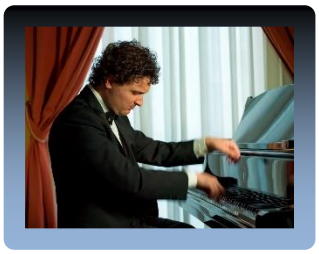
Seminar Series
Topics in the Aesthetics of Music and Sound

Thursday, May 7, 2015
3:15-5 p.m. in Meeting Room Comenius



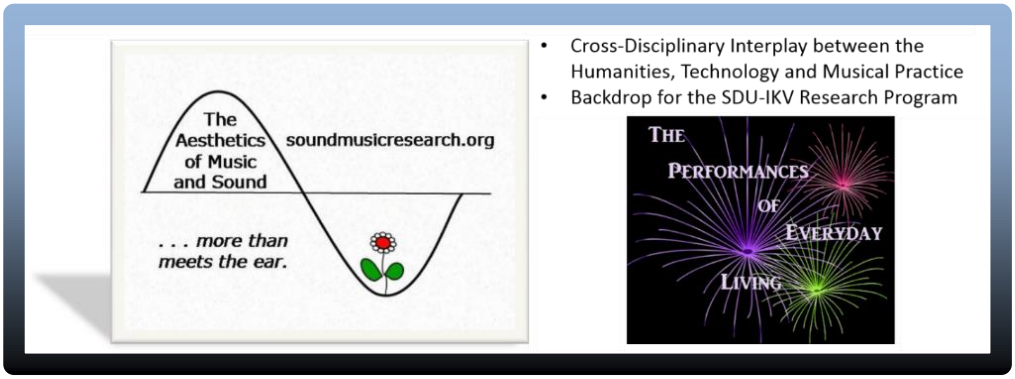
Coherence and Dissonance: How Music Can Stem from a Formal Model

Giacomo di Tollo was born in Italy in 1981. He has obtained a Master in Piano Performance in 2001 (Conservatory of Pescara, Pescara, Italy) and a PhD Europaeus in Experimental Algorithmics / Optimisation in 2009 (Università "G. D'Annunzio, Pescara, Italy). He is engaged in the double activity of piano performer and scholar. In the latter activity, he has been working at: Università "G.D'Annunzio" (Pescara,I). University of Angers (Angers, F), University of Littoral-Cote d'Opale (Calais, F), Ecole Centrale de Lille (Villeneuve d'Ascq, F), Ca' Foscari University (Venice, I). He has furthermore obtained grants to spend research periods is Switzerland, United Kingdom, Belgium, Denmark, Norway, Poland, Tunisia, Estonia. In addition, he has previously been granted a two-month CIRIUS scholarship to visit SDU (Computer Science Department) in 2010. He has regularly visited SDU ever since in order to carry on research within various departments there (Computer Science, Technology and Innovation) and to perform and give seminars in the SDU Lunchtime Concert series and the IKV-SDU seminar series *Topics in the Aesthetics of Music and Sound*. His published research activity is related to the definition and application of genetic algorithms to different scenarios, to portfolio selection and to credit risk, and he will be extending these techniques to the analysis of dissonance in metal music.

Abstract: The concept of dissonance is one of the fundamental elements in both music theory and music aesthetics. As often is the case for elements that play such fundamental roles in a theoretical sense, it is difficult to define them in a satisfactory way.

We notice nevertheless that many possible definitions stress a "negative" element in the concept of dissonance, although implementations of various characterizations of dissonance may lead to results that are significantly different when compared with each other. This is precisely what happened in the history of western music, in which there has been a progression towards an acceptance of greater and greater levels of dissonance, leading to changing definitions of what is "dissonant" over time. Hence, the concept of dissonance is closely related to the mechanism of perception: the degree to which a certain musical element is perceived as dissonant varies depending on the subjective perception of individuals.

In the seminar we want to investigate whether it is possible to organize the musical material so that the "negative" or "unacceptable" aspects of dissonances (if any, given the listeners' background) fall apart: this is a key question, the answer to which requires sound experimental analysis over a wide spectrum of repertoire and listeners. As a step in this direction, I am therefore proposing a notion of musical "coherence" and the investigation of musical frameworks that are considered "coherent", regardless of the musical material under consideration. I hypothesize that this notion of musical coherence is interestingly related to relationships between sonic material and algorithmic sound generation that advanced information technology can reveal. Preliminary results suggest that this approach can provide insights into why at least some genres of metal music are experienced as aesthetically satisfying by listeners with the requisite listening competencies.



All are welcome – also via Skype