# Table of Contents – Volume 4

## ROOM AND ARCHITECTURAL ACOUSTICS

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
<th>Session</th>
<th>Paper Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1686</td>
<td>Classroom Acoustics: Current and Future Criteria for the Assessment of Acoustics for Learning</td>
<td>Campbell, Dick; Guerra, Line; San Souci, Sooch; Teichner, Nicolas</td>
<td>Room and Architectural Acoustics</td>
<td>6794</td>
</tr>
<tr>
<td>1770</td>
<td>Comparison between In-situ Recordings and Auralizations</td>
<td>Niis, Lau; Rindei, Jens Holger; Saher, Konca</td>
<td>Room and Architectural Acoustics</td>
<td>6744</td>
</tr>
<tr>
<td>1708</td>
<td>A Computer Aided Design Method for the Dimensions of a Rectangular Enclosure to Avoid Degeneracy of Standing Waves</td>
<td>Liu, Zhi; Wu, Fan</td>
<td>Room and Architectural Acoustics</td>
<td>6740</td>
</tr>
<tr>
<td>1712</td>
<td>Influence of Ray Angle of Incidence and Complex Reflection Factor on Acoustical Simulation Results (Part II)</td>
<td>El-Saghir, Emad; Feistel, Stefan</td>
<td>Room and Architectural Acoustics</td>
<td>6737</td>
</tr>
<tr>
<td>1718</td>
<td>Koch’s Snowflake: A Case Study of Sound Scattering of Fractal Surfaces</td>
<td>Cabrera, Densil; Degos, David; Edson, Steven</td>
<td>Room and Architectural Acoustics</td>
<td>6735</td>
</tr>
<tr>
<td>1724</td>
<td>Large Scale FEM Analysis of a Studio Room</td>
<td>Ahnert, Wolfgang; Bansal, Mahesh; Feistel, Stefan</td>
<td>Room and Architectural Acoustics</td>
<td>6736</td>
</tr>
<tr>
<td>1729</td>
<td>Performance Analysis of Wave Field Simulation with the Functional Transformation Method</td>
<td>Petrausch, Stefan; Rabenstein, Rudolf</td>
<td>Room and Architectural Acoustics</td>
<td>6792</td>
</tr>
<tr>
<td>1744</td>
<td>Real Time Acoustic Rendering of Complex Environments Including Diffraction and Curved Surfaces</td>
<td>Bouatouch, Kadi; Deille, Olivier; Maillard, Julien; Martin, Jacques; Noé, Nicolas</td>
<td>Room and Architectural Acoustics</td>
<td>6743</td>
</tr>
<tr>
<td>1755</td>
<td>A Review of NFPA 72 Requirements for Emergency Communications</td>
<td>Pincus, Michael S.</td>
<td>Room and Architectural Acoustics</td>
<td>6793</td>
</tr>
</tbody>
</table>
1764 Accurate Phase Estimation for Chirp-like Signals  
Author: Betser, Michael; Collen, Patrice; Rault, Jean-Bernard  
Session: Signal Processing  
Paper Number: 6766

1772 Adaptive Filters in Wavelet Transform Domain  
Author: Balic, Vladan  
Session: Signal Processing  
Paper Number: 6716

1782 Adaptive Time-Frequency Resolution for Analysis and Processing of Audio  
Author: Lukin, Alexey; Todd, Jeremy  
Session: Signal Processing  
Paper Number: 6717

1792 Advanced Methods for Shaping Time-Frequency Areas for the Selective Mixing of Sounds  
Author: Kleczkowski, Adam; Kleczkowski, Piotr  
Session: Signal Processing  
Paper Number: 6718

1800 All Amplifiers are Analogue, but Some Amplifiers are More Analogue than Others  
Author: Groenenberg, René; Putzeys, Bruno; van der Hulst, Paul; Veltman, André  
Session: Signal Processing  
Paper Number: 6690

1812 Coherence Enhanced Minimum Statistics Spectral Subtraction in Bi-microphone Systems  
Author: Fillion-Deneault, Jonathan; Lefebvre, Roch  
Session: Signal Processing  
Paper Number: 6762

1823 Demixing Commercial Music Productions via Human-Assisted Time-Frequency Masking  
Author: Bonada, Jordi; Loscos, Alex; Vinves, Marc  
Session: Signal Processing  
Paper Number: 6719

