

Random Partials

For Double Bass and Piano.

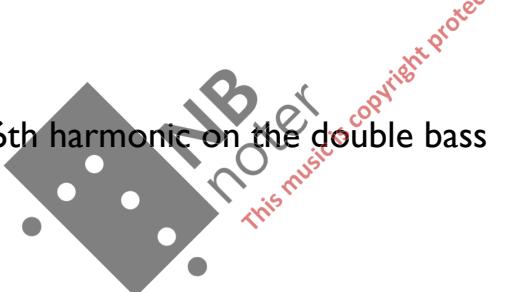
Håkon Thelin, 2020

This work explores the sonic differences between harmonic partials (just intonation) on the double bass and the well-tempered piano.

Any number of partials, on any number of strings on the double bass can be used. The partials are played together with the corresponding "unison" tones on the piano, one at a time, as a sustained, slowly fading sound. Any tuning of the bass can be used, as long as the fundamental (1.partial) of each string is tuned in perfect unison with the piano. The players create a randomly selected series of partials until all the partials are used, at which point the piece ends.

Attachments:

1. Harmonic chart, 1-16th harmonic on the double bass
2. Example of score



Random Partials

I-16th harmonic series

1. string

Cb. Tuning: G-D-A-E

I/1 I/2 I/3 I/4 I/5 I/6 I/7 I/8 I/9

Pno.

I/1 I/2 I/3 I/4 I/5 I/6 I/7 I/8 I/9

10

-14 C.Φ|||, -49 C.Φ|||, +2 C.Φ|||, +41 C.Φ|||, -31 C.Φ|||, -12 C.Φ|||, 2. string

I/10 I/11 I/12 I/13 I/14 I/15 I/16 II/1 II/2

NB Other *This music is copy right protected*

19

+2 C.Φ|||, -14 C.Φ|||, +2 C.Φ|||, -31 C.Φ|||, +4 C.Φ|||, -14 C.Φ|||, -49 C.Φ|||, +2 C.Φ|||, II/3 II/4 II/5 II/6 II/7 II/8 II/9 II/10 II/11 II/12

29

+41 -31 -12 C.
II/13 II/14 II/15 II/16
3. string
III/1 III/2 III/3 III/4 III/5

38

+2 -31 +4 -14 -49 +2 +41 -31 -12
III/6 III/7 III/8 III/9 III/10 III/11 III/12 III/13 III/14 III/15

48

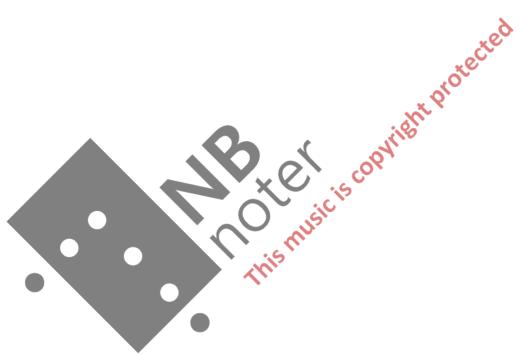
C. +2 -14 +2 -31
III/16 IV/1 IV/2 IV/3 IV/4 IV/5 IV/6 IV/7
4. string

56

+4 -14 -49 +2 +41 -31 -12

IV/8 IV/9 IV/10 IV/11 IV/12 IV/13 IV/14 IV/15 IV/16

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Random Partials (1-12th harmonic)

Version 1.1

Håkon Thelin, 2020

Hakon Theelin, 2020
 ♩=54 -49 +2
 Cb. , +2 , -14 , +2 , +2 , +2

 Tuning: G-D-A-E

Pno.

mf

20

-14 -31 +2 -14

I/8 IV/5 IV/7 III/6 I/1 I/1 III/1 II/4 III/10 I/4

2

30

IV/10 IV/12 I/9 II/1 II/9 I/10 II/9 IV/7 III/8

40

IV/10 III/8 II/12 II/10 II/9 II/2 III/9 II/3 III/7 I/3

50

III/8 III/5 III/3 III/7 I/7 II/7 II/7 III/2 I/11 I/6

60

II/6 I/2 I/12 II/10 II/11 IV/3 I/2 IV/2 IV/3 III/2

70

+2 C. 49 C. +2 C. +2 C. 2 C. 2 C. 3 C. 3 C. 3 C.

II/2 IV/12 III/11 II/12 IV/3 II/6 I/2 III/2 III/1 III/12

80

+2 C. +2 C. 49 C. 49 C. -14 C. -14 C. 49 C. 49 C. 49 C. 49 C.

IV/3 II/4 III/3 I/11 III/10 II/3 III/10 II/8 I/11 II/1

90

+2 C. 49 C. 31 C. 49 C.

II/1 III/12 IV/8 I/1 II/1 I/7 II/11 I/8 I/12 IV/3

100

+2 C. +4 C. +4 C. -14 C. 49 C. 49 C. 49 C. 49 C. 49 C. 49 C.

II/12 I/2 IV/3 II/9 III/4 III/8 IV/8 II/9 I/8 III/10

4

110

+2 (.) ♫ , +2 (.) ♫ , -31 (.) ♫ , +4 (.) ♫ , +2 (.) ♫ , +2 (.) ♫ , -14 (.) ♫ ,

IV/12 III/2 I/6 I/7 II/9 I/1 II/3 I/6 I/4 I/5

120

+2 (.) ♪ , +2 (.) ♪ , -31 (.) ♪ , -14 (.) ♪ , +2 (.) ♪ , +2 (.) ♪ ,

II/6 IV/3 IV/1 III/1 IV/7 III/5 III/12 II/4 IV/8 II/3

130

-49 (.) ♫ , -49 (.) ♫ , +2 (.) ♫ , +4 (.) ♫ , +4 (.) ♫ , -14 (.) ♫ ,

I/11 III/11 II/2 II/3 II/9 III/9 III/5 I/10 IV/2 I/8

140

-31 (.) ♪ , +2 (.) ♫ , -31 (.) ♫ , +2 (.) ♫ , +2 (.) ♫ , +2 (.) ♫ , -31 (.) ♫ , +2 (.) ♫ ,

IV/7 II/12 III/4 I/7 I/6 IV/12 IV/3 I/1 II/7 I/12 (.) ♫

150 -14 , -49 C. 5

160

I/12 II/9 II/3 II/12 I/10 I/11 IV/7 I/3 IV/5 II/10

protected

170

178 -14

I/5 +2 III/3 I/12 IV/8 IV/8 III/8 IV/4