

REPRODUCED SOUND 2017

SOUND QUALITY BY DESIGN

21-23 November 2017 Nottingham Conference Centre



TUESDAY 21 NOVEMBER 2017

16:00 Registration

18:30 Visit to University of Derby



Delegates will have the opportunity to explore the research of the Entertainment Engineering subject group (www.uodlive.com), including interactive demonstrations of ambisonics, 3D audio for virtual reality, live sound reinforcement technology, applications of immersive audio in theatre, 3D audio through tissue conduction, plus much more!

A coach will take delegates to the University and return. If you plan to attend please tick the box on the registration form.

WEDNESDAY 22 NOVEMBER 2017

8:00 Registration

9:15 Welcome, EAG Chairman

9:30 PETER BARNETT MEMORIAL AWARD
Loudspeakers and rooms:
50 years of research

Floyd E Toole

10:30 Refreshments

SESSION 1 – INTELLIGIBILITY AND SOUND REINFORCEMENT

11:00 The STI metric as a driving factor in interdisciplinary design

Paul Malpas, Ramboll

11:30 Big picture and small screens: how television sound research can work with, and for, hard of hearing viewers

Lauren Ward, Ben Shirley, William J Davies, University of Salford

12:00 Acoustics of reproduced sound in large spaces

Simon Kahn, Mott Macdonald

12:30 Study on setup, parametrization and implementation of subwoofer arrays suited for active noise control in event noise management

Christian Frick, Patrick Nüesch, Rocket Science, Switzerland

13:00 Lunch

SESSION 2 – CINEMA SOUND

14:00 Soundtrack as auditory interface: exploring an alternative to audio description for theatre

Mat Dalgleish, Neil Reading, University of Wolverhampton

14:30 Measurement of distributed source, single channel, loudspeaker arrays, and use of model analysis techniques in real world applications

Joules Newell, Independent Consultant, Philip Newell, Acoustic Consultant, Spain, Keith Holland, University of Southampton

15:00 The effect of seats on the calibration of cinema sound systems

James Knatt, Keith Holland, ISVR, University of Southampton, Philip Newell, Acoustic Consultants, Spain

15:30 The Encounter - the first binaural show on Broadway. The concept, challenges and delivery of live and recorded binaural sound to 850 audience members

Gareth Fry, Sound Designer

16:00 Refreshments

SESSION 3 - ROOM ACOUSTICS

16:30 Active speaker boundary interference cancellation

Derek McCreanor, Consultant

17:00 Acoustics of a small room: comparison between FEM and measurement

Patrick Macey, PACSYS, Kelvin F Griffiths, Electroacoustics Design

17:30 Acoustics in new concert halls in Hamburg and Dresden

Wolfgang Ahnert, ADA Acoustics & Media Consultants, Germany

18:00 CLOSE

19:00 Reception at the Crowne Plaza Nottingham

19:30 Conference Dinner and Awards

21:00 EVENING DEMONSTRATION:
The dramatic possibilities of binaural and ambisonic sound, looking at its use in theatre and increasingly in Virtual Reality



Gareth Fry, Sound Designer

Photo © Robbie Jack

THURSDAY 23 NOVEMBER 2017

08:00 Registration

SESSION 4 - MODELLING

9:00 Reverberation time (RT) calculation using room modal decay and Wave Based Geometrical Acoustics (WBGA)

Panos Economou, Costos Economou, P E Mediterranean Acoustics Research & Developments, Cyprus

9:30 Modelling the performance of speaker arrays in domestic listening environments

Mark Dring, Alexander Vilkaitis, Charles Middlicott, Bruce Wiggins, University of Derby

10:00 Efficient acoustic modelling of large acoustic spaces using finite difference methods

Simon Durbridge, Bowers and Wilkins, Adam Hill, University of Derby

10:30 Refreshments

SESSION 5 - MEASUREMENT

11:00 What's wrong with using a real time analyser to measure sound system performance?

Peter Mapp, Peter Mapp Associates

11:30 The gaussian assumption considered harmful: What is the correct audio PDF?

Jamie Angus, University of Salford

12:00 EAG AGM

12:30 Lunch

SESSION 6 - SIGNAL PROCESSING

13:30 Microphone wind noise reduction using the singular spectrum analysis techniques

Omar Eldwick, Francis F Li, University of Salford

14:00 The speech conformer for achieving good speech intelligibility for all speakers

Xavier Meynial, Active Audio, France

14:30 Applications of dynamic diffuse signal processing in sound reinforcement and reproduction

Jonathan Moore, Adam Hill, University of Derby

15:00 Refreshments

THURSDAY 23 NOVEMBER 2017

SESSION 7 - LOUDSPEAKERS AND ARRAYS

15:30 The electroacoustic design of a handheld hearing device

Zachery Simcox, Keith Holland, ISVR University of Southampton

16:00 Investigating multiple off-axis listening positions of an OPSODIS sound bar

Laurence A T Haines, Takashi Takeuchi, Keith Holland, University of Southampton

16:30 Personal spatial audio in cars

Charles House, Sarah Dennison, Dylan Morgan, Nicholas Rushton, Gregory White, University of Southampton

17:00 Workshop – Application of FEM and BEM in Audio

A short description of acoustic & structural FEM and BEM and application to room acoustics and driver design. Example showing setup, analysis and results. Please bring a laptop and try a simple problem. (Free license for analysis software provided)

Patrick Macey, PACSYS

18:00 Close

18:30 Workshop – Crowne Plaza Hotel: Recording in the 1970's – the 1970's sound

Philip Newell, Acoustic Consultant, Spain



Back then, the equipment which is now so revered by the young was more of a limiting factor than an asset. Today's equipment is far superior and could have led to far better results. However, using modern equipment has led to a change in the thinking, so using old equipment will not guarantee achieving the 1970s sound that is often sought after.

19:30 Close

FRIDAY 24 NOVEMBER 2017

10:00 Optional visit to:

GREEN'S MILL AND SCIENCE CENTRE



Green's Mill is a restored and working 19th century tower windmill in Nottingham. In the early 19th century it was owned and operated by the mathematical physicist George Green (1773-1841). George Green, was one of the most remarkable scientists of his – or any other – age. In the small science centre next to the mill you can discover his remarkable story, his achievements and experiments with the things that fascinated him, such as light, electricity and magnetism.



Please indicate on the registration form if you would be interested in this visit.