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INTER-NOISE 2018 – Plenary, Keynote and Technical Sessions

Papers are listed by Day, Morning/Afternoon, Session Number and Order of Presentation
Select the underlined text ([in18 xxxx.pdf](#)) to link to paper

Papers without links are available from the
American Society of Mechanical Engineers (ASME) -
Noise Control and Acoustics Division (NCAD)

Sunday – 26 August, 2018

Opening Plenary: Barry Marshall Gibbs
Session Chair: Stuart Bolton,
Room: Chicago D and E

16:00 [in18 4002.pdf](#) *Structure-Borne Sound in Buildings: Application of Vibro-Acoustic Methods for Measurement and Prediction1*
Barry Marshall Gibbs, University of Liverpool

Monday Morning – 27 August, 2018

Keynote: Jean-Louis Guyader
Session Chair: Steffen Marburg
Room: Chicago D

08:00 [in18 5001.pdf](#) *Building Optimal Vibro-Acoustics Models From Measured Responses26*
Jean-Louis Guyader, LVA/INSA de Lyon; Michael Ruzek, LAMCOS INSA de Lyon;
Charles Pezerat, LAUM Universite du Maine

Keynote: Amiya R. Mohanty
Session Chair: Bob Bernhard
Room: Chicago E

08:00 [in18 5002.pdf](#) *Acoustic Materials for Industrial Noise Control35*
Amiya R. Mohanty, Indian Institute of Technology, Kharagpur

Monday Morning

Session Number 1.2 - Acoustic Materials - Acoustic Metamaterials

Session Chairs: Sebastian Ghinet, James Manimala

Room: Chicago G

- 09:00 [in18_1701.pdf](#) ***Bilayer Membrane-Type Metamaterials Transmission Loss Carry Different Masses47***
Tuo Xing, Beijing Municipal Institute of Labor Protection; Xian-Hui Li, Beijing Municipal Institute of Labor Protection
- 09:20 [in18_2229.pdf](#) ***Acoustic Metasurface Harvester56***
Huy Nguyen, University of Missouri-Columbia
- 09:40 [in18_1368.pdf](#) ***Anomalous Diffusion in Acoustic Phononic Crystals65***
Salvatore Buonocore, University of Notre Dame; Mihir Sen, University of Notre Dame; Fabio Semperlotti, Purdue University
- 10:00 [in18_1836.pdf](#) ***Distorting an Impulse Wave with Phononic Metamaterials - a Scale Model Study74***
Michelle Swearingen, US Army ERDC; Jason Dorvee, US Army ERDC; Donald Albert, US Army ERDC; Michael Muhlestein, US Army ERDC; Megan Kreiger, US Army ERDC; James O'Daniel, US Army ERDC
- 10:20 [in18_1448.pdf](#) ***Effective Medium Representation of Periodic Designs Based on a Semi-Analytical Approach81***
Laetitia Roux, NAVAL GROUP, Ollioules / UNSW, Sydney; Christian Audoly, Naval Group Research, Toulon-Ollioules, France; Anne-Christine Hladky, IEMN (Institut d'Électronique, de Microélectronique et de Nanotechnologies), ISEN Department, UMR 8520 CNRS (National Center for Scientific Research), Lille, France; Nicole Kessissoglou, School of Mechanical and Manufacturing Engineering, University of New South Wales, Sydney, Australia
- 11:00 [in18_1851.pdf](#) ***Study of Vibration Absorption Characteristics of Membrane-Type Resonators with Varying Membrane Configurations93***
Cong Gao, University of Nottingham Ningbo China; Dunant Halim, University of Nottingham Ningbo China; Chris Rudd, University of Nottingham Ningbo China
- 11:20 [in18_1704.pdf](#) ***Experimental Analyses of Membrane-Type Acoustic Metamaterials with Tunable Properties by a Compact Magnetic-Iron103***
Junjuan Zhao, Beijing Municipal Institute of Labor Protection; Yueyue Wang, Beijing Municipal Institute of Labor Protection
- 11:40 [in18_2320.pdf](#) ***Broadband Membrane-Type Acoustic Metamaterials with Polymorphic Anti-Resonance Modes and Experimental Verification108***
Guojian Zhou, Gissing Tech. Co. Ltd.; Jiu Hui Wu, Xi'an Jiaotong University; Xiujie Tian, Gissing Tech. Co., Ltd.; Jian Shen, Gissing Tech. Co., Ltd.; Wei Huang, Gissing Tech. Co., Ltd.; Keda Zhu, Gissing Tech. Co., Ltd.
- 12:00 [in18_2288.pdf](#) ***Control of Sound Directivity Based on Metamaterials118***
Xiaozhou Liu, Key Laboratory of Modern Acoustics, Ministry of Education, Institute of Acoustics and School of Physics, Collaborative Innovation Center of Advanced Microstructures, Nanjing University; Jiehui Liu, Key Laboratory of Modern Acoustics, Ministry of Education, Institute of Acoustics and School of Physics, Collaborative Innovation Center of Advanced Microstructures, Nanjing University,

- 12:20 [in18_2080.pdf](#) ***Design and Demonstration of Acoustic Bends with Metamaterials126***
Jun Yang, Institute of Acoustics; Han Jia, Institute of Acoustics, Chinese Academy of Sciences; Wenjia Lu, Institute of Acoustics, Chinese Academy of Sciences; Jun Yang, Institute of Acoustics, Chinese Academy of Sciences

**Session Number 2.1 - Active Control of Sound and Vibration - Advances in
Session Chairs: Jing Lu, Yangfan Liu**

Room: Clark

- 09:00 [in18_1739.pdf](#) ***On the Frequency-Independence of Interior Radiation Modes using Coupled Modes Theory134***
Christian Hesse, German Aerospace Center (DLR); Hans Peter Monner, German Aerospace Center (DLR)
- 09:20 [in18_1649.pdf](#) ***Theory on the Use of Potential Energy Modes in Active Noise Control of a Small Region with Acoustic Sensors and Impedance Boundary Conditions143***
Yangfan Liu, Purdue University; Jiawei Liu, Purdue University; J. Stuart Bolton, Purdue University
- 09:40 [in18_1953.pdf](#) ***Optimization of Exciter Arrangement to Improve Beamforming Performance of Multi-Actuator Panels with Low-Damping Loss Factor153***
Onyu Jeon, Gwangju Institute of Science and Technology (GIST); Homin Ryu, Gwangju Institute of Science and Technology (GIST); Semyung Wang, Gwangju Institute of Science and Technology (GIST)
- 10:20 [in18_2083.pdf](#) ***Active Vibration Control System using Membrane Piezo-Electric Ceramics for Steel Staircases159***
Hitoshi Matsushita, Takenaka corporation
- 10:40 [in18_2180.pdf](#) ***Reducing Noise Leakage Problem of Open-Fit Hearing Aid using Active Noise Cancellation166***
Chung Ying Ho, National Central University; Kuo Kai Shyu, National Central University, Taiwan; Cheng Yuan Chang, Chung Yuan Christian University, Taiwan; Sen M. Kuo, Chung Yuan Christian University, Taiwan
- 11:00 [in18_2315.pdf](#) ***An Investigation into the Nonlinear Vibration Response of a Beam: PZT Stack and Proof-Mass System176***
Xishan Jiang, Zhejiang University; Jie Pan, University of Western Australia
- 11:20 [in18_1425.pdf](#) ***Ship Vibration and Noise Test Verification Based on Statistical Energy Analysis Method183***
Xuhong Miao, Harbin Engineering University; Yuhui Li, Harbin Engineering University; Fuzhen Pang, Harbin Engineering University; Xueren Wang, Harbin Engineering University
- 11:40 [in18_1427.pdf](#) ***Establishing Error Sensing Strategy by using Pseudo-Uniform Structure Quantity for the Active Rib Stiffened Double-Panel Structure192***
Xiyue Ma, Northwestern Polytechnical University; Kean Chen, Northwestern Polytechnical University/Electric Power Research Institute; Jian Xu, Northwestern Polytechnical University; Bing Zhou, Electric Power Research Institute

**Session Number 3.1 - Aircraft Noise - Advances in
Session Chairs: Hirokazu Ishii,**

Room: Chicago B

- 09:00 **ASME NCAD** ***The Role of Castellations on Pipe Jet Noise201***
R Anureka, Indian Institute of Technology Madras; Srinivasan K, Indian Institute of Technology Madras
- 09:20 [in18_1386.pdf](#) ***Noise Reduction and Aerodynamics of Airfoils with Porous Trailing Edges207***
Thomas Geyer, BTU Cottbus - Senftenberg; Ennes Sarradj, TU Berlin
- 09:40 [in18_1691.pdf](#) ***Experimental Study on Noise Characteristics and Evaluation of Small Ducted Fan217***
Takuya Kuranaga, Course of mechanical engineering, Graduate school of Hosei university; Gaku Minorikawa, Course of mechanical engineering, Graduate school of Hosei university; Takufumi Nakano, Course of mechanical engineering, Graduate school of Hosei university
- 10:20 [in18_1606.pdf](#) ***Reduction of Impinging Noise Issued from Non-Circular Orifices226***
Kabilan Baskaran, Indian institute of technology Madras; Abhijit Dhamanekar, Aircraft Development Agency, India; Srinivasan K, IIT Madras
- 10:40 [in18_1510.pdf](#) ***Cabin Noise Measurements with Microphone Arrays and Sound Intensity Probes232***
Daniel Ernst, German Aerospace Center (DLR); Carsten Spehr, German Aerospace Center (DLR); Dirk Döbler, GFal e.V.

Session Number 3.5 - Aircraft Noise - Airport Noise

Session Chairs: Idar Granoien, Shinohara Naoaki

Room: Chicago B

- 11:00 [in18_1991.pdf](#) ***Noise Measures for the Enhancement of Airport Function at Narita International Airport242***
Saburo Ogata, Narita International Airport Corporation; Daisuke Imai, Narita International Airport Corporation; Shinji Hori, Narita International Airport Corporation; Kazuya Tamaki, Narita International Airport Corporation
- 11:20 [in18_1793.pdf](#) ***Effectiveness of Noise Abatement Measures by using Restriction of Reverse Thrust and Noise Embankment on the Side of Runway252***
Naoaki Shinohara, Airport Environment Improvement Foundation; Toshiyasu Nakazawa, Airport Environment Improvement Foundation; Yasuaki Kawase, Narita International Airport Promotion Foundation; Takatoshi Yokota, Kobayasi Institute of Physical Research; Kazuya Tamaki, Narita Airport Corporation
- 11:40 [in18_1820.pdf](#) ***Noise Indicators for Aircraft Noise Monitoring in Vietnam262***
Thu Lan Nguyen, Shimane University; Takashi Yano, Kumamoto University; Ichiro Yamada, Airport Environment Improvement Foundation; Masaharu Ohya, RION CO.,LTD.; Koichi Makino, Kobayasi Institute of Physical Research; Thi Thanh Vu, Civil Aviation Authority of Vietnam

**Session Number 5.2 - Building and Architectural Acoustics - Impact and Structureborne Noise
in Buildings**

Session Chairs: Berndt Zeitler, Matthew Golden and Yong-Joe Kim

Room: Chicago D

- 09:00 [in18_1279.pdf](#) ***Minimum Structural Floor Stiffness for Floating Floor Applications274***
Angela Waters, Kinetics Noise Control; Richard Sherren, Kinetics Noise Control
- 09:20 [in18_1433.pdf](#) ***Prediction of Heavy Weight Drops on Resilient Sports Floors in Existing Buildings282***
Matthew Golden, Pliteq; Paul Gartenburg, Pliteq
- 09:40 [in18_1441.pdf](#) ***Lightweight Floating Floor Innovations in Gym/Sports Applications290***
Kathryn Katsiroumpas, CDM; Patrick Carels, CDM; Hamid Masoumi, CDM; Jonas Salkauskis, CDM
- 10:20 [in18_1778.pdf](#) ***Description and Calibration of the ISO Tapping Machine in Numerical Impact Sound Predictive Tools300***
Cheng Qian, University of Quebec in Chicoutimi; Juan Negreira, Lund University; Delphine Bard, Lund University; Sylvain Ménard, University of Quebec in Chicoutimi
- 10:40 [in18_1703.pdf](#) ***Experimental Study on the Reduction Performance of Floor Impact Sound according to Reduction Method of Floor Structure Layers in Aged-Apartment310***
Cho Hyun-Min, University of Seoul; Kim Sin-Tae, University of Seoul; Kim Myung-Jun, University of Seoul
- 11:00 [in18_1538.pdf](#) ***Numerical Prediction of Impact Sound in Dwellings from Low to High Frequencies316***
Pengchao Wang, Structural Mechanics Section, Department of Civil Engineering, KU Leuven; Cédric Van Hoorickx, Structural Mechanics Section, Department of Civil Engineering, KU Leuven; Arne Dijckmans, Structural Mechanics Section, Department of Civil Engineering, KU Leuven; Geert Lombaert, Structural Mechanics Section, Department of Civil Engineering, KU Leuven; Edwin Reynders, Structural Mechanics Section, Department of Civil Engineering, KU Leuven
- 11:20 [in18_2213.pdf](#) ***Evaluation of Receiving Room Diffusivity and the Effect on Low Frequency Impact Insulation Class328***
Andrew Barnard, Michigan Technological University; Sunit Girdhar, Michigan Technological University; Miles Penhale, Michigan Technological University; Carey Widder, GrassWorx, LLC
- 11:40 [in18_1533.pdf](#) ***Modal Sampling Technique on Reception Plate to Characterize Structure-Borne Sound Source340***
Berndt Zeitler, University of Applied Sciences Stuttgart; Steffi Reinhold, University of Applied Sciences Stuttgart, University of Liverpool; André Jakob, Beuth University of Applied Sciences Berlin; Carl Hopkins, University of Liverpool
- 12:00 [in18_1444.pdf](#) ***Acoustic Studies of Glacier, Karst and Lava Caves350***
Janusz Piechowicz, AGH University of Science and Technology; Dorota Czopek, AGH University of Science and Technology; Pawel Malecki, AGH University of Science and Technology; Jerzy Wiciak, AGH University of Science and Technology

Monday Morning

Session Number 5.4 - Building and Architectural Acoustics - HVAC Equipment and System Noise

Session Chairs: Paul Bauch, Erik Miller-Klein

Room: Chicago F

- 09:20 [in18_1867.pdf](#) **Noise Transmission from a Small, Hermetic, Reciprocating Compressor357**
John Cunsolo, Penn State University; Timothy Brungart, Applied Research Laboratory, Penn State University; Stephen Hambric, Applied Research Laboratory, Penn State University
- 09:40 [in18_1963.pdf](#) **Vibration Isolation of Fans in HVAC Equipment371**
Curtis Eichelberger, Johnson Controls; Paul Bauch, Johnson Controls
- 10:00 [in18_2138.pdf](#) **Rooftop HVAC Unit Mega Duct Attenuator380**
Jim Borzym, Borzym Acoustics LLC
- 10:40 [in18_1636.pdf](#) **Analysis of Air conditioner Sound Quality Based on Electrical Components392**
Byoung-ha Ahn, LG Electronics; Daekyu Lim, LG Electronics; Sunhwa Park, LG Electronics
- 11:00 [in18_2212.pdf](#) **Experimental and Numerical Investigation into Flow and Noise Performances of Pipe Flow Driven by Centrifugal Ice-Making Fan in Household Refrigerator401**
Mijeong Shin, Pusan National University; Cheolung Cheong, Pusan National University; Tae-Hoon Kim, LG Electronics; Sang-Tae Kim, LG Electronics
- 11:20 [in18_2049.pdf](#) **Effect of Reflections on HVAC Systems Power-Based Acoustic Simulation410**
Mina Nashed, Group for Advanced Research in Dynamic Systems (ASU-GARDS), Ain Shams University; Tamer Elnady, Group for Advanced Research in Dynamic Systems (ASU-GARDS), Ain Shams University, 1 Elsarayat St., Abbaseya 11517, Cairo, Egypt.; Mats Åbom, Marcus Wallenberg Laboratory for Sound and Vibration Research, The Royal Institute of Technology (KTH), Teknikringen 8, 10044 Stockholm, Sweden.

Session Number 5.6 - Building and Architectural Acoustics - Building Acoustics Measurement

Session Chairs: Jeanette Hesedahl, Bruce Lachey

Room: Chicago E

- 09:00 [in18_2222.pdf](#) **A Statistical Method for Parameter Estimation from Schroeder Decay Curves420**
Hanna Autio, Lund University; Delphine Bard, Lund University
- 09:20 [in18_2163.pdf](#) **Assessing Noise Levels in University of Sharjah Classrooms using Measurements and Predictive Models431**
Hussein Elmehdi, University of Sharjah
- 09:40 [in18_1443.pdf](#) **Building Interior Noise and Vibration Isolation Measurement437**
Tungchen Chung, US Sound & Vibration Institute
- 10:00 [in18_1998.pdf](#) **Acoustic Measurements of Duct and Duct Liner Materials451**
Kevin Herreman, Owens Corning; Corey Taylor, Owens Corning
- 10:40 [in18_2166.pdf](#) **Field Measurements of a Demising Wall using an Intumescent Deflection Track and Exposed Concrete Ceiling459**
Christopher Hoying, Geiler & Associates
- 11:00 [in18_1891.pdf](#) **In-Situ Acoustic Absorption of a Living Green Wall465**
Anna Romanova, University of Greenwich; Kirill V. Horoshenkov, University of Sheffield

- 11:20 **ASME NCAD** *Experimental Study on Sound Insulation Performance of Partition Walls Joined to Steel Beams471*
Tomohiro Oda, Obayashi Corp. Technical Research Institute; Yasuhito Fujisawa, Obayashi Corp. Technical Research Institute; Mitsutoshi Watanabe, Obayashi Corp. Technical Research Institute
- 12:00 [in18_1732.pdf](#) *Sound Field Acquiring and Reproducing System for Auditorium Acoustics479*
Akira Omoto, Kyushu University

**Session Number 7.1 - Community Noise - Advances in
Session Chairs: Trond Maag, Margit Bonacker**

Room: Chicago A

- 09:00 [in18_2082.pdf](#) *New Strategies for Sound in the Public Realm: Integrating a Publicly-Controlled Sound Installation in an Active City Square488*
Sven Anderson, Dublin Institute of Technology
- 09:20 [in18_1856.pdf](#) *"Everyday Quiet Areas": What They Mean and How They Can be Integrated in Noise Action Plans500*
Antonella Radicchi, Technical University
- 09:40 [in18_1873.pdf](#) *Key Elements Related to Context and Morphology for the Acoustic Design of Urban Environments509*
Arnthrudur Gísladóttir, Aarhus University; Trond Maag, urbanidentity; Lea Louise Holst Laursen, Aalborg University; Poul Henning Kirkegaard, Aarhus University
- 10:00 [in18_1590.pdf](#) *Can Participatory Experience Performances Co-Crete Qualification and Design of Audible Public Realm?518*
Trond Maag, Federal Office for the Environment; Rikke Munck Petersen, University of Copenhagen
- 10:20 [in18_2281.pdf](#) *Avoiding Neighbors Complaints because of Construction Site Noise529*
Margit Bonacker, Konsalt

**Session Number 7.2 - Community Noise - Urban Sound Planning
Session Chairs: Luigi Maffei, Dick Botteldooren**

Room: Chicago A

- 11:00 [in18_1498.pdf](#) *Objective And Subjective Assessment of Pockets of Quiet Inside Historical Urban Areas533*
Luigi Maffei, University of Campania "Luigi Vanvitelli"; Roxana Adina Toma, University of Campania "Luigi Vanvitelli"; Massimiliano Masullo, University of Campania "Luigi Vanvitelli"
- 11:20 [in18_1935.pdf](#) *Sounds in the City: Differences in Urban Noise Management Strategies across Cities541*
Christopher Trudeau, McGill University; Daniel Steele, McGill University; Romain Dumoulin, McGill University; Catherine Guastavino, McGill University
- 11:40 [in18_1628.pdf](#) *Screening Noise Analysis with Preliminary Building Project Information551*
Mark Storm, AECOM
- 12:00 [in18_1927.pdf](#) *Early Stage Sound Planning in Urban Re-Development: The Antwerp Case Study560*
Dick Botteldooren, Ghent University; Luc Dekoninck, Ghent University; Camille Meeussen, Ghent University; Timothy Van Renterghem, Ghent University

Monday Morning

Session Number 9.3 - Flow Induced Noise and Vibration - Experiments

Session Chairs: Carsten Spehr,

Room: Bellmont

- 09:00 [in18_1610.pdf](#) ***Acoustic Characteristics of High Speed Jets With an Offset Plate568***
Harinath Reddy Nakkala, Indian Institute of Technology Madras; Srinivasan K, Professor, Department of Mechanical Engineering, Indian Institute of Technology Madras, Chennai
- 09:20 [in18_1546.pdf](#) ***Extreme Value Statistics of Flow Induced Noise and Vibration575***
Connor Mccluskey, Applied Research Laboratory; Stephen Conlon, Applied Research Laboratory; Manton Guers, Applied Research Laboratory
- 09:40 [in18_1494.pdf](#) ***Optical Visualization of Sound Source of Edge Tone using Parallel Phase-Shifting Interferometry585***
Risako Tanigawa, Waseda University; Kenji Ishikawa, Waseda University; Kohei Yatabe, Waseda University; Yasuhiro Oikawa, Waseda University; Takashi Onuma, Photron Limited; Hayato Niwa, Photron Limited
- 10:00 [in18_1613.pdf](#) ***Overview of Recent Flow Induced Sound and Vibration Experimental Works at Groupe d'Acoustique de l'Universite de Sherbrooke594***
Olivier Robin, Groupe d'Acoustique de l'Université de Sherbrooke; Alain Berry, Groupe d'Acoustique de l'Université de Sherbrooke - Sherbrooke - Canada
- 10:40 [in18_1397.pdf](#) ***Measurement and Mode Analysis of Flow Induced Noise Radiated from Forward- and Back-Step with Combined Proper Orthogonal Decomposition Analysis604***
Osamu Terashima, Toyama Prefectural University
- 11:00 [in18_1284.pdf](#) ***Blower's Pulsation Dampener using Reactive Silencers614***
Paul Liang, B&W Universal
- 11:20 [in18_1547.pdf](#) ***Low Wavenumber Pressure Content of Turbulent Boundary Layer Flows620***
Richard Dejong, Calvin College; Paul Bootsma, Calvin College; Kurtis DeVries, Calvin College; Steven Sorenson, Toyota NA Technical Center

Session Number 11.2 - Industrial Noise - Mufflers and Silencers

Session Chairs: Mats Abom, Tamer Elnady

Room: Los Angeles

- 09:00 [in18_1702.pdf](#) ***Optimal Design of a Muffler for Reliable Noise Attenuation in Case of Uncertainty of Noise Source629***
Jong Kyeom Lee, Ajou university; Jin Woo Lee, Ajou university
- 09:20 [in18_1328.pdf](#) ***Analysis of Baffle Leakage in a High Attenuation Exhaust Muffler636***
Jean-Michel Coulon, University of Sherbrooke; Nouredine Atalla, University of Sherbrooke
- 09:40 [in18_1480.pdf](#) ***Modeling Acoustic Resonators with Higher-Order Equivalent Circuits646***
Caleb Goates, Brigham Young University; Scott D. Sommerfeldt, Brigham Young University; David C. Copley, Caterpillar, Inc.
- 10:00 **ASME NCAD** ***Experimental Analysis of Whistle Noise in a Particle Agglomeration Pipe655***
Zhe Zhang, KTH Royal Institute of Technology; Heiki Tiikoja, KTH Royal Institute of Technology; Mats Åbom, KTH Royal Institute of Technology; Hans Bodén, KTH Royal Institute of Technology

Monday Morning

- 10:20 [in18_1612.pdf](#) **Acoustic Analysis of Extended Inlet / Extended Outlet Concentric Tube Resonator using Green's Function663**
Veerababu Dharanalakota, Indian Institute of Technology Hyderabad;
Venkatesham Balide, Indian Institute of Technology Hyderabad
- 11:00 [in18_1579.pdf](#) **Experimental Study on the Performance of the Bladder Type Hydraulic Muffler672**
Zhuang Wang, China Ship Development and Design Center
- 11:20 [in18_1290.pdf](#) **Reciprocating Engine Exhaust Dynamics682**
Elden Ray, B&W Universal Inc.
- 11:40 [in18_1812.pdf](#) **Technological Advancements of Syntactic Foam Liners for use in Hydraulic Noise Suppression691**
Nathaniel Pedigo, Georgia Institute of Technology; Kenneth A.

Session Number 11.4 - Industrial Noise - Simulation

Session Chairs: David Copley, Xin Hua

Room: Los Angeles

- 15:20 [in18_1292.pdf](#) **A First Generation Earthmoving Machine Sound Simulator and its Potential Use in Product Sound Development699**
David Copley, Caterpillar Inc.
- 15:40 [in18_1405.pdf](#) **Sound Field Calculations of a Diesel Generator with Enclosure by Finite Element Analysis710**
Ersen Arslan, FIGES; Mehmet Çalışkan, Middle East Technical University; Caglar Uyulan, Bulent Ecevit University
- 16:00 [in18_1301.pdf](#) **Application of Blind Source Separation in Industrial Noise Prediction and Control720**
Wei Yang, Ngee Ann Polytechnic; Tiao Joo Kwee, Ngee Ann Polytechnic; Cheong Siong Chin, Newcastle University; Wai Lok Woo, Newcastle University; Sajin Saju, Ngee Ann Polytechnic
- 16:20 [in18_2317.pdf](#) **Simulation of Transformer Noise Controlling Based on an Equivalent Sound Source Model732**
Xuan Cai, State Grid Hubei Electric Power Research Institute; Xuelei Zhan, State Grid Hubei Electric Power CO., LTD.; Na Wei, Hainakede (Hubei) Technology Co. Ltd.; Yong Cai, State Grid Hubei Electric Power CO., LTD.; Dakun Li, Wuhan University of Technology.
- 16:40 [in18_1640.pdf](#) **Engineering Way to Improve Accuracy of Noise Prediction for Industrial Plants by Field Noise Measurement Outcome740**
Takahiro Hida, JGC Corporation
- 17:00 [in18_1280.pdf](#) **Vibration Assessment on Plant Blower Structure747**
Zamri Mohamed, Fakulti Kejuruteraan Mekanikal, Univ Malaysia Pahang; CK Eddy Nizwan CK Hussin, Fakulti Kejuruteraan Mekanikal, Univ Malaysia Pahang; Mohd Razali Hanipah, Fakulti Kejuruteraan Mekanikal, Univ Malaysia Pahang

**Session Number 14.1 - Numerical Methods and Simulation - Advances in
Session Chairs: Steffen Marburg, Tim Wu, Chandramouli Padmanabhan, and Chad Musser**

Room: Addison

- 09:00 [in18_1456.pdf](#) ***Numerically Solving the Biot Equations for Sound Absorbing Materials Using a Wave Expansion Method757***
Ciarán O'Reilly, KTH Royal Institute of Technology; Olivier Dazel, Laboratoire d'Acoustique de l'Universita du Maine, Le Mans, France; Gwendal Gabard, Laboratoire d'Acoustique de l'Universita du Maine, Le Mans, France
- 09:20 **ASME NCAD** ***Vibration Analysis of Laminated Composite Rectangular Plates with General Boundary Conditions769***
Yu Fu, Harbin Engineering University; Jianjun Yao, Harbin Engineering University; Zhenshuai Wan, Harbin Engineering University; Gang Zhao, Harbin Engineering University
- 09:40 [in18_1618.pdf](#) ***Free Vibration Analysis of Arbitrary Triangular Laminated Composite Plates with General Boundary Conditions779***
Lu Yanming, Harbin Engineering University; Liu Tao, Harbin Engineering University
- 10:00 [in18_1298.pdf](#) ***Research on Optimization Algorithm of Bidirectional Evolutionary Structure Based on Stiffness Optimization789***
Xiaoyan Teng, Harbin Engineering University; BingKun Mao, Harbin Engineering University; HeTao Zhao, Harbin Engineering University; XuDong Jiang, Harbin University of Science and Technology
- 10:40 **ASME NCAD** ***Overview of Structural-Acoustic Modal Analysis under Random Loading798***
Shung H. (Sue) Sung, SHS Consulting, LLC; Donald J. Nefske, DJN Consulting, LLC
- 11:00 [in18_1769.pdf](#) ***A Study of the Frequency and Shape Dependency of Acoustic Radiation Modes803***
Jiawei Liu, Cummins Inc; Yangfan Liu, Purdue University; J. Stuart Bolton, Purdue University
- 11:20 [in18_1797.pdf](#) ***Application of the Energy Based Finite Element Method for Acoustic Calculations in the High Frequency Range811***
Boris Dilba, Novicos GmbH; Otto von Estorff, Novicos GmbH; Henning Lohmann, Novicos GmbH; Olgierd Zaleski, Novicos GmbH
- 11:40 [in18_2148.pdf](#) ***Prediction of Radiated Noise Generated by Compact Acoustic Sources and Vibrating Systems818***
Abderrazak Mejdi, 1974; Bryce Gardner, ESI-group; Chad Musser, ESI-group

Session Number 15.3 - Railroad Noise - Noise and Vibration Mitigation Measures

Session Chairs: Scott Edwards, Herb Singleton

Room: Denver

- 09:00 [in18_2093.pdf](#) ***Noise Control of a Diesel Locomotive For Indian Railways827***
Amiya Mohanty, IIT KHARAGPUR; Shahab Fatima, IIT Delhi
- 09:20 [in18_2115.pdf](#) ***Predicting Light-Rail Groundborne Noise and Vibration from Tunnels837***
Shannon Mckenna, ATS Consulting; Christopher Layman, ATS Consulting
- 09:40 [in18_1843.pdf](#) ***Elastic Components for Reduction of Vibrations in Railway Superstructure844***
Harald Steger, Getzner, Inc.; Andreas Denk, Getzner Inc.

