

# Interactive performance for musicians with a hearing impairment

AHRC Dissemination Conference, Thursday 30 May 2013  
Royal Northern College of Music



Graphic courtesy of [Lost and Sound](#) documentary by Lindsey Dryden

Participants include

Danny Lane

Ruth Montgomery

Janine Roebuck

Angela Taylor

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UNIVERSITY OF  
LIVERPOOL

Acoustics Research Unit

**MUSIC  
AND THE  
DEAF**

**RNCM**  
ROYAL NORTHERN  
COLLEGE of MUSIC

## The day will consist of:

- Talks and discussions with deaf musicians
- A performance by Ruth Montgomery with pianist Emmanuel Vass
- Q & A sessions about the experience of making music with a hearing impairment
- Presentations and demonstrations about vibrotactile technology
- Panel session on inter-disciplinary research issues
- Presentations by project members including:
  - The motivations, challenges and strategies of musicians with hearing impairments
  - The human sense of touch
  - Existing vibrotactile technology for music perception
  - Perception of pitch using vibrations
  - The future of vibrotactile technology

## Participants include:

### Danny Lane



Danny was born in 1978 and has been profoundly deaf since birth. He is a pianist and obtained a degree in Music and French from Keele University and has also studied at the Université d'Amiens in France. In 2000, Danny was awarded a Jack Ashley Millennium fellowship to research music and deafness in Brazil. Afterwards, he worked as Education Projects Manager at the charity 'Music and the Deaf'. In 2006, Danny founded the West Yorkshire Deaf Youth Orchestra. In 2008, he conducted a group of deaf young musicians at the Royal Albert Hall's National Festival of Music for Youth. He also wrote a guide for teachers called "Keys to Music – Making Music with Deaf Children in Early Years."

### Ruth Montgomery



Born profoundly deaf into a musical family, Ruth Montgomery took up the flute at the age of 12 which was the start of a musical career. She gained a 2.1 degree from the Royal Welsh College of Music and drama and two diploma qualifications in Music teaching and Flute performance. She has studied with top international flute players and made a BBC 'See Hear' documentary on a musical journey which included concerto performances in Russia and talking about the impact of music education for the deaf. She currently works for Essex Music Services as a peripatetic music tutor in schools and as a freelance music and art workshop facilitator. Ruth is using the Arts Council Deaf Explorer 2013 project to look into ways of using assistive technology and media in music.

### Janine Roebuck



Janine is a professional opera singer, despite inheriting a progressive sensori-neural hearing loss, and is now severely deaf. She is a Trustee of Action on Hearing Loss and Patron of Auditory Verbal UK, and campaigns tirelessly on behalf of all people with hearing loss. Janine was presented with The AMI Champion Award in 2009 for her outstanding musical artistry. She recently spoke at the Global summit on Translational Research, and the Ear Institute Masterclass on deafness and music. She was given a coveted place on The Independent 'Happy List' in 2010, as one of the top hundred people who make the world a better place to live.

### Angela Taylor



Angela Taylor is a freelance music education researcher and piano tutor and has had moderate hearing loss from birth. She was awarded her PhD, 'Understanding older amateur keyboard players: Music learning and mature adult musical identity', in 2009 by the Institute of Education, University of London, and has presented and published her research widely. Research interests include adult musical identity, taking up music teaching as a second career, musical participation in care-homes, music and hearing impairment, music listening in online communities and qualitative research methodology.

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## Programme

9.30	Registration
10.00	Introduction Dr Carl Hopkins (University of Liverpool), Prof. Jane Ginsborg (RNCM)
10.15	Beethoven – brief life history of deafness and music Dr Martin Harlow (RNCM)
10.25	Music and deafness today <i>Gershwin, Summertime</i> Janine Roebuck
10.45	Motivations, challenges and strategies for musicians with a hearing impairment Robert Fulford (RNCM)
11.00	Q&A with audience chaired by Prof. Jane Ginsborg (RNCM)
11.10 – 11.30	Break (tea and coffee)
11.30	Overview of the human sense of touch for vibration Dr Carl Hopkins (University of Liverpool)
11.40	Vibration thresholds Saúl Maté-Cid (University of Liverpool)
12.00	Pitch perception using vibration Saúl Maté-Cid (University of Liverpool), Robert Fulford (RNCM)
12.35	Q&A with audience Chaired by Dr Carl Hopkins (University of Liverpool)
12.45 – 14.00	Lunch (food can be bought from RNCM café and restaurant)
13.15	Vibrotactile demos (Lecture Theatre) Drop-in session
14.00	Performance – duo <i>J S Bach, Adagio from Sonata in E Major</i> Ruth Montgomery and Emmanuel Vass
14.05	Effects of hearing impairment on interactive performance Robert Fulford (RNCM)
14.25	Strategies used for musical performance by musicians with a hearing impairment Danny Lane, Janine Roebuck, Ruth Montgomery, Angela Taylor Panel discussion chaired by Prof. Jane Ginsborg (RNCM)
15.00 – 15.30	Break (tea and coffee)
15.30	Vibrotactile technology – what exists and where do we go from here? Dr Gary Seiffert, Dr Carl Hopkins (University of Liverpool)
15.55	Can vibrotactile technology help musicians? Q&A with audience chaired by Dr Carl Hopkins (University of Liverpool)
16.30	Vibrotactile demos (Lecture Theatre) Drop-in session
17.30	Finish

