



POST-TONAL THEORY

15 Feb 2019

Please turn in your homework and
sign the attendance sheet!

WHEN DISCUSSING PITCHES

- OCTAVE EQUIVALENCE
 - C = C no matter what octave. C4 = C5, etc.
 - CDE in a melody context = CDE in a harmonic context
- ENHARMONIC EQUIVALENCE
 - C# = Db, etc.
 - C# E F = Db Fb F

PITCH vs. PITCH CLASS

- PITCH = A440 — specific octave
- PITCH CLASS = A in any octave (or its enharmonic equivalent)

PITCH-CLASS INTEGER NOTATION

There are 12 pitch classes

0 = C

1 = C#

2 = D

3 = D#

4 = E

5 = F

6 = F#

7 = G

8 = G#

9 = A

T = Bb

E = B

4 2 0 2 4 4 4, 2 2 2, 4 4 4

PITCH INTERVAL

0 = unison

1 = m2

2 = M2

3 = m3

4 = M3

5 = P4

6 = TT

7 = P5

8 = m6

9 = M6

T = m7

E = M7

INTEGER NOTATION

EXAMPLE 1-7 Integer notation of pitch class (Babbitt, *Composition for Four Instruments*).

The image shows a musical score for Clarinet in 3/4 time, with a tempo marking of quarter note = 120. The score is divided into three systems, each with a treble clef and a key signature of one flat (B-flat). The first system starts with a dynamic marking of *mp* and includes fingerings 11, 3, and 0. The second system starts with a dynamic marking of *f* and includes fingerings 1, 6, 8b, and 4. The third system starts with a dynamic marking of *mf* and includes fingerings 1, 11, 10, 3, 0, 2, 8, 9, and 5. The score uses integer notation for pitch classes, with numbers 0 through 11 placed above the notes. The notes are: 11, 3, 0, 1, 6, 8b, 4, 10, 7, 9, 2, 5, 11, 10, 3, 0, 2, 8, 9, 5. The dynamics are *mp*, *f*, *ff*, *f*, *mp*, *mf*, *p*, *ff*, *ppp*, *mf*, *p*, *ff*.

OPI (Ordered Pitch Intervals)

- Count all the half steps between specific pitches... can be more than 12
- C4 up to G5 = +19 (octave + P5)
- C4 down to B3 = -1 (half step)
- Need + or - to show direction

UPI (Unordered Pitch Intervals)

- Like OPI, using absolute value (no + or -)

EXAMPLE 1-11 Ordered and unordered pitch intervals (Schoenberg, String Quartet No. 3, first movement).

ordered pitch intervals: -1 +3 -5 -6 +15 -6 -5 +8 -4

unordered pitch intervals: 1 3 5 6 15 6 5 8 4

The image shows a musical staff with a treble clef and a key signature of one flat. The melody consists of the following notes: G4 (quarter), F4 (quarter), G#4 (quarter), A4 (quarter), Bb4 (quarter), C5 (quarter), Bb4 (quarter), A4 (quarter), G#4 (quarter), F4 (quarter), G4 (quarter), and F4 (quarter). The intervals between these notes are: -1 (G to F), +3 (F to G#), -5 (G# to A), -6 (A to Bb), +15 (Bb to C), -6 (C to Bb), -5 (Bb to A), +8 (A to G#), and -4 (G# to F). The ordered intervals are listed above the staff, and the unordered intervals (absolute values) are listed below the staff.

MOD 12

- Pitch classes run 0-E so there are only 12 possible numbers
- Use a clock face to help if you're confused
 - Pitch going up = clockwise
 - Pitch going down = counterclockwise