

# REPRODUCED SOUND 2015

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## PLAYING WITH FIRE

Sound for art, entertainment and emergency purposes

10-12 November 2015, The Fire Service College, Moreton-in-Marsh



TUESDAY 10 NOVEMBER 2015

17.00 Registration

18:00 Dinner *(optional please see registration details)*

## 18.30 Evening Workshop and discussion: Reproduced Sound (virtual) Sound Check

*Mark Bailey, QSC, Robin Dibble, Martin Audio*

*A good event can depend on a good sound check. Getting the EQ, compression and gates set for the drums and getting the reverbs on the vocals can make things a lot better – if the tools are applied appropriately! Robin and Mark will demonstrate some different approaches to sound-check and will then open the discussion to allow others to comment – and even demonstrate what works for them.*

*This is an informal meeting and a great chance to come and share your knowledge – or simply to play with some audio gear.*

*We look forward to seeing you.*



## 20:30 Sam's Jam

*A musical core of RS attendees plays from Rap to Rachmaninov in the bar. We welcome others to join us. Bring your music and instruments.*

WEDNESDAY 11 NOVEMBER 2015

08.00 Registration

09.15 Welcome from EAG Chairman, Keith Holland

09.30 Peter Barnett Memorial Award:  
The Magic in 2-Channel Sound Reproduction  
– Why is it so rarely heard?

*Siegfried Linkwitz, Linkwitz Lab, USA*

## SESSION 1 – SOUND REINFORCEMENT

*Chairman: Sam Wise*

11.00 Complex loudspeaker setups in the frame of  
environmental noise predictions on the basis  
of the ISO 9613-2 and the Nord2000

*Matthias Christner, d&B audiotechnik GmbH, Germany, Jochen Schaall, SoundPLAN International LLC, Germany, Dieter Zollitsch, Braunstein + Berndt GmbH, Germany, Ralf Zuleeg, Elena Shabalina, d&B audiotechnik GmbH, Germany,*

11.30 Designing PA systems for Live Outdoor Events  
– the challenges of getting good sound in  
the audience arena and designing out noise  
problems off site

*Jim Griffiths, Vanguardia Consulting, Miles Hillyard, SSE Audio Group*

12.00 Sound localization or speech intelligibility?

*Wolfgang Ahnert, ADA Acoustics & Media Consultants GmbH, Germany*

12.30 Lunch

## SESSION 2 – THE ANTI-WORKSHOP

*Chairman: John Taylor*

14.00 The Anti-Workshop:  
Cautionary tales in sound reinforcement

*Conference workshops typically tell "how to". The Anti-Workshop tells "how not to". In many cases, examples of live sound gone wrong can be equally, if not more, instructive than stories of jobs well-done. Here we've assembled a panel of live sound practitioners with many decades of experience in the industry. With panel members sharing particularly "interesting" examples of questionable practice, the audience is invited to discuss/debate the central points raised. The session is designed as a light-hearted discussion that still delivers good lessons for current and future live sound professionals.*

15.30 Tea

## SESSION 3 – PAVA SYSTEM DESIGN

*Chairman: Helen Goddard*

16.00 Design principles for distributed loudspeaker  
solutions in PA/VA

*Paul Malpas, Engineered Acoustic Designs*

16.30 Re-entrant horn loudspeakers used in  
hazardous areas

*Kelvin Griffiths, Giuseppe Di Carlantonio, Electroacoustic Design, John Kendrick, Cooper MEDC*

## WEDNESDAY 11 NOVEMBER 2015 - CONTINUED

### 17.00 Is Class D the most efficient amplifier for real audio signals

*Jamie Angus, University of Salford*

### 17.30 EAG AGM

### 18.30 Reception

### 19.00 Conference Dinner

### 20.30 The importance of directivity in loudspeakers

*John Watkinson FAES*

*In the light of a modern understanding of the human auditory system and how it interacts with sound sources in reverberant environments, the legacy loudspeaker is now a completely discredited device, requiring for professional purposes heavy acoustic treatment of the listening space because of its own shortcomings, when the ear itself demands no such treatment.*

*Alternative approaches to directivity in state-of-the-art speaker designs will be discussed and demonstrated, and the reasons behind the resulting dramatic increase in realism and freedom from sweet spots will be explained.*

## THURSDAY 12 NOVEMBER 2015

### SESSION 4 – PERCEPTION: LIVE SOUND QUALITY

*Chairman: Mark Bailey*

### 09.00 The effect of distortion on perceived loudness in live sound reinforcement

*Simon Durbridge, University of Derby, John Taylor, d&E audiotechnik, Adam Hill, University of Derby*

### 09.30 The non-auditory, physiological perception of low frequency

*John Taylor, d&E audiotechnik GmbH*

### SESSION 5 – CASE STUDIES & DESIGN PRACTICE

*Chairman: Glenn Leembruggen*

### 10.00 New Sound Systems for Gulbenkian Foundation Grande Auditorio, Lisbon, Portugal

*Sam Wise, Venue Strategies*

### 10.30 Coffee

### 11.00 Sustainable design and practice in reproduced sound

*Ben Mosley, Leeds Beckett University*

### SESSION 6 – MEASUREMENT AND MODELLING 1

*Chairman: Keith Holland*

### 11.30 Demystifying the effects of loudspeaker cables

*Nicolas Bertin, L-ACOUSTICS, France*

### 12.00 Machine learning applied to the classification of musical instrument loudspeakers

*Andrew Harper, Celestion*

### 12.30 Lunch

### SESSION 7 – MEASUREMENT AND MODELLING 2

*Chairman: Bob Walker*

### 14.00 Implementation of head-tracked panning reproduction with correction for head rotation

*Dylan Menzies, Filippo Maria Fazi, ISVR, University of Southampton*

### 14.30 That was great, can you play it again?: Making 3D acoustic measurements of instruments under performance conditions.

*David Carugo, Khaled Hayatleh, John Lidgley, Oxford Brookes University, David Sharp, Open University*

### 15.00 High frequency room acoustic analysis using fast multipole BEM

*Patrick Macey, PAFEC*

## THURSDAY 12 NOVEMBER 2015 - CONTINUED

15.30 Tea

### SESSION 8 – PERCEPTION: CINEMA AND SURROUND SOUND *Chairman: Sam Wise*

**16.00 Maximising perceived diffuseness in loudspeaker systems with height using optimised relative loudspeaker levels**

*Michael Cousins, Filippo Maria Fazi, Stefan Bleeck, Frank Melchior, ISVR, Southampton University*

**16.30 Multisource monitor mixing**

*Otto Kroymann, Adlib Audio*

**17.00 Why does cinema sound quality mostly fail to realise its potential? "Some interesting results from the SMPTE's 2014 report on cinema sound systems."**

*Glenn Leembruggen, Acoustic Consultants, Australia, Philip Newell, Consultant, Spain*

**17.30 The relationship between subjective and objective response differences at different heights above cinema seating**

*Philip Newell, Consultant, Spain*

18.00 Close

## FRIDAY 13 NOVEMBER 2015

*Please book for this optional tour, transport will not be provided but delegates who are willing to car share please indicate when booking. Entrance charge £8.00*

### **Keith Harding's World of Mechanical Music Museum**

*The Oak House, High Street, Northleach, Glos GL54 3ET*

*A superb selection of instruments, all in superb conditions, presented as live entertainments by informative guides. The World of Mechanical Music is a living museum of the extraordinary variety of self-playing instruments and automata which were the pride and joy of our great grandparents, and the only kind of "canned" musical entertainment available in the home before regular broadcasting started up in 1924.*

