

REPRODUCED SOUND 2019

CREATING ENGAGEMENT IN SOUND

19-21 November 2019 – The Bristol Hotel, Princes Street, Bristol



35th ANNUAL CONFERENCE AND EXHIBITION 2019

Organised by the Electroacoustics Group of the Institute of Acoustics in collaboration with ABTT, AES, APRS & ISCE

TUESDAY 19th NOVEMBER 2019

17:00 Registration

18:30 Demonstration by Funktion One Research



Developments in digital signal processing often dominate discussion and marketing in the loudspeaker industry. Funktion One however, demonstrate that there is still much to be gained in transducer and acoustic design, having made significant advancements in recent years.

Presenting their latest technology in an informal listening session, Funktion One also welcomes participants to bring their own choice of music for auditioning.

WEDNESDAY, 20th NOVEMBER 2019

08:00 Registration and refreshments

09:00 Conference Welcome
Keith Holland, EAG Chairman

09:15 Peter Barnett Memorial Award:
Psychoacoustic quality evaluation in the
context of interactive sound and virtual
reality
Francis Rumsey, Logophon

10:30 Refreshments

SESSION 1 – ROOM ACOUSTICS AND MEASUREMENT

11:00 An acoustic and audio survey of some English churches

Peter Mapp, Peter Mapp Associates

11:30 A novel design of a free-field environment to measure loudspeaker performance

Peter Brooks, 343 Acoustics

12:00 Condenser microphones and factors that affect their sound

Hans Riekehof-Böhmer, Schoeps, Germany

12:30 Lunch

13:45 Diversity, Mark Bailey

SESSION 2 – SIGNAL PROCESSING AND AUDIO CODING

14:00 Optimal source distribution for multiple listener virtual sound imaging

Philip A Nelson, T Takeuchi, P E Couturier, ISVR, University of Southampton

14:30 A comparison of the performance of HRTF models in inverse filter design for Crosstalk Cancellation

Jacob Hollebon, Eric Hamdan, Filippo Maria Fazi, ISVR, University of Southampton

15:00 An introduction to sparse, or compressive, sampling for audio and acoustics

Jamie Angus-Whiteoak, University of Salford

15:30 Extended-band audio coding exploiting spectral-domain sampling-rate conversion with embedded ultrasonic data

Malcolm O J Hawksford, Emeritus Professor, University of Essex

16:00 Refreshments

SESSION 3 – ASSISTED LISTENING

16:30 Are we making best use of assistive hearing systems in theatres?

Ian Rees, Adrian James Acoustics

17:00 Subjective evaluation of permanently installed microphones in classrooms

Rodrigo Sanchez-Pizani, Stephen Dance, Luis Gomez-Agustina, Peter Mapp, London South Bank University

17:30 Accessible broadcast audio customisation

Lauren Ward, University of Salford

18:00 Close

18:45 Conference Reception and Dinner on board SS Great Britain

20:45 40 years of sound management at concerts and festivals

Jim Griffiths, Vangardia

THURSDAY 21st NOVEMBER

08:00 Registration and refreshments

SESSION 4 – EVENTS AND INSTALLATIONS

09:00 Keynote paper – The Royal Albert Hall, sound of the future

Daryl Prasad, Stephen Stringer, Darren McGaghan, Sandy Brown Associates

10:00 Effects of low frequency sound on the human condition: the case of Turbine Hall installation by Tania Bruguera

Richard Grove, Sero Di-Rosario, Joe McCall, BDP

10:30 A case study on sound level monitoring and management at large-scale music festivals

Adam Hill, University of Derby; Johannes Mulder, Murdoch University, Australia; Jon Burton, freelance engineer; Marcel Kok, dBcontrol, Netherlands; Alex Kociper, Gand Concert Sound, USA

11:00 Acoustic design for sport stadia and arenas

Oliver Creedy and Jim Griffiths, Vangardia

11:30 Refreshments

SESSION 5 – STI AND INTELLIGIBILITY

12:00 What we do if we didn't have STI ?

Peter Mapp, Peter Mapp Associates.

12:30 Another look at the relationship between frequency response and the speech transmission index, with respect to word scores and road tunnels

Glenn Leembruggen, Acoustic Directions, Australia

13:00 Lunch

SESSION 6 – MODELLING AND AURALISATION

14:15 A simple model of horn coverage angle.

Keith R. Holland, University of Southampton, Philip R Newell, Consultant

14:45 Modern auralization routines as design tools

Wolfgang Ahnert, ADA Acoustic Media Consultants, Germany

15:15 The transparency of binaural auralisation using very high order circular harmonics

Mark Dring, Bruce Wiggins, University of Derby

15:45 Virtual reality soundbooths for Heathrow's public consultation

Adam Thomas, Arup

16:15 Refreshments

16:45 EAG AGM

SESSION 7 – LOUDSPEAKERS

17:15 Non-minimum-phase behaviour of loudspeakers at low frequencies

Keith R. Holland, University of Southampton; Philip R Newell, Consultant

17:45 Energy efficiency in sound reinforcement

James Hipperson, Funktion One Research

18:15 Close