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Tuning

The tuning of all pitches in most of the works relates to various interrelated harmonics and subharmonics. Pitches which differ in their tuning from tempered pitch are notated in the following manner:*

- 5 emulate the tuning of the 5th harmonic (or natural major 3rd) which is slightly (14 cents) flatter than tempered pitch
- 7 emulate the tuning of the 7th harmonic (or natural dominant 7th) which is considerably (31 cents) flatter than tempered pitch
- 11 emulate the tuning of the 11th harmonic which is almost exactly a quarter tone (49 cents) flatter than tempered pitch, further represented by ▼ below an accidental
- 13 emulate the tuning of the 13th harmonic which is almost a quarter tone (41 cents) sharper than tempered pitch, further represented by ▲ above an accidental
- 15 emulate the tuning of the 15th harmonic which is slightly (14 cents) flatter than tempered pitch
- s5 emulate the tuning of the 5th subharmonic which is slightly (14 cents) sharper than tempered pitch
- s7 emulate the tuning of the 7th subharmonic which is considerably (31 cents) sharper than tempered pitch
- s11 emulate the tuning of the 11th subharmonic which is almost exactly a quarter tone (49 cents) sharper than tempered pitch, further represented by ▲ above an accidental
- s13 emulate the tuning of the 13th subharmonic which is almost a quarter tone (41 cents) flatter than tempered pitch, further represented by ▼ below an accidental
- s15 emulate the tuning of the 15th subharmonic which is slightly (14 cents) sharper than tempered pitch

*the standard symbol \circ is used for natural string harmonics (which are to be played on the indicated string lengths without adjusting intonation), and the same symbol with the addition of the relevant harmonic number, e.g. \circ_6 , for voice overtones

Modulation

Modulation between harmonic series is represented by the changing function of a pivot note

e.g. $\boxed{1=5}$

In this case the pitch of the 1st harmonic (fundamental) of one series becomes the 5th harmonic of another, thereby implying that the new fundamental is slightly (14 cents) sharper than the previous one (the exact tuning of its harmonics and subharmonics can therefore be calculated by adding 14 cents to the values shown on the previous page).

In general, the performers can refer to natural harmonics and voice overtones for pitching. Furthermore, as these pitches are a natural property of sound, their realisation should not be as taxing as might be implied by the preceding technical descriptions.