

# Outliers

for any number of players + computer  
Scott Cazan

The piece consists of four sections of an equal (pre-determined) length. Each section should crescendo from a general p dynamic to a mf and back down to a p again.

## **Performance:**

At the beginning of the performance, start the provided program and ensure that the screen(s) is visible to all members of the ensemble.

Each performer is allowed to play any of the available pitch classes listed on the screen freely in any octave transposition (by default the program will list all 12 equal tempered pitch classes in the first section).

Each note should have a sustained character but the length is chosen freely by the performer. Occasional short notes are welcome but should always be played at a quieter dynamic.

Near the end of each section, the computer will tally the the top four pitch classes that were played the most and remove them from the list.

This process is repeated for each section with the exception that at the end of the third section only three pitches are removed leaving the single least played pitch class for the final section.

As an option, a different set of pitch classes of your choosing may be substituted (as opposed to the default 12 equal tempered pitch classes).

## **Technical Requirements:**

- A Macintosh Computer running OSX
- An audio interface with microphone (the built-in microphone on a laptop will work fine)
- The accompanying software (can be obtained from the composer's website or directly from the composer)

The computer screen should be setup in a location that is visible to the entire ensemble. Multiple screens may be used if needed.

The microphone should be placed in a position that is as equidistant to all members of the ensemble as possible. It should be elevated at least slightly and not placed directly on the floor. Multiple microphones running into a mixer may be used if needed for larger ensembles. As long as there is a single microphone feed running into the software program.

## **Software notes:**

The accompanying software is designed to analyze and keep a tally of all pitches that are heard during the performance using a simple pitch tracker. Any notes that are out of tune are adjusted to their closest equal tempered neighbor.

After the indicated period of time for each section has passed it will sort its tallies to find the notes that have been heard most often and remove them from the list of available pitch classes for the ensemble to perform.

The final note of the piece represents the least "heard" pitch class and will be unique to each performance.