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Special Guest Lectures

Exploitation of MIR in Music Technology

Tae Hong Park, Tulane University

Assistant Professor, Music Department

Johnston Hall 338
April 16, 2010 - 02:45 pm

Abstract:

In this talk I will present a number of recent research topics that focus on signal processing and exploitation of music information retrieval (MIR) techniques. I will introduce research in automatic musical instrument timbre recognition, a novel synthesis method called FMS (Feature Modulation Synthesis). FMS is a system for composition, sound design, pedagogy, and sound analysis. FMS employs a synthesis by analysis approach for sound manipulation, focusing on salient acoustic features that capture timbral dimensions corresponding to relevant characteristics of sound perception. These feature vectors are then analyzed and modulated for re-synthesis. I will discuss core concepts of this new synthesis paradigm and introduce the current salient feature extraction algorithms and their respective modulation modules that have been developed and implemented. I will also present a new software system called "FMS Toolbox," which is a GUI-based MATLAB application that allows for the analysis, modulation, and re-synthesis of the sound objects.

Speaker's Bio:

Tae Hong Park is currently an Assistant Professor of Music at Tulane University. He received a Bachelor of Engineering in 1994 from Korea University - Seoul; his Master of Arts (Fellow in electro-acoustic music) in 2000 from Dartmouth College; and his Ph.D. (Naumberg Fellow in music composition) in 2004. In 2009, Park received the Sonic Exploration Award from the University of Cincinnati; in 2005 he received honorable mention in the International Competition of Electroacoustic Music and Sonic Art, Bourges, France; and in 2005, he received 1st prize for string quartet ensemble performance for "De Zoe" "Bundeswettbewerb Jugend Musiziert," Germany. Park is currently working on a Ph.D. program proposal concentrating in music technology including psychology, engineering, linguistics, and the arts.

Refreshments will be served.
This lecture has a reception.

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