



*Cluster on
Computation in Music*

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CALL FOR PAPERS

The issues in computational modeling of music have risen to the forefront due to the entertainment sector's interests in music recommendation (personalized systems for online retrieval of music) and performance rendering systems (affecting the movie scoring and music industries). The need for new algorithms and models better to understand, compute, and evaluate the structure and effects of music is made more urgent by the rapid proliferation of digital music. Many problems in computer-based methods for content analysis and feature extraction, similarity assessment and classification, and generative methods for creating music can be and have been solved using core OR approaches.

We invite papers that highlight the use of computational operations-research techniques in analysis and generation of music. The broad topic areas include, but are not limited to, computational modeling of music perception and cognition, music information retrieval, computer-assisted composition, and interactive music systems. The goal of the cluster is to introduce computational research in music to the OR community at large. As such, *the papers should not only feature the contributions of the author(s) to the domain but also provide a clear and expository review of key advances in the specialty area and identify or define some concrete and open problems.*

By operations-research techniques, we mean mathematical, statistical, and computational methodologies defined and documented in the OR literature, such as mathematical programming (linear, nonlinear, integer), network models, and other deterministic techniques; dynamic programming, Markov chains, queuing theory, and other stochastic processes; and more recent inventions such as genetic and evolutionary algorithms, simulation, neural networks, approximation algorithms, and domain-specific heuristic methods.

Some sample (and overlapping) topics include the following:

The *INFORMS Journal on Computing* is a publication of the Institute for Operations Research and the Management Sciences (INFORMS). The *JoC* publishes results in the intersection of operations research and computer science.

Deadline for Submission: February 16, 2004 (new!)

Please see Instructions for Authors at <http://joc.pubs.informs.org/InstructionsForAuthors.html>. You can submit electronically a postscript or pdf file to the Editor, or to any of the Associate Editors with Cc: echew@usc.edu. Direct your questions to:

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