## Project Team

**Dr Carl Hopkins** PhD BEng CEng MAES MASA MIIAV FIOA [carl.hopkins@liv.ac.uk](mailto:carl.hopkins@liv.ac.uk)

Carl is a Reader in Acoustics and Head of the Acoustics Research Unit at the University of Liverpool. He is a Fellow of the Institute of Acoustics and in 2012 was awarded the Tyndall Medal by the Institute of Acoustics for his achievements and services in the field of acoustics. His research focuses on sound and structure-borne sound in built-up structures, and he has published a sole-author book on sound transmission in buildings. Previously, Carl worked at the Building Research Establishment where he was an advisor on acoustics to the Office of the Deputy Prime Minister and the Department for Education and Skills.

**Professor Jane Ginsborg** PhD C.Psychol AFBPsS FHEA [jane.ginsborg@rncm.ac.uk](mailto:jane.ginsborg@rncm.ac.uk)

Professor Jane Ginsborg is Associate Dean of Research, Director of the Centre for Music Performance Research and Programme Leader for Research Degrees at the Royal Northern College of Music, Manchester. Winner of the British Voice Association's Van Lawrence Award in 2002, for her research on singers' memorising strategies, she is Managing Editor of Music Performance Research, and holds editorial positions with the Journal of Interdisciplinary Music Studies, Musicae Scientiae and Psychology of Music. She is currently Chair of the Conservatoires UK (CUK) Research Ethics Committee and President of the European Society for the Cognitive Sciences of Music (ESCOM).

**Dr Gary Seiffert** MSc MIOA [aru@liverpool.ac.uk](mailto:aru@liverpool.ac.uk)

Gary is a Senior Research Fellow within the Acoustics Research Unit at the University of Liverpool. His main areas of expertise are in acoustic instrumentation and measurement techniques. His research interests include work in physical acoustics to investigate the possibilities of using sonic cleaning to dislodge dust and to clean industrial plant that is not easily accessible. As Short Course organiser within the unit, Gary is also responsible for providing CPD courses in acoustic metrology to industry.

**Saúl Maté-Cid** BSc (Hons) MSc [saul.mate-cid@liv.ac.uk](mailto:saul.mate-cid@liv.ac.uk)

Saúl graduated in Audio Technology with a BSc (Hons) from Salford University in 2003 and a Diploma in Professional Studies at the Acoustics Group of Philips (Belgium). Until 2008 he worked in Spain on active noise control, ultrasound field service engineering, and broadcasting codec systems. In 2009 he received his MSc in Signal Processing from King's College London. Saúl has joined the ARU as a Research Assistant on the AHRC funded project 'Interactive performance for musicians with a hearing impairment' for which he is registered for a full-time PhD under the supervision of Dr Carl Hopkins.

**Robert Fulford** BA (Hons) MPhil MBPsS [rjfulford@gmail.com](mailto:rjfulford@gmail.com)

Robert Fulford is a PhD student in Music Psychology at the Royal Northern College of Music, Manchester. He previously studied Music with Education and Educational Psychology at the University of Cambridge. His current research is part of an AHRC-funded collaboration with the Acoustics Research Unit, University of Liverpool. He researches topics relating to music and deafness including cross-modal perception and communication in music and music perception using hearing aid technology. He is co-leader of the North-West Deaf Youth Orchestra run by the charity Music and the Deaf and is a British Sign Language user.

### Wi-Fi Internet

1. **The Cloud.** If you have not already registered you can do so & sign in with a username and password.
2. **Eduroam.** Many universities have eduroam.

**Lunch:** There are a number of options nearby:

- RNCM Café
- RNCM Brodsky
- Umami (Japanese fusion noodle bar on Oxford Rd)
- Aardvark Café in St Peter's House, Oxford Rd
- On the 8<sup>th</sup> Day (vegetarian café on Oxford Rd)

**Recording:** Please note that today's event will be video-recorded for further dissemination.