- 10:00 [in18_2309.pdf](#) ***Life Cycle Assessment of Ground Borne Vibration Mitigation Strategies using Subgrade Stiffening, Soft-Filled Barriers and Open Trenches851***
Sakdirat Kaewunruen, University of Birmingham; Panrawee Rungskulroch, University of Birmingham; Victor Martin, University of Birmingham
- 10:20 [in18_2092.pdf](#) ***Vibration Isolators Made of Expanded Cork Agglomerate859***
Sara Dias, ITeCons - UC; António Tadeu, ITeCons - UC - ADAI - LAETA; Julieta António, ITeCons - UC - ADAI - LAETA; Filipe Pedro, ITeCons; Catarina Serra, ITeCons
- 11:00 [in18_1684.pdf](#) ***Analysis of Vibration Mitigation Effect of Steel Spring Floating Slab Track Soaked in Water864***
Teng Li, Beijing Jiuzhouyigui Shock & Vibration Isolation Co.LTD; Danqun Fang, US Sound & Vibration Institute
- 11:20 [in18_2311.pdf](#) ***The Effect of Climate Change on Service Life and Cost Investigation of Rail Turnouts with Various Mitigation Methods871***
Sakdirat Kaewunruen, University of Birmingham; Serdar Dindar, University of Birmingham
- 11:40 [in18_1680.pdf](#) ***Rail Roughness Monitoring in a Test Section using Tuned Rail Damper to Control Rail Corrugation Growth882***
Hougui Zhang, Beijing Jiuzhouyigui Shock&Vibration Isolation Technology Co.,Ltd; Danqun Fang, US Sound & Vibration Institute

Session Number 17.1 - Soundscape and Noise Management - Health and Quality of Life

Session Chairs: Irene van Kamp, Andre Fiebig

Room: Chicago C

- 09:00 [in18_2118.pdf](#) ***A Research on Sound Events that are Easy to be Recalled by People - An Analysis of Questionnaire that is Conducted in the Coursework of Acoustics893***
Takeshi Akita, Tokyo Denki University
- 09:20 [in18_1602.pdf](#) ***Soundscape Design for Management of Behavioral Disorders: A Pilot Study among Nursing Home Residents with Dementia899***
Paul Devos, Ghent University; Francesco Aletta, Ghent University; Tara Vander Mynsbrugge, Artevelde University College; Pieter Thomas, Ghent University; Karlo Filipan, Ghent University; Mirko Petrovic, Ghent University; Patricia De Vriendt, Artevelde University College; Dominique Van de Velde, Artevelde University College; Dick Botteldooren, Ghent University
- 09:40 [in18_2178.pdf](#) ***Study on the Anti-Noise Design of Child Care Center - Cases Study of Child Care Centers in Westwood, Los Angeles907***
Mengxi Gao, School of Architecture, Tianjin University; Zaisheng Hong, School of Architecture, Tianjin University; Yiqian Yuan, School of Architecture, Tianjin University; Jiangwei Kong, School of Architecture, Tianjin University
- 10:20 [in18_2009.pdf](#) ***The Restorative Environmental Sounds Perceived by Children919***
Hui Ma, Tianjin University, China; Shan Shu, School of Architecture, Tianjin University
- 10:40 **ASME NCAD** ***Sound Emission Level in Spinning Classes and the Influence in the Health of Teachers928***
Hetty Lobo, Universidade de Brasília; Israel Zica, Centro Universitário de Brasília; Samuel Abdelmur, Centro Universitário de Brasília; Felipe Dinato, Universidade

Monday Morning

- de Brasília; José Lobo, Implante de Acústica; Clarice Daga, Universidade de Brasília; Carlos Luna, Universidade de Brasília
- 11:00 [in18_2016.pdf](#) ***Reliability of Wrist-Worn Sensors for Measuring Physiological Responses in Soundscape Assessments935***
 Bhan Lam, Nanyang Technological University; Joo Young Hong, Nanyang Technological University; Zhen Ting Ong, Nanyang Technological University; Woon-Seng Gan, Nanyang Technological University

Session Number 17.3 - Soundscape and Noise Management - Psychoacoustic Evaluation of Environmental Noise / Soundscape

Session Chairs: Patricia Davies, Andre Fiebig

Room: Chicago C

- 11:20 [in18_1340.pdf](#) ***Hoover Dam: an Example Focusing Soundscape Contextual Sensations, Realizations and Thought945***
 Wade Bray, HEAD acoustics, Inc.
- 11:40 [in18_2068.pdf](#) ***Environment of Railway Station by Field Measurement and Subjective Experiment957***
 Hyojin Lee, I. I. S., the Univ. of Tokyo; Akiko Sugahara, Grad. school, the Univ. of Tokyo; Shinichi Sakamoto, I. I. S., the Univ. of Tokyo; Yoshiki Ikeda, East Japan Railway Co.
- 12:00 [in18_1698.pdf](#) ***A Psychoacoustic Approach to Playground Construction in a School Area966***
 M. Ercan Altinsoy, Technische Universitaet Dresden

Session Number 18.1 - Tire and Road Noise - Advances in

Session Chairs: Ulf Sandberg, Tyler Dare and Paul Donavan

Room: Armitage

- 09:00 [in18_1857.pdf](#) ***Spectral Analysis of the Acoustical Performance of Winter Tires for Different Road Textures, Test Speeds and Tire State-of-Wear973***
 Tiago Vieira, VTI; Ulf Sandberg, VTI
- 09:20 [in18_2169.pdf](#) ***NordTyre - Noise Reduction Potential in Nordic Countries by Introduction of EU Tyre Label984***
 Rasmus Stahlfest Holck Skov, DELTA a part of FORCE Technology; Hans Bendtsen, Danish Road Directorate; Ulf Sandberg, Swedish National Road and Transport Research Institute (VTI)
- 09:40 [in18_1474.pdf](#) ***A Comparison Between Modal and Wave Propagation Models for Simulation of Tire-Pavement Interaction Noise996***
 Sterling McBride, Virginia Tech; Ricardo Burdisso, Virginia Tech; Corina Sandu, Virginia Tech
- 10:00 [in18_2206.pdf](#) ***A Study of Groove Pulsation Noise Reduction by Simple Aerodynamic Modelling of a Tire Rolling on Porous Pavement1006***
 Masao Ishihama, Kanagawa University; Kosuke Miyoshi, Isuzu Motor
- 10:40 [in18_1639.pdf](#) ***Input Power Estimation to Tire due to Tire-Road Interference for Tire and/or Road Labeling1014***
 Toru Yamazaki, Kanagawa University; Kaito Sawada, Graduate School of Kanagawa University; Hiroki Nakamura, Kanagawa University; Atsushi Kitahara, Bridgestone

- 11:00 [in18_1559.pdf](#) **Diagnosis of Tire Vibration Noise Based on a Smart Tire System1026**
Yan Wang, Tsinghua University; Yintao Wei, Tsinghua University
- 11:20 [in18_1837.pdf](#) **Developing Evaluation Model of Tire Pattern Impact Noise1037**
Wataru Takahashi, Doshisha University; Nobutaka Tsujiuchi, Doshisha University; Akihito Ito, Doshisha University; Hamiyu Seki, Doshisha University; Kazumasa Hosomi, Toyo Tire & Rubber Co., Ltd., Japan
- 11:40 [in18_2108.pdf](#) **An Image Based Computational Model to Predict Air Pumping Noise in Rolling Tires1049**
Shivashish Gupta, INDIAN INSTITUTE OF TECHNOLOGY, KANPUR; Madhav Londhe, INDIAN INSTITUTE OF TECHNOLOGY, KANPUR; Sharad Goyal, CEAT Limited, Halol, Gujarat, India; Chirag Patel, CEAT Limited, Halol, Gujarat, India; Nachiketa Tiwari, INDIAN INSTITUTE OF TECHNOLOGY, KANPUR
- 12:00 [in18_1501.pdf](#) **Models of Tire-Road Contact Deformation and Cavity Acoustics for Rolling Resistance and Road Noise1058**
Masao Ishihama, Kanagawa University; Keisuke Matsumoto, Kanagawa Institute of Technology; Kosuke Miyoshi, Kanagawa Institute of Technology; Isoharu Nishiguchi, Kanagawa Institute of Technology

Session Number 22.1 - Vibro-Acoustics - Advances in

Session Chairs: Li Cheng,

Room: Chicago H

- 09:00 [in18_1395.pdf](#) **Experimental and Numerical Study on the Acoustic Mapping and Radiation Force Quantification of Focused Ultrasound Transducers1070**
Songmao Chen, University of Massachusetts Lowell; Alessandro Sabato, University of Massachusetts Lowell; Christopher Niezrecki, University of Massachusetts Lowell; Peter Avitabile, University of Massachusetts Lowell
- 09:20 [in18_1354.pdf](#) **Solid-State Thermoacoustics1080**
Haitian Hao, Purdue University; Carlo Scalo, Purdue University; Mihir Sen, University of Notre Dame; Fabio Semperlotti, Purdue University
- 09:40 [in18_2105.pdf](#) **Stop Band Analytical Design for Flexural Waves in Periodic Continuously Corrugated Beam1088**
Adrien Pelat, Le Mans University; Thomas Gallot, Universidad de la República de Uruguay; François Gautier, Le Mans Université
- 10:20 [in18_1459.pdf](#) **Multi-Mode Interactions in a Nonlinear Structural-Acoustic Cylindrical Waveguide1094**
Biswajit Bharat, Indian Institute of Science; Venkata Sonti, Indian Institute of Science
- 10:40 [in18_1591.pdf](#) **Low and Medium Frequency Noise Reduction inside an Acoustic Cavity using De-Tuned Slit and Multi-Slit Resonators1106**
V S N Reddi Chintapalli, VIGNANS INSTITUTE OF INFORMATION TECHNOLOGY; V V Gopal Rao Lokireddy, VIGNANS INSTITUTE OF INFORMATION TECHNOLOGY
- 11:00 [in18_1570.pdf](#) **Coupled Structural Acoustics of Constrained Semi-Infinite Plate under Line Harmonic Forcing1117**
Jaykumar Atulbhai Bhalodia, IIT Madras; Abhijit Sarkar, IIT Madras

Monday Morning

Session Number 22.2 - Vibro-Acoustics - Acoustic Black Holes

Session Chairs: Steve Conlon,

Room: Chicago H

- 11:20 [in18_1861.pdf](#) ***Studies on Vibration Energy Harvesting Using a Cantilever Beam with a Modified Acoustic Black Hole Cavity1123***
Chenhui Zhao, Stevens Institute of Technology; MG Prasad, Stevens Institute of Technology
- 11:40 [in18_1475.pdf](#) ***Optimal Design and Position Of An Embedded One-Dimensional Acoustic Black Hole1130***
Cameron McCormick, Penn State Graduate Program in Acoustics; Micah Shepherd, Penn State Graduate Program in Acoustics
- 12:00 [in18_1912.pdf](#) ***Numerical Analysis of Wave Propagation in Functionally Graded 1-D Acoustic Black Hole via Viscoelastic Local Interaction Simulation Approach1140***
Wei Huang, Nanjing University of Aeronautics and Astronautics; University of Michigan; Hui Zhang, University of Michigan; Hongli Ji, Nanjing University of Aeronautics and Astronautics; Carlos Cesnik, University of Michigan; Jinhao Qiu, Nanjing University of Aeronautics and Astronautics; Daniel Inman, University of Michigan

Monday Afternoon – 27 August, 2018

Session Number 1.4 - Acoustic Materials - Porous Materials Measurement and Modeling

Session Chairs: Olivier Robin, Jennifer Shaw

Room: Chicago G

- 13:40 [in18_1600.pdf](#) ***Notes on the Sound Field above a Porous Material1152***
Raffaele Dragonetti, University of Naples Federico II, Department of Industrial Engineering; Marialuisa Napolitano, University of Naples Federico II, Department of Industrial Engineering; Rosario Romano, University of Naples Federico II, Department of Industrial Engineering
- 14:00 [in18_2110.pdf](#) ***Study on Loosely-Supported Technique for Controlling Elastic Behavior of Test Samples in an Impedance Tube Measurement1161***
Masateru Kimura, Brüel & Kjær Japan; Toshikazu Satoh, Brüel & Kjær Japan; Michiyuki Yamaguchi, M.Y. Acoustech, Japan; Jason Kunio, Brüel & Kjær Sound & Vibration Measurement A/S; Edward Green, Brüel & Kjær Global Engineering Services
- 14:20 ASME NCAD ***SLaTCoW (Spatial Laplace Transform for COMplex Wavenumber recovery) Method for Frequency Complex Wavenumber Dispersion Relation Recovery1172***
Alan Geslain, ISAT; L. Schwan, Laboratoire d'Acoustique de l'Université du Maine, CNRS, UMR-6613 CNRS); J.-P. GROBY, Laboratoire d'Acoustique de l'Université du Maine, CNRS, UMR-6613 CNRS); V. Romero-Garcia, Laboratoire d'Acoustique de l'Université du Maine, CNRS, UMR-6613 CNRS); P. Leclaire, DRIVE EA1859, Univ. Bourgogne Franche Comté; A. El-Hafidi, DRIVE EA1859, Univ. Bourgogne Franche Comté

- 14:40 [in18_2318.pdf](#) ***Experimental Analysis of the Dispersion in the Measurement of the Absorption Coefficient with the Impedance Tube1177***
Bruno Neto, Embraer SA; Israe Pereira, Embraer SA; Sideto Futatsugi, Embraer SA; Paulo Mareze, Federal University of Santa Maria; Eric Brandão, Federal University of Santa Maria; William Fonseca, Federal University of Santa Maria
- 15:00 [in18_1762.pdf](#) ***Experimental Modelling of High Transmission Loss Layered Materials via Transfer Matrix Method1188***
John Anton, Bruel & Kjaer; Ed Green, Bruel & Kjaer
- 15:40 [in18_1745.pdf](#) ***A Spectral Method for Fast Broadband Insertion Loss Modeling of Curved Sound Packages: Correlation with Poroelastic Finite Elements1197***
Corentin Coguenanff, CSTB; Arnaud Duval, TREVES; Mickael Goret, TREVES
- 16:00 [in18_2112.pdf](#) ***Comparison of Bulk Property Measurement Methods Using Impedance Tube1209***
Masateru Kimura, Brüel & Kjær Japan; Jason Kunio, Brüel & Kjær Sound & Vibration Measurements A/S; Edward Green, Brüel & Kjær Global Engineering Services
- 16:20 [in18_1534.pdf](#) ***A Self-Consistent Approach for the Acoustical Modeling of Vegetal Wools1221***
Clément Piegay, Cerema; Philippe Glé, Cerema Est / Strasbourg laboratory; Emmanuel Gourdon, Université de Lyon / Entpe; Etienne Gourlay, Cerema Est / Strasbourg laboratory
- 16:40 [in18_2219.pdf](#) ***Sound Absorption Predictions of Multiple Layer Porous Materials and Test Validations1229***
Zheng Yu, United Technology Company
- 17:00 [in18_1868.pdf](#) ***Perforated Materials with Periodically Distributed Annular Cavities for Low Frequency Acoustic Absorption1241***
Thomas Dupont, École de Technologie Supérieure - Université du Québec; Philippe Leclaire, ISAT - DRIVE EA 1859, France; Olga Umnova, University of Salford, UK; Raymond Panneton, University of Sherbrooke, Canada
- 17:20 [in18_1791.pdf](#) ***Comparison with Acoustic Impedance Measurement Results of Cardioid Microphones and Other Probes1251***
Kazuma Hoshi, Nihon University; Toshiki Hanyu, Nihon University
- 17:40 [in18_1775.pdf](#) ***Sound-Absorbing Materials using of Rice Straws (Oblique Incident Sound-Absorption Coefficient of Oblique Arrangement of Hollow Cylindrical Biomass)1257***
Shuichi Sakamoto, Niigata University; Taisei Tsurumaki, Graduate Student, Niigata University; Kohei Fujisawa, Graduate Student, Niigata University; Koki Yamamiya, Graduate Student, Niigata University

Session Number 2.3 - Active Control of Sound and Vibration - Algorithms for Active Control and Speech Enhancement

Session Chairs: Jing Lu, Yangfan Liu

Room: Clark

- 13:40 **ASME NCAD** ***Direction-of-Arrival Dependency of Active Noise Cancellation Headphones1270***
Stefan Liebich, RWTH Aachen University; Jan-Gerrit Richter, RWTH Aachen University; Johannes Fabry, RWTH Aachen University; Christopher Durand, RWTH Aachen University; Janina Fels, RWTH Aachen University; Peter Jax, RWTH Aachen University

- 14:00 [in18_1976.pdf](#) **Reference Weighted Filtered-x LMS Algorithm for Active Control of Impulsive Noise1280**
Rushikesh Dhakad, University of Cincinnati; Guo Long, University of Cincinnati; Tao Feng, University of Cincinnati; Teik Lim, University of Texas at Arlington
- 14:20 [in18_1603.pdf](#) **Kalman Filter Based Active Noise Control Algorithm with Simultaneous Transfer Function Modeling1288**
Kai Chen, Nanjing University; Jing Lu, Nanjing University

Session Number 3.2 - Aircraft Noise - Interior Noise

Session Chairs: Sebastian Ghinet, Sven Reimer

Room: Chicago F

- 16:20 [in18_2099.pdf](#) **Prediction of Sound Transmission in Aircraft over the Mid and High Frequency Range1297**
Gerard Borello, InterAC
- 16:40 **ASME NCAD** **Sound Quality of Aircraft Cabin for VIP and Business Jets1307**
Nurkan Turkdogru Gurun, 3M; Hemang Sheth, 3M
- 17:00 [in18_2034.pdf](#) **Noise Reduction of a Vacuum-Assisted Toilet1314**
Michael Rose, Brigham Young University; Dagan Pielstick, Brigham Young University; Zach Jones, Brigham Young University; Kent Gee, Brigham Young University; Scott Thomson, Brigham Young University; Scott Sommerfeldt, Brigham Young University

Session Number 3.5 (continued) - Aircraft Noise - Airport Noise

Session Chairs: Idar Granoien, Shinohara Naoaki

Room: Chicago B

- 13:40 [in18_1632.pdf](#) **Air Traffic Management and Noise1324**
Mats Åbom, KTH-The Marcus Wallenberg Laboratory for Sound and Vibration Research; Karl Bolin, KTH-Centre for Sustainable Aviation; Pernilla Ulfvengren, KTH-Centre for Sustainable Aviation
- 14:00 [in18_1604.pdf](#) **Performance Based Navigation (PBN) as a Noise Abatement Tool1331**
Jan Anders Marheim, Avinor AS; Paal Hengebol, Avinor AS; Michael James Newman, Avinor AS
- 14:20 [in18_2079.pdf](#) **A Study on Aircraft Noise Compensation Criteria of the Environmental Impact Assessment in the Vicinity of the Airports1340**
Junhyeok Woo, Yonsei University; Hyun Sup Kim, Yonsei University; JongWon Son, Yonsei University; Sang Kyu Park, Yonsei University
- 14:40 [in18_1842.pdf](#) **Single Aircraft Pass-By: Modelling Relevant Noise at Ground1350**
Peter Houtave, Acoustic Technologies; Jean-Pierre Clairbois, Acoustic Technologies
- 15:20 [in18_1924.pdf](#) **Rotorcraft Noise Prediction Using JAXA's DREAMS Database of Meteorological Effects on Noise Propagation1357**
Hirokazu Ishii, Japan Aerospace Exploration Agency; Takatoshi Yokota, Kobayasi Institute of Physical Research; Koichi Makino, Kobayasi Institute of Physical Research; Toshio Matsumoto, Kobayasi Institute of Physical Research

- 15:40 [in18_1523.pdf](#) **Noise Sharing at ITAMI1366**
Yoshiyasu Yukawa, Kansai Airports; Kenji Matsubara, Kansai Airports
- 16:00 [in18_1929.pdf](#) **Noise-Related Charges and the Aircrafts' Noise Performance of the Major Airports6254**
Toru Takahashi, Airport Environment Improvement Foundation; Naoaki Shinohara, Airport Environment Improvement Foundation
- 16:20 [in18_1733.pdf](#) **Aircraft Type Identification for Jet Airplanes by Convolutional Neural Network1375**
Makoto Morinaga, DFEIA; Junichi Mori, Defense Facilities Environment Improvement Association; Ippei Yamamoto, Defense Facilities Environment Improvement Association; Takanori Matsui, Osaka University; Yasuaki Kawase, Narita International Airport Promotion Foundation; Kazuyuki Hanaka, Narita International Airport Promotion Foundation
- 16:40 [in18_1747.pdf](#) **Relevance of Buildings in Aircraft Noise Predictions1382**
Felix Schlatter, Empa, Laboratory for Acoustics/Noise Control|Acoustics/Noise Control; Micha Köpfler, n-sphere; Jean-Marc Wunderli, Empa, Laboratory for Acoustics/Noise Control|Acoustics/Noise Control

Session Number 5.12 - Building and Architectural Acoustics - Measurement Methods

Session Chairs: John Davy, Carolina Monteiro

Room: Chicago E

- 13:40 [in18_1790.pdf](#) **Acoustic Quality Evaluation of Voice Booths Using 1/3rd Octave Band Frequency Response1392**
Carolina Monteiro, Harmonia Acústica; Marcel Borin, Harmonia Acústica; Vito Romanelli, Harmonia Acústica
- 14:00 [in18_1872.pdf](#) **Study Case on the Acoustic Quality of Classrooms in Brazil1401**
André Raeder, Harmonia Acústica; Marcel Borin, Harmonia Acústica; Marcela Nakasato, Harmonia Acústica; Marcos Holtz, Harmonia Acústica
- 14:20 [in18_1966.pdf](#) **The New Acoustic Design Challenges in Active Learning Classrooms1407**
Shiva Hadavi, Concordia University; Joonhee Lee, Concordia University
- 14:40 [in18_2223.pdf](#) **Acoustically Conserving the Worship Heritage of Nossa Senhora De Penha De Franca Church, Goa1413**
Menino Allan Tavares, Heritage Acoustics; António P. O. Carvalho, University of Porto, Faculty of Engineering, Laboratory of Acoustics; Buland Shukla, Heritage Acoustics
- 15:20 [in18_1392.pdf](#) **Look ~ Do You See The Noise Leaking Through That Ceiling?1423**
Gary Madaras, Rockfon
- 15:40 [in18_1388.pdf](#) **SonicLQ: An Acoustic Method for Locating and Sizing Air Leaks in Building Envelopes1433**
Ralph Muehleisen, Argonne National Laboratory; Kanthasamy Chelliah, Argonne National Laboratory
- 16:00 [in18_1349.pdf](#) **Laboratory Measurement of Aerodynamic Noise Emitted from Cladding and External Components of Buildings1440**
Kiyoshi Masuda, Taisei Corporation; Ryu Tomitaka, Taisei Corporation; Yukiko Hamada, Taisei Corporation
- 16:20 [in18_1638.pdf](#) **Review and Comparison of ASTM and ISO Standards on Sound Transmission in Buildings1448**
Christoph Hoeller, National Research Council of Canada

Monday Afternoon

- 16:40 [in18_2007.pdf](#) ***Gauge Repeatability and Reproducibility Study of Airborne and Impact Insulation of Floor-Ceiling Assemblies1458***
Wayland Dong, Veneklasen Associates; John LoVerde, Veneklasen Associates
- 17:00 [in18_1771.pdf](#) ***A Study on In-Situ Method of Measuring Acoustic Properties of Materials by using a Parametric Loudspeaker - Reduction of Pseudo Sound due to High Pressure Ultrasound1469***
Akiko Sugahara, the University of Tokyo; Hyojin Lee, Institute of Industrial Science, the University of Tokyo; Shinichi Sakamoto, Institute of Industrial Science, the University of Tokyo; Shigeto Takeoka, Shizuoka Institute of Science and Technology

Session Number 5.2 (continued) - Building and Architectural Acoustics - Impact and Structureborne Noise in Buildings

Session Chairs: Berndt Zeitler, Matthew Golden and Yong-Joe Kim

Room: Chicago D

- 13:40 [in18_1379.pdf](#) ***Silencing the Undesired Heartbeat in a Semi-Anechoic Room1481***
Randy Rozema, ACS Inc.; Brett Birschbach, Briggs & Stratton
- 14:00 [in18_1989.pdf](#) ***Reduction of Floor Impact Sound by Applying Sound Absorbing Material and Changing Slab Structure1490***
Kyoung Woo Kim, KICT; Hey-Kyung Shin, KICT; Kwan-Seop Yang, KICT
- 14:20 [in18_2086.pdf](#) ***Floor Impact Sound Insulation and Airborne Sound Insulation on CLT Model Building1497***
Atsuo Hiramitsu, National Institute of Land Infrastructure Management; Takahiro Tsuchimoto, Building Research Institute; Shinsuke Kurumada, Japan CLT Association (Building Research Institute, Visiting Research Engineer)
- 14:40 [in18_1341.pdf](#) ***Examination of Vibration Evaluation Scale Considering Duration on Vibration Sense for Floor in Buildings1506***
Ryuta Tomita, Nihon University; Katsuo Inoue, Nihon University
- 15:00 [in18_1642.pdf](#) ***Relation between Sound Radiation from Airborne-Sound and Point-Force Excitations of a Double-Leaf Plate1518***
Motoki Yairi, Kajima Technical Research Institute; Kimihiro Sakagami, Graduate School of Engineering, Kobe University; Takeshi Okuzono, Graduate School of Engineering, Kobe University
- 15:40 [in18_1692.pdf](#) ***The Study on Characteristics of Floor Impact Noise1530***
Xiaoyan Xue, Acoustic Lab of Architecture School Test Center for Building Environment, Tsinghua University
- 16:00 [in18_2088.pdf](#) ***Reduction of Heavy-weight Floor Impact Sound by Granular Materials on Ceiling1539***
Takashi Yamauchi, Toda Corporation; Shuta Kawamata, Fukuvi Chemical Industry
- 16:20 [in18_2075.pdf](#) ***Charateristics of Sound Insulation of MRI (Magnetic Resonance Imaging) Rooms in Hospital1547***
Wonhak Lee, korea conformity laboratories; Jihoon Park, Korea Conformity Laboratories; Yongjin Yoon, Korea Conformity Laboratories; Juho Kim, DaeHan Shield Engineering Co.,Ltd.

