

025:251 COMPOSITION: ELECTRONIC MEDIA II

Spring 2010

Micro-randomization in instrument modeling

1. To more satisfactorily build a software instrument, control needs to be more detailed.
2. There are ____ main types of control:
 - a. Signal, which is what the composer tells the performer to play, such as: _____
 - b. Non-signal, which is a network of parameters that change by values not under the performer's direct control, such as _____.
 - c. Also: random procedures in score, instructions to play in a certain kind of room, etc.
3. Item b is modeled by micro-randomization. Some parameters are:
 - a. Room temperature
 - b. Room humidity
 - c. Instrument characteristics
 - d. Performer's hands and mouth
 - e. How the room influences the performer and instrument
 - f. The emotional state of the performer
 - g. How the musical signal influences the performer's emotional state.
 - h. Some performers sweat more than others.
 - i. Some performers are strong and weak in different areas.
 - j. Other ideas?
4. I propose that pitch-class-to-pitch mappings are anti-epimorphisms that can be partially determined by a compositional model based on a similar structure.
5. Consider instead a hierarchy of parametric values that a listener brings to the interpretation of the sound. Pitch is very high since it is easily recognized. Pitch fluctuation of a steady tone is not as obvious, and so is lower on the scale.