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Op. 3,14

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Op. 3,14

for cello solo

A note from the composer

The number π (commonly known as 3,14) is an irracional and transcendental constant that is the ratio of a circle's circumference to its diameter. Scientists calculated over 8 billiard digits of this number without discovering any permanently repeating pattern in the series. The paradox that one of the most simple objects contains one of the most unthinkable entities is wonderful and terrifying at the same time.

The first movement of Op. 3,14 transforms the first 314 digits of the series to music.

I developed a system which determines the quality and quantity of each note: the numbers can be translated to chromatic steps between the notes (for example 1 stands for a minor second, 2 for a major second, 3 for a minor third etc. comparing to the previous note), and they can be used for defining the lenghts of the notes (where 1 stands for an eights-note, 2 for a quarter and so on). 0 is an octave jump in the duration of the previous note.

π is also known as the Ludoph-number. Ludolph van Ceulen was one of the several mathematicians of the history of science, who passionately wanted to find out the exact value of π.

The second movement, Coda is an hommage to Ludolph who managed to determine precisely the first 32 digits of π in 1615. This movement uses the above mentioned system for the first 32 digits, but allows the notes to sound longer to create chords.

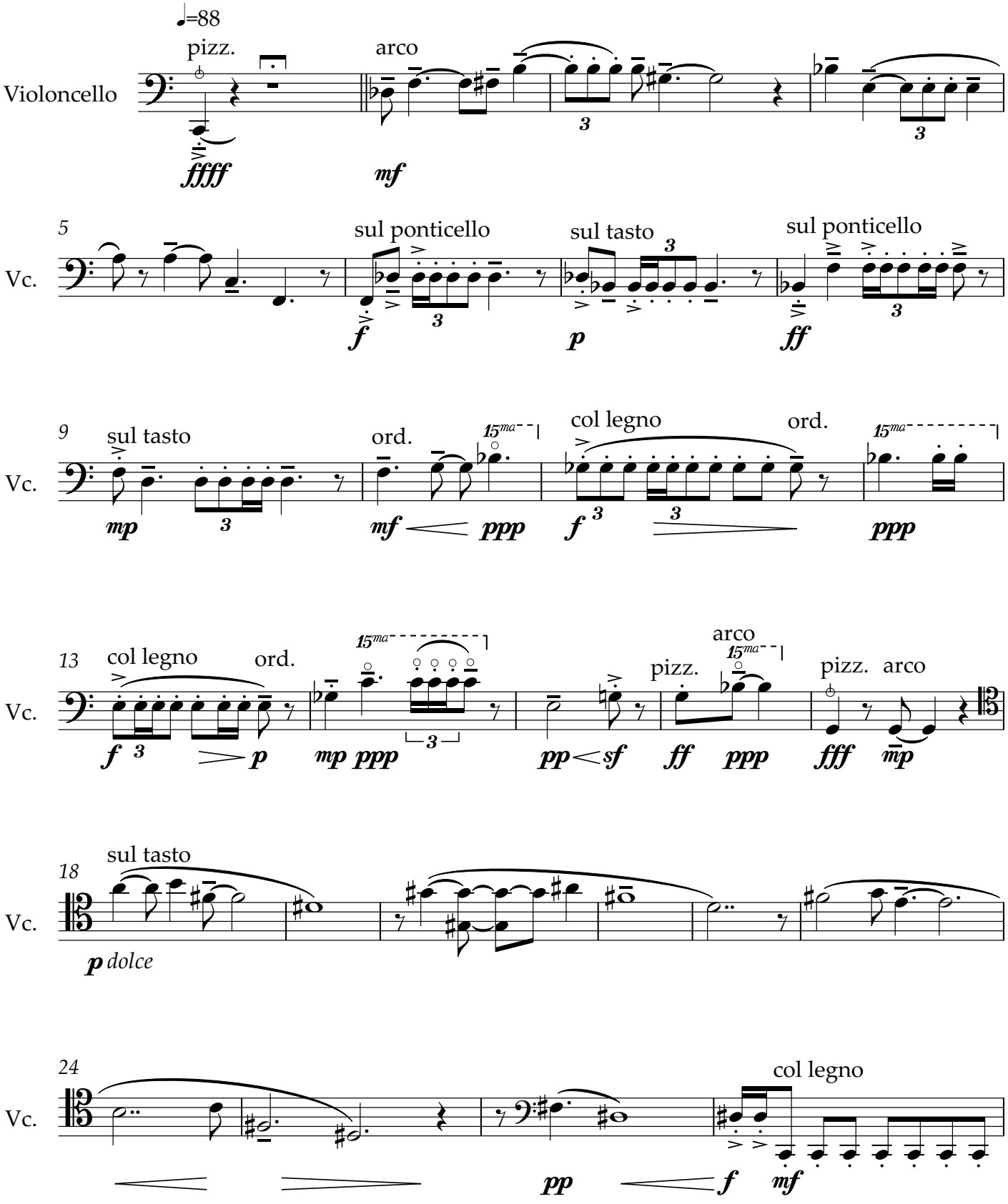
Bence Hartl

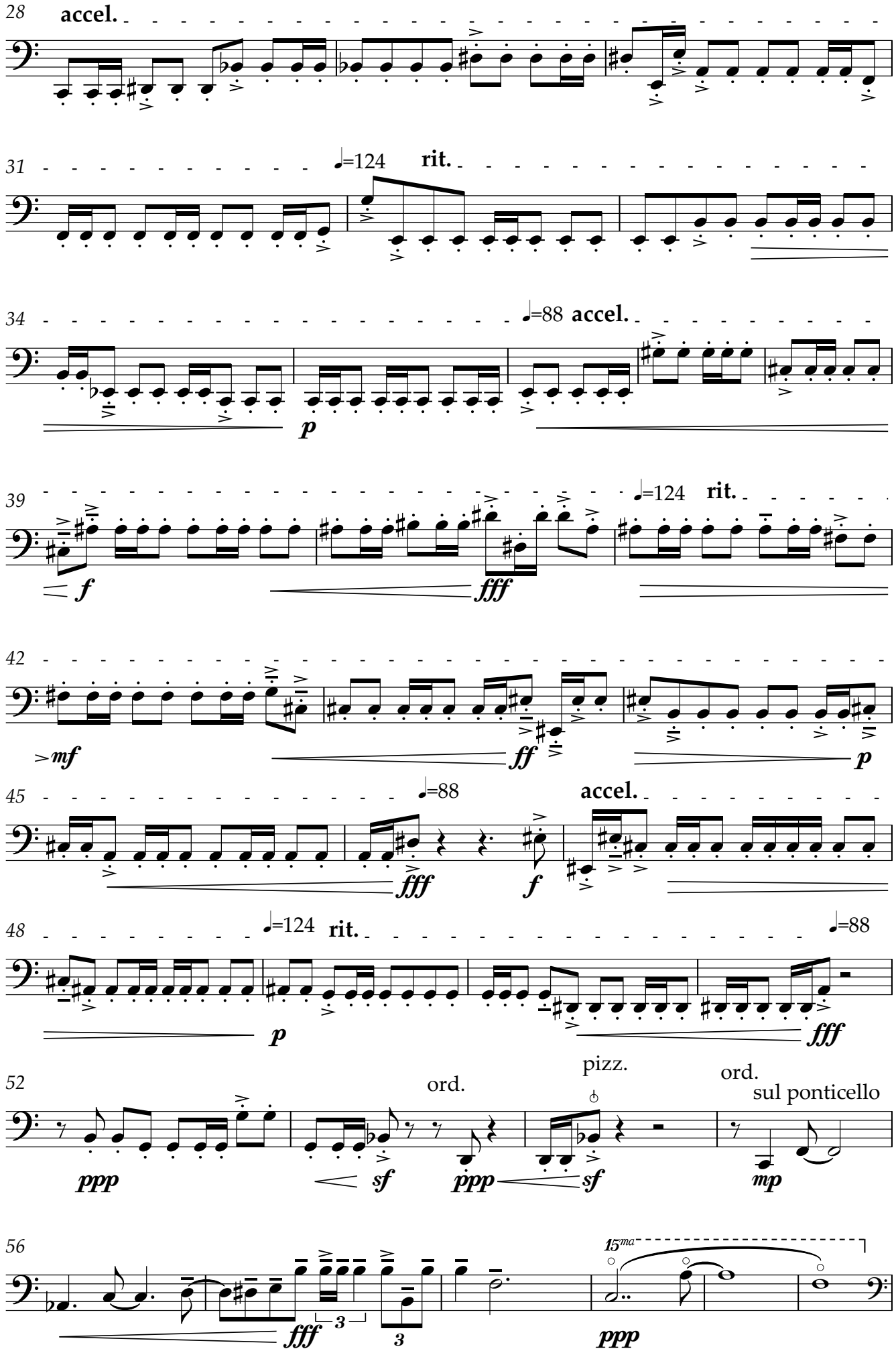
Op. 3,14

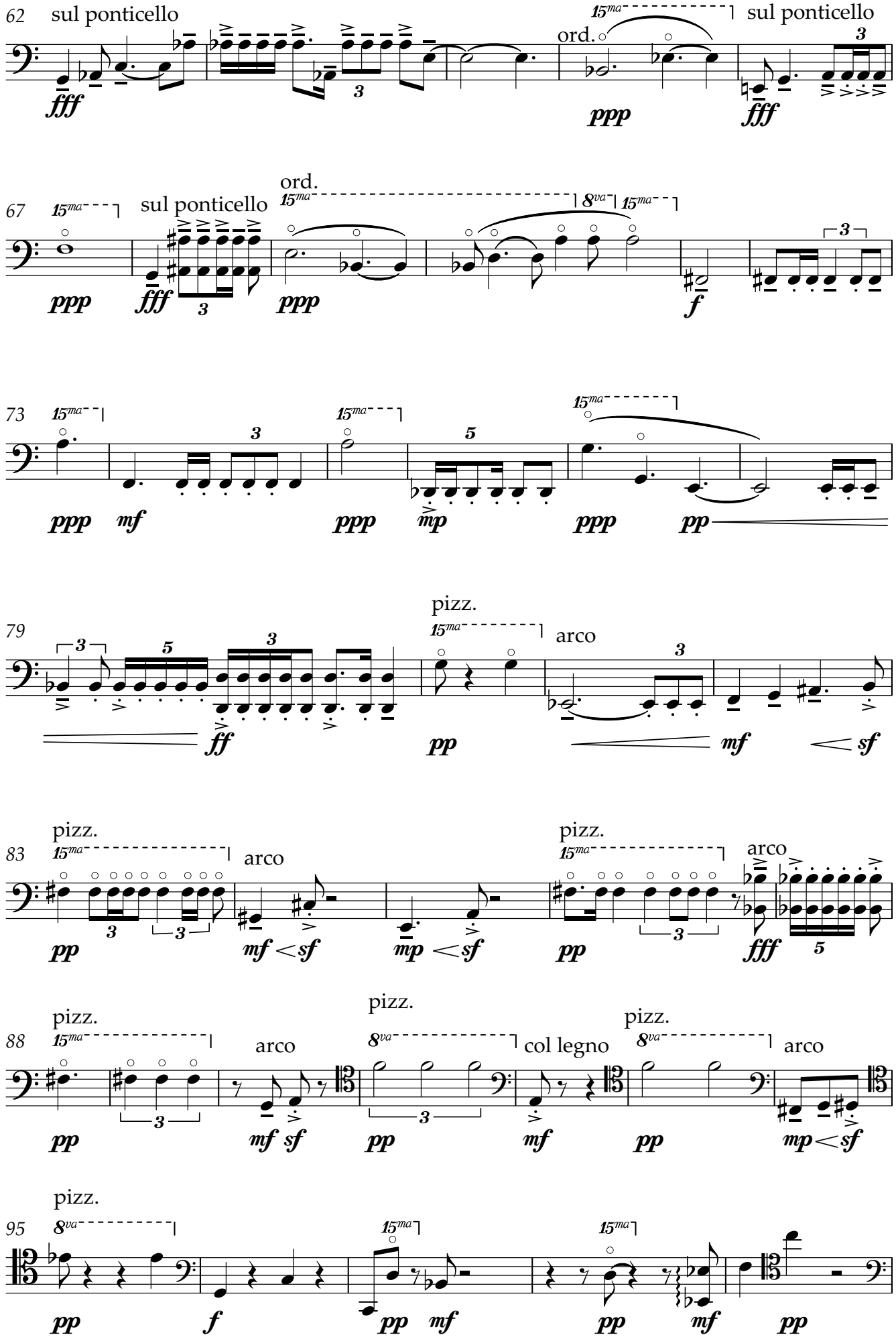
I

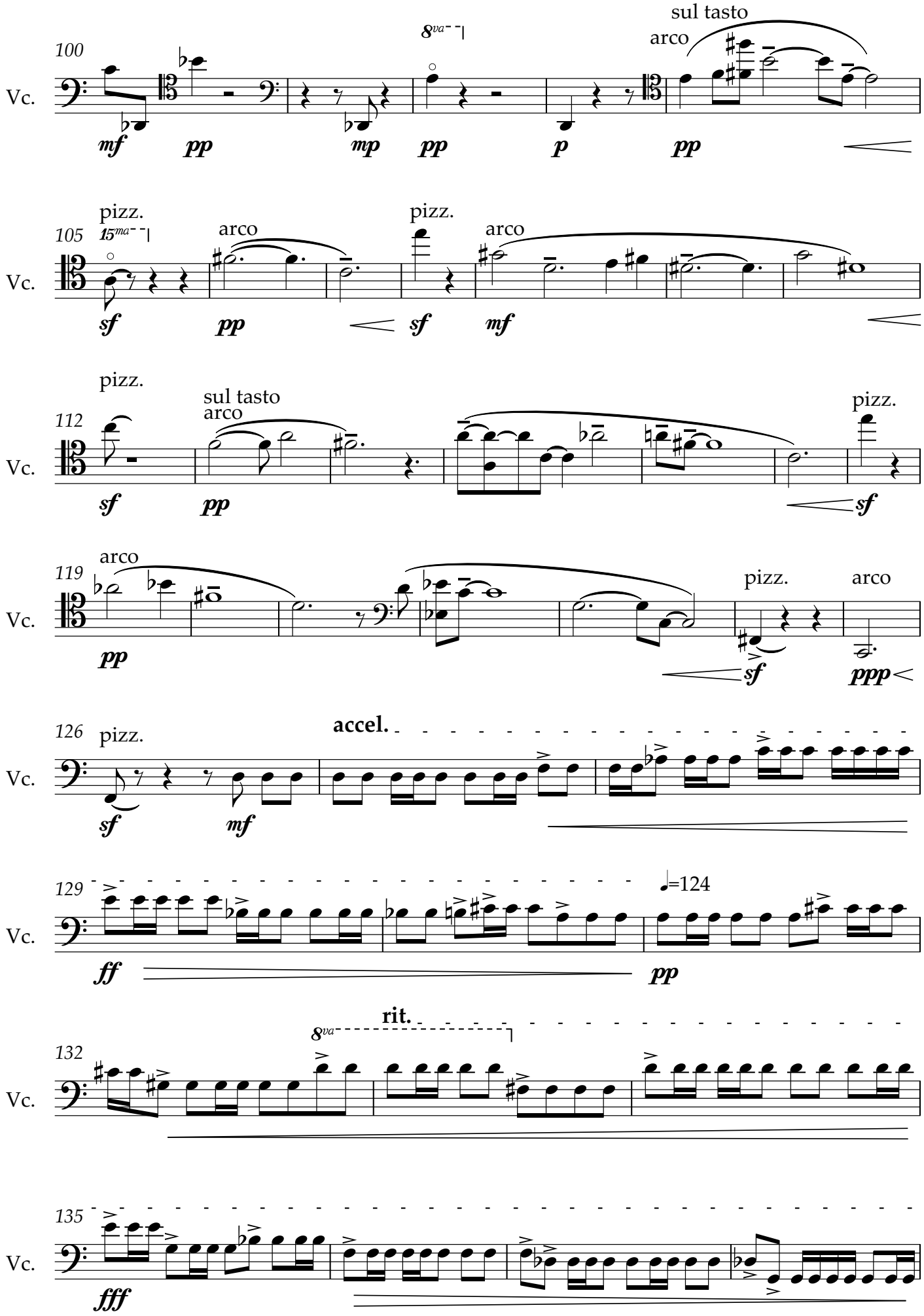
(The first 314 digits of Pi)

