

## School of Electronic Engineering and Computer Science

### PhD Studentship on probabilistic modelling of temporal expectations in music

Applications are invited for a PhD Studentship starting in September 2012 to undertake research in the area of **Music Cognition**. Specifically building probabilistic models of temporal prediction in auditory processing and subsequently using these models to understand human temporal expectations when listening to music.

The studentship is based at the School of Electronic Engineering and Computer Science at Queen Mary, University of London and will be supervised by Dr Marcus Pearce (<http://www.eecs.qmul.ac.uk/~marcusp/>) of the Centre for Digital Music (C4DM), with Dr Matthew Purver (<http://www.eecs.qmul.ac.uk/~mpurver/>) of the Interaction Media and Communication (IMC) research group as second supervisor.

The successful candidate is expected to perform research at the interface between machine learning and cognitive psychology, building computational models of auditory processing of musical stimuli and comparing their predictions with subjective experience and behavioural responses collected in empirical experiments with human listeners. There is potential to extend the project to aspects of timing in language.

Candidates should have a first or upper second (2:1) honours degree or equivalent in a relevant area (including Computer Science, Electronic Engineering, Artificial Intelligence, Mathematics, Physics, Statistics, Experimental Psychology, Cognitive Neuroscience) and be able to demonstrate strong mathematical, analytical and programming skills. An ability to collect and conduct statistical analysis of behavioural data from human participants and a background in computational linguistics or music information retrieval is also desirable. Experience and strong interest in music would be highly advantageous.

The PhD position is funded by EECS Studentship and will cover student fees and a tax-free stipend starting at £15,590 per annum. It is available to candidates of all nationalities. Informal enquiries can be made by email to Dr Marcus Pearce ([marcus.pearce@eecs.qmul.ac.uk](mailto:marcus.pearce@eecs.qmul.ac.uk)). Information about the school and its research areas can be found at [www.eecs.qmul.ac.uk](http://www.eecs.qmul.ac.uk); more details of the C4DM and IMC research groups are available at <http://www.elec.qmul.ac.uk/digitalmusic/> and <http://www.dcs.qmul.ac.uk/researchgp/imc/>.

**To apply please email the following documents to Dr Marcus Pearce ([marcus.pearce@eecs.qmul.ac.uk](mailto:marcus.pearce@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/](http://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<sup>st</sup> January 2012. Interviews are expected to start from the week commencing 6<sup>th</sup> February 2012.**