Monday Afternoon

- 16:40 [in18_2084.pdf](#) ***Annoyance Evaluation of Floor Impact Sounds with Temporal and Spatial Variation in VR Environments1555***
Hyun In Jo, Hanyang University; Jung In Woo, Hanyang University; Shahzad Ahmed, Hanyang University; Jin Yong Jeon, Hanyang University

Session Number 7.2 (continued) - Community Noise - Urban Sound Planning

Session Chairs: Luigi Maffei, Dick Botteldooren

Room: Chicago A

- 13:40 [in18_1785.pdf](#) ***The Blue Noise Promenade - A Large-Scale Model for Bringing Sound into the Urban Planning and Design Agenda of the Limmat Valley Zurich1561***
Trond Maag, urbanidentity; Andres Bosshard, urbanidentity
- 14:00 [in18_1938.pdf](#) ***Crowdsourcing Soundscape Information from Smartphones1572***
Yalcin Yildirim, University of Texas, Arlington
- 14:20 [in18_1863.pdf](#) ***Acoustic Planning of Urban Space1580***
Mario Huaquin, Acoustic Projects Inc.
- 14:40 [in18_1894.pdf](#) ***Acoustical Criteria for the Texas Capitol Complex Master Plan1592***
Jack B Evans, JEAcoustics

Session Number 11.2 (continued) - Industrial Noise - Mufflers and Silencers

Session Chairs: Mats Abom, Tamer Elnady

Room: Los Angeles

- 13:40 [in18_2107.pdf](#) ***Source Flow Ripple and Source Impedance Measurement for Different Hydraulic Pumps1604***
Jinghao Liu, Deere and Company; Thomas Butts, John Deere Product Engineering Center; Sanghoon Suh, Deere and Company
- 14:00 [in18_1916.pdf](#) ***Muffler Shape Optimization to Improve Transmission Loss for Narrow-Band Excitations1614***
James Bender, Johnson Controls International; Wenlong Yang, ESI North America; Sonya Thorpe, Johnson Controls International; Alexis Castel, ESI North America; Ricardo Alvarez, ESI North America
- 14:20 [in18_1666.pdf](#) ***Optimal Partition Layout of a Muffler for Thermal Energy Harvesting and Noise Attenuation1623***
Kee Seung Oh, Ajou University; Jin Woo Lee, Ajou University
- 14:40 [in18_1558.pdf](#) ***Study on The Influence of Extended Inlet with Acoustic Materials on Low Frequency Noise Control1628***
Xinyu Zhang, Harbin Engineering University; Zuowei Wang, Harbin Engineering University; Xiaochen Zhao, Harbin Engineering University

Session Number 14.1(continued) - Numerical Methods and Simulation - Advances in

Session Chairs: Steffen Marburg, Tim Wu, Chandramouli Padmanabhan, and Chad Musser

Room: Addison

- 13:40 [in18_1479.pdf](#) ***A Low-Rank Iteration Scheme for Multi-Frequency Acoustic Problems1639***
Suhaib Baydoun, TU Munich; Lei Li, TU Munich; Matthias Voigt, TU Berlin; Steffen Marburg, TU Munich

- 14:00 [in18_1461.pdf](#) ***An Improved Method for Dynamic Load Identification Based on Tikhonov Regularization1649***
Zhanpeng Zheng, Xi'an Jiaotong University; Chengjun Wu, Xi'an Jiaotong University
- 14:20 [in18_2149.pdf](#) ***Prediction of Acoustic Response using Ray Tracing in the Presence of Complex Shaped Obstacles1659***
Abderrazak Mejdji, 1974; Bryce Gardner, esi-group; Chad Musser, esi-group
- 14:40 ASME NCAD ***An Artificial Bee Colony Algorithm For Solving Hydraulic Shaking Table Acceleration Harmonic Estimation Problem1669***
Jianjun Yao, Harbin Engineering University; Zhenshuai Wan, Harbin Engineering University
- 15:00 [in18_2104.pdf](#) ***Noise Shielding Models for the Conceptual Design of Unconventional Aircraft1677***
Francesco Centracchio, Università degli Studi Roma Tre; Lorenzo Burghignoli, Università degli Studi Roma Tre; Monica Rossetti, Università degli Studi Roma Tre; Umberto Iemma, Università degli Studi Roma Tre
- 15:20 [in18_2276.pdf](#) ***Vibration Mode Localization in Rectangular Plates with V-Shaped Through Cracks1687***
Tianming Huang, Zhejiang University of Technology; Huancai Lu, Zhejiang University of Technology; D. Michael McFarland, Zhejiang University of Technology; Wen L. Li, Advanced Information Services; Chin An Tan, Wayne State University; Lawrence A. Bergman, University of Illinois at Urbana-Champaign; Alexander F. Vakakis, University of Illinois at Urbana-Champaign
- 16:00 [in18_1416.pdf](#) ***A Comprehensive Analysis Process for Vehicle Impact-Harshness Performance Assessment1699***
Paras Shah, FCA US LLC; Raghav Hanumantharayappa, FCA US LLC; Parimal Tathavadekar, FCA US LLC
- 16:20 [in18_1429.pdf](#) ***A Comparison of Ground Surface Exciters for Locating Buried Pipelines1715***
Boao Jin, Institute of Acoustics, Chinese Academy of Sciences; Yan Gao, Institute of Acoustics, Chinese Academy of Sciences; Xiwang Cui, Institute of Acoustics, Chinese Academy of Sciences; Yuyou Liu, Beijing Municipal Institute of Labour Protection
- 16:40 [in18_2233.pdf](#) ***Approximate Analytical Solution of Nonlinear Natural Frequencies of a Functionally Graded Material Microbeam by using Multiple Harmonic Balance Method1724***
Canan Uz, TAI; Ender Cigeroglu, Middle East Technical University
- 17:00 [in18_2305.pdf](#) ***Multi-Objective Optimal Design of Launch Pad by Empirical Prediction Method Combined with NURBS Modeling and Genetic Algorithm1741***
Seoryong Park, Seoul National University; Soogab Lee, Seoul National University; Dongyeon Han, Seoul National University
- 17:20 [in18_2327.pdf](#) ***The Effect of Hydrostatic Loading on the Vibration Response of a Plate: Investigative Study1757***
Kyle Saltmarsh, University of Western Australia; Jie Pan, University of Western Australia; David Matthews, University of Western Australia

Session Number 15.4 - Railroad Noise - High Speed Rail Noise and Vibration

Session Chairs: Shannon McKenna, Bin Zhang

Room: Denver

- 13:40 [in18_1853.pdf](#) ***Vibration Prediction for High Speed Trains Utilising the Pipe in Pipe (PiP) Model to Determine Ground-Borne Noise Levels in the Vicinity of Different Tunnel Types1764***
Steve Summers, ACCON UK Ltd; Graham Parry, ACCON UK Ltd; Mike Ledbetter, ACCON UK Ltd; Rebecca Edwards, ACCON UK Ltd; Ben Mills, ACCON UK Ltd
- 14:00 [in18_1712.pdf](#) ***Railway Noise above 10 kHz Generated on a Curved Section of High-Speed Railway Line1774***
Tsugutoshi Kawaguchi, Railway Technical Research Institute; Takeshi Sueki, Railway Technical Research Institute; Toshiki Kitagawa, Railway Technical Research Institute
- 14:20 [in18_1711.pdf](#) ***Full-Size Model of Shinkansen and Sound Proofing Walls Tested Noise Decreasing Effect of Developed Noise Absorbing Material1786***
Masao Myouken, ESAT JAPAN RAILWAY COMPANY
- 14:40 [in18_1664.pdf](#) ***Characterization of Surface Pressure Fluctuations of High-Speed Train Running in Open-Field using Wavenumber-Frequency Analysis1790***
Songjune Lee, Pusan National University; Cheolung Cheong, School of Mechanical Engineering, Pusan National University, Korea; Jaehwan Kim, Applied Technology Research Team, Hyundai Rotem Company; Byung-hee Kim, Applied Technology Research Team, Hyundai Rotem Company
- 15:00 [in18_1587.pdf](#) ***Auditory Evaluation of High-Frequency Sounds Radiated from the Japanese High Speed Railways1800***
Masaaki Hiroe, Kobayasi Institute of Physical Research; Tetsuya Ozaki, RION Co. Ltd.; Mari Ueda, Ghent University
- 15:20 [in18_2200.pdf](#) ***Study on Aerodynamic Load Characteristic of Noise Barrier for High-speed Railway1809***
Gang Zou, School of Mechanical Engineering, Key Laboratory of High Efficiency and Clean Mechanical Manufacture, Shandong University; Fei Dong, Key Laboratory of Noise and Vibration Research, Institute of Acoustics, Chinese Academy of Sciences; Junchuan Ni, School of Mechanical Engineering, Key Laboratory of High Efficiency and Clean Mechanical Manufacture, Shandong University; Fusheng Sui, Key Laboratory of Noise and Vibration Research, Institute of Acoustics, Chinese Academy of Sciences; Guofeng Bai, Key Laboratory of Noise and Vibration Research, Institute of Acoustics, Chinese Academy of Sciences
- 15:40 [in18_1343.pdf](#) ***Schemes of Data Visualization for Ground Vibration Prediction Induced by Trains1819***
Yitjin Chen, Chung Yuan Christian University; Chi-Jane Chen, National Taiwan Ocean University; Chi-Jim Chen, Carnegie-Mellon University

Session Number 15.5 - Railroad Noise - Light Rail Noise and Vibration

Session Chairs: Chris Laymon, Bin Zhang

Room: Denver

- 16:20 [in18_1380.pdf](#) ***Assessing Risk in Rail Transit Ground-Borne Noise and Vibration Predictions1827***
Gary Glickman, Wilson Ihrig
- 16:40 [in18_1490.pdf](#) ***Characteristics of Interior Noise In Sky-Rail And Noise Control1836***
Yaxuan Sun, BYD; Yongji Zhao, BYD
- 17:00 [in18_1686.pdf](#) ***The Characteristics of Noise Due to Tramway Passing through Small Radius Section1843***
Deyun Ding, Beijing Jiuzhouyigui Shock & Vibration Isolation Technology Co., Ltd.; Danqun Fang, US Sound & Vibration Institute

Session Number 16.5 - Sound Quality and Product Noise - Information Technology Equipment Noise

Session Chairs: Seth Bard, Charles Oppenheimer

Room: Chicago A

- 15:20 [in18_2230.pdf](#) ***ISO 10302-1 under Revision - For More Practical Test Conditions to Simulate Actual Load Conditions of Air-Moving Devices1850***
Ikuo Kimizuka, IBM Japan Ltd.; Gaku Minorikawa, Hosei University
- 15:40 [in18_1817.pdf](#) ***On the Use of Scale Models for Small-Scale Acoustic Applications1860***
Nan Zhang, University of Kentucky; D. W. Herrin, University of Kentucky
- 16:00 [in18_1665.pdf](#) ***Technical Challenges for High Static Pressure Application of Test Plenum per ISO10302-1 for Small Fan Sound Power Level Measurement1868***
Hideto Kawahara, Course of mechanical engineering, Graduate school of Hosei university; Takefumi Nakano, Course of mechanical engineering, Graduate school of Hosei university; Gaku Minorikawa, Course of mechanical engineering, Graduate school of Hosei university; Ikuo Kimizuka, IBM Japan Co., Ltd.; Toshiaki Nakayama, Tsukubarikaseiki Co., Ltd.; Msaharu Miyahara, Huawei Technologies Japan Co., Ltd.
- 16:20 [in18_1626.pdf](#) ***Study on Identification and Reduction of Aerodynamic Noise Source on Casing in Axial Flow Fan1880***
Ryouichi Maki, Course of Mechanical Engineering, Graduate school of Hosei University; Gaku Minorikawa, Course of Mechanical Engineering, Graduate school of Hosei University; Takefumi Nakno, Course of Mechanical Engineering, Graduate school of Hosei University; Tae-Gyun Lim, Cedec Co., Ltd.
- 16:40 [in18_1477.pdf](#) ***Impulsive Sounds in Printers1890***
Charles Oppenheimer, HP, Inc.

Session Number 17.4 - Soundscape and Noise Management - Soundscape in Architecture and Urban Planning

Session Chairs: Brigitte Schulte-Fortkamp,

Room: Chicago C

- 14:00 [in18_1997.pdf](#) ***Recent Developments in the Standardization of Soundscape1897***
André Fiebig, HEAD acoustics GmbH

Monday Afternoon

- 14:20 [in18_1555.pdf](#) ***Relationship between Impressions of Soundscapes of Parks and Acceptable Sound Levels for Road Traffic Noise1908***
Koji Nagahata, Fukushima University; Rentaro Kakinuma, Fukushima University; Ryo Hashimoto, Fukushima University; Tsubasa Minegishi, ex- Fukushima University
- 14:40 [in18_1832.pdf](#) ***Urban Planning Integrating the Soundscape Approach1920***
Brigitte Schulte-Fortkamp, Tu Berlin; Bennett Brooks, Brooks Acoustics Corp., 30 Lafayette Sq., Vernon, CT 06066
- 15:20 [in18_1679.pdf](#) ***Identifying Sound Sources in terms of Urban Environmental Parameters1926***
Dongchao Xu, Harbin Institute of Technology Shenzhen; Lei Yu, Harbin Institute of Technology Shenzhen; Jian Kang, School of Architecture, University of Sheffield, UK
- 15:40 [in18_1994.pdf](#) ***Application of Psychoacoustic within Soundscape, the New Challenge for Acoustic Consultants1935***
Klaus Genuit, HEAD acoustics GmbH
- 16:00 **ASME NCAD** ***Analyzing The Soundscape Of An Urban Park -A Case Of Semmozhi Poonga1945***
Banu Chitra, S.R.M.Institute of Science and Tehnology,Kattankulathur; Minakshi Jain, School of Planning and Architecture, Vijayawada, India; Faiz Ahmed, School of Planning and Architecture, Vijayawada, India

Session Number 18.2 - Tire and Road Noise - Pavement Noise

Session Chairs: Anneleen Bergiers, Dana Lodico

Room: Armitage

- 14:00 [in18_1719.pdf](#) ***Development of Suitable Low Noise Road Surfacing Materials on Local Roads in Hong Kong1951***
Cho Shing Leung, Environmental Protection Department, the Government of Hong Kong Special Administrative Region, People's Republic of China; Wai Chau, Environmental Protection Department, the Government of Hong Kong Special Administrative Region, People's Republic of China; Chee Kwan Lee, Environmental Protection Department, the Government of Hong Kong Special Administrative Region, People's Republic of China; Kwok Keung Lau, Environmental Protection Department, the Government of Hong Kong Special Administrative Region, People's Republic of China
- 14:20 [in18_1365.pdf](#) ***Acoustical Longevity and Durability of Pavements1957***
Dana Lodico, Illingworth & Rodkin, Inc.; Paul Donovan, Illingworth & Rodkin, Inc.
- 14:40 [in18_1876.pdf](#) ***Acoustic Lifecycle Study of the Double-Layer Porous Asphalt on E4 in Huskvarna, Sweden1967***
Ulf Sandberg, Swedish National Road and Transport Research Institute (VTI); Piotr Mioduszewski, Gdansk University of Technology
- 15:20 [in18_1424.pdf](#) ***Pilot Study in Antwerp to Study the Acoustical Quality and Durability of Thin Noise Reducing Asphalt Layers in an Urban Environment1979***
Anneleen Bergiers, BRRC; Johan Maeck, BRRC
- 15:40 [in18_1601.pdf](#) ***Investigation of the Sound Power Level Equation for Concrete Pavement1991***
Iori Yasuda, ORIENTAL CONSULTANTS Co.,Ltd; Hisho Mori, ORIENTAL CONSULTANTS Co.,Ltd; Tomotaka Ueta, ORIENTAL CONSULTANTS Co.,Ltd; Kenichi Ishikawa, ORIENTAL CONSULTANTS Co.,Ltd; Motoomi Yoshida,

Monday Afternoon

ORIENTAL CONSULTANTS Co.,Ltd; Shiro Kabashima, ORIENTAL CONSULTANTS Co.,Ltd

- 16:00 [in18_1918.pdf](#) ***An In-Depth Look at the Tire Rubber Hardness Influence on Tire/Road Noise Measurements1999***
Erik Buehlmann, Grolimund + Partner AG; Sebastian Egger, Grolimund+Partner AG

Session Number 18.3 - Tire and Road Noise - Tire Acoustic Cavity Noise

Session Chairs: Truls Berge, Rui Cao

Room: Armitage

- 16:20 [in18_1486.pdf](#) ***Experimental Analysis of Tyre Acoustic Cavity Resonance Noise2011***
Xiaojun Hu, Beihang University; Xiandong Liu, Beihang University
- 16:40 [in18_1488.pdf](#) ***Simulation Analysis of Vibration Response of Tire Inner Surface Applied for Acoustic Cavity Resonance2019***
Jiajing Yi, Beihang University; Xiandong Liu, Beihang University
- 17:00 [in18_2059.pdf](#) ***Identifying Acoustic Tube Resonance in Tire Noise2028***
Paul Donovan, Illingworth & Rodkin, Inc.
- 17:20 [in18_1482.pdf](#) ***Tire Cavity Induced Structure-Borne Noise Study with Experimental Verification2038***
Rui Cao, Purdue University; J. Stuart Bolton, Purdue University
- 17:40 [in18_1367.pdf](#) ***Passband Analysis of Tire-Pavement Noise2046***
Michael Staiano, Staiano Engineering, Inc

Session Number 20.1 - Underwater and Maritime Acoustics - Advances in

Session Chairs: Joe Cuschieri, Allan Beaudry

Room: Chicago F

- 13:40 [in18_1381.pdf](#) ***Extraction of Auditory Related Features for Marine Mammal Recognition2056***
Zeng Xiangyang, Northwestern Polytechnical University; Wang Qiang, Northwestern Polytechnical University; Lu Chenxiang, Northwestern Polytechnical University
- 14:00 [in18_1605.pdf](#) ***A Novel Search Method of Variable Scale Relative Entropy for Non-Cooperative Transient Underwater Acoustic Pulse Signals2066***
Kun Wei, Southeast University; Shiliang Fang, Key Laboratory of Underwater Acoustic Signal Processing of Ministry of Education, Southeast University
- 14:20 [in18_1865.pdf](#) ***Understanding Radiated Underwater Noise Levels Measured at Different Sound Ranges2076***
Anton Homm, Wehrtechnische Dienststelle 71; Stefan Schäl, Wehrtechnische Dienststelle 71; Hans Hasenpflug, Center for Ship Signature Management
- 14:40 [in18_2032.pdf](#) ***Vibroacoustic Response of an Immersed Stiffened Multilayered Shell Excited by a Plane Wave2087***
Maxime Dana, LABORATOIRE VIBRATIONS ACOUSTIQUE (INSA Lyon); Laurent Maxit, LABORATOIRE VIBRATIONS ACOUSTIQUE (INSA Lyon); Julien Bernard, THALES UNDERWATER SYSTEMS
- 15:20 [in18_2323.pdf](#) ***Marine Underwater Noise Control Design: Achieving Noise Goals with Lower Risk and Cost2099***
Jesse Spence, Noise Control Engineering, LLC; Raymond Fischer, Noise Control Engineering, LLC; Allan Beaudry, Noise Control Engineering, LLC

Monday Afternoon

- 15:40 [in18_1607.pdf](#) **Study on Method of Hull Longitudinal Strength using Coupling Hull Beam Model Subjected to Underwater Non-Contact Explosion2105**
Jiang Keda, Harbin Engineering University; Shi Dongyan, Harbin Engineering University
- 16:00 [in18_1656.pdf](#) **Correction Method of Highly Non-Uniform Current Profile Acoustic Measurement Based on Doppler in Moving Media2114**
Zhaowen Sun, Key Laboratory of Underwater Acoustic Signal Processing of Ministry of Education, Southeast University; Shiliang Fang, Key Laboratory of Underwater Acoustic Signal Processing of Ministry of Education, Southeast University; Yongshou Yang, Key Laboratory of Underwater Acoustic Signal Processing of Ministry of Education, Southeast University

Session Number 22.2 (continued) - Vibro-Acoustics - Acoustic Black Holes

Session Chairs: Steve Conlon,

Room: Chicago H

- 14:00 [in18_1844.pdf](#) **Vibroacoustic Properties of Plates with Tuned Acoustic Black Holes2123**
Yu Xiong, Penn State; Edward Smith, The Pennsylvania State University; Stephen Conlon, The Pennsylvania State University
- 14:20 [in18_1895.pdf](#) **Numerical Modelling of Additively Manufactured Acoustic Black Holes2137**
Sebastian Rothe, Institute for Engineering Design, TU Braunschweig; Hagen Watschke, TU Braunschweig; Thomas Vietor, TU Braunschweig; Sabine Christine Langer, TU Braunschweig
- 14:40 [in18_1403.pdf](#) **Sound Radiation of Plates with Embedded Circular Acoustic Black Hole Indentations2149**
Li Ma, The Hong Kong Polytechnic University; Li Cheng, The Hong Kong Polytechnic University
- 15:00 [in18_2058.pdf](#) **The Use of Perfect Absorption in the Tunability of the Resonant Modes of an Acoustic Black Hole2162**
Julien Leng, LAUM; Vicent Romero, LAUM; Jean-Philippe Groby, LAUM; Adrien Pelat, LAUM; Ruben Pico, UPV; François Gautier, LAUM

Session Number 22.3 - Vibro-Acoustics - Application of Vibro-Acoustic Methods to Noise Control Treatment

Session Chairs: Olivier Robin, Jinghao Liu

Room: Chicago H

- 15:40 [in18_1890.pdf](#) **Investigation of Structure-Borne Noise in Plates Supported by Vibration Isolators through a Hybrid Deterministic / SEA Approach.....2173**

Simone Baro, Politecnico di Milano - Mechanical Department; Roberto Corradi, Politecnico di Milano - Mechanical Department
- 16:00 [in18_2238.pdf](#) **Transmission Loss Prediction through a Curved Structure-Cavity System with Attached Sound Packages by means of a Hybrid Patch Transfer-Green Functions Approach2180**
Kamal Kesour, Université de Sherbrooke; Nouredine Atalla, Université de Sherbrooke, Dept. of Mechanical Engineering

Monday Afternoon

- 16:20 [in18_2046.pdf](#) **Absorption Characteristics of Membrane-Embedded Acoustic Liners2191**
Alexander Svetgoff, Oklahoma State University; James Manimala, Oklahoma State University
- 16:40 [in18_1870.pdf](#) **A Matrix-Free Model Order Reduction Scheme for Vibro-Acoustic Systems including Complex Noise Control Treatments2203**
Stijn Jonckheere, KU Leuven, Department of Mechanical Engineering // DMMS Lab, Flanders Make; Elke Deckers, KU Leuven, Department of Mechanical Engineering // DMMS Lab, Flanders Make; Wim Desmet, KU Leuven, Department of Mechanical Engineering // DMMS Lab, Flanders Make
- 17:00 [in18_1402.pdf](#) **Design Optimization of Multilayer Materials Based on the Acoustic Characteristic Indicators2212**
Jinxiang Pang, PROSYNX Technology Inc.; Xianfeng Wang, Guangzhou Linjun Co., Ltd
- 17:20 ASME NCAD **Research on Vibration Control of Thin Plate Based on Prestressing2222**
Cheng Zhang, Southeast University; Jian-run Zhang, Southeast University; Xi Lu, Southeast University
- 17:40 [in18_2091.pdf](#) **Acoustic Behaviour of New Rice Husk Composites2233**
Julieta Antonio, University of Coimbra; Antonio Tadeu, University of Coimbra; Beatriz Marques, ITeCons; João Almeida, ITeCons

Tuesday Morning – 28 August, 2018

Keynote: Truls Gjestland

Session Chair: Irene van Kamp

Room: Chicago D

- 08:00 [in18_5003.pdf](#) **Fifty Years of Aircraft Noise Annoyance - Time to Introduce New Ideas2238**
Truls Gjestland, SINTEF DIGITAL

Keynote: Li Cheng

Session Chair: John Davy

Room: Chicago E

- 08:00 [in18_5004.pdf](#) **Sound Absorption of Microperforated Panels in Complex Vibroacoustic Environments2254**
Li Cheng, The Hong Kong Polytechnic University

Session Number 1.3 - Acoustic Materials - Microperforated Panels

Session Chairs: Mats Abom, Yat Sze Choy

Room: Chicago G

- 09:20 **ASME NCAD** *Sound Attenuation in a Flow Duct Periodically Loaded with Micro-Perforated Patches Backed by Helmholtz Resonators2267*
Teresa Bravo, Consejo Superior de Investigaciones Cientificas; Cedric Maury, Ecole Centrale Marseille
- 09:40 [in18_1902.pdf](#) *Dimensional Analysis in the Air Flow Resistivity Measurements of Perforated Plates2277*
Katarzyna Baruch, AGH University of Science and Technology; Aleksandra Majchrzak, AGH University of Science and Technology; Agata Szeląg, Tadeusz Kościuszko Cracow University of Technology
- 10:00 [in18_1431.pdf](#) *Absorption and Transmission of Boundary Layer Noise through Thin Micro-Perforated Panel Structures2282*
Cedric Maury, LMA CNRS UMR 7031; Teresa Bravo, CSIC
- 10:40 [in18_1630.pdf](#) *Acoustics of Micro-Perforated Orifice Plates2294*
Jennifer Lemne, KTH-The Marcus Wallenberg Laboratory for Sound and Vibration Research; Stefan Sack, KTH-The Marcus Wallenberg Laboratory for Sound and Vibration Research; Mats Åbom, KTH-The Marcus Wallenberg Laboratory for Sound and Vibration Research
- 11:00 [in18_1940.pdf](#) *Sound Absorber Design of Multilayered Microperforated Panels Using Bayesian Inference2300*
Ning Xiang, Graduate Program in Architectural Acoustics, Rensselaer Polytechnic Institute, Troy, New York; Cameron Fackler, Graduate Program in Architectural Acoustics, Rensselaer Polytechnic Institute, Troy, New York; Yiqiao Hou, Graduate Program in Architectural Acoustics, Rensselaer Polytechnic Institute, Troy, New York
- 11:20 [in18_1744.pdf](#) *Sound Quality Control by Microperforated Panel Housing Device2308*
Zhibo Wang, The Hong Kong Polytechnic University; Yat Sze Choy, The Hong Kong Polytechnic University
- 11:40 [in18_1845.pdf](#) *Acoustic Characterization of Additive Manufactured Micro-Perforated Panel Backed by Honeycomb Structure2317*
Deepak Akiwate, IIT Hyderabad; Mahendra Date, IIT Hyderabad; B Venkatesham, IIT Hyderabad; Suryakumar S, IIT Hyderabad

Session Number 2.2 - Active Control of Sound and Vibration - Application

Session Chairs: Jiancheng Tao, Haishan Zhou and Delf Sachou

Room: Chicago A

- 09:00 [in18_1557.pdf](#) *Truncated Singular Value Decomposition Method for Mitigating Unwanted Enhancement in Active Noise Control Systems2325*
Xuchen Wang, Purdue University; Yangfan Liu, Purdue University; J. Stuart Bolton, Purdue University
- 09:20 [in18_2042.pdf](#) *Multi-Channel Adaptive Feedforward Systems for Multi-Input Multi-Output Active Control of Broadband Road Noise2336*
Guo Long, University of Cincinnati; Tao Feng, University of Cincinnati; Rushikesh Dhakad, University of Cincinnati; Teik Lim, University of Texas at Arlington

Tuesday Morning

- 09:40 [in18_1800.pdf](#) **Active Vibration Control System for Reducing Gear Whine Noise2345**
Jan Troge, Fraunhofer Institute for Machine Tools and Forming Technology (IWU); Welf-Guntram Drossel, Fraunhofer Institute for Machine Tools and Forming Technology (IWU); Eric Hensel, Fraunhofer Institute for Machine Tools and Forming Technology (IWU); Tom Georgi, Fraunhofer Institute for Machine Tools and Forming Technology (IWU)
- 10:00 [in18_2076.pdf](#) **A Review of the Applications of Hybrid Active / Passive Noise Control Systems in Ducts2357**
Jiancheng Tao, Key Laboratory of Modern Acoustics and Institute of Acoustics, Nanjing University; Xiaojun Qiu, Centre for Audio, Acoustics and Vibration, Faculty of Engineering and IT, University of Technology Sydney, NSW 2007, Australia; Haishan Zou, Key Laboratory of Modern Acoustics and Institute of Acoustics
- 10:40 [in18_2190.pdf](#) **An Improved Active-Passive Hybrid Muffler2363**
Hongling Sun, Institute of Acoustics, Chinese Academy of Sciences; Qiyan Ke, Key Laboratory of Noise and Vibration Research, Institute of Acoustics, Chinese Academy of Sciences; Han Wang, Key Laboratory of Noise and Vibration Research, Institute of Acoustics, Chinese Academy of Sciences; Ming Wu, Key Laboratory of Noise and Vibration Research, Institute of Acoustics, Chinese Academy of Sciences; Jun Yang, Key Laboratory of Noise and Vibration Research, Institute of Acoustics, Chinese Academy of Sciences
- 11:00 [in18_1869.pdf](#) **Experimental Results of the Effect of Increased Filter Length and Sample Rate of a Feedback Active Noise Control System with the FxLMS-Algorithm implemented in VHDL2369**
Jonas Hanselka, Helmut Schmidt University; Alexander Klemd, Helmut Schmidt University; Delf Sachau, Helmut Schmidt University; Bernd Klauer, Helmut Schmidt University
- 11:20 [in18_1866.pdf](#) **Simulative Study on the Effect of the Increase of the Sample Rate of a Feedback Active Noise Control System2379**
Max Lorenzen, Helmut Schmidt University; Jonas Hanselka, Helmut Schmidt University; Delf Sachau, Helmut Schmidt University
- 11:40 [in18_2246.pdf](#) **Controlling Sound Radiation through Openings with the Active Noise Control System at the Edge2389**
Shuping Wang, Institute of Acoustics, Nanjing University; Jiancheng Tao, Institute of Acoustics, Nanjing University; Xiaojun Qiu, Centre for Audio, Acoustics and Vibration, Faculty of Engineering and IT, University of Technology Sydney; Jie Pan, School of Mechanical and Chemical Engineering, The University of Western Australia
- 12:00 [in18_2204.pdf](#) **Experimental Study on Nonuniform Hartmann Resonators2397**
Sonu Thomas, Indian Institute of Technology, Madras; Srinivasan K, Indian Institute of Technology, Madras

