## University of Rochester Department of Electrical and Computer Engineering Audio and Music Engineering Seminar Series

Music Information Retrieval approaches for Music Understanding

Xavier Serra Music Technology Group University Pompeu Fabra, Barcelona

Friday, March 2nd 12:00PM – 1:00PM Computer Studies Building Room 209

Abstract: Music Information Retrieval is a research field that involves the use of information processing methodologies to model music. This field has had an amazing growth and success in recent years and many music companies are using the resulting technologies to develop products and services for the creation, distribution and interaction with music and music-related information. However, an important question is whether these MIR methodologies are capable of helping us to better understand music. Most experts would say not that much and they would also acknowledge that this is a general problem of most machine learning approaches. But we want to do better, we want to take advantage of these powerful methodologies to also contribute to the topic of music understanding. In this talk I will present and discuss issues around this by going over some of the recent research I have done with my team. I will specially cover the work done in the CompMusic project, in which we aimed at advancing in the automatic description of music by emphasizing cultural specificity.

Bio: Xavier Serra is a Professor of the Department of Information and Communication Technologies and Director of the Music Technology Group at the University Pompeu Fabra in Barcelona. After a multidisciplinary academic education, he obtained a PhD in Computer Music from Stanford University in 1989 with a dissertation on the spectral processing of musical sounds that is considered a key reference in the field. His research interests cover the computational analysis, description, and synthesis of sound and music signals, with a balance between basic and applied research and approaches from both scientific/technological and humanistic/artistic disciplines. Dr. Serra is very active in fields of Audio Signal Processing, Sound and Music Computing, Music Information Retrieval and Computational Musicology at the local and international levels, being involved in the editorial board of a number of journals and conferences and giving lectures on current and future challenges of these fields. He was awarded an Advanced Grant from the European Research Council to carry out the project CompMusic aimed at promoting multicultural approaches in music information research.

Pizza and soda provided