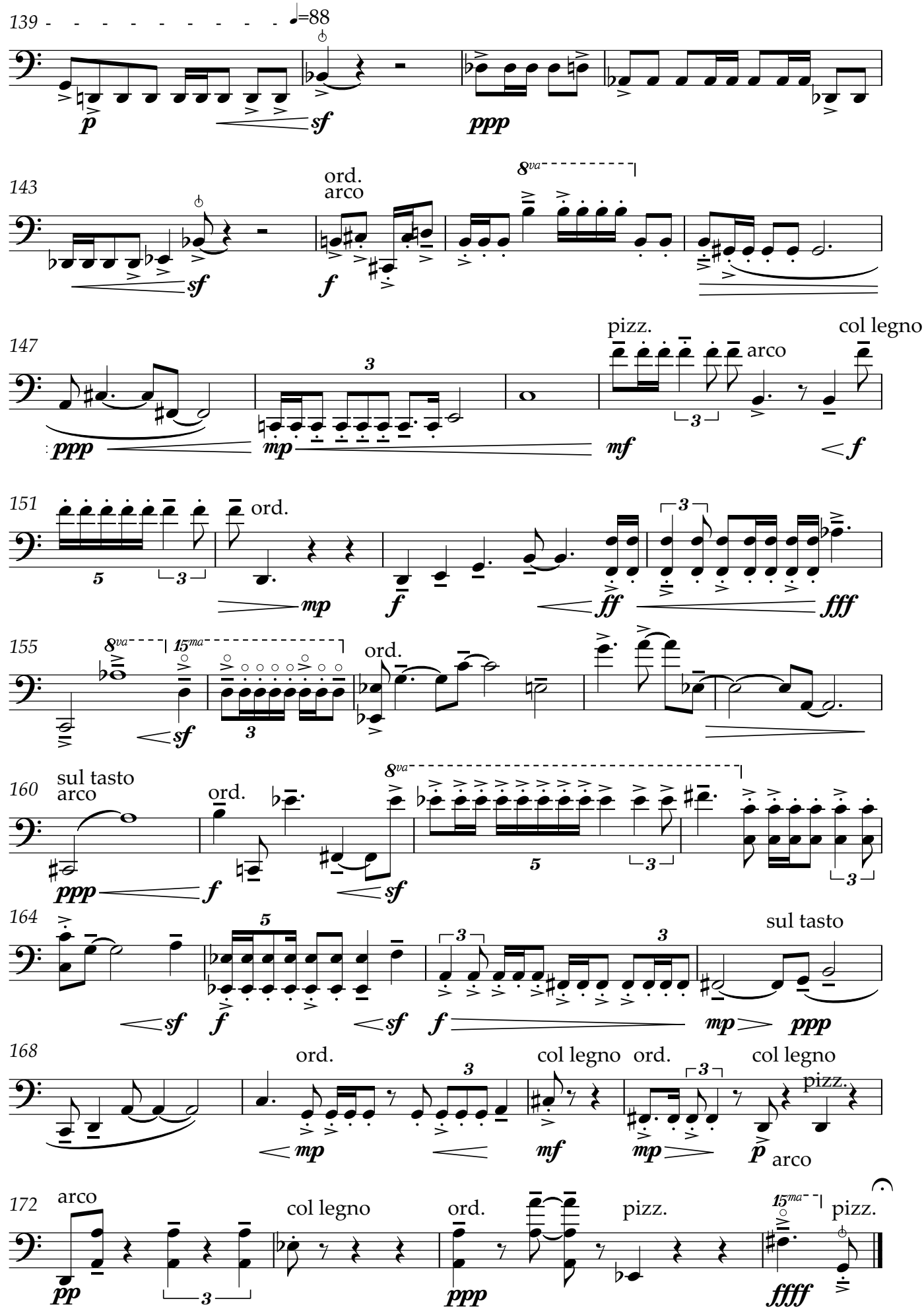
Bence Hartl



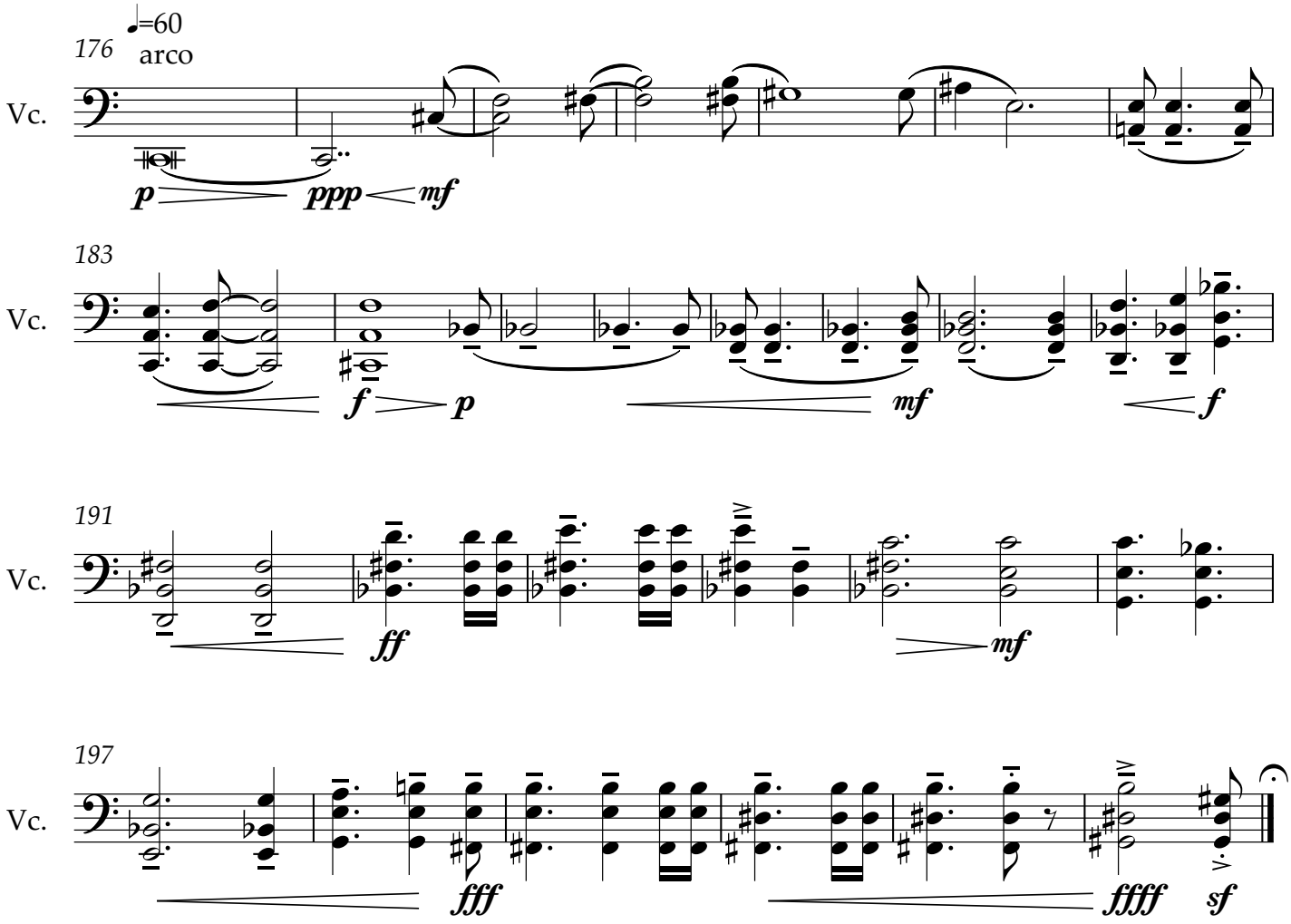

28
accel.
Vc.
31
♩=124
rit.
Vc.
34
♩=88
accel.
Vc.
p
39
♩=124
rit.
Vc.
f
fff
42
Vc.
mf
ff
p
45
♩=88
accel.
Vc.
fff
f
48
♩=124
rit.
♩=88
Vc.
p
fff
52
pizz.
ord.
ord.
sul ponticello
Vc.
ppp
sf
ppp
sf
mp
56
Vc.
fff
3
3
15ma
ppp


62
sul ponticello
Vc.
fff
ord.
ppp
sul ponticello
fff
67
ord.
sul ponticello
Vc.
ppp
fff
ppp
f
73
Vc.
ppp
mf
ppp
mp
ppp
pp
79
pizz.
arco
Vc.
ff
pp
mf
sf
83
pizz.
arco
pizz.
arco
Vc.
pp
mf sf
mp sf
pp
fff
88
pizz.
arco
pizz.
col legno
pizz.
arco
Vc.
pp
mf sf
pp
mf
pp
mp sf
95
pizz.
Vc.
pp
f
pp mf
pp
mf
pp


100
Vc.
mf
pp
8va
mp
pp
p
sul tasto
arco
pp
105
pizz.
15ma
arco
sf
pp
pizz.
sf
arco
mf
112
pizz.
sul tasto
arco
sf
pp
pizz.
sf
119
arco
pp
pizz.
sf
arco
ppp
126
pizz.
sf
mf
accel.
129
ff
=124
pp
132
8va
rit.
135
fff


139
♩=88
Vc.
p
sf
ppp
143
ord.
arco
8va
sf
f
147
pizz.
col legno
arco
ppp
mp
mf
f
151
ord.
mp
f
ff
fff
155
8va
15ma
ord.
sf
160
sul tasto
arco
ord.
8va
ppp
f
sf
164
sf
f
sf
f
mp
ppp
sul tasto
168
ord.
col legno
ord.
col legno
pizz.
mp
mf
mp
p
arco
172
arco
col legno
ord.
pizz.
15ma
pizz.
pp
ppp
ffff

II

Coda

(Hommage á Ludolph)