Session Number 5.3 - Building and Architectural Acoustics - HVAC Noise Control Methods and Standards

Session Chairs: Jeff Fullerton, Jerry Lilly

Room: Chicago E

- 09:00 [in18_2161.pdf](#) ***Silencer SPICE and All That's Nice2407***
Karl Peterman, Vibro-Acoustics
- 09:20 [in18_1862.pdf](#) ***Centrifugal Chiller Noise Sources and Mitigation2413***
Patrick Marks, Johnson Controls, Inc.; R. Troy Taylor, Johnson Controls, Inc.; Dale Unger, Johnson Controls, Inc.
- 09:40 [in18_2012.pdf](#) ***Defining the Line of Practicality: an Investigation into the Impacts of Detailed Source Modeling and Preliminary Site Investigation when Specifying Mechanical Noise Control Measures2419***
Matthew Downey, Parklane Mechanical Acoustics
- 10:00 [in18_1385.pdf](#) ***Predicting Sound Levels From Mechanical Equipment Rooms2432***
Felicia Doggett, Metropolitan Acoustics, LLC
- 10:40 [in18_2025.pdf](#) ***Acoustical Performance of Foil-Faced Fiberglass Insulation Board2441***
Jerry Lilly, JGL Acoustics, Inc.; Francis Babineau, JohnsManville
- 11:00 [in18_1874.pdf](#) ***Qualification Procedures for Reverberation Rooms2451***
Paul Bauch, Johnson Controls
- 11:20 [in18_1968.pdf](#) ***Quieting Cryptocurrency Exhaust Fans2461***
Sean Connolly, Big Sky Acoustics
- 11:40 [in18_2129.pdf](#) ***Recent Experience with Cannabis Production Facility Noise2467***
Andrew Carballeira, Acentech; Kristen Murphy, Acentech
- 12:00 [in18_1943.pdf](#) ***Commercialization of the Carbon Nanotube Thermophone for HVAC Active Noise Control Applications2475***
Steven Senczyszyn, Michigan Technological University; Andrew Barnard, Michigan Technological University

Session Number 7.3 - Community Noise - Noise Mapping

Session Chairs: Eoin King, Jorge Arenas

Room: Clark

- 09:00 [in18_1393.pdf](#) ***Noise Mapping in the EU: State of Art and 2018 Challenges2486***
Gaetano Licitra, CNR-IPCF; Elena Ascari, ARPAT
- 09:20 [in18_2215.pdf](#) ***Preliminary Results of Dynamap Noise Mapping Operations2491***
Roberto Benocci, University of Milano-Bicocca; Fabio Angelini, Università di Milano-Bicocca- Italy; Marco Cambuaghi, Università di Milano-Bicocca- Italy; Alessandro Bisceglie, Università di Milano-Bicocca- Italy; Hector Eduardo Roman, Università di Milano-Bicocca- Italy; Rosa Ma Alsina-Pagès, GTM - Grup de recerca en Tecnologies Mèdia, La Salle - Barcelona, Spain.; Joan Claudi Socoró, GTM - Grup de recerca en Tecnologies Mèdia, La Salle - Barcelona, Spain.; Francesc Alías, GTM - Grup de recerca en Tecnologies Mèdia, La Salle - Barcelona, Spain.; Ferran Orgab, GTM - Grup de recerca en Tecnologies Mèdia, La Salle - Barcelona, Spain.; Giovanni Zambon, Università di Milano-Bicocca- Italy

- 09:40 [in18_2176.pdf](#) ***Spatial Statistical Modeling of Road Traffic Noise for Supporting Strategic Regional Planning2502***
Hunjae Ryu, University of Seoul; Phillip Kim, University of Seoul; Nokil Park, Atlanta Regional Commission; Bum Seok Chun, Texas Southern University; Seo Il Chang, University of Seoul
- 10:00 [in18_1931.pdf](#) ***The Pilot Noise Map of Sao Paulo: First Findings and Next Steps2508***
Talita Pozzer, ProAcústica; Marcos Holtz, ProAcústica; Juan de Frias, ProAcústica
- 10:40 [in18_1813.pdf](#) ***Sensitivity Map - A Case Study in Sao Paulo, Brazil2521***
Teddy Kaeriyama Yanagiya, Harmonia Acustica; Juan Frias, ProAcústica
- 11:00 [in18_2097.pdf](#) ***The Use of Pilot Areas as a Base for Large-Scale Strategic Noise Mapping: Technical Aspects and Application of Software Based Strategies2529***
Antonio Notario, DataKustik GmbH; Juan Frias, ProAcustica; Talita Pozzer, ProAcustica; Marcos Holtz, ProAcustica; Nicolas Isnard, ACOEM
- 11:20 [in18_2268.pdf](#) ***Application Of Noise Map In Organic Renewal Of The Non-protected Districts2538***
Kong Jiangwei, School of Architecture, TIANJIN UNIVERSITY; Mengxi Gao, School of Architecture, TIANJIN UNIVERSITY; Ruhong Xin, School of Architecture, Tianjin University; Xiang Liu, School of Architecture, Tianjin University; Jian Zeng, School of Architecture, Tianjin University
- 11:40 [in18_1675.pdf](#) ***Development of Annoyance Map with Combined Noise of Aircraft and Road Traffic Noise Based on the Partial Loudness Model2549***
Chanil Chun, Seoul National University; Doo Young Gwak, Samsung Electronics; Kiseop Yoon, Samsung Electronics; Soogab Lee, Seoul National University
- 13:00 [in18_1882.pdf](#) ***Educational App for Traffic Noise Mapping2557***
Enrique Suarez, Univ. Austral of Chile; Jorge P. Arenas, Univ. Austral of Chile
- 13:20 [in18_2130.pdf](#) ***Transportation Noise and Public Health Outcomes: Biological Markers and Pathologies2567***
Enda Murphy, University College Dublin; Jon-Paul Faulkner, University College Dublin
- 13:40 [in18_1759.pdf](#) ***Study by Long-Term Measures about ISO 1996 Standard2577***
Juan Miguel Barrigón Morillas, Universidad de Extremadura; David Montes González, Universidad de Extremadura; Guillermo Rey-Gozaló, Universidad de Extremadura; Pedro Atanasio Moraga, Universidad de Extremadura; Rosendo Vílchez-Gómez, Universidad de Extremadura; José Trujillo Carmona, Universidad de Extremadura
- 14:00 [in18_2264.pdf](#) ***Strategic Versus Simplistic Noise Modelling of the Bay Area of California: Comparing the Impact on Policy and the Community2586***
Ben Hinze, Ambient

Session Number 9.2 - Flow Induced Noise and Vibration - Computational Methods

Session Chairs: Randolph Leung, Carsten Spehr

Room: Bellmont

- 09:00 [in18_2134.pdf](#) ***Acoustically Induced Vibration Questionnaire2603***
Robert Bruce, CSTI acoustics; Adam Young, CSTI acoustics; Arno Bommer, CSTI acoustics

- 09:20 [in18_1592.pdf](#) ***The Application of Leading-Edge Serrations to Reduce Underwater Noise from SUBOFF Model2609***
Yalin Li, College of Underwater Acoustic Engineering, Harbin Engineering University; yongwei liu, College of Underwater Acoustic Engineering, Harbin Engineering University
- 09:40 [in18_2067.pdf](#) ***Duct Aeroacoustic Control by Multiple Flexible Panels2621***
Harris K. H. Fan, The Hong Kong Polytechnic University; Cheng Shen, The Hong Kong Polytechnic University; Randolph C. K. Leung, The Hong Kong Polytechnic University
- 10:00 [in18_1295.pdf](#) ***Analysis and Optimization of Air Duct Noise of Frost-Free Refrigerator Based on Experiment and CFD Method2629***
Du Xiaofei, Southeast University; Chengxi Li, School of Mechanical Engineering, Southeast University
- 10:40 [in18_1483.pdf](#) ***Noise Prediction of Axial Fan Duct using a Lattice Boltzmann Approach and Acoustic FEM2640***
Kentaro Hayashi, Mitsubishi Heavy Industries, Ltd; Toshifumi Kudo, Mitsubishi Heavy Industries, Ltd
- 11:00 [in18_1772.pdf](#) ***Broadband Noise Prediction of Stochastic Sources Based on the Linearized Euler Equations2650***
Cesar Legendre, Free Field Technologies; Benjamin DeBrye, Free Field Technologies; Yves Detandt, Free Field Technologies; Alexis Talbot, Free Field Technologies; Athanasios Poulos, Free Field Technologies; Maxime Raskin, Free Field Technologies
- 11:20 [in18_2011.pdf](#) ***Methodology for Predicting Flow Induced Noise in Axial Fans through Aero Vibro-Acoustics (AVA)2662***
Prashant Gawade, Whirlpool Corporation; Sushil Paradhe, Whirlpool Corporation; Vishal Patil, Whirlpool Corporation; Marvin Mealman, Whirlpool Corporation
- 11:40 [in18_1384.pdf](#) ***Time Domain Boundary Element Method for the Leading Edge Noise subjected to Linear Vorticity2673***
Sparsh Sharma, Brandenburgische Technische Universität; Thomas Geyer, Brandenburgische Technische Universität; Ennes Sarradj, Technische Universität Berlin
- 12:00 [in18_1742.pdf](#) ***Analysis of the Physical Behavior of Refrigerant-Flow Induced Noise in an Automotive HVAC System by a Coupled Simulation2683***
Atsushi Itoh, Mitsubishi Motors Ltd

Session Number 11.3 - Industrial Noise - Large Silencers

Session Chairs: Ray Kirby, Tim Wu

Room: Los Angeles

- 09:20 [in18_2232.pdf](#) ***The Impact of Design Details on Large Silencer Performance2693***
Paul Williams, AAF Ltd; James Hill, AAF Ltd; Jamie Thomson, AAF Ltd; Ray Kirby, University of Technology Sydney
- 09:40 [in18_2035.pdf](#) ***BEM Modeling of Large Silencers with Reflective Symmetry2703***
Hao Zhou, University of Kentucky; Peng Wang, University of Kentucky; Tim Wu, University of Kentucky

Tuesday Morning

- 10:00 [in18_2060.pdf](#) ***Design of Large Reactive Silencers for Automotive Applications2712***
Ray Kirby, University of Technology Sydney; Akhilesh Mimani, University of Technology Sydney
- 10:40 [in18_2033.pdf](#) ***BEM Analysis of Tuned Dissipative Silencers2722***
Peng Wang, University of Kentucky; Tim Wu, University of Kentucky
- 11:00 [in18_1716.pdf](#) ***A New Simulation and Optimization Tool for Calculating the Attenuation of Airborne and Structure-Borne Sound of Maritime Silencers2728***
Paul Lindner, Gesellschaft für Akustikforschung Dresden mbH; Christian Schulze, Gesellschaft für Akustikforschung Dresden mbH; Jörn Hübelt, Gesellschaft für Akustikforschung Dresden mbH; Jan Troge, Fraunhofer IWU; Tom Georgi, Fraunhofer IWU
- 11:20 [in18_2185.pdf](#) ***Determination of a Power Transfer Matrix via a Boundary Element Method Determined Scattering Matrix2739***
Kangping Ruan, University of Kentucky; David Herrin, University of Kentucky; Tim Wu, University of Kentucky

Session Number 12.2 - Measurement Methods - Acoustical Holography / Beamforming

Session Chairs: Gunnar Heilman, Stuart Bolton

Room: Denver

- 09:00 [in18_1423.pdf](#) ***The Sound Source Location in Small Spaces Based on Phase Conjugation Method and Verification Experiment2747***
Song Liu, DLUT; Maofa Li, DLUT
- 09:20 [in18_1451.pdf](#) ***Sound Source Localization using Cylindrical Nearfield Acoustic Holography2756***
S K Chaitanya, INDIAN INSTITUTE OF TECHNOLOGY MADRAS; Sonu Thomas, INDIAN INSTITUTE OF TECHNOLOGY MADRAS; Srinivasan K, INDIAN INSTITUTE OF TECHNOLOGY MADRAS
- 09:40 [in18_1472.pdf](#) ***Noise Source Identification in an Under-Determined System by Convex Optimization2765***
Tongyang Shi, Ray W. Herrick Laboratories, Purdue University; Yangfan Liu, Ray W. Herrick Laboratories, Purdue University; J. Stuart Bolton, Ray W. Herrick Laboratories, Purdue University
- 10:20 [in18_1897.pdf](#) ***Reconstruction of the Sound Field in a Room Based on Wavenumber Processing2776***
Efren Fernandez-Grande, DTU
- 10:40 [in18_1829.pdf](#) ***Microphone Arrays in a Wind Tunnel Environment with a Hard Reflective Floor2786***
Andy Meyer, GFal e.V.; Marie Pelz, Technical University of Berlin; Dirk Dobler, GFal e.V.
- 11:00 [in18_2071.pdf](#) ***Ultrasonic Hand Gesture Detection and Tracking using CFAR and Kalman Filter2797***
Qinglin Zeng, Institute of Acoustics, Chinese Academy of Sciences; Zheng Kuang, Institute of Acoustics, Chinese Academy of Sciences; Shuaibing Wu, Institute of Acoustics, Chinese Academy of Sciences; Jun Yang, Institute of Acoustics, Chinese Academy of Sciences

Session Number 12.3 - Measurement Methods - Signal Processing

Session Chairs: Andrew Barnard, Jing Lu

Room: Chicago B

- 09:00 [in18_1513.pdf](#) ***Multiple Sound Images Reproduction with Parametric Array Loudspeakers and Indirect Electrodynamic Loudspeakers2806***
Yoshinori Ogami, Ritsumeikan University; Takahiro Fukumori, Ritsumeikan University; Masato Nakayama, Ritsumeikan University; Takanobu Nishiura, Ritsumeikan University
- 09:20 [in18_1560.pdf](#) ***Discomfort Reduction Based on Time-Frequency Auditory-Masking for Railway Brake Sound2817***
Misaki Otsuka, Ritsumeikan University; Sayaka Okayasu, Ritsumeikan University; Takahiro Fukumori, Ritsumeikan University; Masato Nakayama, Ritsumeikan University; Takanobu Nishiura, Ritsumeikan University
- 09:40 [in18_2096.pdf](#) ***Environmental Sound Monaural Source Separation with Clustered Non-Negative Matrix Factorization.....2827***
Charlotte Ellison, US Army Corps of Engineers, Engineer Research and Development Center; Matthew Blevins, US Army Corps of Engineers, Engineer Research and Development Center
- 10:00 [in18_1889.pdf](#) ***Line Spectra Enhancement Technique Based on Auto-Adaptive Window Length2839***
Chuanqi Zhu, Key Laboratory of Underwater Acoustic Signal Processing of Ministry of Education Southeast University; ShiLiang Fang, Key Laboratory of Underwater Acoustic Signal Processing of Ministry of Education Southeast University
- 10:40 [in18_1516.pdf](#) ***HRTF Personalization Based on Pinna Shape Estimation by Standardized Scanning with Handy 3D Scanner.....2847***
Zhuan Zuo, Ritsumeikan University; Takahiro Fukumori, Ritsumeikan University; Masato Nakayama, Ritsumeikan University; Takanobu Nishiura, Ritsumeikan University
- 11:00 [in18_1562.pdf](#) ***Comfortable Sound Design with Chord-Forming of Musical Instrument Sound for Dental Treatment Sound2857***
Yoshitaka Ohshio, Ritsumeikan University; Takahiro Fukumori, Ritsumeikan University; Masato Nakayama, Ritsumeikan University; Takanobu Nishiura, Ritsumeikan University; Yoichi Yamashita, Ritsumeikan University
- 11:20 [in18_1830.pdf](#) ***Delamination Detection in Composite Laminates using a Vibration-Based Chaotic Oscillator Method2868***
Xuan Li, UNNC, university of Nottingham; Dunant Halim, University of Nottingham Ningbo China, UNNC; Xiaoling Liu, University of Nottingham Ningbo China, UNNC; Chris Rudd, University of Nottingham Ningbo China, UNNC
- 11:40 [in18_1593.pdf](#) ***Impulsive Noise Reduction in Speech Acquisition Based on Throat Vibration Measurement with Laser Microphone2877***
Hiroki Shindo, Ritsumeikan University; Takahiro Fukumori, Ritsumeikan University; Masato Nakayama, Ritsumeikan University; Takanobu Nishiura, Ritsumeikan University
- 12:00 [in18_1398.pdf](#) ***Object Identification Based on the Perturbation Analysis of the Sound Field in The Room Environment2886***
Haitao Wang, Northwestern Polytechnical University; Yakun Wang, School of Marine Science and Technology, Northwestern Polytechnical University; Jinfu

Tuesday Morning

Wang, School of Marine Science and Technology, Northwestern Polytechnical University; He Du, School of Marine Science and Technology, Northwestern Polytechnical University; Ruyue Zheng, School of Marine Science and Technology, Northwestern Polytechnical University; Xiangyang Zeng, School of Marine Science and Technology, Northwestern Polytechnical University

Session Number 16.1 - Sound Quality and Product Noise - Product Sound Quality

Session Chairs: Ercan Altinsoy, Masayuki Takada

Room: Addison

- 09:00 **ASME NCAD** ***Sound Label for Household Appliances2892***
M. Ercan Altinsoy, Technische Universitaet Dresden; Serkan Atamer, Technische Universitaet Dresden, Chair of Acoustic and Haptic Eng.
- 09:20 [in18_1960.pdf](#) ***Psychoacoustic Tonality Analysis2898***
Julian Becker, HEAD acoustics GmbH; Roland Sottek, HEAD acoustics GmbH
- 09:40 [in18_1777.pdf](#) ***Subjective Evaluation for Harshness Sounds2910***
Risa Takahashi, Ono Sokki Co., Ltd.; Masayuki Konishi, Ono Sokki Co., Ltd.; Koji Ishida, Ono Sokki Co., Ltd.
- 10:00 [in18_2236.pdf](#) ***Methods of Acoustical End-of-line Testing for Sound Quality Assurance during Vehicle Manufacturing2922***
Roland Salzer, SINUS; David Mackenzie, SINUS Messtechnik GmbH; Christian Hubert, SINUS Messtechnik GmbH; Gunther Papsdorf, SINUS Messtechnik GmbH
- 10:40 [in18_1464.pdf](#) ***Sound Quality Evaluation of Noise Emitted from Brush Cutters2933***
Masayuki Takada, Kyushu University; Kohei Iida, Kyushu University; Shoki Tsunekawa, Kyushu University; Shin-Ichiro Iwamiya, Kyushu University
- 11:00 [in18_1438.pdf](#) ***Sound Quality Evaluation of Residential HVAC&R Equipment2944***
Weonchan Sung, Purdue University; Patricia Davies, Ray W. Herrick Laboratories, School of Mechanical Engineering, Purdue University; J. Stuart Bolton, Ray W. Herrick Laboratories, School of Mechanical Engineering, Purdue University
- 11:20 [in18_1307.pdf](#) ***Subjective and Objective Assessment of Loudness For Mobile Phone Applications2953***
Wookeun Song, Brüel & Kjær Sound & Vibration Measurement A/S; Lars Birger Nielsen, BRÜEL & KJÆR SOUND & VIBRATION MEASUREMENT A/S; Tore Stegenborg-Andersen, FORCE Technology; Idir Edjekouane, Orange/IMT/OLS; Cyril Plapous, Orange/IMT/OLS; Vincent Barriac, Orange/IMT/OLS

Session Number 17.6 - Soundscape and Noise Management - Apps, Social Media, and Virtual Reality as Soundscape Evaluation Tools

Session Chairs: Antonella Radicchi, Andy Chung

Room: Chicago C

- 09:00 [in18_1541.pdf](#) ***Mapping Tranquility - A Case Study Of The Central Park Soundscape, New York City2965***
Eoin King, University of Hartford; Elizabeth Caltagirone, University of Hartford; Ben Steers, University of Hartford; Paul Slaboch, University of Hartford

- 09:20 [in18_1860.pdf](#) ***From Crowdsourced Data to Open Source Planning: the Implementation of the Hush City App in Berlin.2974***
Antonella Radicchi, Technical University
- 09:40 [in18_1810.pdf](#) ***Realism and Immersion in the Reproduction of Audio-Visual Recordings for Urban Soundscape Evaluation2982***
Kang Sun, Ghent University; Dick Botteldooren, Ghent University; Bert De Coensel, Ghent University
- 10:20 [in18_1763.pdf](#) ***Integrating Artificial Intelligence with Virtual Reality for Soundscape Appraisal2992***
Andy Chung, MOIA; Wai Ming To, Macao Polytechnic Institute; Iris Vong, DingDingSound.com
- 10:40 [in18_1319.pdf](#) ***Using Sound Level Meter Apps to Raise Noise Pollution Awareness - New York City Case Study3000***
Gregory Scott, SoundPrint
- 11:00 [in18_1633.pdf](#) ***A Community-Driven Plug-And-Sense Sensor Network for Soundscapes and Environmental Noise3011***
Tae Hong Park, New York University

Session Number 19.4 - Transportation Noise - Barriers

Session Chairs: Kohei Yamamoto, Jean-Pierre Clairbois

Room: Armitage

- 09:00 [in18_2040.pdf](#) ***Changes in Sound Due to Noise Barrier Reflections3016***
Judy Rochat, ATS Consulting
- 09:20 [in18_1408.pdf](#) ***Acoustic Effectivity of Old Noise Barriers3026***
Joern Huebelt, University of Applied Sciences Mittweida; Christian Schulze, Gesellschaft für Akustikforschung Dresden%ömbH, Blumenstraße 80 01307 Dresden, Germany%bH; Paul Lindner, Gesellschaft für Akustikforschung Dresden%ömbH, Blumenstraße 80 01307 Dresden, Germany; Michael Chudalla, Federal Highway Research Institute Brüderstraße 53 D-51427 Bergisch Gladbach; Wolfram Bartolomaeus, Federal Highway Research Institute Brüderstraße 53 D-51427 Bergisch Gladbach
- 09:40 [in18_1410.pdf](#) ***Calculating Traffic Noise Reduction at Long Distance using Diffracting Elements3034***
Eef Brouns, TNO, The Netherlands; Frits Van der Eerden, TNO, The Netherlands; Arno Eisses, TNO, The Netherlands; Anneke Kruijven, TNO, The Netherlands; WillemJan Van Vliet, Rijkswaterstaat, The Netherlands
- 10:00 [in18_1683.pdf](#) ***Heavy Vehicle Noise Control by Parallel Barrier3043***
Zhibo Wang, The Hong Kong Polytechnic University; Yat Sze Choy, The Hong Kong Polytechnic University; Kai Ming Li, Purdue University
- 10:40 [in18_2250.pdf](#) ***Practical Use of an Additional Noise Barrier for High Speed Train3052***
Daigo Sato, Railway Technical Research Institute; Masakazu Kiyama, Nippon Sheet Glass Environment Amenity Co.,Ltd.; Takefumi Kozasa, Nippon Sheet Glass Environment Amenity Co.,Ltd.; Akira Omoto, Kyushu University
- 11:00 [in18_1900.pdf](#) ***Traffic Noise Reduction as an Additional Role of Gabion Fences3062***
Krystian Woźniak, Cracow University of Technology; Marian Tracz, Cracow University of Technology

Tuesday Morning

- 11:20 [in18_1939.pdf](#) ***A New Homogeneous Porous Sound Absorptive Barrier Slab Made of Sand Rock3072***
Guo Jing, acoustic lab of architecture school, Tsinghua University; Yan Xiang, acoustic lab of architecture school, Tsinghua University

Session Number 20.2 - Underwater and Maritime Acoustics - Ships and Offshore Noise and Vibration

Session Chairs: Yegao Qu, Bernt Mikal Larsen

Room: Chicago D

- 09:00 [in18_1755.pdf](#) ***Emitted Noise in Harbors - Effect of Shore Power3083***
Bernt Mikal Larsen, Multiconsult Norge AS
- 09:20 [in18_2001.pdf](#) ***Evaluating Biological Effects of Dredging-Induced Underwater Sounds3089***
Andrew McQueen, U.S. Army Corps of Engineers, Engineer Research and Development Center (ERDC); Burton Suedel, U.S. Army Corps of Engineers, Engineer Research and Development Center (ERDC); Justin Wilkens, U.S. Army Corps of Engineers, Engineer Research and Development Center (ERDC); Morris Fields, U.S. Army Corps of Engineers, Engineer Research and Development Center (ERDC)
- 09:40 [in18_1754.pdf](#) ***COMPILE II - A Benchmark of Pile Driving Noise Models against Offshore Measurements3099***
Stephan Lippert, Hamburg University of Technology; Marten Nijhof, TNO; Tristan Lippert, E.ON Climate & Renewables; Otto von Estorff, Hamburg University of Technology
- 10:20 [in18_1751.pdf](#) ***Sound Radiation Characteristics of Underwater Cylindrical Shells with Structural Complexities3109***
Yao Sun, Jiangsu University of Science and Technology
- 10:40 **ASME NCAD** ***Analysis of Acoustic Radiation Characteristics of an Infinitely Long Half-Filled Cylindrical Shell3118***
Shuai Zhang, Huazhong University of Science and Technology; Tianyun Li, Huazhong University of Science and Technology; Xiang Zhu, Huazhong University of Science and Technology
- 11:00 [in18_1455.pdf](#) ***Unsteady Flow of an Impulsively Started Circular Cylinder with Two Symmetrical Strips3129***
Jialiang Zhou, Harbin Engineering University; Guoyong Jin, Harbin Engineering University
- 11:20 [in18_2292.pdf](#) ***The Vibration Test and Analysis of the Star Air Compressor3136***
Hu Hengbin, Wuhan University of Technology; Zhang Linke, Wuhan University of Technology; Tan You, Wuhan University of Technology
- 11:40 **ASME NCAD** ***Free Vibration Analysis of Rectangular Thin Plate with Multiple Openings under General Boundary Conditions3143***
Rui Nie, School of Naval Architecture and Ocean Engineering, Huazhong University of Science and Technology; Tianyun Li, School of Naval Architecture and Ocean Engineering, Huazhong University of Science and Technology; Xiang Zhu, School of Naval Architecture and Ocean Engineering, Huazhong University of Science and Technology; Wenjie Guo, School of Naval Architecture and Ocean Engineering, Huazhong University of Science and Technology; Jun Zhang, School

- of Naval Architecture and Ocean Engineering, Huazhong University of Science and Technology
- 12:00 [in18_2135.pdf](#) ***A Review of Offshore Noise Levels3153***
Arno Bommer, CSTI acoustics; Adam Young, CSTI acoustics; Robert Bruce, CSTI acoustics

Session Number 21.1 - Vehicle Noise, Vibration, and Harshness - Advances in

Session Chairs: Ming-Hung Lu,

Room: Chicago F

- 09:00 [in18_1536.pdf](#) ***Design of a Test System for Quantitative Rating of Squeak Propensity of Material Pairs3165***
Gil Jun Lee, University of Cincinnati; Jay Kim, University of Cincinnati
- 09:20 [in18_1531.pdf](#) ***Noise Source Separation in Electric Vehicles Using Operational Transfer Path Analysis3173***
Ming-Hung Lu, Industrial Technology Research Institute; Ming Une Jen, Industrial Technology Research Institute, Taiwan; Dennis de Klerk, Müller-BBM VibroAkustik Systeme B.V., the Netherlands
- 09:40 [in18_1588.pdf](#) ***A Case Study on the Discomfort Caused by Vertical Vibration in a Micro Commercial Car3184***
Yu Huang, Shanghai Jiao Tong University; Dou Li, Shanghai Jiao Tong University
- 10:00 [in18_1727.pdf](#) ***A Study on Possible Causes of Squeak Noises in the Hand-Grab Bar Assembly of a Vehicle3191***
Gil Jun Lee, University of Cincinnati; Sung Uk Choi, Hyundai Motors Company; Jay Kim, University of Cincinnati

Session Number 21.2 - Vehicle Noise, Vibration, and Harshness - Body Structure NVH