1832 Effective Room Equalization Based on Warped Common Acoustical Poles and Zeros  
Author: Jeong, Jae-woong; Jeong, Seh-Woong; Lee, Junho; Park, Young-cheol; Youn, Dae-hee  
Session: Signal Processing  
Paper Number: 6721

1841 Efficient Out of Head Localization System for Mobile Applications  
Author: Choi, Tacksung; Park, Young-cheol; Youn, Dae-hee  
Session: Signal Processing  
Paper Number: 6758

1848 Enhanced Control of Sound Field Radiated by Co-axial Loudspeaker Systems using Digital Signal Processing Techniques  
Author: Boucher, Jean Marc; Debail, Bernard G.A.; Diquelou, Pierre Yves; Kerneis, Yvon; Shaieik, Hmaied  
Session: Signal Processing  
Paper Number: 6723
1866  Equalization of Audio Systems using Kautz Filters with Log-like Frequency Resolution
Author: Karijainen, Matti; Paatero, Tuomas
Session: Signal Processing
Paper Number: 6767

1878  Estimation of Initial States of Sigma-delta Modulators
Author: Ho, Charlotte; Ling, Bingo Wing-Kuen; Reiss, Joshua D.
Session: Signal Processing
Paper Number: 6698

1888  Estimation of Talker's Head Orientation Based on Oriented Global Coherence Field
Author: Bruti, Alessio; Omologo, Maurizio; Svaizer, Piergiorgio
Session: Signal Processing
Paper Number: 6760

1897  Filter Update Techniques for Adaptive Virtual Acoustic Imaging
Author: Kim, Youngtae; Mannerheim, Pal; Nelson, Philip A.
Session: Signal Processing
Paper Number: 6715

1909  A High Performance Open Loop All-digital Class-D Audio Power Amplifier using Zero Positioning Coding (ZePoC)
Author: Mathis, Wolfgang; Schnick, Olaf
Session: Signal Processing
Paper Number: 6695

1915  High Performance Real-time Software Asynchronous Sample Rate Converter Kernel
Author: Heeb, Thierry
Session: Signal Processing
Paper Number: 6699

1922  High Quality Blind Bandwidth Extension of Audio for Portable Player Applications
Author: Arora, Manish; Lee, Joonhyun; Park, Sangil
Session: Signal Processing
Paper Number: 6761

1928  Intensive Noise Reduction utilizing Inharmonic Frequency Analysis of GHA
Author: Kanda, Yoshihiro; Muraoka, Teruo; Ohta, Takumi; Takamizawa, Ryuji
Session: Signal Processing
Paper Number: 6725

1941  Multi-Channel Noise-Reduction-Systems for Speaker Identification in an Automotive Acoustic Environment
Author: Goetze, Stefan; Kammeyer, Karl-Dirk; Mildner, Volker
Session: Signal Processing
Paper Number: 6756

1953  A Multichannel Speech Dereverberation Technique Based Upon the Wiener Filter
Author: Boland, Frank; McCarthy, Denis
Session: Signal Processing
Paper Number: 6720
1959  Network Music Performance (NMP) in Narrow Band Networks  
Author: Caré, Alexander; Krämer, Ulrich; Schuller, Gerald  
Session: Signal Processing  
Paper Number: 6724

1968  Optimisation of Co-centred Rigid and Open Spherical Microphone Arrays  
Author: Jin, Craig; Parthy, Athava; van Schaik, Andre  
Session: Signal Processing  
Paper Number: 6764

1974  Parametric Recursive Higher-Order Shelving Filters  
Author: Holters, Martin; Zöbler, Udo  
Session: Signal Processing  
Paper Number: 6722

1980  A Psychoacoustic Noise Reduction Approach for Stereo Hands-Free Systems  
Author: Goetze, Stefan; Kammeyer, Karl-Dirk; Mildner, Volker  
Session: Signal Processing  
Paper Number: 6759

1990  PWM Amplifier Control Loops with Minimum Aliasing Distortion  
Author: Neesgaard, Claus; Risbo, Lars  
Session: Signal Processing  
Paper Number: 6765

2006  Review and Discussion on Classical STFT-based Frequency Estimators  
Author: Betser, Michel; Collen, Patrice; David, Bertrand; Richard, Gaël  
Session: Signal Processing  
Paper Number: 6692

