163]
[320]
[205]
[239]
[171]
[194]
mf
mp
p
f
mp
mf


44
[227]
[295]
[205]
[239]
[241]
[205]
[183]
[255]
[239]
[272]
mp
mf
mp
mf
mf
f
mf
f


50
[177]
[191]
[211]
[244]
[295]
[328]
[239]
[255]
mp
mf
f
ff
mf
53
[258]
[275]
[278]
[261]
[205]
[379]
[199]
[216]
f
mf
mp
fff
mp
57
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[272]
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[323]
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[339]
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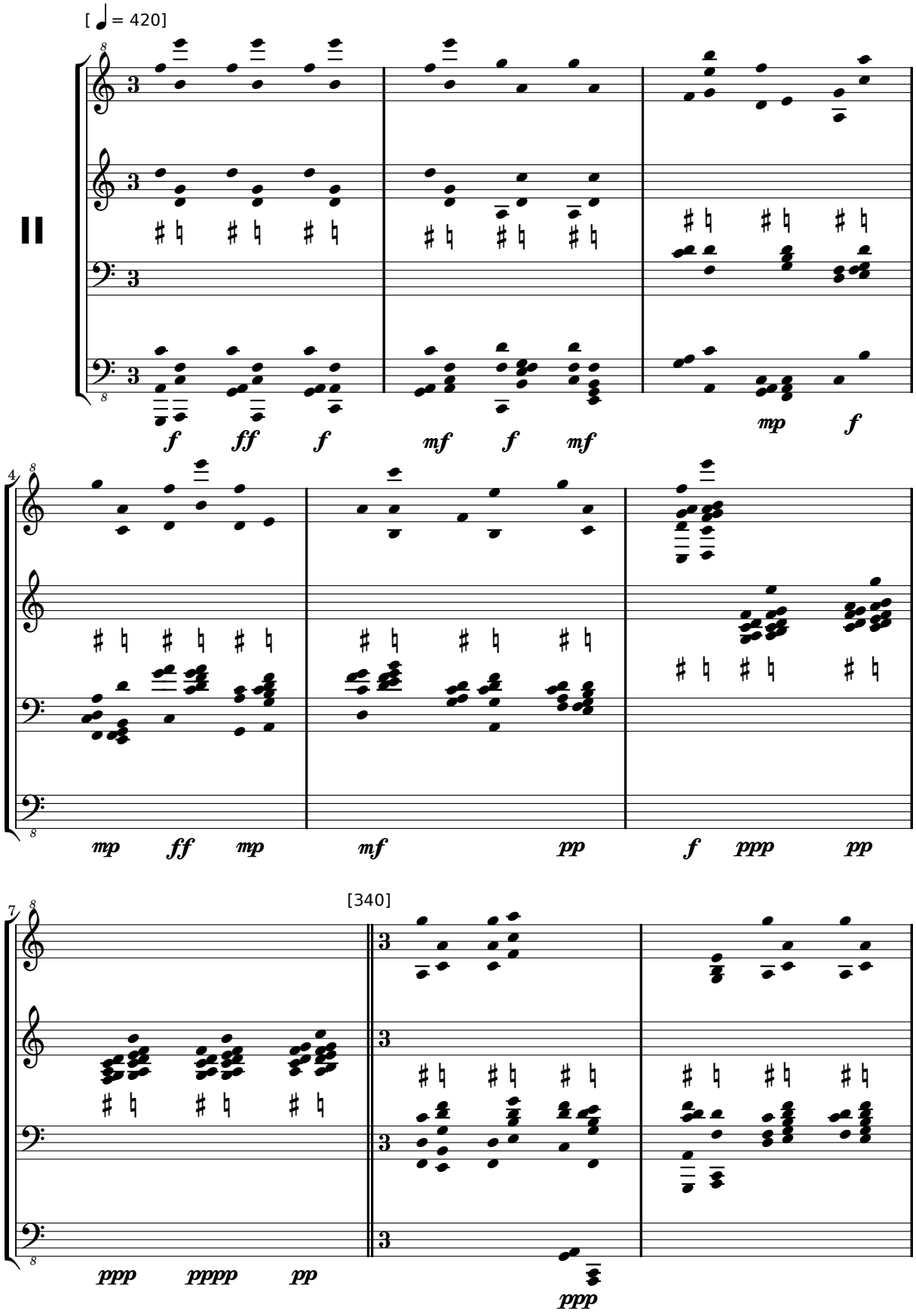
f
mf
ff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4
mp ff mp mf pp f ppp pp
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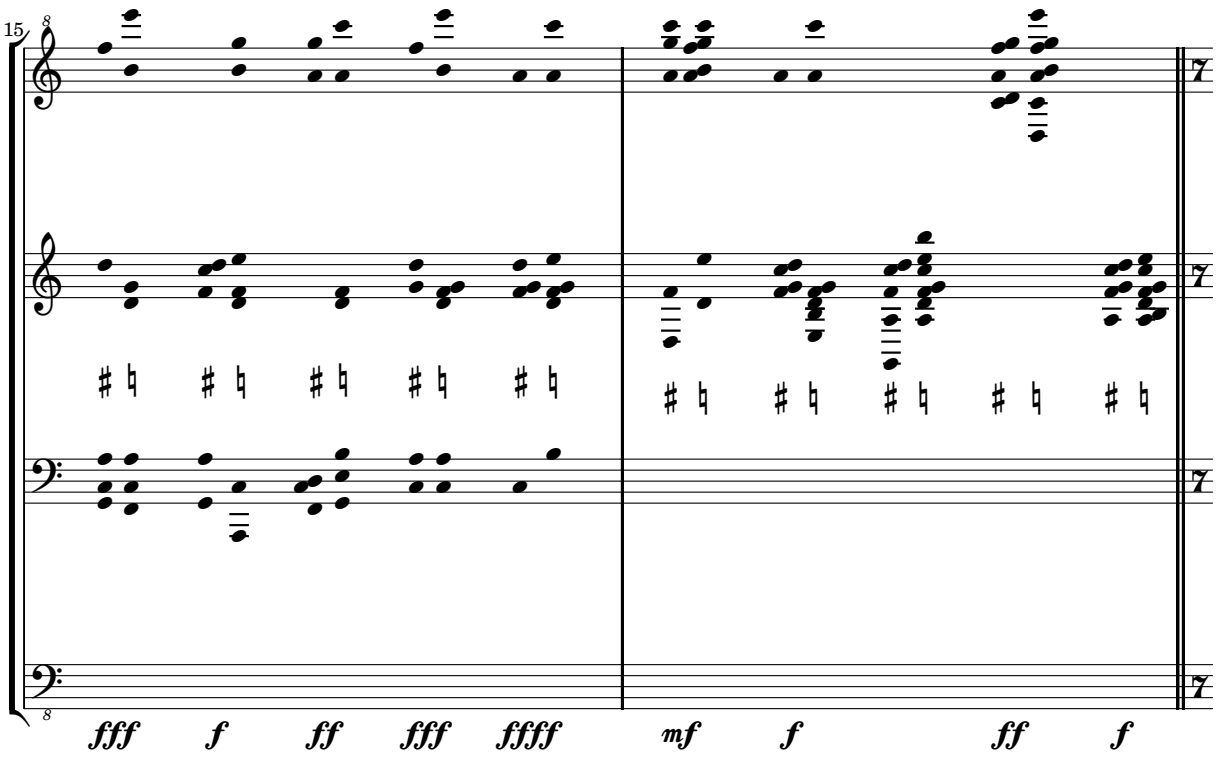
7
ppp pppp pp
ppp