Session Chairs: Gordon Ebbitt, Steve Sorenson

Room: Chicago F

- 10:40 ASME NCAD ***A Study on how Small Changes to Vehicle Panel Boundary Conditions Vary the Overall System Response3200***
Amy Dowsett, Loughborough University; Dan O'Boy, Loughborough University; Stephen Walsh, Loughborough University; Steve Fisher, JLR
- 11:00 [in18_2045.pdf](#) ***Lightweight, Flexible Damping Treatment using a Kinetic Spacer3207***
Seungkyu Lee, 3M Company; Taewook Yoo, 3M Company; Ronald Gerdes, 3M Company; Thomas Hanschen, 3M Company; Georg Eichhorn, 3M Company
- 11:20 [in18_1741.pdf](#) ***A Methodology for Improving Vehicle Suspension's Vibro-Acoustic Performance for Road Induced Noise using FBS Method3223***
Jun Gu Kim, Seoul National University; Yeon June Kang, Seoul National University; David P. Song, Hyundai Motor Group; Mun Hwan Cho, Hyundai Motor Group; Kang Duck Ih, Hyundai Motor Group
- 11:40 [in18_1671.pdf](#) ***Fundamental Study of Time Domain Contribution Separation Technique for Principal Component Mode Affecting the Ride Comfort of a Vehicle3235***
Takuya Kajiyama, Osaka Institute of Technology; Hiroki Taguti, Osaka Institute of Technology; Junji Yoshida, Osaka Institute of Technology

- 12:00 [in18_1670.pdf](#) **Handle Vibration Reduction of Lawnmower by Applying Slightly Unbalanced Blade3247**
Shimpei Ohno, Osaka Institute of Technology; Yusuke Yamaguchi, Osaka Institute of Technology; Junji Yoshida, Osaka Institute of Technology

Session Number 22.4 - Vibro-Acoustics - Vibro-Acoustic Experiments

Session Chairs: Steve Hambric, Steve Conlon

Room: Chicago H

- 09:00 [in18_1275.pdf](#) **Tutorial on Wavenumber Transforms of Structural Vibration Fields3259**
Stephen Hambric, ARL/Penn State; Andrew Barnard, Michigan Technological University
- 09:20 [in18_2121.pdf](#) **Low and High Level Acoustic Propagation in Waveguides: Vibroacoustic Coupling in a Bent Pipe at Low Frequency3271**
Romain Beauvais, LAUM; Joel Gilbert, LAUM; François Gautier, LAUM; Adrien Pelat, LAUM; Véronique Florquin, SIM Engineering; Guillaume Vandebossche, SIM Engineering
- 09:40 **ASME NCAD** **Application of an Experimental Modal Analysis on Composite Pressure Vessels for Monitoring Prestress Condition3281**
Sebastian John, Federal Institute of Materials Research and Testing; René Eisermann, Federal Institute of Materials Research and Testing; Georg Mair, Federal Institute of Materials Research and Testing
- 10:00 [in18_1731.pdf](#) **High-Resolution Vibration Measurement and Analysis of the Flight-LAB Aircraft Fuselage Demonstrator3291**
René Winter, DLR e.V.; Jörn Biedermann, DLR e.V.; Marco Norambuena, DLR e.V.
- 10:40 **ASME NCAD** **Analysis of the Impact of Different Types of Vibration Isolation on the Dynamic Loading of Machines and the Surrounding Environment3302**
Stanislav Ziaran, Slovak University of Technology Faculty of Mechanical Engineering; Ondrej Chlebo, Slovak University of Technology, Mechanical Engineering Faculty; Milos Musil, Slovak University of Technology, Mechanical Engineering Faculty
- 11:00 [in18_1471.pdf](#) **Setting Up Plane and Thin Panels with Representative Simply Supported Boundary Conditions: Comparative Results and Applications In Three Laboratories3308**
Olivier Robin, Groupe d'Acoustique de l'Université de Sherbrooke; Alain Berry, Groupe d'Acoustique de l'Université de Sherbrooke - Sherbrooke - Canada; Noureddine Atalla, Groupe d'Acoustique de l'Université de Sherbrooke - Sherbrooke - Canada; Mathieu Aucejo, Laboratoire de Mécanique des Structures et des Systèmes Couplés / CNAM - Paris - France; Boris Lossouarn, Laboratoire de Mécanique des Structures et des Systèmes Couplés / CNAM - Paris - France; Lucie Rouleau, Laboratoire de Mécanique des Structures et des Systèmes Couplés / CNAM - Paris - France; Jean-François Deü, Laboratoire de Mécanique des Structures et des Systèmes Couplés / CNAM - Paris - France; Christophe Marchetto, Laboratoire Vibration Acoustique / INSA - Lyon - France; Laurent Maxit, Laboratoire Vibration Acoustique / INSA - Lyon - France

- 11:20 [in18_1770.pdf](#) **Notes on Measurement of Radiation Efficiency3320**
Steven Campbell, University of Kentucky; David Herrin, University of Kentucky;
Brett Birschbach, Briggs & Stratton; Pat Crowley, Briggs & Stratton
- 11:40 [in18_1668.pdf](#) **Lightweight Low-Frequency Metamaterial Dampers3327**
Ka Yan Au-Yeung, Hong Kong University of Science and Technology; Zhiyu Yang,
Hong Kong University of Science and Technology
- 12:00 [in18_1784.pdf](#) **The Measurement of Sound Scattering in a 1:8 Scale - Validation of the
Measurement Stand and Procedure3333**
Aleksandra Majchrzak, AGH University of Science and Technology; Bartłomiej
Chojnacki, AGH University of Science and Technology; Monika Sobolewska, AGH
University of Science and Technology; Katarzyna Baruch, AGH University of
Science and Technology; Adam Pilch, AGH University of Science and Technology

Poster Sessions

Various Session Numbers

Session Chairs: Xin Hua, Karl Washburn, David Herrin, and Steve Sorenson

Room: Exhibit Area

- 09:00 [in18_1350.pdf](#) **Noise Emissions of a Mail Processing and Distribution Center: A Case Study3341**
Andrea Nicolini, University of Perugia; Michele Goretti, University of Perugia
- 09:00 [in18_1450.pdf](#) **The Effect of Artificial Lightweight Aggregate in Foamed Concrete of Floor
Slabs on Impact Sound Insulation3349**
Changyeon Yun, Doosan E&C; HwuyWan Seo, Doosan E&C; ChangGu Kang,
Doosan E&C; ChangGeun Cho, Seoil University; BoHyeong Lee, Doosan E&C;
KiHong Park, Doosan E&C
- 09:00 [in18_1644.pdf](#) **The Performance of Heavy-Weight Mortar-Based Buffer-Type Floor Structure
against Floor Impact Sound3355**
Myoungsoon Jun, Land and Housing Institute, Korea Land and Housing
Corporation; Youngsoo Chun, Land and Housing Institute, Korea Land and
Housing Corporation; Bunsik Lee, Land and Housing Institute, Korea Land and
Housing Corporation
- 09:00 [in18_1647.pdf](#) **Display System for Distribution of Virtual Image Sources by using Mixed
Reality Technology3362**
Wataru Teraoka, Waseda University; Yuta Kataoka, Waseda University; Yasuhiro
Oikawa, Waseda University; Yusuke Ikeda, Tokyo Denki University
- 09:00 [in18_1878.pdf](#) **Adjustment of the Reverberation Time and Dimensions in the Reverberation
Chamber for the Reduction of the Measurement Dispersion3373**
Bartłomiej Chojnacki, AGH University of Science and Technology; Aleksandra
Majchrzak, AGH University of Science and Technology; Monika Sobolewska,
AGH University of Science and Technology; Adam Pilch, AGH University of
Science and Technology; Katarzyna Baruch, AGH University of Science and
Technology
- 09:00 [in18_1922.pdf](#) **Classrooms Acoustical Comfort in Tucuman, Argentine. Analysis, Evaluation
and Awareness3382**
Leonardo Paterlini, FACULTAD DE ARQUITECTURA Y URBANISMO DE LA
UNIVERSIDAD NACIONAL DE TUCUMAN; BeatrizSilvia Garzón, FACULTAD DE
ARQUITECTURA Y URBANISMO DE LA UNIVERSIDAD NACIONAL DE TUCUMAN

Tuesday Morning

- 09:00 [in18_2039.pdf](#) ***The Acoustics of the Church of Santa Sofia in Benevento3394***
Ilaria Lombardi, Università della Campania Luigi Vanvitelli; Gino Iannace, Università della Campania Luigi Vanvitelli; Amelia Trematerra, Università della Campania Luigi Vanvitelli
- 09:00 [in18_2194.pdf](#) ***The Acoustic of a Courtyard3405***
Ilaria Lombardi, Università della Campania Luigi Vanvitelli; Gino Iannace, Università della Campania Luigi Vanvitelli; Amelia Trematerra, Università della Campania Luigi Vanvitelli
- 09:00 [in18_2199.pdf](#) ***A Characteristic of Floor Impact Noise Reduction using Slab Reinforcement of the Existing Apartment3417***
Seong Shin Hong, DAELIM Industrial Co., Ltd.; Bon Soo Koo, DAELIM Industrial Co., Ltd.; Byung Kwon Lee, Korea Environment Institute
- 09:00 [in18_2249.pdf](#) ***Floor Impact Sound and Vibration Characteristics with Types of Ceiling Structure and Finishing Material in Wall Structure Testing Facility of Slab Thickness 120mm3425***
In Ho Kim, Posco E&C; Jongkwan Ryu, Chonnam National University; Daeho Mun, Dankook University
- 09:00 [in18_2307.pdf](#) ***Evaluation of Floor Impact Sound Reduction Effect of the Buffer-Type Floor Structure according to the Shape of Shear Connect3435***
Nagkyeng Hwang, Korea Land and Housing Corporation; Youngsoo Chun, Land and Housing Institute, Korea Land and Housing Corporation; Sangmo KIM, Total Value Solution
- 10:30 [in18_1311.pdf](#) ***High Speed and Weakly Nonlinear Propagation of Quasi-Monochromatic Acoustic Waves in Bubbly Liquids3443***
Tetsuya Kanagawa, University of Tsukuba; Takanori Yoshimoto, University of Tsukuba
- 10:30 [in18_1446.pdf](#) ***Reconstruction of Radiated Noise Demodulation Spectrum by Exploiting the Structure of Group Sparsity3451***
Qisong Wu, Southeast University; Ping Xu, Southeast University; Shiliang Fang, Southeast University
- 10:30 [in18_1460.pdf](#) ***Numerical Simulation and Experiment Research of Lower Arm B3461***
Zhihong Liu, NWPU; Huigang Wang, NWPU
- 10:30 [in18_1503.pdf](#) ***Numerical Study on Bubble Dynamics in a Human Joint: Effect of Liquid Viscosity and Surface Tension3469***
Hisao Taira, Hokkaido University of Education; Tetsuya Kanagawa, University of Tsukuba
- 10:30 [in18_1556.pdf](#) ***Statistical Analysis for Ship Parametric Resonance in Irregular Waves3476***
Zhang Xiao, National Key Laboratory on Ship Vibration & Noise, China Ship Development and Design Center; Yang Hezhen, University of Glasgow, United Kingdom
- 10:30 [in18_1599.pdf](#) ***Study on Load Fluctuation and Vibration Characteristics on Structure Caused by Dam Breaking Structure3482***
Dongyan Shi, Harbin Engineering University; Zhikai Wang, Harbin Engineering University; Ham Li, Harbin Engineering University
- 10:30 [in18_1611.pdf](#) ***Nonlinear Structural and Acoustic Responses of Debonded Sandwich Shells3492***
Yegao Qu, Shanghai Jiao Tong University; Wenming Zhang, Shanghai Jiao Tong University; Zhike Peng, Shanghai Jiao Tong University; Guang Meng, Shanghai Jiao Tong University

- 10:30 [in18_1735.pdf](#) ***A FSI Simulation of Tire-Water Interaction Noise3500***
Chonglei Zhao, Tsinghua University; Yintao Wei, Tsinghua University
- 10:30 [in18_1905.pdf](#) ***Cabin Tractor Acoustic Design at Mid-High Frequency by Statistical Energy Analysis3508***
Silvia Milana, University of Rome La Sapienza - Department of Mechanical and Aerospace Engineering; Annalisa Fregolent, University of Rome La Sapienza - Department of Mechanical and Aerospace Engineering; Walter D'Ambrogio, Dip. di Ingegneria Meccanica, Energetica e Gestionale, Università dell'Aquila; Antonio Culla, University of Rome La Sapienza - Department of Mechanical and Aerospace Engineering
- 10:30 [in18_1990.pdf](#) ***Localization of Propeller Tip Vortex Noise Assisted by Spectral Kurtosis3515***
Jeung-Hoon Lee, School of mechanical engineering, Changwon National University; Dong-Ho Kim, Naval Ship Engineering Center, Republic of Korea Navy Headquarters; Yun-Ho Shin, System Dynamics Research, Korea Institute of Machinery and Materials
- 10:30 [in18_2044.pdf](#) ***Use of the Raytracing Based Solver BEAM for the Evaluation of Transfer Functions within the Time Domain3525***
Ralf Burgschweiger, Beuth Hochschule fuer Technik Berlin; Ingo Schäfer, Wehrtechnische Dienststelle für Schiffe und Marinewaffen WTD71; Martin Ochmann, Beuth Hochschule für Technik Berlin

Tuesday Afternoon – 28 August, 2018

Session Number 1.3 (continued) - Acoustic Materials - Microperforated Panels

Session Chairs: Mats Abom, Yat Sze Choy

Room: Chicago G

- 13:40 [in18_1707.pdf](#) ***Design of Space Sound Absorbers with Micro-Perforated Stretch Ceiling3534***
Yueyue Wang, Beijing Municipal Institute of Labor Protection; Junjuan Zhao, Beijing Municipal Institute of Labor Protection
- 14:00 [in18_1309.pdf](#) ***Acoustic Absorption of a Microperforated Panel Without the Backing Cavity3539***
Cheng Yang, Shanghai Jiao Tong University
- 14:20 [in18_1983.pdf](#) ***A New Type of Sound Absorbing and Isolation Material - Microrock Sound Insulation Board3549***
Yongkang Miao, Beijing Tien Rung Kang Ron Technology Co.; Bin Shao, USVI Group; Shiyung Ma, USVI Group; Tungchen Chung, USVI Group
- 14:40 [in18_1374.pdf](#) ***Cooling, Heating, Sound-Absorbing, Lighting Ceilings3563***
Christian Nocke, Akustikbuero Oldenburg; Jean-Marc Scherrer, Normalu Barrisol S.A.S

Session Number 2.2 (continued) - Active Control of Sound and Vibration - Application

Session Chairs: Jiancheng Tao, Haishan Zhou and Delf Sachou

Room: Chicago A

- 13:40 [in18_2158.pdf](#) ***Taking Control of Your Acoustical Environment - a Look at the Current State of Personal Noise Control Technology3571***
Jia Hao Chuah, Robert Anderson Group
- 14:00 [in18_2287.pdf](#) ***Window Active Noise Control System with Virtual Sensing Technique3581***
Rina Hasegawa, Kansai University; Dongyuan Shi, Nanyang Technological University; Yoshinobu Kajikawa, Kansai University; Woon-Seng Gan, Nanyang Technological University
- 14:20 [in18_1661.pdf](#) ***Performance Analysis of Active Control of Micro-Vibration Induced by Spacecraft Reaction Wheel3590***
Shi-Hwan Oh, KARI
- 14:40 [in18_1993.pdf](#) ***A400M Fuselage Controlled by Optimized Set of Tuned Vibration Absorbers3597***
Delf Sachau, Helmut-Schmidt-University; Christian Koehne, Helmut-Schmidt-University
- 15:00 [in18_1391.pdf](#) ***Using Frequency Dependent Causality Analysis and Automated Tuning with Broadband ANC Systems to Optimize the Performance of the 3D Sound Field in a Passenger Vehicle3609***
Jonathan Christian, Harman

Session Number 3.4 - Aircraft Noise - UAV Noise

Session Chairs: Ran Cabell, Kevin Herreman

Room: Chicago E

- 13:40 [in18_1364.pdf](#) ***Acoustic Wind Tunnel Measurements of a Quadcopter in Hover and Forward Flight Conditions3621***
Nikolas Zawodny, NASA Langley Research Center; Nicole Pettingill, NASA Langley Research Center
- 14:00 [in18_1314.pdf](#) ***Aeroacoustic Emissions from Quadcopter Unmanned Aircraft Systems as Quadrupoles3635***
Frank Mobley, United States Air Force Research Laboratory
- 14:20 [in18_2310.pdf](#) ***Noise Level Prediction of a Small UAV Using Panel Contribution Analysis3647***
Gong Cheng, University of Kentucky; David Herrin, University of Kentucky
- 15:00 [in18_1526.pdf](#) ***Comparative Acoustic Examination of UAV Propellers3654***
Konrad Oeckel, Technische Hochschule Wildau; Jan Heimann, gfai tech GmbH; Michael Kerscher, gfai tech GmbH; Sven Angermann, Technische Hochschule Wildau; Gunnar Heilmann, gfai tech GmbH; Wolfgang R  ther-Kindel, Technische Hochschule Wildau
- 15:20 [in18_1855.pdf](#) ***UAS Noise Certification3663***
David Senzig, U.S. Department of Transportation; Mehmet Marsan, FAA
- 15:40 [in18_1362.pdf](#) ***Initial Developments Toward an Active Noise Control System for Small Unmanned Aerial Systems3672***
Noah Schiller, NASA Langley Research Center; Nikolas Zawodny, NASA Langley Research Center

Session Number 5.5 - Building and Architectural Acoustics - Case Studies

Session Chairs: Erik Miller-Klein, Paul Bauch and Marcos Holtz

Room: Chicago B

- 16:00 [in18_1906.pdf](#) ***An Open Office Plan Case Study: Demountable Glass Partitions and Speech Privacy3684***
Corey Taylor, Owens Corning; Kevin Herreman, Owens Corning
- 16:20 [in18_1780.pdf](#) ***Polyurethane Foam for Reduction of Impact Noise and Vibration in Fitness Floors3694***
Jessica Scarlett, Getzner USA; Brad Dimock, Getzner USA
- 16:40 [in18_2139.pdf](#) ***New Urban Restaurant in Historic Hotel Separated by High-Transmission-Loss, Spring-Suspended Ceiling3701***
Jim Borzym, Borzym Acoustics LLC
- 17:00 [in18_2175.pdf](#) ***Case Studies of HVAC Noise Control with Challenging Design Constraints3713***
Adam Buck, HDR; Gina Jarta, HDR

Session Number 5.7 - Building and Architectural Acoustics - Facade and Envelope Sound

Isolation

Session Chairs: Jeanette Hesedahl, Melinda Miller

Room: Chicago D

- 13:40 [in18_2053.pdf](#) ***The Use of Scatterer Arrays to Improve the Sound Transmission Loss Across Plenum Windows3723***
Sk Tang, The Hong Kong Polytechnic University
- 14:00 [in18_1584.pdf](#) ***Active Noise Control Strategy for Road Traffic Noise Energy Penetrating Windows in High-Rise Buildings using a Vibration Active Control Device.....3730***
Jiping Zhang, Zhejiang Research and Design Institute of Environmental Protection; Jie Jiang, College of Computer Science and Technology, Zhejiang University of Technology, Hangzhou 310023, China; Peng Chen, Zhejiang Research and Design Institute of Environmental Protection in China; Zheming Wang, Zhejiang Research and Design Institute of Environmental Protection in China
- 14:20 [in18_1493.pdf](#) ***Acoustical Effects of Modern Building Envelope Advancements: You Can Hear the Difference!3742***
Jeffrey Fullerton, Intertek; Matthew Ridgway, Intertek
- 14:40 [in18_1308.pdf](#) ***Noise Reduction and Air Behaviors in Ventilated Single-Glazed Façade with Glass Fiber-Based Shading Louvers and Compact Silencers3753***
Jeehwan Lee, Hampton University
- 15:20 [in18_2247.pdf](#) ***Simulation of Acoustic Insulation of Facades Based on Existing Thermal Regulation in Chile3762***
Jaime Delannoy, DUOC; Leonardo Meza, Escuela de Construcción Civil, Pontificia Universidad Católica, Chile; Antonio Marzzano, Unidad de Acústica Ambiental, SEREMI de Salud - RM, Chile
- 15:40 [in18_1789.pdf](#) ***The Effects of Acoustic Treatment on Plenum Windows in Reducing Outdoor Noise in Residential Buildings3768***
Tony Cheng, Ramboll Hong Kong Limited; Louisa LY Cheung, Ramboll Hong Kong Limited; David BK Yeung, Ramboll.Hong Kong Limited

- 16:00 [in18_1725.pdf](#) **Comparison of Predicted Sound Transmission Loss through an Opening by using Finite Element and Ray-Tracing Methods3776**
Won-Gil Ji, University of Seoul; Suk-Min Kwon, Land and Housing Institute; Hong-Seok Yang, Land and Housing Institute
- 16:20 [in18_1971.pdf](#) **Noise Mitigation using Facade Design on Indonesian Hospital : Dr. Soetomo General Hospital Case Study3786**
Ainun Nadiroh, Institut Teknologi Sepuluh Nopember; Dhany Arifianto, Institut Teknologi Sepuluh Nopember; Nyilo Purnami, Airlangga University

Session Number 5.11 (continued) - Building and Architectural Acoustics - Predictions and Prediction Methods

Session Chairs: Carolina Monteiro, John Davy and Berndt Zeitler

Room: Chicago A

- 15:40 [in18_1415.pdf](#) **A Vibrations Approach to Determining Batch-To-Batch Changes in Poured Gypsum Used in Flooring Systems3796**
Sunit Girdhar, Michigan Technological University; Andrew Barnard, Michigan Technological University
- 16:00 [in18_1796.pdf](#) **Optimization of Sound Absorbing Ceilings3807**
Emma Arvidsson, Saint-Gobain Ecophon AB; Erling Nilsson, Saint-Gobain Ecophon AB; Delphine Bard Hagberg, Lund University
- 16:20 [in18_1383.pdf](#) **Real-Time Auralization of Sound Insulation3814**
Michael Vorlaender, RWTH Aachen University; Imran Muhammad, RWTH Aachen University
- 16:40 [in18_1896.pdf](#) **A Model to Predict the Acoustic Satisfaction in Distracting Background Speech3822**
Tobias Renz, Institute for Acoustics and Building Physics, University of Stuttgart; Philip Leistner, Fraunhofer Institute for Building Physics; Andreas Liebl, Fraunhofer Institute for Building Physics
- 17:00 [in18_2017.pdf](#) **An Efficient and Accurate Sound Insulation Prediction Model for Finite Double-Leaf Walls with a Common Studded Frame3833**
Edwin Reynders, KU Leuven; Jan Van den Wyngaert, KU Leuven; Mattias Schevenels, KU Leuven
- 17:20 [in18_1339.pdf](#) **Diffraction Edge Wave Prediction of Finite, Rectangular Rigid Plates using the Physical Theory of Diffraction3845**
Ning Xiang, Rensselaer Polytechnic Institute; Aleksandra Rozynova, Acentech, Cambridge, MA

Session Number 6.1 - Classic Papers Student Paper Competition

Session Chairs: Jinghao Liu, Rui Cao

Room: Denver

- 13:40 **An Overview of Eric E. Ungar and Donald Ross's 1964 paper, "Vibrations and Noise Due to Piston-Slap in Reciprocating Machinery."**
Steven Campbell, University of Kentucky
- 14:00 **Overview On A. Krokstad, S. Strom and S. Sorsdal's 1967 Paper Calculating The Acoustical Room Response By The Use of A Ray Tracing Technique**
Tongyang Shi, Ray W. Herrick Laboratories, Purdue University

Tuesday Afternoon

- 14:20 ***A Review of R. Parker's "Resonance Effects in Wake Shedding from Parallel Plates"***
Connor Mccluskey, Pennsylvania State University
- 14:40 ***An Overview of R.J Alfredson and P. O. A. L. Davies paper on The Radiation of Sound from an Engine Exhaust and its influence on the Development of a Muffler Flow Insertion Loss Rig***
Jonathan Chen, University of Kentucky
- 15:00 ***An Overview of Broner's 1978 Review Paper on the Effect of Low Frequency Noise on People and More Recent Research on the Effects of Low Frequency Noise***
Weonchan Sung, Purdue University
- 15:40 ***An Overview of R.J Alfredson and P. O. A. L. Davies paper on The Radiation of Sound from an Engine Exhaust and its influence on the Development of a Muffler Flow Insertion Loss Rig***
Suraj Prabhu, Michigan Technological University
- 16:00 ***An Overview of Crocker and Price's Paper on Sound Transmission Using Statistical Energy Analysis***
Yu Xiong, Penn State; Edward Smith, Penn State; Stephen Conlon, Penn State
- 16:20 ***An overview of W. A. Utley's paper on Single Leaf Transmission Loss at Low Frequencies and its influence on subsequent research and measurement standards***
Samuel Underwood, University of Nebraska - Lincoln; Lily Wang, University of Nebraska - Lincoln
- 16:40 ***An Overview Of S. H. Candall's 1970 Paper On The Role Of Damping In Vibration Theory And Its Influence On Subsequent Research***
Sunit Girdhar, Michigan Technological University

Session Number 9.2 (continued) - Flow Induced Noise and Vibration - Computational Methods

Session Chairs: Randolph Leung, Carsten Spehr

Room: Bellmont

- 14:00 ASME NCAD ***CFD Based Lock-In Modeling of Cavity-Pipe Line Systems3851***
Ted Bagwell, The Pennsylvania State University - Applied Research Laboratory;
Kristin Cody, Naval Nuclear Laboratory
- 14:20 ASME NCAD ***Review of Causes and Mitigation of Cavity Noise in Machinery and Other Mechanisms3857***
Frank Kushner, Frank Kushner Consulting
- 14:40 [in18_1373.pdf](#) ***FSI Vibration Analysis Method of Complex Fluid-Filled Piping Systems3867***
Shuaijun Li, Wuhan Second Ship Design and Research Institute; Yong Chen,
Wuhan Second Ship Design and Research Institute; Chunguo Wang, Wuhan
Second Ship Design and Research Institute
- 15:00 [in18_2102.pdf](#) ***Predicting Noise from Mower Deck using a Computational Aeroacoustics Model3873***
Hany Nakhla, John Deere; Christopher Waltenberry, John Deere; Jose
Magalhaes, John Deere; Sanghoon Suh, John Deere

Tuesday Afternoon

Session Number 10.3 - Noise Policies and Regulations

Session Chairs: Arno Bommer, Doug Manvell

Room: Chicago G

- 15:20 [in18_1838.pdf](#) **Noise Ordinance Noise Level Limits, an Update of the EPA's 1975 Findings3885**
Leslie Blomberg, Noise Pollution Clearinghouse
- 15:40 [in18_2113.pdf](#) **What Exactly is the "Maximum Permissible Noise Level?"3896**
Cole Martin, aecom; Paul Burge, AECOM
- 16:00 [in18_1287.pdf](#) **Noise Protection in Urban Areas - the New Legal Framework in Germany3905**
Annett Steindorf, Federal Environment Agency
- 16:20 [in18_1831.pdf](#) **Penalties for Noise Violations in the United States3912**
Leslie Blomberg, Noise Pollution Clearinghouse; Owen Lenz, Noise Pollution Clearinghouse
- 16:40 [in18_1717.pdf](#) **Low Frequency Noise - The Long Way of Amending the German Standard for Measurement and Rating LFN3923**
Christian Fabris, Federal Environment Agency
- 17:00 [in18_1527.pdf](#) **Development and the Regulations of the Noise Control of the Republic of China (Taiwan)3930**
Lin I-Chun, EPA TAIWAN

Session Number 11.5 - Industrial Noise - Mining Noise

Session Chairs: Hugo Camargo, Amanda Azman

Room: Los Angeles

- 13:40 [in18_1418.pdf](#) **Low Speed Control Vortex Axial Fan Design for Minimum Noise3940**
Mark Hurtado, Virginia Polytechnic Institute and State University (Virginia Tech); Ricardo Burdisso, Virginia Polytechnic Institute and State University (Virginia Tech)
- 14:00 [in18_1462.pdf](#) **Exposure and Area Noise Assessment of Stone, Sand, and Gravel Mining Facilities3950**
Hugo Camargo, CDC/NIOSH; Amanda Azman, CDC/NIOSH; Kan Sun, CDC/NIOSH
- 14:20 [in18_1389.pdf](#) **Redesign of Continuous Miner Scrubber Fan System Ductwork for Noise Reduction3961**
Kyle Schwartz, AVEC Inc.; Matt Langford, Techsburg; Ricardo Burdisso, AVEC Inc.
- 14:40 [in18_1999.pdf](#) **Re-Packable Silencers to Reduce Noise Levels Generated by Mine Fans3971**
Felipe Calizaya, University of Utah; Sekhar Bhattacharyya, Pennsylvania State University

Session Number 11.6 - Industrial Noise - Gear Noise

Session Chairs: Pravin Sondkar,

Room: Los Angeles

- 15:20 [in18_1816.pdf](#) **Transient Vibration of Tapered Roller Bearing Excited by Localized Damages on Cup Raceway3983**
Desheng Li, The Timken Company
- 15:40 ASME NCAD **An Analytical and Numerical Investigation of Modulation Sidebands of a Planetary Gear under Fluctuated External Torque3993**
Yunbo Yuan, Harbin Engineering University
- 16:00 ASME NCAD **Free Vibration Analysis of Two-Stage Planetary Gear with Friction4001**
Wei Liu, Student; Tao He, Student

