Overview of MET-24 tuning, 3-D (2/1, 703.711, 57.422)
Prime mappings other than $2 / 1$ (a separate generator):

| $3 / 2(701.955 c)$ | $=(+1, \quad 0)=703.711 c \quad(+1.756 c)$ |
| ---: | :--- |
| $7 / 4(968.826 c)$ | $=(+3,+1)=968.555 c(-0.271 c)$ |
| $11 / 8(551.318 c)$ | $=(-1,+1)=553.711 c(+2.393 c)$ |
| $13 / 8(840.528 c)$ | $=(-4,+1)=842.578 c \quad(+2.050 c)$ |

Alternative derivation:
12 5ths (MOS) at 703.711c plus large 5th at 716.602 c plus 12 5ths (MOS) at 703.711c
Interval matrix (703.711-cent fifths within chain, 57.422-cent spacing generators)

| septimal family (2.3.7) |  |  |  |  |  |  | pental family (2.3.5) |  |  | (2.3.17) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $(0,+1)$ | $(+1,+1)$ | $(+2,+1)$ | $(+3,+1)$ | $(+4,+1)$ | $(+5,+1)$ | $(+6,+1)$ | $(+7,+1)$ | $(+8,+1)$ | $(+9,+1)$ | $(+10,+1)$ | $(+11,+1)$ |
| 57.4 | 761.1 | 264.8 | 968.5 | 472.3 | 1176.0 | 679.7 | 183.4 | 887.1 | 390.8 | 1094.5 | 598.2 |
| 91/88 | 14/9 | 7/6 | $7 / 4$ | 21/16 | 63/32 | 77/52 | 10/9 | 5/3 | 5/4 | 32/17 | 24/17 |
| 58.0 | 764.9 | 266.9 | 968.8 | 470.8 | 1172.7 | 679.6 | 182.4 | 884.4 | 386.3 | 1095.0 | 597.0 |
| -0.614 | -3.783 | -2.027 | -0.271 | -1.485 | -3.241 | -0.071 | +0.995 | +2.751 | +4.507 | -0.513 | -1.243 |
| $\mathrm{n}=12$ | $\mathrm{n}=11$ | $\mathrm{n}=10$ | $\mathrm{n}=9$ | $\mathrm{n}=8$ | $\mathrm{n}=7$ | $\mathrm{n}=6$ | $\mathrm{n}=5$ | $\mathrm{n}=4$ | $\mathrm{n}=3$ | $\mathrm{n}=2$ | $\mathrm{n}=1$ |
|  | $(-1,+1)$ | $(-2,+1)$ | $(-3,+1)$ | $(-4,+1)$ | $(-5,+1)$ | $(-6,+1)$ | $(-7,+1)$ | $(-8,+1)$ | $(-9,+1)$ | $(-10,+1)$ | $(-11,+1)$ |
|  | . 553.7 | 1050.0 | 346.3 | 842.6 | 138.9 | 635.2 | 1131.4 | 427.7 | 924.0 | 220.3 | 716.6 |
|  | . $11 / 8$ | 11/6 | 11/9 | 13/8 | 13/12 | 13/9 | 52/27 | 169/132 | 169/99 | 143/126 | 286/189 |
|  | . 551.3 | 1049.4 | 347.4 | 840.5 | 138.6 | 636.6 | 1134.7 | 427.8 | 925.8 | 219.1 | 717.2 |
|  | +2.393 | +0.637 | -1.119 | +2.050 | +0.295 | -1.461 | -3.217 | -0.048 | -1.804 | +1.203 | -0.553 |
|  | . $\mathrm{n}=11$ | $\mathrm{n}=10$ | $\mathrm{n}=9$ | $\mathrm{n}=8$ | $\mathrm{n}=7$ | $\mathrm{n}=6$ | $\mathrm{n}=5$ | $\mathrm{n}=4$ | $\mathrm{n}=3$ | n-2 | $\mathrm{n}=1$ |


