

# The Neo-Riemmanian Tonnetz

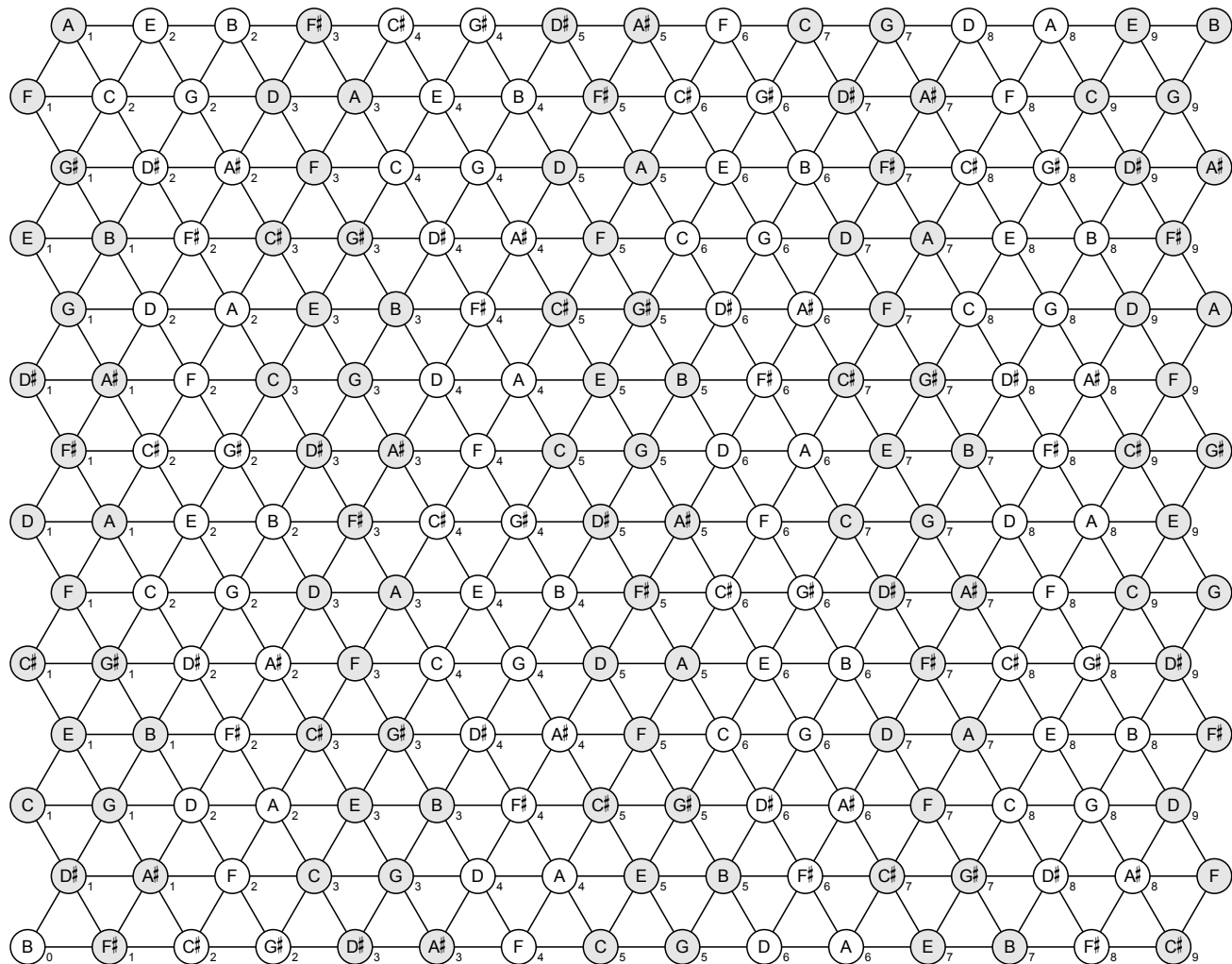
The Neo-Riemmanian Tonnetz (german for 'Tone Network') is a grid of pitches where each diagonal represents an interval of a third: either a major third (/ diagonal) or a minor third (\ diagonal) with a move to the right being a third above, and a move to the left a third below. Triangles in this grid represent major or minor triads, and other chords have characteristic shapes, as shown below.

The Tonnetz can be used to explore the voice-leading relationships between chords. You can move between chords by keeping some notes the same and changing others, always retaining one of the characteristic chord shapes (other chord shapes such as 4ths are also possible on this diagram but chords involving intervals other than 3rds involve longer jumps across the network). Modulations between keys are easy to visualize. Shade the cells with two colors: one for the start and one for the end key. The modulation has to go between a chord in the first and a chord in the second, but can be achieved in many ways as moves between chord shapes along the tonnetz.

Originally the tonnetz was used to explore voice-leading using major and minor triads only. In this case there are three valid transforms: flipping a triangle vertically transforms a major into its tonic minor (and vice versa). Flipping a major chord about its / diagonal changes from the major to its relative minor (C to Am, for example), and flipping about the \ diagonal changes from the major to its leading tone minor (C to Em). In Neo-Riemmanian theory these are the Relative (R), Parallel (P) and Leading tone (L) transforms, respectively.

Corresponding transforms are also applicable to a minor triad.

The shading and small numbers indicate the octave, when the Tonnetz is used with absolute pitches, rather than intervals. Notes in the same octave appear in vertical ribbons, they repeat every 7 rows, offset one place to the right.



Chord Shapes



Major



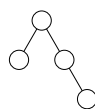
Minor



Major 7th



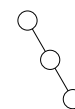
Minor 7th



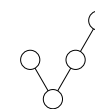
Dominant 7th



Augmented



Diminished



Minor Major 7th