Tuesday Afternoon

**Session Number 12.1 - Measurement Methods - Advances in
Session Chairs: Gilles Daigle, Kristin Cody**

Room: Clark

- 14:20 [in18_1540.pdf](#) ***Emergency Vehicle Detection Using Acoustic Source Localization Techniques4009***
Eoin King, University of Hartford; Jarrett B. Lagler, University of Hartford; Akin Tatoglu, University of Hartford
- 14:40 [in18_1688.pdf](#) ***Measurement of Sound Pressure inside Tube using Optical Interferometry4015***
Denny Hermawanto, Waseda University; Kenji Ishikawa, Waseda University; Kohei Yatabe, Waseda University; Yasuhiro Oikawa, Waseda University
- 15:00 [in18_1753.pdf](#) ***Measurement of the Sound Transmission Loss of Rubber Seals Via the Aperture in Sound Barrier Fixture4026***
Juhyun Jeon, Seoul National University; Yeon June Kang, Seoul National University; Hyeongrae Lee, Seoul National University; Hyunseok Choi, Hyundai Motor Company
- 15:20 [in18_1622.pdf](#) ***Four-Microphone Measurement of Transmission Loss of Automotive Door Seals: Improved Correction Factor4038***
Weimin Thor, Purdue University; Zhuang Mo, Ray W. Herrick Laboratories, Purdue University; J. Stuart Bolton, Ray W. Herrick Laboratories, Purdue University
- 16:00 [in18_1409.pdf](#) ***A High Performance Phase Correction Method for Sound Intensity Analysers4048***
Erlend Fasting, Norsonic AS; Ole-Herman Bjor, Norsonic AS
- 16:20 [in18_1625.pdf](#) ***A Semi Analytical Model to Estimate the Uncertainties of Wind-Induced Noise in a Screened Microphone4061***
David Ecotièrre, Cerema
- 16:40 [in18_1710.pdf](#) ***Comparison of Noise Reduction Performance Evaluation Methods for Low-Noise Pavement in Korea4071***
Byungchae Kim, Poinix Inc.; Kyoungwon Chae, Poinix Inc.; Hyunjin Kim, Poinix Inc.
- 17:00 [in18_1752.pdf](#) ***Comparing Steady State and Impulse Test Methods to Measure the Damping of Composites Applied to Homogeneous Substrates4080***
Jerrod Ward, Aearo Technologies
- 17:20 [in18_1549.pdf](#) ***Innovative Approach to Noise Monitoring Using Programmable Audio DSP4089***
Ted Pyper, K2

**Session Number 12.3 (continued) - Measurement Methods - Signal Processing
Session Chairs: Andrew Barnard, Jing Lu**

Room: Chicago B

- 13:40 [in18_1594.pdf](#) ***Wearable Personal Audio-Spot Design Based on the Collaboration of Bone Conduction Headphone and Parametric Loudspeakers4095***
Toshihiro Fujii, Ritsumeikan University; Takahiro Fukumori, Ritsumeikan University; Masato Nakayama, Ritsumeikan University; Takanobu Nishiura, Ritsumeikan University
- 14:00 [in18_1357.pdf](#) ***A Paradigm of Noise Interference in a Wave4107***
Himanshu Dehra, Egis Group

- 14:20 [in18_1595.pdf](#) ***A Study on Audible Low-Frequency Sound Emphasis Based on Multiplexed Double Sideband Modulation in Parametric Loudspeaker4119***
Yusei Nakano, Ritsumeikan University; Takahiro Fukumori, Ritsumeikan University; Masato Nakayama, Ritsumeikan University; Takanobu Nishiura, Ritsumeikan University
- 14:40 [in18_1596.pdf](#) ***Spectral Peak Noise Reduction with Frequency Modulated Carrier Wave for Parametric Loudspeaker4131***
Kairi Mori, Ritsumeikan University; Takahiro Fukumori, Ritsumeikan University; Masato Nakayama, Ritsumeikan University; Takanobu Nishiura, Ritsumeikan University
- 15:00 [in18_1342.pdf](#) ***Termites use Vibrations to Eavesdrop on Predatory Ants4142***
Joseph Lai, UNSW Canberra; Sebastian Oberst, University of Technology Sydney; Theodore Evans, University of Western Australia
- 15:20 [in18_1987.pdf](#) ***Estimation of an Uncertain Source Power from Monitors at Multiple Distant Locations4152***
D. Keith Wilson, U.S. Army Engineer Research and Development Center; Chris Pettit, U.S. Naval Academy; Carl Hart, U.S. Army Engineer Research and Development Center; Daniel Breton, U.S. Army Engineer Research and Development Center; Vladimir Ostashev, U.S. Army Engineer Research and Development Center

Session Number 16.1 (continued)- Sound Quality and Product Noise - Product Sound Quality

Session Chairs: Ercan Altinsoy, Masayuki Takada

Room: Addison

- 13:20 [in18_1525.pdf](#) ***Imagine, Design, and Experience Interior Active Sounds For EV: A Comprehensive Process4164***
Peyret Paul, Genesis; Patrick Boussard, Genesis; Clément Dendievel, Genesis; Stéphane Molla, Genesis; Antoine Minard, Genesis
- 13:40 **ASME NCAD** ***Intensity Perception for Complex Vertical Whole-Body Vibration4176***
Anna Schwendicke, TU Dresden; Shuye Cheng, TU Dresden; Xudong Yu, TU Dresden; M. Ercan Altinsoy, TU Dresden
- 14:00 [in18_1708.pdf](#) ***The Effect of "Twinkle Twinkle Little Star" on Short-Term Memory4183***
Munhum Park, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang; Pavarit Chuprasert, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang; Achcharaphan Kloemwilai, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang; Napat Fahkrajang, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang; Pruch Sawetratanastien, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang

Session Number 16.2 - Sound Quality and Product Noise - Consumer Product Noise

Session Chairs: Ercan Altinsoy, David Nelson

Room: Addison

- 14:20 [in18_1624.pdf](#) ***Between Engineering and Hearing Research: Auditory Models in Product Development4191***
Florian Völk, WindAcoustics

- 14:40 [in18_1313.pdf](#) ***Perceived Effectiveness of The Rumbler Emergency Siren System4199***
Frank Angione, University of Windsor; Colin Novak, University of Windsor; Ashley Lehman, University of Windsor; Ben Merwin, University of Windsor; Tom Pagliarella, University of Windsor; Chris Imeson, University of Windsor; Nikolina Samardzic, University of Windsor; Peter D'Angela, University of Windsor; Helen Ule, University of Windsor
- 15:00 [in18_1355.pdf](#) ***A New Psychoacoustic Method for Reliable Measurement of Tonalities According to Perception4211***
Wade Bray, HEAD acoustics, Inc.
- 15:40 [in18_1928.pdf](#) ***Assessing LED Bulb Noise4222***
David Nelson, Nelson Acoustics; Jeff Schmitt, ViAcoustics
- 16:00 [in18_1629.pdf](#) ***Compliance of Chain-Saw Noise Information with the Machinery Directive 2006/42/EC4230***
Paul Brereton, Health & Safety Executive; Jacqueline Patel, Health & Safety Executive
- 16:20 [in18_2120.pdf](#) ***Buy Quiet: Findings of I-INCE TSG-104239***
Willem Beltman, Intel; Robert Hellweg, Hellweg Acoustics; Jean Jacques; Patrick Kurtz; Jean Turret
- 16:40 [in18_1470.pdf](#) ***Simplified Determination of the Environmental Correction for Noise Emission Measurements4251***
Fabian Heisterkamp, Federal Institute for Occupational Safety and Health (BAuA); Ilka Arendt, Federal Institute for Occupational Safety and Health (BAuA)
- 17:00 [in18_1414.pdf](#) ***Parameter Values for a Signal Processing Methodology with Constant Maximum Sample Kurtosis across Fractional-Octave-Bands4261***
Edward Zechmann, National Institute for Occupational Safety and Health
- 17:20 [in18_1377.pdf](#) ***Dynamic Modeling and Double-Side Optimization of the Orbital Sander Vibration4273***
Lingjian Shi, Southeast University; Beibei Sun, Southeast University

Session Number 17.5 - Soundscape and Noise Management - Indoor Soundscape

Session Chairs: Semiha Yilmazer, Keely Siebein

Room: Chicago C

- 13:40 ASME NCAD ***Taipei MRT cabin soundscape - route between Shandao Temple and Taipei Main Station4283***
Julie C Chen, National Taiwan University of Science and Technology; Christain Christain, National Taiwan University of Science and Technology; Yu-Tein Yen, National Taiwan University of Science and Technology; Anastasia Mimosa, National Taiwan University of Science and Technology; Elisabeth Kathryn, National Taiwan University of Science and Technology; Lucky Tsaih, National Taiwan University of Science and Technology
- 14:00 [in18_2122.pdf](#) ***Soundscape of Transportation: Aircraft4288***
Marylin Roa, Siebein Associates, Inc.; Gary W. Siebein, Siebein Associates, Inc.; Hyun G. Paek, Siebein Associates, Inc.; Gary Siebein Jr., Siebein Associates, Inc.
- 14:20 [in18_2157.pdf](#) ***A Study of Diffusivity in Concert Halls Using Large Scale Acoustic Wave-Based Modeling and Simulation4297***
Hassan Azad, University of Florida; Roozbeh Ketabi, University of Florida; Gary Siebein, Siebein Associate Inc.

Tuesday Afternoon

- 14:40 [in18_2156.pdf](#) ***The Soundscape of Theaters4309***
Keely Siebein, Siebein Associates, Inc.; Gary Siebein, Siebein Associates, Inc.
- 15:20 [in18_2052.pdf](#) ***Strategies for Tunable Indoor Soundscapes4318***
Ganapathy Mahalingam, North Dakota State University
- 15:40 [in18_2170.pdf](#) ***Study of Soundscape Design Incorporating Sound Instrument into Mini-Plant Factory4324***
Taiko Shono, Soundscape Designer; Hidemaro Shimoda, Acoustic Planning Corporation; Na Lu, Center for Environment, Health and Field Sciences, Chiba University na.lu@chiba-u.jp; Syuichi Obayashi, Planet Co., Ltd.; Jiaxun Hu, Planet Co., Ltd.
- 16:00 [in18_1958.pdf](#) ***Effect of Sound Absorption on Children's Concentration to Listening to Teacher's Speech in a Child Daycare Room4334***
Keiji Kawai, Kumamoto University; Momoko Otaku, Kumamoto University
- 16:20 [in18_1390.pdf](#) ***A Qualitative Approach to Investigate Indoor Soundscape of the Built Environment4340***
Semiha Yilmazer, Bilkent University; Volkan Acun, Bilkent University

Session Number 21.3 - Vehicle Noise, Vibration, and Harshness - Powertrain NVH

Session Chairs: Pranab Saha, Gordon Ebbitt

Room: Chicago F

- 13:40 [in18_1694.pdf](#) ***Development of an Improved Simulation Method for Determining the Vibrational Behaviour of the Electric Motor in Hybrid-Electric Automotive Applications4352***
Ayden Shahfir, DaimlerAG
- 14:00 [in18_1743.pdf](#) ***Experimental Modal Analysis and Numerical Model Development of Diesel Engine Block4364***
Deepak Ghaisas, John Deere Technology Center India; Sachin Pawar, John Deere Technology Center India; Devendra Mandke, John Deere Technology Center India; Sanghoon Suh, John Deere Moline Technology Innovation Center
- 14:20 [in18_1400.pdf](#) ***Prediction of In-Vehicle Powertrain Rigid Body Modes4372***
Ramakanth Maddali, Fiat Chrysler Automobiles
- 14:40 [in18_2154.pdf](#) ***Computational Analysis of DI Pump Ticking Noise Excited By Solenoid Valve Impact.....4388***
Qifan He, Hitachi America Ltd; Nikhil Seera, Hitachi America Ltd; Akira Inoue, Hitachi America Ltd
- 15:00 [in18_1305.pdf](#) ***Interaction of Gear Tooth Friction and Misalignment Effect on the Vibro-Acoustics of Spiral Bevel Gears4395***
Srikumar C Gopalakrishnan, University of Cincinnati; Yawen Wang, UNIVERSITY OF CINCINNATI; Teik C. Lim, UNIVERSITY OF TEXAS AT ARLINGTON

Session Number 21.4 - Vehicle Noise, Vibration, and Harshness - Aerodynamic and Flow Induced Vehicle Noise

Session Chairs: Xin Hua, Pranab Saha

Room: Chicago F

- 15:40 [in18_1729.pdf](#) ***A Continuous Adjoint Framework for Vehicle Aeroacoustic Optimization4410***
Christos Kapellos, Volkswagen AG; Michael Hartmann, Volkswagen AG

Tuesday Afternoon

- 16:00 [in18_2098.pdf](#) ***Virtual Test Platform of Automotive Aeroacoustic Performances for Earlier Development Phase4422***
Munhwan Cho, Hyundai Motor Company; Kang Duck Ih, Hyundai Motor Company
- 16:20 [in18_2015.pdf](#) ***A New Approach to End of Line Vehicle Audit - Turning Subjective Evaluations to Objective Rankings using a New Signal Processing Algorithm4432***
Gary Newton, Bruel & Kjaer; Kiran Kumar Kandula, Bruel & Kjaer; Eric Frank, Bruel & Kjaer; Brian Thom, Bruel & Kjaer; Mark Sturgill, Ford Motor Company

Session Number 22.4 (continued) - Vibro-Acoustics - Vibro-Acoustic Experiments

Session Chairs: Steve Hambric, Steve Conlon

Room: Chicago H

- 13:40 [in18_1660.pdf](#) ***Application of Panel Contribution Analysis Combined with Scale Modeling to Predict Sound Pressure Levels in a Bakery4440***
Gong Cheng, University of Kentucky; D. W. Herrin, University of Kentucky
- 14:00 [in18_1489.pdf](#) ***Acoustical Characteristics of Multi-Leak Signals in Submerged Pipelines4448***
Shuangjiang Zhang, Institute of Acoustics, Chinese Academy of Sciences; Yan Gao, Institute of Acoustics, Chinese Academy of Sciences; Xueyun Ruan, Anhui University of Science and Technology; Yuyou Liu, Beijing Municipal Institute of Labour Protection
- 14:20 [in18_1412.pdf](#) ***Development of Test System to Measure Anti Vibration Gloves Transmissibility at the Palm of the Hand4458***
Rafael Gerges, LAEPI; Samir Gerges, Federal University of Santa Catarina

Session Number 22.5 - Vibro-Acoustics - Composite Panels

Session Chairs: Steve Hambric,

Room: Chicago H

- 14:40 [in18_1442.pdf](#) ***Damping of Hybrid-Weave Composite Laminates4470***
Albert Allen, NASA Langley Research Center
- 15:00 [in18_1387.pdf](#) ***Transmission Loss Adaption of Sandwich Panels with Honeycomb Core Variation4481***
Martin Radestock, German Aerospace Center; Thomas Haase, German Aerospace Center; Hans Peter Monner, German Aerospace Center
- 15:20 [in18_1886.pdf](#) ***Numerical and Experimental Assessment of the Transmission Loss of Honeycomb Sandwich Panels4493***
Simone Baro, Politecnico di Milano - Mechanical Department; Roberto Corradi, Politecnico di Milano - Mechanical Department; Andrea Parrinello, Politecnico di Milano - Aerospace Department; Gian Luca Ghiringhelli, Politecnico di Milano - Aerospace Department

Session Number 22.7 - Vibro-Acoustics - Numerical Methods

Session Chairs: Ricardo Alvarez, Steve Hambric

Room: Chicago H

- 16:00 [in18_1361.pdf](#) ***Topology Optimization of Damping Material for the Acoustic Response of Plates4501***
Zhifei Zhang, School of Automotive Engineering, Chongqing University; Bi Wu, School of Automotive Engineering, Chongqing University; Zhongming Xu, School

Tuesday Afternoon

- of Automotive Engineering, Chongqing University; Yansong He, School of Automotive Engineering, Chongqing University
- 16:20 [in18_1864.pdf](#) ***Performance of Multi-Orifice Resonator on Higher Order Modes of an Acoustic Cavity4513***
V S N Reddi Chintapalli, VIGNANS INSTITUTE OF INFORMATION TECHNOLOGY; V S N Reddi CH, VIGNANS INSTITUTE OF INFORMATION TECHNOLOGY; Jeyaraj P, NITK
- 16:40 [in18_1617.pdf](#) ***Influence of Internal Cavity in Air-Borne Radiated Noise of an Underwater Structure4523***
Dooho Lee, Dongeui University; Bong-Ki Kim, Korea Institute of Machinery & Materials; Hyun-Sil Kim, Korea Institute of Machinery & Materials; Seong-Hyun Lee, Korea Institute of Machinery & Materials
- 17:00 [in18_2279.pdf](#) ***Structural Topology Optimization with Stochastic Dynamic Response Constraints4531***
Xiaoyan Teng, Harbin Engineering University; Wenxiang Xiong, Harbin Engineering University; Hetao Zhao, Harbin Engineering University; Wenjin Zhu, Harbin Engineering University
- 17:20 [in18_2111.pdf](#) ***Uncertainty Analysis For Improved Correlation Of Airborne SEA Model4541***
Dilal Rhazi, FCA; Parimal Tathavadekar, FCA

Session Number 24.1 - Bill Lang Remembrance Session

Session Chairs: Robert Bernhard,

Room: Armitage

- 13:40 ***Bill Lang - family and personal perspectives***
Bob Lang
- 14:00 ***Bill Lang's seminal contributions to INCE-USA, International INCE, the INCE Foundation, and IBM***
George Maling
- 14:20 ***Bill Lang's contributions to IBM Acoustics and IBM in general***
Matt Nobile, Dave Yeager
- 14:40 ***Bill Lang's contributions at the National Academy of Engineering***
Dan Mote, Proctor Reid
- 15:20 ***Bill Lang and Global Noise Policy***
Tor Kihlman,
- 15:40 ***Bill Lang's contribution to noise control engineering in Japan***
Hideki Tachibana
- 16:00 ***Bill Lang and I-INCE***
Robert Bernhard

Poster Sessions (continued)

Various Session Numbers

Session Chairs: Xin Hua, Karl Washburn, David Herrin, and Steve Sorenson

Room: Exhibit Area

- 13:30 [in18_1519.pdf](#) ***Analysis and Comparison of Airport Noise Metrics4554***
Huijuan Zhang, Beijing Municipal Institute of Labour Protection; Lijuan Zhang, Beijing Municipal Institute of Labour Protection

Tuesday Afternoon

- 13:30 [in18_1673.pdf](#) ***Investigative Research using 6-Sigma Method on the Influences of Tire Design Factors on Automobile Road Noises4563***
Byung Sam Kim, Wonkwang University; Il Do Chang, Wonkwang University; Min Ho Kim, Sohae College
- 13:30 [in18_1690.pdf](#) ***Fine-Scale Study of the Population Exposure to Road Traffic Noise in Foshan4574***
Ziqin Lan, School of Engineering, Sun Yat-sen University; Ming Cai, School of Engineering, Sun Yat-sen University; Yuanyuan ZHANG, School of Engineering, Sun Yat-sen University; Yao Huang, School of Engineering, Sun Yat-sen University
- 13:30 [in18_1734.pdf](#) ***Computational Aeroacoustics Study of Tire Rolling Noise4584***
Chonglei Zhao, Tsinghua University; Yintao Wei, Tsinghua University
- 13:30 [in18_1840.pdf](#) ***Noise Generated during the Passage through the Bridge Expansion Joints In Cracow - Case Study4594***
Bartłomiej Chojnacki, AGH University of Science and Technology; Bartłomiej Kukulski, AGH University of Science and Technology; Magdalena Matys, AGH University of Science and Technology; Kamil Piotrowski, AGH University of Science and Technology
- 13:30 [in18_2031.pdf](#) ***Cluster Analysis for Temporal Stratification of the Week Days4599***
Guillermo Quintero, LEAM - Universitat Politècnica de Catalunya; Andreu Balastegui, LEAM - Universitat Politècnica de Catalunya; Jordi Romeu, LEAM - Universitat Politècnica de Catalunya
- 13:30 [in18_2202.pdf](#) ***Study on the Generation and Propagation of Metro-Induced Ground Vibration4608***
Hao Xu, Key Laboratory of Noise and Vibration Research, Institute of Acoustics; Guofeng Bai, Key Laboratory of Noise and Vibration Research, Institute of Acoustics; Fusheng Sui, Key Laboratory of Noise and Vibration Research, Institute of Acoustics
- 13:30 [in18_2205.pdf](#) ***A Revision on Mandatory Microphone Positions in the ISO11819-2 for Different Pavement Surfaces based on Noise Emission Characteristics4615***
Daeseok Han, Korea Institute of Civil Engineering and Building Technology; Suhjung Lee, Korea Institute of Civil Engineering and Building Technology; Sang-Hyuk Lee, Korea Institute of Civil Engineering and Building Technology; Byung Sik Ohm, Korea Institute of Civil Engineering and Building Technology
- 13:30 [in18_2208.pdf](#) ***The Comparison Analysis Between Reference Tires of ISO Standard and OEM Tire for Pavement Noise Level Measurement4621***
Sang Hyuk Lee, Korea Institute of Civil Engineering and Building Technology; Soo Hyung Lee, Korea Institute of Civil Engineering and Building Technology; Daeseok Han, Korea Institute of Civil Engineering and Building Technology; Byungsik Ohm, Korea Institute of Civil Engineering and Building Technology
- 13:30 [in18_2227.pdf](#) ***Feasibility Study for the Measurement of Tyre / Road Noise in Korea4626***
Byungsik Ohm, KICT; Suhjung Lee, KICT; Inkyoon Yoo, KICT
- 13:30 [in18_2228.pdf](#) ***A Study on Mid-Long Term Performance Management Methods of 2-Layer Low Noise Pavement4633***
Suhjung Lee, KICT; Sang Hyuk Lee, KICT; Dae Seok Han, KICT; In Kyoon Yoo, KICT; Byung Sik Ohm, KICT

- 15:30 [in18_1419.pdf](#) **Apply Double Layer Sound Absorption System Development and Acoustic Performance Evaluation of Low Height Barrier Near Railways4638**
Byungkuk Hong, Unison Technology Co., Ltd.; JeWon Yoon, Unison Technology Co., Ltd.; KangSeok Jang, Unison Technology Co., Ltd.; YoungChan Kim, Unison Technology Co., Ltd.; EunSeong Seo, RMS Technology Co., Ltd.
- 15:30 [in18_1581.pdf](#) **Prediction and Measurement of Acoustic Transmission Loss of Acoustic Window with Composite Sandwich Structure.4648**
Changmin Lee, LIGNex1; Gwuansoo Jeon, LIGNex1; Baegyung Jung, LIGNex1; Youngmin Lee, LIGNex1
- 15:30 [in18_1650.pdf](#) **Acoustics of Micro-perforated Panel Silencer with Partitions in the Back-Cavity4655**
Congshuang Jiang, Beijing Municipal Institute of Labor Protection; Danqun Fang, US Sound & Vibration Institute
- 15:30 [in18_1718.pdf](#) **Noise Reduction Strategies of Large-Scale Thermal Power Plant Based on Noise Source Contribution Analysis4665**
Xiwei Wang, Tsinghua University; Xiang Yan, Acoustic Lab of School of Architecture, Tsinghua University
- 15:30 [in18_2087.pdf](#) **Active Noise Control by a Beam-Steerable Parametric Speaker with a Human Tracking System Equipped with a Motion Sensor4673**
Hideo Furuhashi, Aichi Institute of Technology; Yuki Matsui, Aichi Institute of Technology; Madoka Oi, Aichi Institute of Technology
- 15:30 [in18_2203.pdf](#) **Study on Characteristics of Headliner SR Noise According to Its Material and Temperature Condition for Vehicle4683**
Jaewon Lee, DAEHAN SOLUTION; Seung Lee, DAEHAN SOLUTION
- 15:30 [in18_2209.pdf](#) **Study on Acoustic and Physical Properties Optimization of PET Composite Layers for Automotive Interior Materials4690**
Kim Sangmin, DAEHAN SOLUTION; Ji-Young ju, Daehansolution; Jang-Seok Park, Daehansolution; Mee Huh, Huvis; Jin-Su Ham, Huvis
- 15:30 [in18_2256.pdf](#) **Shunt Truck Noise Impact Evaluation and Control Methods4693**
Mike Masschaele, GHD; Gordon Reusing, GHD; Mathew Brenner, GHD
- 15:30 [in18_2295.pdf](#) **Sound Absorption Materials for Smart Manufacturing4699**
Antonio Scofano, Z LAB srl; Sabato Di Filippo, Z LAB srl; Raffaele Dragonetti, University of Naples, Federico II; Marialuisa Napolitano, University of Naples, Federico II; Rosario Romano, University of Naples, Federico II
- 15:30 [in18_2297.pdf](#) **Effect of Vacuum Percentage on Sound Insulation of Composite Board4710**
Zong Cai Liu, CRRC Qingdao Sifang Co., Ltd.; Zhaojin Sun, CRRC QINGDAO SIFANG CO.,LTD; Jianqiang Guo, CRRC QINGDAO SIFANG CO.,LTD; Shaoqing Liu, CRRC QINGDAO SIFANG CO.,LTD

Wednesday Morning – 29 August 2018

Session Number 1.1 - Acoustic Materials - Advances in

Session Chairs: Olivier Robin, Luc Jaouen

Room: Chicago G

- 08:00 [in18_1324.pdf](#) **Compact 2DOF Liner Based on a Long Elastic Open Neck Acoustic Resonator4716**
Frank Simon, ONERA; Delphine Sebbane, ONERA
- 08:20 [in18_1883.pdf](#) **Acoustic Performance of Additively Manufactured Reeds as an Absorber4728**
Wesaam Lepak, University of Hartford; Michael Sterner, University of Hartford;
Paul Slaboch, University of Hartford
- 08:40 [in18_1478.pdf](#) **A Comparison between Glass Fiber and Polymeric Fiber when Serving as a Structural Damping Medium for Fuselage-Like Structures4737**
Yutong Xue, Herrick Labs, Purdue University; J. Stuart Bolton, Herrick Labs, Purdue University
- 09:00 [in18_1799.pdf](#) **Enlarging Sound Attenuation in the Low Frequency Domain by Giving a Poroelastic Material a Lamella Structure4749**
Olivier Robin, Groupe d'Acoustique de l'Université de Sherbrooke; Nicolas Dauchez, Sorbonne Universités, Université de Technologie de Compiègne, Laboratoire Roberval; Benoit Nennig, Institut supérieur de mécanique de Paris (SUPMECA), Laboratoire; Li Ke, Sorbonne Universités, Université de Technologie de Compiègne, Laboratoire Roberval
- 09:20 [in18_1542.pdf](#) **How to Model the Acoustic Properties of a Solid Foam with Thin Membranes?4759**
Camille Gaulon, Laboratoire Matière et Systèmes Complexes, Université Paris Diderot; Juliette Pierre, Institut Jean Le Rond D'Alembert, Sorbonne Université; Caroline Derec, Laboratoire Matière et Systèmes Complexes, Université Paris Diderot; Fabien Chevillotte, Matelys-Research Lab; François-Xavier Bécot, Matelys-Research Lab; Luc Jaouen, Matelys-Research Lab; Florence Elias, Université Pierre et Marie Curie - Sorbonne Université; Wiebke Drenckhan, Institut Charles Sadron, Université de Strasbourg; Valentin Leroy, Laboratoire Matière et Systèmes Complexes, Université Paris Diderot
- 09:40 [in18_1662.pdf](#) **Determination of Effective Parameters of Acoustic Fabrics including Applications4765**
Weiyun Liu, University of Kentucky; D. W. Herrin, University of Kentucky
- 10:20 [in18_1809.pdf](#) **The Experiment of Permeable Ceramic as Sound Absorption Material4774**
Hui Li, Beijing DeShangJingJie Technology Limited Company; Xiang Yan, Tsinghua University
- 10:40 [in18_1697.pdf](#) **Advances In Technology - Novel Solutions for Pipe Noise Mitigation4780**
Richard Pamley, Armacell Engineered Systems; Mark Swift, Armacell Engineered Systems
- 11:00 ASME NCAD **Sound Absorption Characteristic of Glass and Plastic Bottles - Considerations of their Dependences on Material Properties5185**
Teruo Iwase, Niigata University; Satoshi Sugie, Kobayasi institute of Science; Hiroyasu Kurono, Niigata University; Masayuki Abe, Fujita; Yasuaki Okada, Meijo University