2016  Second Generation Intelligent Class D Amplifier Controller Integrated Circuit Enables both Low Cost and High Performance Amplifier Designs  
Author: Andersen, Jack; Chien, Daniel; Harris, Steven; Klaas, Jeff; Kost, Michael; Taylor, Skip  
Session: Signal Processing  
Paper Number: 6765

2044  SigmaStudio. A User Friendly, Intuitive and Expandable, Graphical Development Environment for Audio/DSP Applications  
Author: Chavez, Miguel A.; Huin, Camille  
Session: Signal Processing  
Paper Number: 6714

2052  Simple, Ultralow Distortion Digital Pulse Width Modulator  
Author: Putzeys, Bruno  
Session: Signal Processing  
Paper Number: 6694

2061  Sound Field Analysis Based on Generalized Prolate Spheroidal Wave Sequences  
Author: Grenier, Yves; Guillaume, Mathieu  
Session: Signal Processing  
Paper Number: 6763
2068  A Three Level Trellis Noise Shaping Converter for Class D Amplifiers
Author: Ausiello, Ludovico; Rovatti, Riccardo; Setti, Gianluca
Session: Signal Processing
Paper Number: 6696

2072  Towards an Ideal Switching (Class-D) Power Amplifier: How to Control the Flow of Power in a Switching Power Circuit
Author: Esslinger, Rolf; Jurzitza, Dieter
Session: Signal Processing
Paper Number: 6691

SPATIAL PERCEPTION AND PROCESSING

2099  Audibility of Spectral Differences in Head-Related Transfer Functions
Author: Faundez Hoffmann, Pablo; Møller, Henrik
Session: Spatial Perception and Processing
Paper Number: 6652

2107  Aurally Motivated Analysis for Scattered Sound in Auditoria
Author: Jaramillo, Ana M.; Norris, Molly K.; Xiang, Ning
Session: Spatial Perception and Processing
Paper Number: 6651

2125  Comprehensive Analysis of Loudspeaker Span Effects on Crosstalk Cancellation in Spatial Sound Reproduction
Author: Bai, Mingsian R.; Lee, Chih-Chung
Session: Spatial Perception and Processing
Paper Number: 6701

2139  Directional Audio Coding: Filterbank and STFT-based Design
Author: Faller, Christof; Pulkki, Ville
Session: Spatial Perception and Processing
Paper Number: 6658

2151  The Effect of Audio Compression Techniques on Binaural Audio Rendering
Author: Katz, Brian F.G.; Prezat, Fabien
Session: Spatial Perception and Processing
Paper Number: 6704

2159  Evaluation of a 3D-Audio System with Head Tracking
Author: Minnaar, Paul; Pedersen, Jan Abildgaard
Session: Spatial Perception and Processing
Paper Number: 6654

2175  Investigating Spatial Audio Coding Cues for Meeting Audio Segmentation
Author: Burnett, Ian; Cheng, Eva; Ritz, Christian
Session: Spatial Perception and Processing
Paper Number: 6703

2187  Looking for a Relevant Similarity Criterion for HRTF Clustering: A Comparative Study
Author: Bondu, Alexis; Busson, Sylvain; Lemaire, Vincent; Nicol, Rozenn
Session: Spatial Perception and Processing
Paper Number: 6653
2201 A New Approach for Direct Interaction with Graphical Representations of Room Impulse Responses for the Use in Wave Field Synthesis Reproduction  
Author: de Vries, Diemer; Langhammer, Jan; Melchior, Frank  
Session: Spatial Perception and Processing  
Paper Number: 6657

2211 A Perceptual Measure for Assessing and Removing Reverberation from Audio Signals  
Author: Buchholz, Joerg; Hatziantoniou, Panagiotis; Mouriopoulos, John; Zarouchas, Thomas  
Session: Spatial Perception and Processing  
Paper Number: 6702

2219 Sound Source Obstruction in an Interactive 3Dimensional MPEG-4 Environment  
Author: Reiter, Ulrich; Steglich, Beatrix  
Session: Spatial Perception and Processing  
Paper Number: 6705

2227 Spatial Sound Localization Model Using Neural Network  
Author: Correa, Rafael; Floody, Sergio; Lara, Marcelo; Venegas, Rodolfo  
Session: Spatial Perception and Processing  
Paper Number: 6650

2248 Visualization of Perceptual Parameters in Interactive User Interfaces: Application to the Control of Sound Spatialization  
Author: Delerue, Olivier  
Session: Spatial Perception and Processing  
Paper Number: 6656