Reproduced Sound 2019

Creating Engagement in Sound

Proceedings of the Institute of Acoustics Volume 41 Part 3

19-21 November 2019 Bristol, United Kingdom

ISBN: 978-1-7138-0199-3

Printed from e-media with permission by:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2019) by Institute of Acoustics All rights reserved.

Printed with permission by Curran Associates, Inc. (2020)

For permission requests, please contact Institute of Acoustics at the address below.

Institute of Acoustics 3rd Floor St Peter's House 45-49 Victoria Street St. Albans, Hertfordshire AL13WZ United Kingdom

Phone: +44(0) 1727 848195 Fax: +44(0) 1727 850553

ioa@ioa.org.uk

Additional copies of this publication are available from:

Curran Associates, Inc. 57 Morehouse Lane Red Hook, NY 12571 USA Phone: 845-758-0400

Fax: 845-758-2633

Email: curran@proceedings.com Web: www.proceedings.com Peter Barnett Memorial Award

Psychoacoustic Quality Evaluation in the Context of Interactive Sound and Virtual Reality

FRANCIS RUMSEY, LOGOPHON LTD.

An Acoustic and Audio Survey of Some English Churches

PETER MAPP, PETER MAPP ASSOCIATES

Acoustic Design Criteria for Higher-Education Learning Environments

SEBASTIAN DURAN, LUDOVICO AUSIELLO, JUAN BATTANER-MORO, SOLENT UNIVERSITY SOUTHAMPTON

Condenser Microphones and Factors that Affect their Sound

HANS RIEKEHOF-BÖHMER, SCHOEPS MIKROFONE, GERMANY

Optimal Source Distribution for Multiple Listener Virtual Sound Imaging

PHILIP A. NELSON, T. TAKEUCHI AND P. E. COUTURIER, INSTITUTE OF SOUND AND VIBRATION RESEARCH, UNIVERSITY OF SOUTHAMPTON

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

An Introduction to Sparse, or Compressive, Sampling for Audio and Acoustics

JAMIE ANGUS-WHITEOAK, UNIVERSITY OF SALFORD

Extended-Band Audio Coding Exploiting Spectral-Domain Sampling-Rate Conversion with Embedded Ultrasonic Data

M. O. J. HAWKSFORD, UNIVERSITY OF ESSEX

Are we Making Best Use of Assistive Listening Systems in Theatres?

IAN REES, ADRIAN JAMES ACOUSTICS

Quality Evaluation of Microphones Used for Lecture Capture in Universities

RODRIGO SANCHEZ-PIZANI, STEPHEN DANCE, LUIS GOMEZ-AGUSTINA, PETER MAPP, LONDON SOUTH BANK UNIVERSITY

Accessible Broadcast Audio Customisation

LAUREN WARD, UNIVERSITY OF SALFORD

40 Years of Sound Management at Concerts and Festivals

JIM GRIFFITHS, D BUTTERFIELD, VANGUARDIA

Keynote paper

The Royal Albert Hall, Sound of the Future

STEPHEN STRINGER, DARREN MCGAGHRAN, SANDY BROWN ASSOCIATES; DARYL PRASAD, BURO HAPPOLD

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

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, UK; MARCEL KOK, DBCONTROL, NETHERLANDS; ALEX KOCIPER, A BERRIOS, GAND CONCERT SOUND, USA

Acoustic Design of Sport Stadia and Arenas

OLLY CREEDY, JIM GRIFFITHS, VANGUARDIA

What Would we do if we Didn't Have STI?

PETER MAPP, PETER MAPP ASSOCIATES

Another Look at the Relationships Between Frequency Response and the Speech Transmission Index, with Respect to Word Scores and Road Tunnels

GLENN LEEMBRUGGEN, ACOUSTIC DIRECTIONS, AUSTRALIA

A Simple Model of Horn Coverage Angle

KEITH R HOLLAND, UNIVERSITY OF SOUTHAMPTON; PHILIP R NEWELL, CONSULTANT, SPAIN

Modern Auralization Routines as Design Tools

WOLFGANG AHNERT, AFMG TECHNOLOGIES, GERMANY

The Transparency of Binaural Auralisation Using Very High Order Circular Harmonics

MARK DRING, BRUCE WIGGINS, UNIVERSITY OF DERBY

Non-Minimum-Phase Behaviour of Loudspeakers at Low Frequencies

KEITH R HOLLAND, UNIVERSITY OF SOUTHAMPTON; PHILIP R NEWELL, CONSULTANT, SPAIN

Energy Efficiency in Sound Reinforcement

JAMES HIPPERSON, FUNKTION ONE RESEARCH