Session Number 3.3 - Aircraft Noise - Exterior Noise

Session Chairs: Carsten Spehr, Takatoshi Yokota

Room: Bellmont

- 08:20 [in18_1758.pdf](#) ***Comparison of Lateral Attenuation at the Four Airports in Japan4792***
Yasuaki Kawase, Narita International Airport Promotion Foundation; Kazuyuki Hanaka, Narita International Airport Promotion Foundation; Naoaki Shinohara, Aviation Environment Research Center, Airport Environment Improvement Foundation; Koichi Makino, Kobayasi Institute of Physical Research; Ippei Yamamoto, Defense Facilities Environment Improvement Association
- 08:40 [in18_1659.pdf](#) ***Numerical Study on the Effect of Wind on Sound Propagation over Sea Surface by Finite-Difference Time-Domain Method4803***
Takatoshi Yokota, Kobayasi Institute of Physical Research; Koichi Makino, Kobayasi Institute of Physical Research; Ippei Yamamoto, Defense Facilities Environment Improvement Association
- 09:00 [in18_2037.pdf](#) ***Quantifying the Effect of Uncertainty in Meteorological Conditions on Aircraft Noise Propagation4810***
Harshal Patankar, The Pennsylvania State University; Victor Sparrow, The Pennsylvania State University
- 09:20 [in18_2000.pdf](#) ***Atmospheric Propagation Model Validation with the NRC Convair 580 Aircraft4820***
Sebastian Ghinet, National Research Council Canada; Andrew Price, National Research Council Canada; Gilles Daigle, National Research Council Canada; Michael R. Stinson, National Research Council Canada; Anant Grewal, National Research Council Canada; Viresh Wickramasinghe, National Research Council Canada
- 09:40 [in18_1382.pdf](#) ***Localization of Noise Sources around Aircraft in Flight Based on Time-Domain Beamforming Technique4833***
Takehisa Takaishi, Japan Aerospace Exploration Agency; Kazuomi Yamamoto, Japan Aerospace Exploration Agency; Tomohiro Kobayashi, Kobayashi Institute of Physical Research; Takatoshi Yokota, Kobayashi Institute of Physical Research
- 10:20 [in18_1435.pdf](#) ***Validation of the sonAIR Aircraft Noise Simulation Model - a Case Study for Schiphol Airport4845***
David Jaeger, Empa; Christoph Zellmann, Empa, Swiss Federal Laboratories for Material Science and Technology, Laboratory for Acoustics/Noise control; Dick G. Simons, Delft University of Technology, Faculty of Aerospace Engineering; Mirjam Snellen, Delft University of Technology, Faculty of Aerospace Engineering; Jean Marc Wunderli, Empa, Swiss Federal Laboratories for Material Science and Technology, Laboratory for Acoustics/Noise control
- 10:40 [in18_1509.pdf](#) ***New Approachs For The Dynamic Recording Of Aircraft Noise As A Base For Modeling4854***
Philipp Schwizer, NTi Audio AG
- 11:00 [in18_1689.pdf](#) ***Uncertainties due to Doppler's Shift on Aircraft Noise Prediction4860***
Yiming Wang, Purdue University; Kai Ming Li, Purdue University
- 11:20 [in18_1839.pdf](#) ***Precise Sound Source Model for Aircraft Noise Prediction Based on Noise Source Distribution Determined by Phased Array Beamforming4873***
Tomohiro Kobayashi, Kobayasi Institute of Physical Research; Takatoshi Yokota, Kobayasi Institute of Physical Research; Koichi Makino, Kobayasi Institute of Physical Research; Takehisa Takaishi, Japan Aerospace Exploration Agency

Wednesday Morning

Session Number 5.5 - Building and Architectural Acoustics - Case Studies

Session Chairs: Erik Miller-Klein, Paul Bauch and Marcos Holtz

Room: Chicago B

- 08:00 [in18_1466.pdf](#) ***Acoustic Impact on Collaborative Teaching and Learning Activities In Open Learning Spaces.4885***
Colin Campbell, Saint-Gobain Ecophon AB; Jeroen Vugts, LBPSight; Esther van Oorschot-Slaat, LBPSight; Holger Brokmann, Saint-Gobain Ecophon GmbH
- 08:20 [in18_1434.pdf](#) ***Resilient Channel: One Screw Makes a Difference4897***
Matthew Golden, Pliteq; Alexander Vaisman, Pliteq
- 08:40 [in18_1893.pdf](#) ***Evaluation of Sound Field Spatial Uniformities in Offices Provided by Surface-Mounted Sound Masking Systems vs Plenum-Mounted Systems4905***
André L'Espérance, Soft dB; Louis-Alexis Boudreault, Soft dB; Nicolas Demers, Soft dB; Roderick Mackenzie, Soft dB
- 09:00 [in18_1551.pdf](#) ***Measuring the Impact of a High-Performance All-Glass Building on the Indoor Acoustic Environment and the Occupants Perception of Health, Satisfaction and Productivity4917***
Stanley Gatland II, CertainTeed Corporation; Ihab Elzeyadi, University of Oregon; Aldo Glean, CertainTeed Corporation; Yacine Djama, CertainTeed Corporation
- 09:20 [in18_1919.pdf](#) ***Efficacy of a Biophilic Sound Masking System4929***
Simon Goddard, Plantronics
- 09:40 [in18_2140.pdf](#) ***Absorption Treatment in Million Cubic Foot Public Space4940***
Jim Borzym, Borzym Acoustics LLC
- 10:20 [in18_2002.pdf](#) ***Writers Theatre, from Concept through Completion4949***
Gregory Miller, Threshold Acoustics, LLC; Laura Brill, Threshold Acoustics, LLC; John Strong, Threshold Acoustics, LLC; Carl Giegold, Threshold Acoustics, LLC
- 10:40 [in18_2005.pdf](#) ***Use of PRINCE2 as a Project Management Approach for Spatial Audio Developments4960***
Diego Mauricio Murillo Gomez, University of San Buenaventura; Luis Alberto Tafur Jiménez, University of San Buenaventura
- 11:00 [in18_1746.pdf](#) ***An Evaluation of the Railway Noise Reduction Performance of Different Balcony Door Designs in Hong Kong4971***
Ka-Fai Chiu, Ramboll; David B. K. Yeung, Ramboll HK Ltd; Ching Chan, Ramboll HK Ltd
- 11:20 [in18_1580.pdf](#) ***Objective and Subjective Sound Environment in University Student Dormitories4978***
Fan Xu, Harbin Institute of Technology; Qi Meng, Harbin Institute of Technology; Jian Kang, Harbin Institute of Technology/University of Sheffield; Yanjun Han, Harbin Institute of Technology
- 11:40 [in18_1366.pdf](#) ***Fitness Facility Noise Criteria for a Multi-Use Building4989***
Anthony Nash, Charles M. Salter Associates; Christopher Peltier, Cerami & Associates
- 12:00 **ASME NCAD** ***Acoustical Comfort in Classrooms - Case Study at the University of Brasilia4997***
Clarice Daga, Universidade de Brasília; Hetty Lobo, Universidade de Brasília; José Lobo, Implante de Acústica; Carlos Luna, Universidade de Brasília

Wednesday Morning

Session Number 5.8 - Building and Architectural Acoustics - Acoustic Regulations, Enforcement and Classification for New, Existing, and Retrofitted Buildings

Session Chairs: Birgit Rasmussen, Jeong-Ho Jeong

Room: Los Angeles

- 09:00 [in18_1740.pdf](#) ***Acoustic Classification of Noise in Bathroom of Residential Building through Auditory Experiment5003***
Jongkwan Ryu, Chonnam National University; Hansol Song, Chonnam National University
- 09:20 [in18_1294.pdf](#) ***Challenges for Noise Relevant Urban Development - The Case of Hamburg Stelling5010***
Andrey Yordanov, BDS
- 09:40 [in18_2006.pdf](#) ***Developing Classifications using a Dual-Rating Method of Evaluating Impact Noise5021***
John Loverde, Veneklasen Associates; Wayland Dong, Veneklasen Associates
- 10:20 [in18_2245.pdf](#) ***Survey on Adverse Impacts of Construction Noises through Construction Stages5030***
Sungchan Lee, Youngsan University; Jae Ho Kim, HYUNDAI Engineering and Construction; Joo Young Hong, Nanyang Technological University
- 10:40 [in18_2172.pdf](#) ***Auditory Experiment for Classification Scheme on Rubber Ball Impact Sound5036***
Jeong-Ho Jeong, FILK
- 11:00 [in18_2047.pdf](#) ***A pilot study on acoustic regulations and classification for hospitals & Comparison between the Nordic countries5044***
Birgit Rasmussen, SBI, Danish Building Research Institute, Aalborg University Copenhagen
- 11:20 [in18_2326.pdf](#) ***A Pilot Study on Acoustic Regulations and Classification for Office Buildings - Comparison between the Nordic Countries5052***
Birgit Rasmussen, SBI, Danish Building Research Institute, Aalborg University Copenhagen

Session Number 5.11 - Building and Architectural Acoustics - Predictions and Prediction Methods

Session Chairs: Carolina Monteiro, John Davy and Berndt Zeitler

Room: Chicago A

- 08:00 [in18_1825.pdf](#) ***The STI-Matrix - An Innovative Simulation-Based Method for the Acoustic Evaluation and Assessment of Offices and Public Areas5060***
Michael Boehm, DataKustik GmbH
- 08:20 [in18_1468.pdf](#) ***The Effect of Mechanical Connectors on the Sound Insulation of Structural Insulating Panels5069***
Arne Dijckmans, BBRI; Lieven De Geetere, BBRI; Debby Wuyts, BBRI; Bart Ingelaere, BBRI
- 08:40 [in18_1908.pdf](#) ***Prediction of Noise Caused by Structure-Borne Sound Sources.....5081***
Oliver Kornadt, TU Kaiserslautern; Albert Vogel, Bauhaus-Universität Weimar; Conrad Völker, Bauhaus-Universität Weimar

- 09:00 [in18_1276.pdf](#) ***The Equivalent Translational Compliance of Steel Studs with Different Steel Gauge Thicknesses5088***
John Laurence Davy, RMIT University and CSIRO; Waylang Dong, Veneklasen Associates; John LoVerde, Veneklasen Associates; Mohammad Fard, RMIT University, Australia
- 09:20 [in18_1463.pdf](#) ***Rolling Noise Modeling in Buildings5100***
Matt Edwards, Matelys - Research Lab; Fabien Chevillotte, Matelys - Research Lab; François Xavier Becot, Matelys - Research Lab; Luc Jaouen, Matelys - Research Lab; Nicolas Totaro, INSA Lyon
- 10:00 [in18_1529.pdf](#) ***Limits for Stage Machinery Noise5112***
Anton Melnikov, SBS Bühnentechnik GmbH; Ingo Witew, Institute of Technical Acoustics, RWTH Aachen University; Marcus Maeder, Chair of Vibroacoustics of Vehicles and Machines, Technical University of Munich; Monika Gatt, Chair of Vibroacoustics of Vehicles and Machines, Technical University of Munich; Michael Scheffler, Applied Mechanics Group, University of Applied Sciences, Zwickau; Steffen Marburg, Chair of Vibroacoustics of Vehicles and Machines, Technical University of Munich
- 10:20 [in18_1804.pdf](#) ***Acoustic Design of Voice Booths in Open Plan Offices by Modal Analysis5118***
Rânnely Silveira Nogueira De Araújo, Harmonia Acústica; Carolina Monteiro, Harmonia Acústica; Marcel Borin, Harmonia Acústica; Marcos Holtz, Harmonia Acústica
- 10:40 [in18_1658.pdf](#) ***Characterization of Low Frequency Behavior in a Reverberation Room using Simulation5129***
Jonathan Chen, University of Kentucky; D. W. Herrin, University of Kentucky; Charles Moritz, Blachford Inc.; Jennifer Shaw, Blachford Inc.
- 11:00 [in18_1578.pdf](#) ***Investigation into the Directional Distribution of Incident Acoustic Energy on the Boundary of a Reverberation Chamber5138***
Ruilin Mu, College of Mechanical engineering, Tianjin University of Science&Technology; Xiang Yan, School of Architecture, Tsinghua University
- 11:20 [in18_2133.pdf](#) ***Uncertainty Quantification of Sound Transmission Measurement Procedures Based on the Gaussian Orthogonal Ensemble5149***
Cédric Van Hoorickx, KU Leuven, Department of Civil Engineering; Edwin Reynders, KU Leuven, Department of Civil Engineering
- 11:40 [in18_1585.pdf](#) ***The Use of Ray Tracing Method to Predict Sound Transmission Across Heavily Damped Plates under the Framework of Statistic Energy Analysis (SEA)5161***
Feng Yan, Taizhou University; Robin Wilson, The University of Nottingham
- 12:00 [in18_1984.pdf](#) ***Measurement and Prediction of Flanking Transmissions in Wooden CLT Constructions using Reverse-SEA5168***
Jean-Luc Kouyoumji, FCBA; Marta Fuente Gonzalez, TECNALIA; Renaud Blondeau Patisier, WOODEUM

Session Number 7.4 - Community Noise - Wind Turbine Noise

Session Chairs: Norm Broner, Mark Bastasch

Room: Denver

- 08:00 [in18_1302.pdf](#) ***Noise and Vibration from Urban Wind Turbines5178***
Stephen Dance, London South Bank University; Ben Dymock, Clark Saunders consultants

Wednesday Morning

- 08:20 [in18_1973.pdf](#) **Regulating and Predicting Wind Turbine Sound in the U.S.5195**
Robert Oneal, Epsilon Associates, Inc.; Kenneth Kaliski, RSG, Inc.; Mark Bastasch, CH2M
- 08:40 [in18_2020.pdf](#) **Wind Turbine Noise Measurements in Chile5207**
José David Parra, Government of Chile; Christian Darr, 350 Renewables; Enrique Suárez, Austral University of Chile; Jorge Arenas, Austral University of Chile; Ricardo Burdiso, Virginia Tech; Sterling McBride, Virginia Tech; Igor Valdebenito, Government of Chile
- 09:00 [in18_2225.pdf](#) **Acoustic Characterization of Wind Farms in Chile: Wind Turbine Noise Measurements throughout the Country5220**
Nicolás A. Bastián-Monarca, Acústica Austral; Juan Pablo Álvarez, Acústica Austral; Christian Darr, 350Renewables; José David Parra, Ministerio del Medio Ambiente; Jorge P. Arenas, Universidad Austral de Chile; Enrique Suárez, Universidad Austral de Chile
- 09:20 [in18_1420.pdf](#) **Directivity of Amplitude Modulated Sound around a Wind Turbine under Actual Meteorological Conditions5232**
Yasuaki Okada, Meijo University; Koichi Yoshihisa, Meijo University; Sinya Hyodo, Meijo University
- 09:40 [in18_1567.pdf](#) **Signal Enhancement Method on Wind Turbine Blade Fault Inspection5242**
Tsung-Hsien Tu, Industrial Technology Research Institute; Fang-Chun Lo, Industrial Technology Research Institute; Pei-Yao Yu, Industrial Technology Research Institute; Chiou-Fong Chung, Taiwan Power Company; Ruey-Chyi Chen, Taiwan Power Company
- 10:20 [in18_2280.pdf](#) **MW Wind Turbine Noise Measurement and Assessment of Low-Frequency Tonal Noise5248**
Eunkuk Son, Korea Institute of Energy Research; Gwang-Se Lee, Korea Institute of Energy Research; Sungmok Hwang, Korea Institute of Energy Research; Jinjae Lee, Korea Institute of Energy Research; Seungjin Kang, Korea Institute of Energy Research; Sail Park, Korea Institute of Energy Research; Seokwoo Kim, Korea Institute of Energy Research
- 10:40 [in18_2167.pdf](#) **A Practical Method for Estimating a Presence of a Prominent Tonal Component in Wind Turbine Noise5259**
Sakae Yokoyama, Kobayasi Institute of Physical Research; Tomohiro Kobayashi, Kobayasi Institute of Physical Research; Hideki Tachibana, Professor Emeritus, The University of Tokyo
- 11:00 [in18_1315.pdf](#) **Effects of Infrasound Exposure on Humans5271**
Andrea Bauerdorff, German Environment Agency

Session Number 8.1 - Advances in Construction Noise

Session Chairs: Shiu-Keung Tang, Paul Burge

Room: Northwestern

- 08:40 [in18_2269.pdf](#) **Real-Time Vibration Monitoring of Demolition Activities Directly above Sensitive Power Facilities5280**
Shiu-Keung Tang, The Hong Kong Polytechnic University, China; Chi-chung NG, BeeXergy Consulting Limited; Kei-Choi Mak, BeeXergy Consulting Limited

- 09:00 [in18_1458.pdf](#) ***Reduction of Construction Machinery Noise in Multiple Dominant Frequencies Using Feedforward Type Active Control5288***
 Laura Kanazawa, Okumura Corporation; Koichi Mizutani, University of Tsukuba
- 09:20 [in18_1854.pdf](#) ***Roadway Construction Noise Model Version 2.0 Data Collection Program5300***
 Sharon Carpenter, Paul Carpenter Associates, Inc.; Dayna Bowen, Paul Carpenter Associates, Inc.
- 09:40 [in18_2132.pdf](#) ***Close-Proximity Demolition and Construction Vibration5312***
 Keith Yoerg, ATS Consulting; Judy Rochat, ATS Consulting
- 10:00 [in18_1970.pdf](#) ***Identification of Modular Construction Activity Noise Levels by using K-Means Clustering5321***
 Sanam Dabirian, concordia university; Sanghyeok Han, concordia university; Joonhee Lee, concordia university

Session Number 11.7 - Industrial Noise - Case Studies

Session Chairs: Jinghao Liu, Xin Hua

Room: Indiana

- 08:00 [in18_1310.pdf](#) ***Low-Frequency Pulsation from a Package Boiler5328***
 Tyler Dare, The Pennsylvania State University; Benjamin Beck, The Pennsylvania State University; William Bonness, The Pennsylvania State University; Suzana Rufener, The Babcock & Wilcox Company; Tom Flynn, The Babcock & Wilcox Company
- 08:20 [in18_1635.pdf](#) ***Resolution of an Environmental Noise Problem Caused by a 345 KV Power Pole5339***
 David Parzych, Power Acoustics, Inc
- 08:40 [in18_2186.pdf](#) ***Transformer Noise Reduction using Acoustical Blankets Installed with Magnetic Mounting Bracket5349***
 Pierre-Claude Ostiguy, Soft dB; Anthony Gérard, Soft dB; Roderick Mackenzie, Soft dB; Michel Pearson, Soft dB; André L'espérance, Soft dB
- 09:00 [in18_1577.pdf](#) ***Study on Structure Borne Noise Prediction and Reduction Design of Underwater Platform Mounted Equipment for Military5359***
 Jong-Ik Jeon, lignex1
- 09:20 [in18_1972.pdf](#) ***The Impact of Wind Direction on Flare Noise in Suburban Area: Sound Pressure Level Distribution5367***
 Dhany Arifianto, Institut Teknologi Sepuluh Nopember; Ainun Nadiroh, Institut Teknologi Sepuluh Nopember
- 09:40 [in18_1826.pdf](#) ***Analyzing Field Environments to Generate a New, Better Test5375***
 Jade Vande Kamp, Vibration Research; Aaron Offringa, Vibration Research

Session Number 12.1 - Measurement Methods - Advances in

Session Chairs: Gilles Daigle, Kristin Cody

Room: Clark

- 08:00 [in18_1774.pdf](#) ***A Comprehensive Integrated Solution For Environmental Noise Monitoring5389***
 Bob Selwyn, Sensidyne LP
- 08:20 [in18_1761.pdf](#) ***A Metrology Technique for Airborne Ultrasound in Occupational Health Based on High Spatial Resolution Scans at a Reference Workplace5404***
 Robert Schöneweiß, Physikalisch-Technische Bundesanstalt; Christoph Kling, Physikalisch-Technische Bundesanstalt; Christian Ullisch-Nelken, Institute for Occupational Safety and Health of the German Social Accident Insurance;

Wednesday Morning

- 08:40 [in18_1411.pdf](#) Andrea Wolff, Institute for Occupational Safety and Health of the German Social Accident Insurance; Christian Koch, Physikalisch-Technische Bundesanstalt
Potential Inconsistencies in Conformity Declarations Caused by Different IEC 61672-3 Acoustical Test Methods in Current Sound Level Meters5409
Elvis Alexandre Antonio De Freitas Gouveia Alves, Total Safety Ltda.; David Bello Bondarenco, Total Safety Ltda.; Jorge Enrique Bondarenco Zajarkievaiech, Total Safety Ltda.
- 09:00 [in18_1849.pdf](#) ***Volumetric Sampling of the Sound Field in a Room5420***
Samuel Arturo Verburg, Technical University of Denmark. Acoustic Technology, Department of Electrical Engineering; Efren Fernandez-Grande, Technical University of Denmark. Acoustic Technology, Department of Electrical Engineering
- 09:20 [in18_2150.pdf](#) ***Measurements of Environmental Noise using a Direction of Sound Arrival Identifier5429***
Naru Sato, RION CO., LTD.; Kenji Shinohara, RION CO., LTD.; Norihito Sunago, RION CO., LTD.; Keishi Sakoda, RION CO., LTD.
- 10:00 [in18_2023.pdf](#) ***A Round Robin Study of Sound Power Measurement Methods to Determine Reproducibility and Bias5437***
Samuel Underwood, University of Nebraska - Lincoln; Lily Wang, University of Nebraska - Lincoln
- 10:20 [in18_1962.pdf](#) ***Approximation of a Measurement Surface for the Determination of the Sound Power Level of a Large-Scale Industrial Plant5445***
Christian Fabris, Federal Environment Agency
- 10:40 [in18_1806.pdf](#) ***Optical Visualization of Sound Field inside Transparent Cavity using Polarization High-speed Camera5449***
Kenji Ishikawa, Waseda University; Kohei Yatabe, Waseda University; Yasuhiro Oikawa, Waseda University; Takashi Onuma, Photron Limited; Hayato Niwa, Photron Limited

Session Number 12.4 - Measurement Methods - Environmental Management through Monitoring

Session Chairs: Doug Manvell, Arno Bommer

Room: Clark

- 11:00 [in18_1407.pdf](#) ***Monica, a European Project Focused on the Internet Of Things for the Acoustic Quality and Safety of Outdoor Large Scale Events.....5456***
Bruno Vincent, ACOUCITE; Karim Haddad, BK; Enrico Gallo, TORINO; Christophe Doucet, VILLE DE LYON; Diego Caviedes Nozal, DTU; Marco Jahn, FIT; Vincent Gissinger, ACOUCITE; Wookeun Song, BK
- 11:20 [in18_2251.pdf](#) ***Use of Long Term Monitoring Data to Determine Variations of Sound Levels in Urban Sound Environment5467***
Yuyou Liu, AECOM; Wencheng HU, Beijing Municipal Institute of Labour Protection, Beijing 100054, China; Yan Gao, Key Laboratory of Noise and Vibration Research, Institute of Acoustics; Paul Shields, AECOM Infrastructure & Environment UK Limited, London SW19 4DR, UK
- 11:40 [in18_1621.pdf](#) ***An Innovative Low Cost Sensor for Urban Sound Monitoring5473***
Jérémy Ardouin, Wi6Labs; Ludovic Charpentier, Wi6Lab; Mathieu Lagrange, CNRS LS2N; Félix Gontier, CNRS IRCCyN; Nicolas Fortin, Ifsttar Cerema UMRAE;

Wednesday Morning

- David Ecotièrre, Cerema Ifsttar UMRAE; Judicael Picaut, Ifsttar Cerema UMRAE; Christophe Mietlicky, Bruitparif
- 12:00 [in18_2183.pdf](#) ***Real-Time, Automated Noise Impact Assessment Monitoring of an Industrial Facility5485***
Anthony Gerard, Soft dB; Marc Poirier, Soft dB; Michel Pearson, Soft dB; Roderick Mackenzie, Soft dB; Philippe Laliberté, Soft dB

Session Number 13.2 - Noise and Health - Noise Effects of Environmental and Transportation Noise

Session Chairs: Judy Rochat, Rick Norman

Room: Chicago C

- 08:00 [in18_1473.pdf](#) ***International Space Station Acoustics - A Status Report5493***
Chris Allen, NASA JSC
- 08:20 [in18_1329.pdf](#) ***Community Response to Step-Changes in Railway Noise Exposure and Effects of Earthquakes5509***
Yasuhiro Murakami, Sojo University; Takashi Yano, Kumamoto University; Makoto Morinaga, Defense Facilities Environs Improvement Association; Shigenori Yokoshima, Kanagawa Environmental Research Center
- 08:40 [in18_1877.pdf](#) ***Global Noise Insensitivity - A Complex Analysis of the Problem5518***
Monika Sobolewska, AGH University of Science and Technology; Aleksandra Majchrzak, AGH University of Science and Technology; Bartłomiej Chojnacki, AGH University of Science and Technology; Katarzyna Baruch, AGH University of Science and Technology; Adam Pilch, AGH University of Science and Technology
- 09:00 [in18_1948.pdf](#) ***Artificial Neural Network Models between Road Traffic Noise and Urban Form Indicators in Different Cities5529***
Phillip Kim, University of Seoul; Hunjae Ryu, Department of Energy and Environmental System Engineering, University of Seoul; Jong June Jeon, Department of Statics, University of Seoul; Seo Il Chang, Department of Environmental Engineering, University of Seoul
- 09:40 [in18_1805.pdf](#) ***A Research Roadmap for Aircraft Noise5537***
Nicole Porter, Anderson Acoustics Ltd; Rick Norman, Heathrow Airport Ltd; Xavier Oh, Heathrow Airport Ltd; Andy Knowles, Anderson Acoustics Ltd; Rick Norman, Heathrow Airport; Rick Norman, Heathrow Airport
- 10:00 [in18_1737.pdf](#) ***The Effects of Annoyance due to Aircraft Noise on Psychological Distress5541***
Clémence Baudin, IFSTTAR; Marie Lefèvre, IFSTTAR; Patricia Champelovier, IFSTTAR; Jacques Lambert, IFSTTAR; Bernard Laumon, IFSTTAR; Anne-Sophie Evrard, IFSTTAR
- 10:20 [in18_1318.pdf](#) ***Assessing Aircraft Noise Conditions Affecting Classroom Behaviors5548***
Mary Ellen Eagan, HMMH; Charlotte Clark, Ove Arup & Partners; Gary Evans, Cornell University; Mel Smuk, Barts & the London School of Medicine, Queen Mary University of London
- 10:40 [in18_1841.pdf](#) ***Aircraft Noise Exposure and Objective Sleep Quality in the Population Living near Airports in France5559***
Ali Mohamed Nassur, Ifsttar; Marie Lefèvre, Ifsttar; Maxime Elbaz, Centre du Sommeil et de la Vigilance; Fanny Mietlicki, Bruitparif; Philippe Nguyen, Bruitparif; Carlos Ribeiro, Bruitparif; Matthieu Sineau, Bruitparif; Damien Leger,

- Centre du Sommeil et de la Vigilance; Bernard Laumon, Ifsttar; Anne-Sophie Evrard, Ifsttar
- 11:00 [in18_1823.pdf](#) **Long-Term Follow-Up Study of Community Response to Step-Change in Aircraft Noise Exposure around Noi Bai International Airport5566**
Thu Lan Nguyen, Shimane University; Takashi Yano, Kumamoto University; Yasuhiro Hiraguri, Kindai University; Makoto Morinaga, Defense Facilities Environment Improvement Association; Takashi Morihara, National Institute of Technology, Ishikawa College; Thao Linh Nguyen, Sound Traffic Environment Inc.; Bach Lien Trieu, Shimane University; Thanh Loc Bui, Shimane University
- 11:20 [in18_2056.pdf](#) **Study on the Influence of Traffic Noise on Animals and their Adaptive Strategies.....5578**
Ruhong Xin, School of Architecture, Tianjin University; Yuanyuan Zhang, Shaanxi Normal University Olympic Garden School; Jiangwei Kong, School of Architecture, Tianjin University; Xiang Liu, School of Architecture, Tianjin University; Jian Zeng, School of Architecture, Tianjin University
- 11:40 [in18_1879.pdf](#) **Social Survey on Community Response to Road Traffic Noise in Kinshasa, Democratic Republic of the Congo5589**
Junior Nzelengenge Tambiki, KUMAMOTO UNIVERSITY; Keiji Kawai, KUMAMOTO UNIVERSITY

