



## ***CALL FOR ABSTRACTS***

***INTERNATIONAL CONFERENCE***

### **MUSIC TECHNOLOGY: SOLUTIONS TO CHALLENGES**

**The interface between  
music, engineering, special needs and neuroscience**

**Royal Hospital for Neuro-disability, London SW15 3SW  
11<sup>th</sup> – 12<sup>th</sup> June 2010**

This conference offers an opportunity to share knowledge and information about technology relating to musical expression and experiences. Presentations will address the use of technology to meet special needs and measure responses to music. **Professionals involved in using, designing and researching music technology for use in clinical, educational, and community settings are invited to submit abstracts under the following themes:**

#### ***Clinical practice***

Work involving electronic music technologies in practice with people with special needs e.g. music therapists; music teachers working in special education; community musicians; computer music scientists

#### ***Engineering and design***

Those involved in developing music technologies and assistive technologies with a potential application in clinical/community settings.

#### ***Measurement and evaluation***

Those involved in developing/ using technology for measuring musical responses e.g. brain imaging/PET/ EEG; clinical evaluation systems

SEE REVERSE FOR SUBMISSION DETAILS

**Cost per delegate after April 1st: £250 / Student £200  
Early bird rate before April 1<sup>st</sup>: £200 / Student £140  
All fees plus VAT. Student places limited.**

## IMPORTANT DATES

**ABSTRACT SUBMISSION DEADLINE:** 14<sup>TH</sup> JANUARY 2010

**NOTIFICATION OF SUCCESSFUL APPLICANTS:** 28<sup>th</sup> FEBRUARY 2010

### ***ABSTRACT SUBMISSION FORMS CAN BE DOWNLOADED FROM THE WEBSITE:***

*<http://www.rhn.org.uk/institute/doc.asp?catid=1477&docid=3492>*

*Or contact: Phili Denning, E: [pdenning@rhn.org.uk](mailto:pdenning@rhn.org.uk), T: 0208 780 4500 x 5140*

### ***Key Note Presentations***

#### **Brain-Computer Music Interfacing: From Basic Research to the Real World of Special Needs**

Prof Eduardo R. Miranda,

Interdisciplinary Centre for Computer Music Research (ICCMR), University of Plymouth, UK

*A brain-computer interface (BCI) allows a person to control electronic devices by means of commands expressed by signals read directly from their brain using appropriate brain scanning technology. We are interested in developing brain-computer music interfacing (BCMI) technology aimed at people with complex physical needs but able brain function. BCMI technology has the potential to enable active participation in music-making activities for recreational and therapeutic purposes. Despite recent advances of BCMI technology worldwide, this technology has seldom been trialled with the sector of the population that really needs them. The author will make a case that the time is ripe to trial such technology in the real world of special needs. This talk will begin with a brief survey of the field of BCMI. Then it will introduce proof-of-concept systems developed at ICCMR, followed by a glance of the ongoing research into trialling BCMI systems with patients at RHN.*

#### **Musically Assisted Rehabilitation Systems: utilizing music technology to enhance therapy.**

Dr. David W. Ramsey

Board Certified Music Therapist (American Music Therapy Association)

Special Projects Consultant , Institute for Music and Neurologic Function, USA

Co-Founder , Musically Assisted Rehabilitation Systems, Inc. USA

*Engaging patients in expressive, meaningful, music-centered experiences, while at the same time addressing psychosocial, physical and neuro-cognitive needs has long been the hallmark of music therapy.*

*In a world of multiple, exciting technologies, therapists must exercise discernment as to the precise way a particular technology addresses client needs. Guidelines that provide a list of music technologies, their features and how these features can be employed therapeutically, can be helpful.*

*Musically Assisted Rehabilitation Systems (MARS) are musical instruments that require movements similar to those exercised during Occupational/Physical Therapy. MARS instruments are designed to highlight the somatosensory elements of expressive music making. Computer MIDI information is directly linked to physical function (range of motion, motor timing, and velocity/muscle strength) during music making so that a quantitative record of rehabilitation progress can be captured. When these systems are combined with existing music software programs, the music therapist can address multiple goals: psychotherapy, neuro-cognitive, social and physical.*

Enquiries should be made in the first instance to:

Dr Wendy Magee, E: [drwmagee@rhn.org.uk](mailto:drwmagee@rhn.org.uk)

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