Papers in Presentation Order

Sunday, June 9, 2013

7:45 Registration
Keynote 1
Chair: Person 1

8:30 - P070. Harold Marshall, The acoustical design of the Christchurch Town Hall

Design and Existing Halls
Chair: Person 2

9:20 - P002. Leo Beranek, Concert hall design: some considerations
9:40 - P122. Andreas Wagner, Juergen Reinhold, Bolshoi Theatre, Moscow, Russian Federation: The secrets of the acoustical reconstruction
10:00 - P028. Magne Skålevik, Certainties and uncertainties from using a selection of data to predict concert hall preference
10:20 - P045. Takayuki Hidaka, An earthquake and a concert hall

10:40 Coffee and Posters

Rating Ambient Noise in Performing Arts Spaces
Chair: Lily Wang

11:20 - P119. Robert Essert, Why silence?
11:40 - P115. Scott Pfeiffer, Anticipating the challenges of modern mechanical system approaches in low-noise design
12:00 - P068. Lily Wang, Brent Kraay, Rating low levels of ambient noise in performing arts facilities

12:40 – Lunch and Posters

Keynote 2
Chair: Person 4

13:40 - P074. Eckhard Kahle, Room acoustical quality of concert halls: perceptual factors and acoustic criteria - return from experience

Room Acoustic Quality: A Multidimensional Concept
Chairs: Stefan Weinzierl and Tapio Lokki

14:30 - P073. Pamela Clements, Orchestral performance practice and the perception of acoustic quality in concert halls
14:50 - P019. Antti Kuusinen, Tapio Lokki, Individual differences in quality judgments and preferences of concert hall acoustics

15:10 - P124. Hans-Joachim Maempel, Jentsch Matthias, Audio-visual interaction of size and distance perception in concert halls: a preliminary study

15:30 - P127. Shin-ichi Sato, Alejandro Bidondo, Yuezhe Zhao, Suoxian Wu, Nicoli Prodi, Effect of Acoustic and Visual Stimuli on Preference for Different Seating Positions in a Concert Hall and an Opera Theater

15:40 Coffee and Posters

16:30 - P103. Anders Christian Gade, Subjective and objective measures of relevance for the description of acoustics conditions on orchestra stages

16:50 - P086. Zora Schärer Kalkandjiev, Stefan Weinzierl, Room acoustics viewed from the stage: Solo performers’ adjustments to the acoustical environment

17:10 - P030. Densil Cabrera, Manuj Yadav, Luis Jofre Miranda, Ralph Collins, William L. Martens, The sound of one's own voice in auditoria and other rooms

Monday, June 10, 2013

Keynote 3
Chair: Person 6

8:30 - P110. Michael Vorländer, Simulation and evaluation of acoustic environments

Design Fundamentals
Chair: Person 7

9:20 - P012. David Griesinger, Optimizing loudness, clarity, and engagement in large and small spaces


10:00 - P046. Jukka Pätynen, Sakari Tervo, Tapio Lokki, Binaural dynamic responsiveness in concert halls

10:20 - P067. Matthew G. Blevins, Adam T. Buck, Zhao Peng, Lily M. Wang, Quantifying the just noticeable difference of reverberation time with band-limited noise centered around 1000 Hz using a transformed up-down adaptive method

10:40 Coffee and Posters

ISO3382-1 and Auditorium Design (Part 1)
Chair: Michael Barron

11:20 - P056. Mike Barron, Assessment of numerical data from ISO3382

11:40 - P089. Oskar Lindfors, Jukka Ahonen, Henrik Möller, Strength measurements with in-situ reference
12:00 - P016. Wolfgang Ahnert, Tobias Behrens, Acoustic measurements in a theatre during the performance

12:20 - P078. Hyung Suk Jang, Jin Yong Jeon, Evaluation of the absorption by the orchestra in concert halls using scale models and computer simulations

12:40 Lunch and Posters

Keynote 4
Chair: Person 9

13:40 - P040. Tapio Lokki, Throw away that standard and listen: your two ears work better

ISO3382-1 and Auditorium Design (Part 2)
Chair: Michael Barron

14:30 - P010. Claus Lynge Christensen, Georgious Koutsouris, Jens Holger Rindel, The ISO 3382 parameters: Can we simulate them? Can we measure them?

14:50 - P096. Margriet Lautenbach, Martijn Vercammen, Stage Acoustics, ISO 3382 and beyond

Geometrical Acoustics Revisited - Traditional and NURB based Reflector Optimisation Design
Chairs: Eckhard Kahle and John O’Keefe

15:10 - P108. Alban Bassuet, David Rife, Lucas Dellatorre, Acoustical design through optimization

15:30 - P095. John O Keefe, Payam Ashtiani, David Grant, A new software tool to facilitate NURB based geometries in acoustic design

15:50 Coffee and Posters

16:30 - P042. Tomas Mendez Echenagucia, Arianna Astolfi, Mario Sassone, Louena Shtrepi, Arthur Van Der Harten, Interactive design methods for complex curved reflectors in concert halls

16:50 - P064. Yann Jurkiewicz, Thomas Wulfrank, Eckhard Kahle, How far should the geometry of a concert hall be optimized?

