

Institute of Acoustics

Reproduced Sound 21 2005

“Feedback to the Future”

Proceedings of the Institute of Acoustics
Volume 27, Part 5

November 4-5, 2005
Oxford, UK

Printed from e-media with permission by:

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

ISBN: 978-1-60423-993-5

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

ISBN: 978-1-60423-993-5

Copyright (2005) by the Institute of Acoustics.
All rights reserved.

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

Institute of Acoustics
Proceedings
77A St Peter's Street
St. Albans Hertfordshire
AL1 3BN
United Kingdom

ioa@ioa.org.uk

TABLE OF CONTENTS

2005 CONFERENCE ABSTRACTS.....	1
FROM SOUND LEVELS to RaSTI - THE DEVELOPMENT OF THE FIRST SOUND LEVEL METER AND THE FREQUENCY-AND TIME WEIGHTING.....	N/A
<i>P. V. Brüel</i>	
TEST SIGNALS FOR THE ASSESSMENT OF AMPLIFIED MUSIC ANNOYANCE.....	8
<i>S. Kahn</i>	
MULTICHANNEL AUDIO IN CARS.....	N/A
<i>T. Nind</i>	
A NEW GENERATION OF PERCEPTUALLY BASED SPEECH QUALITY MEASUREMENTS.....	15
<i>M. P. Hollier</i>	
PERCEPTUALLY MASKED AUDIO SUB-CHANNELS AND APPLICATIONS.....	23
<i>F. Li</i>	
EXCESS PHASE EFFECTS AND MODULATION TRANSFER FUNCTION DEGRADATION IN RELATION TO LOUDSPEAKERS AND ROOMS INTENDED FOR THE QUALITY CONTROL MONITORING OF MUSIC	31
<i>K. R. Holland</i>	
THE TIME DOMAIN PERFORMANCE OF STANDARD LISTENING ROOMS: AN ASSESSMENT OF CURRENT ROOMS AND RECOMMENDATIONS FOR ACHIEVING IMPROVED COMPATIBILITY.....	39
<i>B. M. Fazenda</i>	
A LISTENING TEST SYSTEM FOR MEASURING THE THRESHOLD OF AUDIBILITY OF TEMPORAL DECAYS.....	46
<i>A. Goldberg</i>	
TWOPOINT MODELS OF THE LOUDSPEAKER	58
<i>P. Darlington</i>	
CONE DRIVERS, SOME RECENT WORK ON CONES, SUSPENSIONS AND COOLING	66
<i>B. Howze</i>	
OPTIMISATION OF DDS-CONTROLLED LOUDSPEAKER ARRAYS USING A HYBRID PSM-BEM MODEL	77
<i>E. Start, G. van Beuningen</i>	
ABOUT THE BENEFITS OF MULTIPLE LOW FREQUENCY CARDIOIDS IN SMALL ROOMS.....	89
<i>L. Ferekidis</i>	
A BALANCED MODAL RADIATOR (BMR)	99
<i>G. Bank</i>	
CLASS A TO CLASS 1 - 50 YEARS OF THE POWER AMPLIFIER	N/A
<i>J. Stembel</i>	

A CONSULTANT'S ROLE IN AUDIO SYSTEM INSTALLATION - THE LAST 25 YEARS.....	107
<i>R. Harris</i>	
ACOUSTICAL ENHANCEMENT AND MODERN THEATRE AND MULTI-PURPOSE HALL DESIGN.....	113
<i>A. van Maurik</i>	
ACHIEVING GREAT CONCERT SOUND – LESSONS FROM THE TRENCHES	116
<i>S. Wise</i>	
IMPROVING INTELLIGIBILITY OF SURROUND SOUND USING PRINCIPAL COMPONENT DECOMPOSITION	122
<i>S. Zielinski, J. Mayne, F. Rumsey</i>	
AN INCOMPLETE AND UTTERLY UNRELIABLE REVIEW OF SPEECH INTELLIGIBILITY MEASUREMENT – 21 YEARS OF REPRODUCED SOUND & BEYOND.....	135
<i>P. Mapp</i>	
UNUSUAL BEAM-STEERED LOUDSPEAKERS OFFER HOLISTIC SOLUTIONS TO ACOUSTIC PROBLEMS IN COURTS AND PARLIAMENTS	143
<i>G. Leembruggen</i>	
EXCHANGE OF COMPLEX SOUND SOURCE DATA BASED ON A NEW FORMAT	158
<i>W. Ahnert, S. Feistel, S. Bock</i>	
APPLICATIONS OF DISTRIBUTED COMPUTING TO FINITE ELEMENT ANALYSIS IN THE AUDIO INDUSTRY	172
<i>Patrick Macey, Trevor Eward, Keith Lawrence</i>	
SPHERICAL CHICKENS AND SOUND REINFORCEMENT: HOW FOURIER RULES THE ROOST	180
<i>J. A. S. Angus,</i>	
PERFORMANCE COMPARISON OF OPTIMISED EQUALISATION TECHNIQUES FOR IN-SITU LOUDSPEAKER MEASUREMENTS	193
<i>A. Goldberg, A. Mäkivirta, G. Oy</i>	
AUTHOR INDEX	