| $(0,0)$ | ( +1, 0) | (+2, 0) | $(+3,0)$ | ( $+4,0$ ) | $(+5,0)$ | $(+6,0)$ | (+7, 0) | $(+8,0)$ | (+9, 0) | ( $+10,0$ ) | $(+11,0)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.0 | 703.7 | 207.4 | 911.1 | 414.8 | 1118.6 | 622.3 | 126.0 | 829.7 | 333.4 | 1037.1 | 540.8 |
| 1/1 | 3/2 | 9/8 | 22/13 | 14/11 | 21/11 | 63/44 | 14/13 | 21/13 | 63/52 | 20/11 | 231/169 |
| 0.0 | 702.0 | 203.9 | 910.8 | 417.5 | 1119.5 | 621.4 | 128.3 | 830.3 | 332.2 | 1035.0 | 541.0 |
| just | +1.756 | +3.512 | +0.343 | -2.664 | -0.908 | +0.848 | -2.322 | -0.566 | +1.190 | +2.114 | -0.223 |
| $\mathrm{n}=24$ | $\mathrm{n}=22$ | $\mathrm{n}=20$ | $\mathrm{n}=18$ | $\mathrm{n}=16$ | $\mathrm{n}=14$ | $\mathrm{n}=12$ | $\mathrm{n}=10$ | $\mathrm{n}=8$ | $\mathrm{n}=6$ | $\mathrm{n}=4$ | $\mathrm{n}=2$ |
|  | $(-1,0)$ | $(-2,0)$ | $(-3,0)$ | $(-4,0)$ | $(-5,0)$ | $(-6,0)$ | (-7, 0) | $(-8,0)$ | $(-9,0)$ | $(-10,0)$ | (-11, 0) |
|  | . 496.3 | 992.6 | 288.9 | 785.2 | 81.4 | 577.7 | 1074.0 | 370.3 | 866.6 | 162.9 | 659.2 |
|  | . 4 / 3 | 16/9 | 13/11 | 11/7 | 22/21 | 88/63 | 13/7 | 26/21 | 104/63 | 11/10 | 338/231 |
|  | . 498.0 | 996.1 | 289.2 | 782.5 | 80.5 | 578.6 | 1071.7 | 369.7 | 867.8 | 165.0 | 659.0 |
|  | -1.756 | -3.512 | -0.343 | +2.664 | +0.908 | -0.848 | +2.322 | +0.566 | -1.190 | -2.114 | +0.223 |
|  | . $\mathrm{n}=22$ | $\mathrm{n}=20$ | $\mathrm{n}=18$ | $\mathrm{n}=16$ | $\mathrm{n}=14$ | $\mathrm{n}=12$ | $\mathrm{n}=10$ | $\mathrm{n}=8$ | $\mathrm{n}=6$ | $\mathrm{n}=4$ | $\mathrm{n}=2$ |


| $(0,-1)$ | (+1, -1) | (+2, -1) | (+3, -1) | ( $+4,-1$ ) | (+5, -1) | ( $+6,-1$ ) | (+7, -1) | (+8,-1) | (+9, -1) | (+10, -1) | (+11, -1) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1142.6 | 646.3 | 150.0 | 853.7 | 357.4 | 1061.1 | 564.8 | 68.6 | 772.3 | 276.0 | 979.7 | 483.4 |
| 176/91 | 16/11 | 12/11 | 18/11 | 16/13 | 24/13 | 18/13 | 27/26 | 264/169 | 198/169 | 252/143 | 189/143 |
| 1142.0 | 648.7 | 150.6 | 852.6 | 359.5 | 1061.4 | 563.4 | 65.3 | 772.2 | 274.2 | 980.9 | 482.8 |
| +0.614 | +2.393 | +0.637 | -1.119 | +2.050 | +0.295 | -1.461 | -3.217 | -0.048 | -1.804 | +1.203 | -0.553 |
| $\mathrm{n}=12$ | $\mathrm{n}=11$ | $\mathrm{n}=10$ | $\mathrm{n}=9$ | $\mathrm{n}=8$ | $\mathrm{n}=7$ | $\mathrm{n}=6$ | $\mathrm{n}=5$ | $\mathrm{n}=4$ | $\mathrm{n}=3$ | $\mathrm{n}=2$ | $\mathrm{n}=1$ |
|  | $(-1,-1)$ | $(-2,-1)$ | $(-3,-1)$ | $(-4,-1)$ | $(-5,-1)$ | $(-6,-1)$ | $(-7,-1)$ | $(-8,-1)$ | $(-9,-1)$ | $(-10,-1)$ | $(-11,-1)$ |
|  | . 438.9 | 935.2 | 231.4 | 727.7 | 24.0 | 520.3 | 1016.6 | 312.9 | 809.2 | 105.5 | 601.8 |
| . . . . . | . . 9 / 7 | 12/7 | 8/7 | $32 / 21$ | 64/63 | 104/77 | 9/5 | 6/5 | 8/5 | 17/16 | 17/12 |
|  | -3.783 | -2.027 | -0.271 | -1.485 | -3.241 | -0.071 | +0.995 | +2.751 | +4.507 | -0.513 | -1.243 |
|  | $n=11$ | . $\mathrm{n}=10$ | . $\mathrm{n}=9$ | . $\mathrm{n}=8$ | . $\mathrm{n}=7$ | $\mathrm{n}=6$ | $\mathrm{n}=5$ | $\mathrm{n}=4$ | $\mathrm{n}=3$ | n-2 | . $\mathrm{n}=1$ |

Margo Schulter
5 April 2018

