



School of Electronic Engineering and Computer Science (EECS)

PhD Studentship: “Adaptive, personalised digital musical instruments”

Applications are invited for a PhD Studentship starting in September 2012 to undertake research in the area of **sound and music computing**, developing musical instruments that dynamically adapt their behaviour to match the tastes and abilities of the human performer.

The studentship is based at the Centre for Digital Music (C4DM), School of Electronic Engineering and Computer Science, Queen Mary, University of London. The studentship will be supervised by Dr. Andrew McPherson (www.eecs.qmul.ac.uk/~andrewm) and Prof. Elaine Chew (www.eecs.qmul.ac.uk/~eniale). Further information on C4DM can be found here: <http://www.elec.qmul.ac.uk/digitalmusic/>

A performer can take decades to learn a musical instrument. This studentship will focus on creating instruments that learn the capabilities and artistic preferences of the individual performer, with a particular focus on the relationship between physical gesture and sound production. The successful candidate will develop intelligent gesture-sound mapping strategies, which dynamically update based on feedback from the performer. User studies with professional and amateur musicians will be integral to all stages of the project, and the successful candidate will take a leading role in designing and conducting these studies. The project aims to make performance more accessible to beginning musicians while enabling new modes of expression for experts.

The ideal candidate will have a first or upper second (2:1) honours degree or equivalent in Computer Science, Electronic Engineering, Electronic Music, Music Technology or a related field, with experience in machine learning, digital signal processing and/or human-computer interaction. A background in musical performance or composition is also helpful, particularly experience in acoustic instrumental performance.

The studentship funded by EECS Studentship will cover student fees and a tax-free stipend starting at £15,590 per annum and is available to candidates of all nationalities.

Informal enquiries can be made by email to Dr. Andrew McPherson (andrewm@eecs.qmul.ac.uk).

To apply please email the following documents to Dr. Andrew McPherson (andrewm@eecs.qmul.ac.uk): a completed application form, a CV listing all publications, your representative publications in PDF format, 3 reference letters, a research statement and other relevant documents as requested (see www.qmul.ac.uk/postgraduate/apply/). These documents must also be submitted online following the instructions given in the link.

The closing date for the applications is 31/01/12

Interviews are expected to take place during w/c 06/02/12

Valuing Diversity & Committed to Equality