MUSI 486/586: Corpus Methods in Music Research  
Instructors: Prof. Ian Quinn, Chris White  
Yale University, spring 2012  
Th 1:30–3:20 (Stoeckel 211)

Course description

This course investigates computer-assisted methods for formulating and investigating empirical research questions about music at the “inter–opus” level — i.e., questions about musical corpora rather than individual works. We’ll discuss the types of questions posed by researchers working with corpora, the role of empirical research in the field of musicology generally, and particularly its relationship to the specific questions of music theory. Students will learn the basics of programming in Python and will implement research questions using the music21 software package.

Undergraduate prerequisites

All students should be familiar with music notation. In addition, students should have completed either a programming course or a course in music theory at Yale.

Course requirements

All students will work weekly problem sets (programming exercises) for the first 8 weeks of class.

All students will be expected to complete a computer–based research project at the end of term. This will (a) involve giving a preliminary project presentation of approximately 10 minutes' duration immediately after spring break, (b) writing a paper around 15 pages in length (25 for graduate students), (c) giving a research presentation of approximately 30 minutes' duration, and (d) turning in all code used in the research.

Graduate students will additionally be expected to write weekly critical responses to the reading assignments.

Grades for undergraduates will be determined as follows: 50% problem sets, 40% final project, 10% participation and preparation. No exams will be given in this course.
Weekly lab section (to be scheduled)

In addition to the dedicated seminar time, we will meet weekly for a lab section to work on techniques of Python and music21 programming. This lab will be scheduled at the beginning of the term.

Bibliography (additional topics to be added at the end of the term according to student interest)

GENERAL MONOGRAPHS


OVERVIEW AND METHODS


MELODY


STYLE


HARMONY AND VOICE-LEADING

Aarden, Bret and Paul T. von Hippel, 2004. “Rules for Chord Doubling (and Spacing): Which ones Do We Need?” MTO, 10:2


COMPARING CORPORAS / SCHEMATA


INFORMATION THEORY


KEY–FINDING


RHYTHM AND METER


<table>
<thead>
<tr>
<th>Week</th>
<th>Seminar topic</th>
<th>Seminar readings</th>
<th>Lab topic</th>
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<tbody>
<tr>
<td>6</td>
<td>Tonality 1</td>
<td>Temperley(2007), Temperley (2009), Quinn (2010)</td>
<td>Smoothing n-gram models</td>
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<td>Harmonic Grammar</td>
<td>Gillick (2010), White(TBA), Quinn(TBA), Temperley (2011),</td>
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<td>Style 2</td>
<td>Cope (2003), White(TBA), Albrecht(dissertation), Duane (forthcoming), Conklin</td>
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<td>12</td>
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<td>Research presentations</td>
<td>[individualized work with students]</td>
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