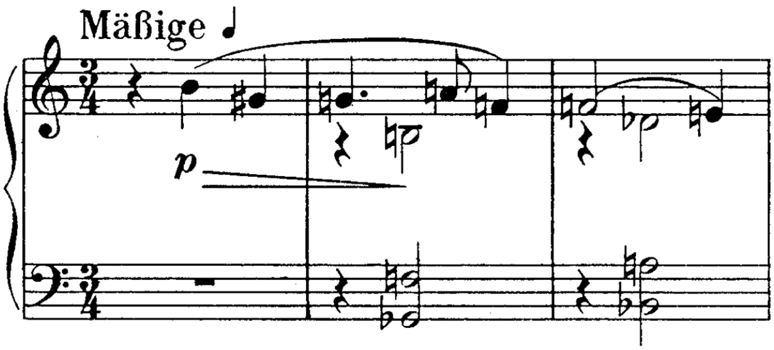
Post-Tonal Fun Pack for 4/13

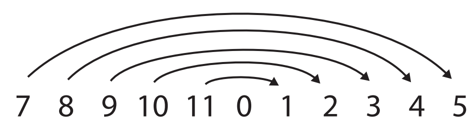
A. Putting numbers on notes

From Schoenberg, Three Piano Pieces Op. 11, first movement

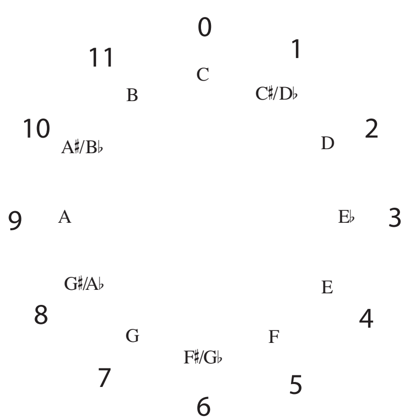


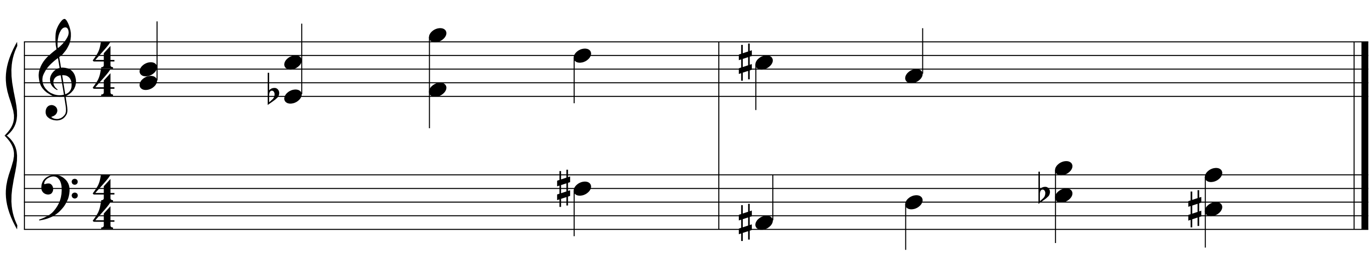
B. Interval Classes

Let's mark these interval classes. Remember that we are boiling down the world of intervals into 0-6.



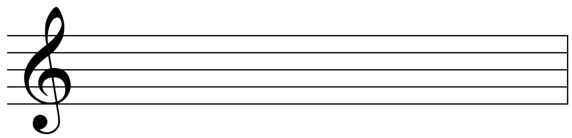
maybe this makes sense if we look at it on the circle? Pick the smaller distance on the circle.



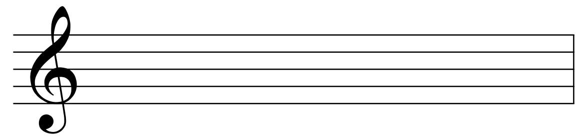


C. The Interval Vector Project

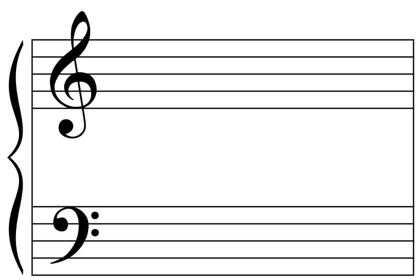
Let's pick a pentatonic scale...



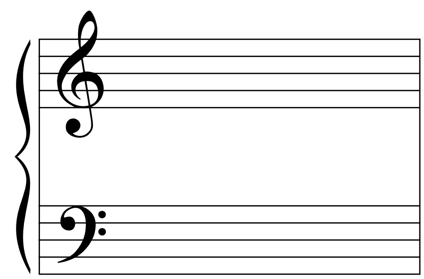
....and a whole tone scale.



Make a cool chord from the pentatonic. 4 notes.



Cool chord from the whole tone.



Put the notes in order, into a set.

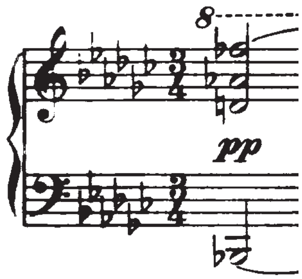
Look at each pair of pitch classes in the set. Get the interval class.

Count them up and put them into an interval vector.

D. Transposition (T_n)

To transpose a set by *n*, you just do mod12(x + n) for each note.

Let's take the first chord from this Alban Berg song and transpose it a few times.



We'll put the numbers in order like (1, 2, 3, 4).

T_5 of that:

T_5 of that:

T_{11} of that:

T_{11} of that:

E. Transposition and Inversion (T_nI)

Let's work with the first three notes from Schoenberg's Piano Piece Op. 11

We'll put it in a set:

Let's do a T_2 of it:

Basic inversion in post-tonal music is just I(x) = mod12(-x).

Let's do an I( ) of our original three-note set:

T_nI inverts and then transposes. So we could say T_nI = mod12(-x + n).

We already have everything we need for this analysis, but for practice let's take the original and invert it two more times.

Let's do a T_6I of our original three-note set:

Let's do a T_3I of our original three-note set:

Mark our original three notes, the T_2 version and the I version in this passage. Circle them and give them a PC set label.