17:10 - P112. Thomas Scelo, Simon Yu, Integration of acoustics in parametric architectural design

Tuesday, June 10, 2013
Objective and Subjective Aspects of Scattering Surfaces in Performance Spaces
Chairs: Jin Yong Jeon, Roberto Pompoli and Michelle Vigeant

9:00 - P063. Toshiki Hanyu, Method for estimating diffuseness of sound fields by using decay-cancelled impulse responses
9:20 - P035. **Louena Shtrepi, Sönke Pelzer, Renzo Vitale, Arianna Astolfi, Monika Rychtáriková**, Subjective assessment of scattered sound in a virtual acoustical environment simulated with three different algorithms

9:40 - P039. **Aki Haapaniemi, Alex Southern, Tapio Lokki**, A finite-difference time-domain investigation of reflections from layered wall structures

10:00 - P014. **Markus Müller-Trapet, Michael Vorländer**, In-situ measurements of surface reflection properties

10:20 - P077. **Jin Yong Jeon, Hyung Suk Jang, Yong Hee Kim, Michael Vorländer**, Subjective and objective evaluations of scattered sounds in concert halls

11:20 - P009. **David T. Bradley, Markus Müller-Trapet, Jacob Adelgren, Michael Vorländer**, Comparison of hanging panels and boundary diffusers in a reverberation chamber

11:40 - P033. **Tetsuya Sakuma, Hyojin Lee**, Recent topics in acoustic scattering coefficient determination for wall surfaces

12:00 - P013. **Evan Green**, Systematic spatial variations of objective measures in a 1:25 scale model rectangular concert Hall with variable scattering

12:20 - **Akira Omoto, Kohta Sugiura**, Visualization and evaluation of reflections inside an enclosed space using sound intensity measurement

12:40 Lunch

13:40 Special Lecture-Demonstration Session

*Jukka Pätynen, Sakari Tervo, and Tapio Lokki*, Using the loudspeaker orchestra to better understand concert halls - design, implementation, recordings in concert halls, and playback and analysis in the laboratory

15:40 Conference closing

**Posters - Sunday**

Chair:

P071. **Niels Adelman-Larsen**, New On/Off absorption technology that includes low frequencies

P121. **Juergen Reinhold, Andreas Wagner**, Nuovo Teatro dell'Opera, Florence, Italy: Innovative solutions for a seemingly traditional auditorium

P104. **Iara Cunha, Roberta Smiderle, Stelamaris Bertoli**, Influence of sound reinforcement system on acoustical performance in a Catholic Church

P107. **Hoshi Kazuma, Hiroyuki Okubo, Jun Kanda, Takumi Asakura, Atsushi Marui**, A study to establish benchmarks for acoustical parameters derived from impulse responses
P085. Vishnu Thozhur Koller, Menino Allan S. M. Peter Tavares, An acoustical inquiry into the 'Koothambalam' as an evolving form of a performance space

P048. Young-Ji Choi, Dae-Up Jeong, John Bradley, The effects of occupancy on theatre chair absorption characteristics

P062. Roger Schwenke, Steve Ellison, Pierre Germain, Active acoustics in physically variable spaces

P114. David Kahn, Acoustical design of concert halls with small seating capacities

P076. Suyatno Suyatno, Harijono A. Tjokronegoro, IGN Merthayasa, The effects of stage layout in 'Pendopo Isi Solo' hall on acoustics parameters of Javanese Gamelan instruments

P087. Ingo Witew, Dietrich Pascal, Sönke Pelzer, Michael Vorländer, Comparison of strategies to model spatial fluctuations of room acoustic single number quantities

P113. Bård Støfringsdal, Desired room acoustical response for amplified music

P051. Ayumi Ishikawa, Takane Terashima, Yasunobu Tokunaga, A basic study on possibility to improve stage acoustics by active method


P082. Lamberto Tronchin, Andrea Venturi, Angelo Farina, Amendola Alberto, Implementing a spherical microphone array to determine 3-D sound propagation in the 'Teatro 1763' in Bologna, Italy

P057. Jeremy Rouch, Isabelle Schmich-Yamane, Marie-Annick Galland, Under-balcony acoustics improvement with simple electro-acoustic means: A Theoretical development and numerical simulations

P050. Martin Guski, Michael Vorländer, Noise compensation methods for room acoustical parameter evaluation

P049. Sakari Tervo, Jukka Päätynen, Philip W. Robinson, Lokki Tapio, Spatial analysis of concert hall impulse responses

P088. Remy Wenmaekers, Constant Hak, Early and Late Support measured over various distances: the covered versus open part of the orchestra pit

P005. Carlos Jiménez Dianderas, Comparison of the acoustical behaviour of colonial churches of three architectural styles in Peru

