

Marpurg's I Temperament

Tim Farley

Check for pure octave

1. equal beating within each division

2. 3. 4. 2.51

5. 6. 7. 3.16

8. 9. 10. 11. 3.98

B.P.S. 5.02

B.P.S. 3.16

Do not tune A37 or A49. If all of the fifths and fourths without beat speeds listed are just, the resulting beat will be 3.98.

Check for pure or just fourth

Check for pure or just fifth

Check for just fifth

equal beating

equal beating

equal beating

0 + 5.9 + 3.9 + 2.0 0 + 5.9 + 3.9 + 2.0 0 + 5.9 + 3.9 + 2.0 0

Beat speed of major thirds to the nearest hundredth of a second.

6.93 7.37 7.80 8.25 8.73 9.28 9.82 10.40 11.00 11.70 12.37 13.10 13.86

5 Beat speed of major thirds in Equal Temperament to the nearest hundredth of a second.

6.93 7.34 7.78 8.24 8.73 9.25 9.80 10.38 11.00 11.65 12.35 13.08 13.86

Beat speed of minor thirds. There are four blackened thirds that are Pythagorean thirds to the nearest tenth of a second.

10.9 7.4 7.8 8.3 13.7 9.3 9.8 10.4 17.3 11.7 12.4 13.10 21.8

The following nine minor triads, based on pure or just fifths, have equal beating major and minor thirds.

*untempered, just, or pure are all synonymous

| Pitch | Cents Deviation | Marpurg's Temperament | Equal Temperament |
|------------|-----------------|-----------------------|-------------------|
| A | 0 | 220.000 | 220.000 |
| B \flat | +5.9 | 233.873 | 233.082 |
| B | +3.9 | 247.500 | 246.942 |
| C | +2.0 | 261.921 | 261.626 |
| C \sharp | 0 | 277.183 | 277.183 |
| D | +5.9 | 294.661 | 293.665 |
| E \flat | +3.9 | 311.830 | 311.127 |
| E | +2.0 | 330.000 | 329.628 |
| F | 0 | 349.228 | 349.228 |
| F \sharp | +5.9 | 371.250 | 369.994 |
| G | +3.9 | 392.882 | 391.995 |
| G \sharp | +2.0 | 415.774 | 415.305 |
| A | 0 | 440.000 | 440.000 |