Eastman Computer Music Center
CMP 422 : Advanced Computer Music Techniques
Class presentations for semster 2

Each student will present a 10 to 15 minute presentation on class on one of the following topics:

(1) an electroacoustic composition or performance

(2) a composition or performance in which algorithmically generated structural elements comprise an important element
or
(3) a newer sound synthesis or signal processing technique for which there has not yet been time for many significant works to have been written that employ this technique, such as physical modeling synthesis or waveguide synthesis, Markov chains, cellular automata ("the game of life").

If you choose to focus on a particular composition or performance (#1 or #2 above):

• discuss the work in terms of its technical resources (sound synthesis techniques and/or algorithmic compositional or performance techniques)

• present an overview of salient musical and aesthetic aspects of the work

If you choose to focus on a newer synthesis or DSP resource, prevent an overview of how this resource works, some musical examples, and some potentially unique musical possibilities offered by these procedures and some current problems in using them.

Some suggestions:

Granular synthesis : Horaccio Vaggione, Curtis Roads, Paul Lansky
Additive synthesis : Jean-Claude Risset
Spectral synthesis : Tristan Murail, Kaija Saariaho, Jonathan Harvey
"Vocal synthesis" and extended vocal techniques : Trevor Wishart
Formant synthesis, Chant, FOF : Jean Baptiste Barrier, K. Stockhausen
Modulation synthesis : John Chowning, James Dashow, K. Stockhausen
Analysis/resynthesis, phase vocoder synthesis : Paul Koonce
Algorithmic composition :

rule-based music : Lejaren Hiller, Gottfried Michael Koenig
artificial intelligence-based systems : David Cope, Otto Laske
stochastic or probability procedures : (someone besides Xenakis and Cage)
and the varied algorithmic procedures employed by such composers as Laurie Spiegel, Morton Subotnick, Charles Dodge, Paul Lansky and Robert Rowe

Note: All of these possibilities are merely top-of-my-head suggestions, and you are encouraged to seek out works by other, lesser-known composers or new synthesis and compositional resources that have not yet been documented in detail. If you choose a work by a composer such as Stockhausen, Xenakis or Risset, you should have something new to contribute to our understanding of this composer's music -- not a rehash of rudimentary information culled from Wikipedia and Google searches.