**Program Notes**

Two 16-beat melodic riffs are generated before the piece begins using triangular stochastic distributions; one tends towards longer notes and is dropped an octave and the other tends towards shorter notes. These “motif” riffs are passed through a mutation algorithm which sometimes drops or adds notes. There is also a chance that this mutated riff replaces the original motif riff.

A third layer generates a percussive riff which cycles at 24 beats, creating more overlay combinations and adding a greater sense of dynamicism to the piece.

In real time, the performer has the ability to change the key signature of the pieces without affecting the pitch steps. As well, the performer can change octave offsets of each layer, or force a regeneration of one particular layer. Other simple modifications are possible, such as adjust channel volumes and tempo.

The performer wears a Muse Brain Sensing Headband, which can read the 5 power bands of the performer’s brainwaves. This allows approximation of the performer’s stress and focus levels; these get mapped directly into the application controls described above so that the instrument is “played” by the performer’s subconscious. The performer will complete a complicated task during the piece in order to manipulate the power bands and control the structure of the piece.

**Composer Biography**

Woodrow Barlow is in his final semester of a Computer Science degree at North Carolina State University. As a child, he took piano lessons and later played the saxophone in middle school concert band; however, he never exceeded beyond rudimentary proficiency in either instrument and knows very little about music theory.