10
pppp
ppp


13
[300]
ff
fff
ff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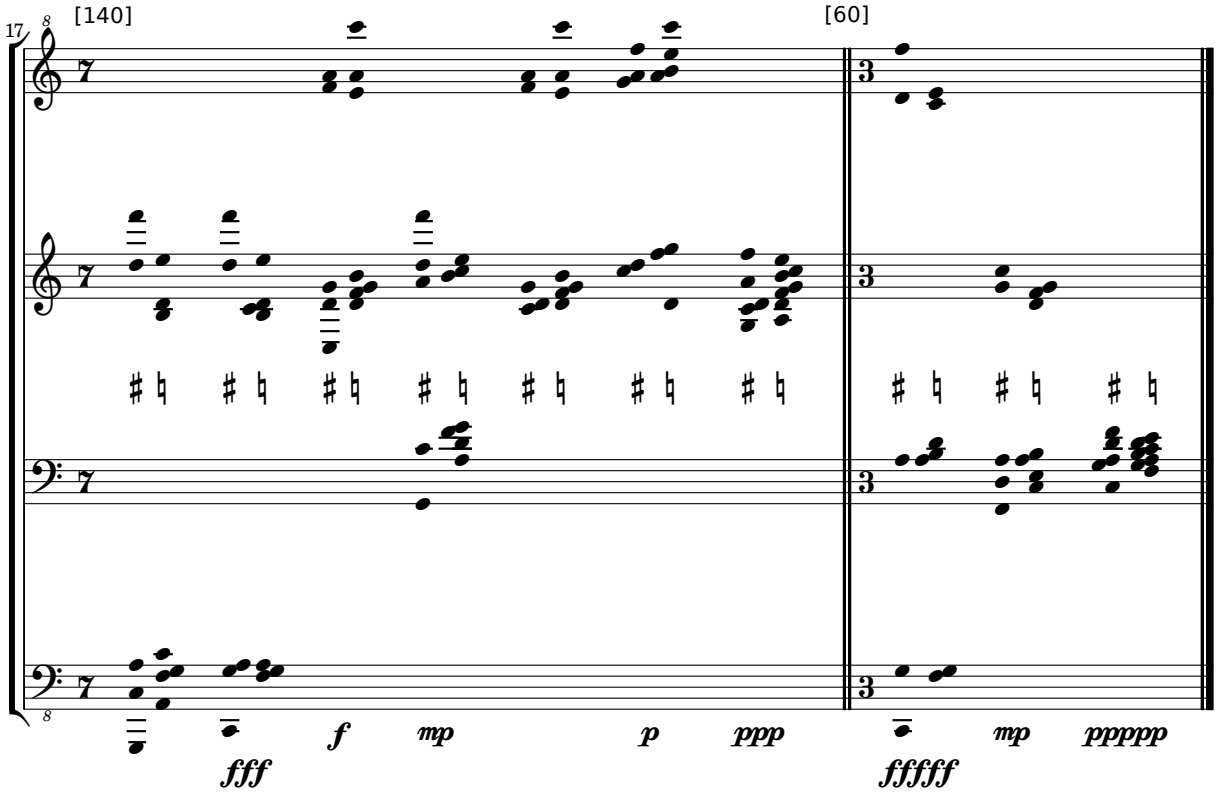
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[60]
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