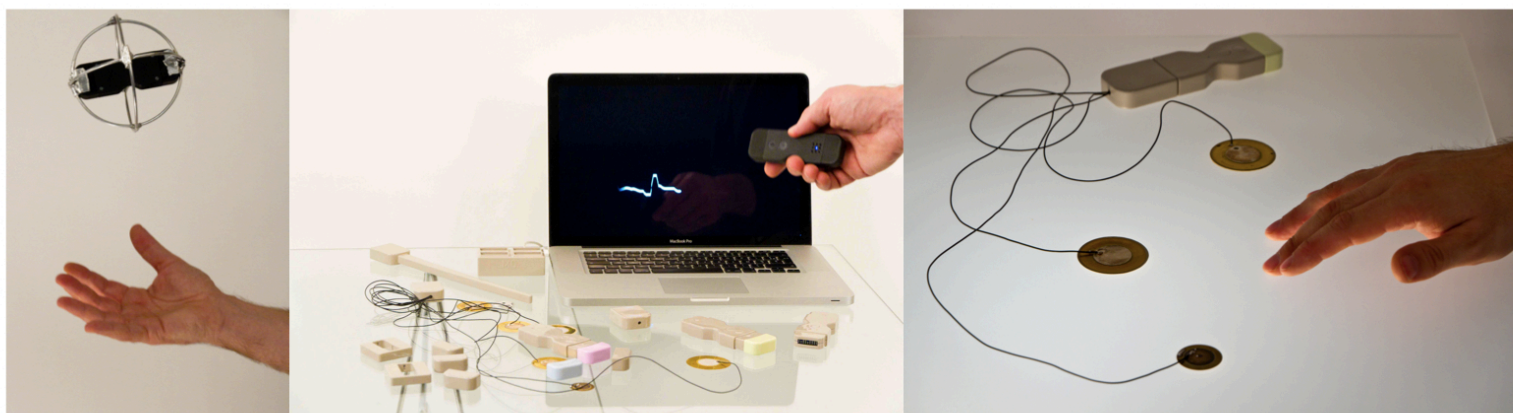


# Motion, Sound and Interaction



## FRÉDÉRIC BEVILACQUA

5th December 2012

4pm Wednesday 5th December

RHB 256, Richard Hoggart  
Building, Goldsmiths College,  
New Cross, London.

All Welcome

email: [m.bishop@gold.ac.uk](mailto:m.bishop@gold.ac.uk)

I will present an overview of research performed by the Real-Time Musical Interactions Team of IRCAM (Paris). We have developed various methods and systems that allow for the interaction between gesture, motion and digital media. This research has been influenced by sustained collaborations with musicians/composers and dancers/choreographers. For example, the study of musician gestures allowed us to formalize key concepts about continuous gesture control, movement segmentation and co-articulation. This guided us

in designing various real-time gesture analysis systems using machine learning techniques, such as the "gesture follower" that enables gesture synchronization with sound synthesis.

Concrete applications concerning augmented musical instruments, new music interfaces and music games will be described. Finally, recent research on sensorimotor learning will be presented, which opens novel perspectives for the design of musical interfaces and medical applications.

*Frédéric Bevilacqua is the head of the Real Time Musical Interactions team at IRCAM - Institute for Music/Acoustic Research and Coordination in Paris. His research interests concern gestural interactive systems and interfaces for music expression. He has studied music at the Berklee College of Music in Boston and has participated in several music and media arts projects. From 1999 to 2003 he conducted research at the Beckman Laser Institute, University of California Irvine. He joined IRCAM in October 2003 as researcher on gesture analysis for music and performing arts.*