Music Query, Analysis, and Style Simulation: Reading List

(Music 254/CS 275b, Stanford University; last updated spring 2003)

In this interdisciplinary course, each student will find a different combination of readings useful. An overview of current and recent publications in music and other literature is compiled below.

Please be aware that new material is appearing at a rapid rate. It is important to search all three of the following online databases [access from within Stanford]:

- **Music literature (history, theory, analysis; often incomplete for computer music):** RILM ([http://www-sul.stanford.edu/catdb/hum.html](http://www-sul.stanford.edu/catdb/hum.html)).
- **Psychology (perception and cognition, some work in acoustics, statistics, etc.):** PSYCHINFO ([http://www-sul.stanford.edu/catdb/ssi.html](http://www-sul.stanford.edu/catdb/ssi.html)).
- **Computer science and engineering (algorithms, query strategies, graphics, models, sound, neural nets, simulation, standards, typesetting):**
  - Achilles' CS mega-site ([http://liinwww.ira.uka.de/bibliography](http://liinwww.ira.uka.de/bibliography))
  - Citeseer ([http://citeseer.nj.nec.com/cs](http://citeseer.nj.nec.com/cs))

Many journal articles, conference proceedings, and monographs treating hybrid subjects are missing from all three categories. Of the items cited below, most are available for consultation at CCARH (Braun #129) and quite a few are in the Music Library (some journals are in the CCRMA branch; others are in Braun):

Organization of Topics
1. Bibliographies and overviews
2. Music representation
   a. General
   b. Specific systems
   c. Particular musical features
3. -1. Music-based analysis: Specific approaches
   a. Notation
   b. Repertory analysis
   c. Theoretical models and their validation
   d. Elucidation of cognitive models
   e. Harmony
   f. Counterpoint
   g. Rhythm and accent
   h. Analysis of performance and expression
   i. Artificial performance, expression
   a. Style identification
   b. Style simulation
   a. Melodic similarity and comparison
   b. Melodic and harmonic perception
   c. Pitch perception
   d. Rhythm and tempo
   e. Algorithms
   f. Summarization
   g. Melody in non-Western music
4. Procedure-based analysis
   1. Linguistics; Grammars
   2. Mathematics; Quantitative studies
   3. Formal systems and sets; Objects and object classes; Information theory
   4. Artificial intelligence; Computer modelling; Neural networks
   5. Rule systems and lexicons
   6. Pattern recognition
   7. Genetics: Selection and recombination
   8. Perception, cognition, and expectancy
5. Miscellaneous subjects
   1. Theories of musical computation
   2. Data interchange and virtual editions
   3. Physical and gestural modeling; Psychoacoustics
   4. Intellectual Property (in relation to musical data)
   5. Data acquisition and virtual restoration
      i. Image recognition
      ii. Image restoration

1. Bibliographies, general essays


2a. Music representation: General


2b. Music representation: Specific systems


Analysis," *Computing in Musicology* 10, 105-122.


2c. Music representation: Particular musical features


3. Music-based Analysis

3.1. Specific approaches

3.1.a. Notation


3.1.b. Repertory analysis


3.1.c. Theoretical models and their validation


3.1.d. Elucidation of cognitive models


3.1.e. Harmony


3.1.f. Counterpoint


3.1.g. Rhythm, and Accent; Perception of rhythm


265-266.


3.1.h. Analysis of performance and expression


3.1.i. Artificial performance


3.2 Music-based analysis: Style

3.2.a. Style identification; perception


3.2.b. Style simulation


Larnestam, Ulf (1992). "Simulation of Keyboard Sonata Movements in the Style of Mozart," *Computing in Musicology* 8, 103-106. [See also under Berggren]


3.3 Music-based analysis: Query

[This listing is a hybrid of music-based and procedure-based literature.]

3.3.a. Melodic similarity and comparison


Aucouturier, Jean-Julien, and Mark Sandler (2001). "Using Long-Term Structure to Retrieve Music:


### 3.3.b. Melodic and harmonic perception


3.3.c. Pitch perception


3.3.d. Rhythm and Tempo


3.3.e. Algorithms


paper 15.


3.3.f. Summarization


3.3.g. Non-Western; cross-cultural melodic studies


4. Procedure-based analysis

4a. Linguistics; Grammars


4b. Mathematics; Quantitative Studies


4c. Formal systems and sets; Objects and object classes; Information theory


4d. Artificial intelligence; Modeling; Neural networks


4e. Rule systems and lexicons


4f. Pattern recognition


4g. Genetics: Selection and Recombination


4h. Perception, cognition, and expectancy


5. Theories of Musical Computation


6. Data interchange and virtual editions


7. Physical and Gestural Models


8. Intellectual property (in relation to musical data)


9. Data acquisition and virtual restoration

9a. Image recognition


9b. Image restoration


Online bibliographies for music-information retrieval:
For researchers and digital library developers:


For music librarians:

Stephen Downey's [http://music-ir.org/research_home.html](http://music-ir.org/research_home.html)

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