P080. Hansol Lim, Hyung Suk Jang, Yong Hee Kim, Jin Yong Jeon, Effects of stage volume on concert hall acoustics as a design element
P032. Luis Jofre Miranda, Densil Cabrera, Ken Stewart, Nicolas Epain, Craig Jin, A concentric source-receiver transducer and its applications in stage measurements

P043. Tomas Mendez Echenagucia, Arianna Astolfi, Mario Sassone, Louena Shtrepi, Arthur Van Der Harten, EDT, C80 and G driven auditorium design

P020. Massimo Garai, Simona De Cesaris, Dario D. Orazio, Spatial distribution of monaural acoustical descriptors in historical Italian theatres

P022. Cerdá Salvador, Segura Jaume, Giménez Alicia, Cibrián Rosa, Montell Radha, Sound quality maps of halls for classical music

P017. Daniel Protheroe, Bernard Guillemin, 3-D impulse response measurements of spaces using an inexpensive tetrahedral microphone array

P128. Tor Halmrast, When source is also receiver

**Posters - Monday**

Chair:

P125. Keiji Kawai, Kosuke Kato, Ueno Kanako, Tetsuya Sakuma, Experiment on adjustment of piano performance to room acoustics: Analysis of performance coded into MIDI data

P116. Kazuma Hoshi, Toshiki Hanyu, Theoretical modeling of room shape for ray tracing simulation

P123. Matthew Lella, Andrea Tocchini, Refinements in raytracing technique for room shaping

P111. Yong Hee Kim, Yoshiharu Soeta, Design of diffusive surfaces for improving the sound quality of underground stations

P100. Thomas Wulfrank, Yann Jurkiewicz, Eckhard Kahle, Design-focused acoustic analysis of curved geometries using a differential raytracing technique

P120. Paul Luizard, Catherine Guastavino, Brian F.G. Katz, Perception of reverberation in coupled volumes: discrimination and suitability

P099. Thibaut Carpentier, Markus Noisternig, Olivier Warusfel, Parametric control of convolution based room simulators

P097. Thineshan Kathirchelvan, Prasanth Nair, Shape Optimization using NURBS Definition of Acoustic Reflectors

P081. Chun Ki Seo, Jin Yong Jeon, Acoustical design of Sejong M-theater with cubic diffusers

P117. Anne Guthrie, Terence Caulkins, Sam Clapp, Jonas Braasch, Ning Xiang, Using Ambisonics for stage acoustics research
P083. Sönke Pelzer, Dirk Schröder, Lukas Aspöck, Michael Vorländer, Interactive real-time simulation and auralization for modifiable rooms

P044. Milos Markovic, Søren Krarup Olesen, Dorte Hammershøi, Room acoustics modelling using a point-cloud representation of the room geometry

P092. Constant Hak, Remy Wenmaekers, Room in room acoustics: Using convolutions to find the impact of a listening room on recording acoustics

P065. Shinichiro Koyanagi, Takayuki Hidaka, Toshiyuki Okano, The error analysis and correction of the reflection calculation for the FDTD method

P038. Philip W. Robinson, Samuel Siltanen, Tapio Lokki, Lauri Savioja, Concert hall geometry optimization with parametric modeling tools and wave-based acoustic simulations

P090. Remy Wenmaekers, Rick de Vos, Constant Hak, Binaural sound exposure to the direct sound of one's own musical instrument

P079. Ho Cheul Park, Young Sun Kim, Yong Hee Kim, Jin Yong Jeon, Preferred Acoustical Conditions for Musicians on Stage with Orchestra shell in multi-purpose halls

P055. Wieslaw Woszczyk, Jonathan Abel, Doyuen Ko, Travis Skare, Jonathan Hong, Recreation of the acoustics of Hagia Sophia in Stanford's Bing Concert Hall for the concert performance of Cappella Romana

P053. Uwe Stephenson, The effects of scattering surfaces on the reverberation Time and Flutter Echoes in rectangular rooms

P036. Louena Shtrepi, Arianna Astolfi, Monika Rychtáriková, Influence of a volume scale factor on the scattering coefficient effects for the prediction of room acoustic parameters

P054. Rob Opdam, Diemer de Vries, Michael Vorländer, Locally or non-locally reacting boundaries: Does it make a significant acoustic difference?

P126. Marco Palma, Maddealena Sarroto, Tomas Mendez Echenagucia, Mario Sassone, Arianna Astolfi, Sound strength driven parametric design of an acoustic shell in a free field environment

P037. Hyun-Kyung Joo, Dae-up Jeong, Subjective evaluation of reverberation with a non-exponential sound decay

P018. Young-Ji Choi, An optimum combination of absorptive and diffusing treatments for classroom acoustic design

P031. Dae-Up Jeong, JeongSu Kim, Young-Ji Choi, The subjective effect of random-incidence scattering coefficients

P021. Alan Boyd, William Whitmer, Michael Akeroyd, Recording and analysis of head movements, interaural level and time differences in rooms and real-world listening scenarios
P011. David Griesinger, Physiologically based measures of clarity and engagement

P006. Alejandro Bidondo, Neuroacoustics: Study on the perception of stereo reverberant sound field at the cortical level