Session Number 13.5 - Noise and Health - Occupational Noise

Session Chairs: Jose Limardo, Daniel Carr

Room: Armitage

- 08:00 [in18_1394.pdf](#) **Mining Hearing Conservation Programs: Do They Really Prevent Hearing Loss?5600**
Amanda Azman, NIOSH; Kan Sun, NIOSH
- 08:20 [in18_1508.pdf](#) **Noise Exposure at Workstations in the Polish Medical Facilities - Pilot Study5610**
Bozena Smagowska, Central Institute for Labour Protection-National Research Institute; Dariusz Pleban, Central Institute for Labour Protection-National Research Institute
- 08:40 [in18_2125.pdf](#) **Risk of Hearing Impairment Among Employees Using Communication Headsets5619**
Malgorzata Pawlaczyk-Luszczynska, Nofer Institute of Occupational Medicine; Adam Dudarewicz, Nofer Institute of Occupational Medicine; Kamil Zaborowski, Nofer Institute of Occupational Medicine; Malgorzata Zamojska-Daniszevska, Nofer Institute of Occupational Medicine
- 09:00 [in18_1530.pdf](#) **Occupational Risk Assessment Related to Ultrasonic Noise5629**
Dariusz Pleban, Central Institute for Labour Protection - National Research Institute; Bozena Smagowska, Central Institute for Labour Protection - National Research Institute; Jan Radosz, Central Institute for Labour Protection - National Research Institute
- 09:20 [in18_1783.pdf](#) **Awarding and Promoting Excellence in Initiatives to Control Noise and Prevent Hearing Loss5638**
Thais Morata, CDC/NIOSH; Bryan Beamer, CDC/NIOSH
- 09:40 [in18_1376.pdf](#) **Analytical Modeling of Distributed Array of Resilient Particle Impact Dampers on a Cantilever Beam5646**
Kamil Kocak, Georgia Institute of Technology; Kenneth Cunefare, Georgia Institute of Technology

Wednesday Morning

- 10:00 [in18_1898.pdf](#) **International Space Station (ISS) Crewmembers' Noise Exposures5658**
Jose Limardo, NASA-Johnson Space Center; Christopher Allen, NASA - Johnson Space Center; Richard Danielson, Baylor College of Medicine; Andrew Boone, MEI Technologies

Session Number 16.7 - Sound Quality and Product Noise - Psychoacoustics in Noise Evaluation
Session Chairs: Sonoko Kuwano, Takeo Hashimoto

Room: Chicago F

- 10:40 [in18_1346.pdf](#) **Evaluation of Noise Emitted from Construction Machine5676**
Takeo Hashimoto, Seikei University; Shigeiko Hatano, Seikei University
- 11:00 [in18_1499.pdf](#) **Cross-Analyses of a Social Survey of Wind Turbine Noise in Japan5685**
Sonoko Kuwano, Osaka University; Takashi Yano, Kumamoto University; Takayuki Kageyama, Ohita University of Nursing and Health Sciences; Hideki Tachibana, University of Tokyo
- 11:20 [in18_1539.pdf](#) **Simulation and Detection of Intermittent Sounds in Wind Noise Tests on Automobiles5692**
Daniel Carr, Ray W. Herrick Laboratories, School of Mechanical Engineering, Purdue University; Patricia Davies, Ray W. Herrick Laboratories, School of Mechanical Engineering, Purdue University
- 11:40 [in18_1524.pdf](#) **The Characterization of Pleasant and Unpleasant Fan Sounds by Semantic Profiles and their Relationship to Patterns of the Specific Loudness5701**
Stephan Toepken, Carl von Ossietzky University, Oldenburg; Steven Van De Par, Carl von Ossietzky University, Oldenburg

Session Number 19.3 - Transportation Noise - Traffic Noise

Session Chairs: Adam Alexander, Jordi Romeu

Room: Addison

- 08:00 [in18_1736.pdf](#) **The Implementation of EC Directive 2015/996 for the Austrian Railway Network5711**
Christian Kirisits, Kirisits Engineering Consultants; Günter Dinthobl, ÖBB-Infrastruktur AG; Christoph Lechner, Consulting Engineer
- 08:20 [in18_1481.pdf](#) **Worst-Noise Traffic Conditions - A Case Study5722**
David Buehler, ICF
- 08:40 [in18_2065.pdf](#) **Development of Traffic Noise Screening Tool5732**
Adam Alexander, Gannett Fleming Inc.; Ahmed El-Aassar, Gannett Fleming Inc.
- 09:00 [in18_2072.pdf](#) **Field Measurements of Sound Power Levels of Vehicles Running on Japanese General Roads5740**
Miki Yonemura, The University of Tokyo; Hyojin Lee, Institute of Industrial Science, the University of Tokyo; Shinichi Sakamoto, Institute of Industrial Science, the University of Tokyo
- 09:20 [in18_1767.pdf](#) **Survey on Vehicle Horn Use at Intersections in Taipei City, Taiwan5750**
Shoki Tsunekawa, KYUSHU University; Kazuma Hashimoto, Kyushu University; Tamaki Inada, Kyushu University; Masayuki Takada, Kyushu University; Yoshinao Oeda, Kyushu University; Katsuya Yamauchi, Kyushu University; Ki-Hong Kim, Surugadai University; Shin-ichiro Iwamiya, Kyushu University

- 09:40 [in18_2004.pdf](#) ***Collaborative Traffic Data for Road Noise Mapping5762***
Anderson Ladino Velásquez, University of San Buenaventura; Carolina Duque, University of San Buenaventura; Sergio Andrés Castrillón Idárraga, University of San Buenaventura; Andres Felipe Osorio Muriel, University ICESI; Jorge Mauricio Carranza Infante, Secretary of Mobility Medellin; Claudia Elena Durango Vanegas, University of San Buenaventura; Diego Mauricio Murillo Gómez, University of San Buenaventura
- 10:00 [in18_2069.pdf](#) ***Outdoor Sound Propagation Models to Reproduce Low-Frequency Adverse Wind Effect on Road Traffic Noise Propagation5778***
Takuya Oshima, Faculty of Engineering, Niigata University, Japan; Koya Hiroi, Graduate School of Science and Technology, Niigata University, Japan (Present: Fujiki-tekkou Corp.); Yumi Kurosaka, Graduate School of Science and Technology, Niigata University, Japan
- 10:40 [in18_2095.pdf](#) ***Challenges of Defining Existing (Traffic) Noise Near Protected Species Habitat5786***
Tim Casey, HDR Engineering, Inc.
- 11:00 **ASME NCAD** ***Spectral Comparison of Pass-By Traffic Noise5797***
Zhuang Li, McNeese State University
- 11:20 [in18_1979.pdf](#) ***Localization of Heavy Truck Pass-By Noise Sources Using Acoustic Beamforming5805***
Paul Donovan, Illingworth & Rodkin, Inc.; Carrie Janello, Illingworth & Rodkin, Inc.
- 11:40 [in18_1288.pdf](#) ***Indoor Pass-by Noise Engineering to Understand Vehicle Noise Sources And Prediction Of Outdoor Noise Levels5816***
Andreas Schuhmacher, Brüel & Kjaer; Ernesto Varricchio, Jaguar Land Rover Ltd
- 12:00 [in18_1756.pdf](#) ***Analysis of Temporal Variations of Urban Noise in a Large City after the Application of European Noise Directive5824***
Juan Miguel Barrigón Morillas, Universidad de Extremadura; Guillermo Rey Gozalo, Universidad de Extremadura; David Montes González, Universidad de Extremadura; Pedro Atanasio Moraga, Universidad de Extremadura; Rosendo Vílchez-Gómez, Universidad de Extremadura; José Trujillo Carmona, Universidad de Extremadura

Session Number 19.5 - Transportation Noise - Perception of Electric and Hybrid Vehicles

Session Chairs: Ercan Altinsoy, Katsuya Yamauchi

Room: Addison

- 13:40 [in18_1316.pdf](#) ***Experience and Perception of AVAS on Electric Vehicles in Norway5834***
Truls Berge, SINTEF
- 14:00 [in18_1846.pdf](#) ***Experimental Study on the Effect of Vertical Baffles on Liquid Sloshing Noise in a Partially Filled Rectangular Tank under Periodic Excitation5845***
Siva Teja Golla, Indian Institute of Technology, Hyderabad; Venkatesham Balide, Indian Institute of Technology, Hyderabad; Raja Banerjee, Indian Institute of Technology, Hyderabad
- 14:20 [in18_1835.pdf](#) ***Designing an Interior and Exterior Acoustical Brand Identity for Electric Vehicles by Means of Sound Synthesis5855***
David Welsh, Harman International; Antonio Gomez, Harman International; Jonathan Pierce, Harman International

Wednesday Morning

- 14:40 [in18_2210.pdf](#) **Prediction of Detectability of Synthesized Vehicle Sounds Using Logistic Regression5867**
 Lisa Steinbach, Technische Universitaet Dresden, Chair of Acoustic and Haptic Eng.; M. Ercan Altinsoy, Technische Universitaet Dresden, Chair of Acoustic and Haptic Eng.
- 15:00 [in18_1619.pdf](#) **Effect of Amplitude Fluctuation on Detectability of Alert Sound for Electric and Hybrid Vehicle in an Actual Environment5876**
 Nozomiko Yasui, National Institute of Technology, Matsue College

Session Number 19.6 - Transportation Noise - Transportation Sound Simulation and Environmental Impact

Session Chairs: Roalt Aalmoes, Stephen Rizzi

Room: Armitage

- 11:00 [in18_1338.pdf](#) **Psychoacoustic Test to Determine Sound Quality Metric Indicators of Rotorcraft Noise Annoyance5885**
 Siddhartha Krishnamurthy, NASA; Andrew Christian, NASA; Stephen Rizzi, NASA
- 11:20 [in18_1353.pdf](#) **Auralization of an Unmanned Aerial Vehicle under Propeller Phase Control5897**
 Kyle Pascioni, National Institute of Aerospace; Stephen Rizzi, NASA Langley Research Center; Aric Aumann, Science Applications International Corporation
- 11:40 [in18_1507.pdf](#) **Virtual Reality Aircraft Noise Simulation for Community Engagement5908**
 Roalt Aalmoes, Netherlands Aerospace Centre NLR; Merlijn Boer, den, Netherlands Aerospace Centre NLR; Henk Veerbeek, Netherlands Aerospace Centre NLR
- 13:40 [in18_1352.pdf](#) **Receiver-Based Auralization of Broadband Aircraft Flyover Noise Using the NASA Auralization Framework5916**
 Aric Aumann, Science Applications International Corporation; Stephen Rizzi, NASA Langley Research Center; Stephanie Heath, NASA Langley Research Center
- 14:00 [in18_1535.pdf](#) **Perception and Presence in Virtual Reality for Simulated Aircraft Noise5926**
 Noah Letwory, Netherlands Aerospace Centre NLR; Roalt Aalmoes, Netherlands Aerospace Centre NLR; Maykel Miltenburg, van, Netherlands Aerospace Centre NLR
- 14:20 [in18_1654.pdf](#) **Ambisonic Auralisations for Community Consultation of Traffic Noise Impacts and Mitigation Measures5936**
 Daniel Jimenez, Arup Pty Ltd; Mitchell Allen, Arup Pty Ltd; Chris Nugroho, Arup Pty Ltd

Session Number 21.5 - Vehicle Noise, Vibration, and Harshness - Passive and Active Noise Control

Session Chairs: Prakash Thawani, Gordon Ebbitt

Room: Chicago F

- 08:00 [in18_1469.pdf](#) **Weight Minimization of Automotive Sound Packages in the Presence of Air Leaks5946**
 Hyunjun Shin, Purdue University; J. Stuart Bolton, Purdue University
- 08:20 [in18_2126.pdf](#) **Attenuating Axial Pipe Resonances in Exhaust Systems using Micro-Perforated Patches5959**
 Xin Hua, Faurecia Clean Mobility; Brandon Sobecki, Faurecia Clean Mobility; James Egan, Faurecia Clean Mobility; Yuntian Wang, Faurecia Clean Mobility

Wednesday Morning

- 08:40 [in18_1787.pdf](#) ***Analysis of a Battery Electric Vehicle Interior Mid-frequency Noise and Sound Package Optimization Based on Hybrid FE-SEA Method5971***
Xian Wu, School of Automotive Studies, Tongji University; Meng Zhao, School of Automotive Studies, Tongji University
- 09:00 [in18_1648.pdf](#) ***A Systematic Approach Study of Active Road Noise Control in Vehicles5983***
Xiaojun Chen, Gissing Tech. Co.,Ltd; Wei Huang, Gissing Tech. Co.,Ltd; Longchen Li, Gissing Tech. Co.,Ltd; Hailin Ruan, Gissing Tech. Co.,Ltd; Changwei Zheng, Gissing Tech. Co.,Ltd; Xiujie Tian, Gissing Tech. Co.,Ltd; Keda Zhu, Gissing Tech. Co.,Ltd
- 09:20 [in18_1981.pdf](#) ***Active Sound Quality Control for Subjective Preference5991***
Kenta Murai, Hiroshima City University; Shunsuke Ishimitsu, Hiroshima City University
- 09:40 [in18_1491.pdf](#) ***A Study On Improving The Sound Quality Of Electric Vehicles By Using Subharmonics6000***
Yongji Zhao, BYD; Yaxuan Sun, BYD
- 10:00 [in18_1437.pdf](#) ***COMSOL Model for an Enclosed Coaxial Carbon Nanotube Speaker6008***
Suraj Prabhu, Michigan Technological University; Andrew Barnard, Michigan Technological University

Session Number 22.7 - Vibro-Acoustics - Numerical Methods

Session Chairs: Ricardo Alvarez, Steve Hambric

Room: Chicago H

- 08:00 [in18_1681.pdf](#) ***Implementation of Impedance Boundary Condition in Scaled Boundary FEM for Mid-Frequency Acoustics6017***
Sundararajan Natarajan, Indian Institute of Technology Madras; Chandramouli Padmanabhan, Indian Institute of Technology Madras
- 08:20 [in18_1757.pdf](#) ***A Transient Hybrid FE-SEA Method6028***
David Hawes, University of Cambridge; Robin Langley, University of Cambridge; Yuki Ishii, Mitsubishi Heavy Industries
- 08:40 [in18_2234.pdf](#) ***Open Station Vehicle Noise Performance Assessment and Improvement Using SEA6038***
Sandeep Burli, John Deere India
- 09:00 [in18_1850.pdf](#) ***Energy Sharing between Nonlinear Structures by Entropy Modelling6050***
Antonio Culla, University of Rome La Sapienza - Department of Mechanical and Aerospace Engineering; Antonio Carcaterra, University of Rome La Sapienza - Department of Mechanical and Aerospace Engineering
- 09:20 [in18_2270.pdf](#) ***High Frequency Vibro-Acoustic Fatigue Analysis with a Radiosity Based Theory6058***
Qiang Zhong, University of Science and Technology of China; HB Chen, University of Science and Technology of China
- 09:40 [in18_1871.pdf](#) ***Thermodynamics of High Frequency Nonlinear Vibrations6062***
Antonio Carcaterra, Sapienza University of Rome; Antonio Culla, Sapienza University of Rome
- 10:00 **ASME NCAD** ***An Investigation of Ultrasonic Transducer Loading on a Workpiece6070***
Marco Zennaro, Loughborough University; Dan O'Boy, Loughborough University; Alex Haig, Eddyfi; Stephen Walsh, Loughborough University

Wednesday Morning

Session Number 22.9 - Vibro-Acoustics - Inverse Approaches

Session Chairs: Haijun Wu,

Room: Chicago H

- 10:40 [in18_1674.pdf](#) **Combination Analysis of Operational TPA and CAE for Extraction of High Contributing Vibration Mode to Vehicle Interior Road Noise.....6077**
Ryo Majima, Osaka Institute of Technology; Junki Isemura, Osaka Institute of Technology; Daiki Hayashi, Osaka Institute of Technology; Junji Yoshida, Osaka Institute of Technology
- 11:00 [in18_1768.pdf](#) **Selection of Input Force Locations when Determining Blocked Forces6089**
Keyu Chen, University of Kentucky; David Herrin, University of Kentucky
- 11:20 [in18_2243.pdf](#) **Application of Acoustical Wave Propagator for the Determination of Impact Force on a Thin Elastic Plate.....6097**
Ning Wang, University of Western Australia; Jie Pan, University of Western Australia
- 11:40 [in18_2070.pdf](#) **Vibration Field Rendering for a Point-Excited Rectangular Panel Speaker6104**
Ki-Ho Lee, Korea Advanced Institute of Science and Technology; Jeong-Guon Ih, Korea Advanced Institute of Science and Technology

Poster Session

Various Session Numbers

Session Chairs: Xin Hua, Karl Washburn, David Herrin, and Steve Sorenson

Room: Exhibit Area

- 09:00 [in18_1332.pdf](#) **Spherical Sound Sources Localization using SONAH6109**
Hung Jr Chen, National Sun Yat-sen University; Adam Koutný, Czech Technical University in Prague; Ondřej Jiříček, Czech Technical University in Prague
- 09:00 [in18_1351.pdf](#) **The Determination of Sound Power with ISO3744 Method in Quasi-Anechoic Environments: Problems in the Characterization of the Measurement Environment with the Comparison Method6119**
Franco Bertellino, MICROBEL s.r.l.; Vincenzo Vellucci, FAIVELEY TRANSPORT ITALIA
- 09:00 [in18_1421.pdf](#) **A Study for Localization of Infrasound6128**
Tetsuya Doi, Kobayasi Institute of Physical Research; Keiichiro Iwanaga, Kobayasi Institute of Physical Research; Tomohiro Kobayashi, Kobayasi Institute of Physical Research; Yasutaka Nakajima, RION Co., Ltd.
- 09:00 [in18_1497.pdf](#) **Array Spatial Feature Based Near-Field Noise Suppression Technique6136**
Shuai Yao, Southeast University; Jian Liu, Southeast University
- 09:00 [in18_1500.pdf](#) **Velocity Estimation Based on the Broadband Acoustic Signal6144**
Ning Han, Southeast University; Shuxia Huang, Southeast University
- 09:00 [in18_1766.pdf](#) **Method of Spatially Correlated Wideband Ambient Noise Simulation for Underwater Acoustic Array6150**
Liangxin Chen, Key Laboratory of Underwater Acoustic Signal Processing (Southeast University), Ministry of Education; Shiliang Fang, Key Laboratory of Underwater Acoustic Signal Processing (Southeast University), Ministry of Education; Liang An, Key Laboratory of Underwater Acoustic Signal Processing (Southeast University), Ministry of Education

Wednesday Morning

- 09:00 [in18_1794.pdf](#) ***A DEMON Line Spectrum Detection Method Based on Parameter Pre-Estimation6160***
Xinwei Luo, Southeast University; Shiliang Fang, Southeast University
- 09:00 [in18_2026.pdf](#) ***The Procedure Monitoring for the Machining Centers by Noise and Vibration6168***
Mingmei Han, Key Lab of Noise and Vibration, IACAS; Xun Wang, Key Lab of Noise and Vibration, IACAS; Xiaobin Cheng, Key Lab of Noise and Vibration, IACAS; Jun Yang, Key Lab of Noise and Vibration, IACAS
- 09:00 [in18_2051.pdf](#) ***Noise Reduction using Neural Network Trained with Amplitude Spectra6176***
Mitsunori Mizumachi, Kyushu Institute of Technology; Reiya Otani, Kyushu Institute of Technology
- 09:00 [in18_2193.pdf](#) ***Image Denoising via Trained Dictionaries for the Time-frequency Image of Underwater Acoustical Plus Signals6181***
Jian Liu, Key Laboratory of Underwater Acoustic Signal Processing (Southeast University), Ministry of Education; Shiliang Fang, Key Laboratory of Underwater Acoustic Signal Processing (Southeast University), Ministry of Education; Shuai Yao, Key Laboratory of Underwater Acoustic Signal Processing (Southeast University), Ministry of Education; Yangjie Wei, Key Laboratory of Underwater Acoustic Signal Processing (Southeast University), Ministry of Education
- 09:00 [in18_2207.pdf](#) ***Evaluation of Structural Health Monitoring Results utilizing Environmental Noise6188***
Yoshinori Takahashi, Tokyo Metropolitan College of Industrial Technology
- 09:00 [in18_2296.pdf](#) ***Survey Location Optimization of Structural Vibration Based on Select Mode6200***
Chunhui Yuan, China Ship Development & Design Center
- 10:30 [in18_1396.pdf](#) ***On the Estimation of Psychological Stress Caused by Road Noise in a Vehicle Cabin6207***
Osamu Terashima, Toyama Prefectural University; Fumiya Kinoshita, Toyama Prefectural University; Hideaki Touyama, Toyama Prefectural University; Masahiro Sawada, touyama@pu-toyama.ac.jp
- 10:30 [in18_1413.pdf](#) ***Noise Mapping of Quiet Areas6213***
Andreas Novak, WSP
- 10:30 [in18_1502.pdf](#) ***Effect of Sound Design by Passive Noise Control on Auditory Impression6219***
Kenta Murai, Graduate School of Information Science, Hiroshima City University; Shunsuke Ishimitu, Graduate School of Information Science, Hiroshima City University; Ryosuke Ishii, Hiroshima City University
- 10:30 [in18_1504.pdf](#) ***Analysis of Auditory Impression of Getting into a Car6227***
Natsuki Yamagiwa, Graduate School of Information Science, Hiroshima City University; Shunsuke Ishimitsu, Graduate School of Information Science, Hiroshima City University; Yuki Date, Graduate School of Information Science, Hiroshima City University
- 10:30 [in18_1678.pdf](#) ***Basic Research for Preparing Noise Guidelines of Wind Farms in South Korea6234***
Young Min Park, Korea Environment Institute; Kyoung Min Kim, Korea Environment Institute; Kwang Kyu Kang, Korea Environment Institute
- 10:30 [in18_1693.pdf](#) ***Research on the Scheme of Urban Automatic Noise Monitoring6238***
Wei Wan, SUN YAT-SEN UNIVERSITY; Ming Cai, School of Engineering, Sun Yat-sen University; Lve Chen, School of Engineering, Sun Yat-sen University; Bofan Yao, School of Engineering, Sun Yat-sen University

- 10:30 [in18_1730.pdf](#) ***Difference in Annoyance of Environmental Noise between Indoor and Outdoor Hearing Situation in Residential Space6246***
Hansol Song, Chonnam National University; Jongkwan Ryu, Chonnam National University; Jaeseung Hwang, Chonnam National University
- 10:30 [in18_1928.pdf](#) ***Assessing LED Bulb NoiseN/A***
David Nelson, Nelson Acoustics; Jeff Schmitt, ViAcoustics
- 10:30 [in18_2089.pdf](#) ***The Risk of Temporary Hearing Threshold Shift in Bartenders6264***
Adam Dudarewicz, Nofer Institute of Occupational Medicine in Lodz; Kamil Zaborowski, Nofer Institute of Occupational Medicine in Lodz; Anna Wolniakowska, Nofer Institute of Occupational Medicine in Lodz; Malgorzata Pawlaczyk-Luszczynska, Nofer Institute of Occupational Medicine in Lodz; Mariola Sliwinska-Kowalska, Nofer Institute of Occupational Medicine in Lodz
- 10:30 [in18_2216.pdf](#) ***Initial Verification of Dynamic Acoustic Mapping Along the Motorway Surrounding the City of Rome6276***
Roberto Benocci, University of Milano-Bicocca; Fabio Angelini, Università di Milano-Bicocca- Italy; Alessandro Flavio Aggio, Università di Milano-Bicocca- Italy; Alessandro Bisceglie, Università di Milano-Bicocca- Italy; Rosa Ma Alsina-Pagès, GTM - Grup de recerca en Tecnologies Mèdia, La Salle - Barcelona, Spain; Joan Claudi Socoró, GTM - Grup de recerca en Tecnologies Mèdia, La Salle - Barcelona, Spain; Francesc Alías, GTM - Grup de recerca en Tecnologies Mèdia, La Salle - Barcelona, Spain; Ferran Orgab, GTM - Grup de recerca en Tecnologies Mèdia, La Salle - Barcelona, Spain; Patrizia Bellucci, ANAS S.p.A. - Roma, Italy; Laura Peruzzi, ANAS S.p.A. - Roma, Italy; Giovanni Zambon, Università di Milano-Bicocca- Italy

Wednesday Afternoon – 29 August 2018

Session Number 3.3 (continued) - Aircraft Noise - Exterior Noise

Session Chairs: Carsten Spehr, Takatoshi Yokota

Room: Bellmont

- 13:20 [in18_1795.pdf](#) ***Validation of Aircraft Noise Prediction Models6288***
Hua He, Federal Aviation Administration
- 13:40 [in18_1884.pdf](#) ***Acoustic Analysis of STEX Inlet on Fan Noise Radiation6297***
Paul Slaboch, University of Hartford; David Stephens, NASA Glenn Research Center; Christopher Miller, NASA Glenn Research Center
- 14:00 [in18_1337.pdf](#) ***Parametric Aircraft Configuration Optimization according to ICAO Annex 16 Certification Standards and Sound Quality Evaluation within Conceptual Aircraft Design6305***
Miguel Yael Pereda Albarran, RWTH Aachen University; Eike Stumpf, RWTH Aachen University

Wednesday Afternoon

- 14:20 [in18_1721.pdf](#) **Study on Effects of Aircraft Takeoff Thrust Reduction on Noise at Narita Airport6315**
Toshiyasu Nakazawa, Airport Environment Improvement Foundation; Naoaki Shinohara, Airport Environment Improvement Foundation; Kazuyuki Hanaka, Narita International Airport Promotion Foundation

Session Number 12.4 (continued) - Measurement Methods - Environmental Management through Monitoring

Session Chairs: Doug Manvell, Arno Bommer

Room: Clark

- 13:20 [in18_1723.pdf](#) **Combining Noise and Weather Data in Real-Time Monitoring6323**
Douglas Manvell, Brüel & Kjaer
- 13:40 [in18_2018.pdf](#) **Ensuring the Future of Mining with Advances in Compliance Monitoring6335**
Patrick Dzijacky, Goldcorp Porcupine Gold Mines
- 14:00 [in18_1583.pdf](#) **A Study on Possible Solutions to the Challenges Associated with Limited Survey Locations in Community Noise Measurement Based on Noise Mapping in China6344**
Jiping Zhang, Zhejiang Research and Design Institute of Environmental Protection; Heng Ma, Zhejiang Research and Design Institute of Environmental Protection in China; Peng Chen, Zhejiang Research and Design Institute of Environmental Protection in China; Zheming Wang, Zhejiang Research and Design Institute of Environmental Protection in China
- 14:20 [in18_1728.pdf](#) **Reduction of Uncertainties for a Model Based Measurement System for Impulsive Sound Events.....6356**
Frits Van Der Eerden, TNO; Peter Wessels, TNO; Frank Van den Berg, TNO; Anneke Kruijen, TNO
- 14:40 [in18_2003.PDF](#) **Community Noise and Cruise Vessels Implementing Shore Power at the Port of Vancouver6368**
Gary Olszewski, Vancouver Fraser Port Authority; Bryce Docker, EMS Bruel & Kjaer; Douglas Manvell, Bruel & Kjaer SVM

Session Number 16.7 (continued) - Sound Quality and Product Noise - Psychoacoustics in Noise Evaluation

Session Chairs: Sonoko Kuwano, Takeo Hashimoto

Room: Chicago F

- 13:00 [in18_1653.pdf](#) **Interaction between Vehicle Interior Noise and Steering Vibration on the Uncomfortableness in Cabin6376**
Junji Yoshida, Osaka Institute of Technology; Mutsuki Sakuramoto, Osaka Institute of Technology; Yoshiyuki Sukegawa, Osaka Institute of Technology
- 13:20 [in18_1422.pdf](#) **Evaluation of Subjective Impressions of the Sound of Dental Drills6387**
Tomomi Yamada, Osaka University; Sonoko Kuwano, Osaka University; Shigeyuki Ebisu, Osaka University; Mikako Hayashi, Osaka University
- 13:40 [in18_1623.pdf](#) **Threshold-Based Headphone Equalization6394**
Florian Völk, WindAcoustics
- 14:00 [in18_1887.pdf](#) **The Subjective Analysis of Wheel-Rail Squealing Noise by Modification of the British Standard BS 4142:20146401**
Giora Rosenhouse, SWANTECH

- 14:20 [in18_1682.pdf](#) ***Analysis on Korean Emotion Vocabulary due to Inter-Floor Noise using Word Embedding6411***
Hyekyung Shin, KICT; Kyoung-wpo Kim, KICT; Kwan-seop Yang, KICT
- 14:40 [in18_1615.pdf](#) ***Difference of Perceived Loudness of Sounds between Chinese Males and Females6416***
Mariko Tsuruta-Hamamura, Utsunomiya University; Jiaming Wang, Graduate School of Design, Kyushu University; Manami Aono, Graduate School of Design, Kyushu University; Shin-Ichiro Iwamiya, Faculty of Design, Kyushu University

Session Number 22.9 (continued) - Vibro-Acoustics - Inverse Approaches

Session Chairs: Haijun Wu,

Room: Chicago H

- 3:40 [in18_2147.pdf](#) ***Enhancing the Accuracy in Reconstruction of Vibro-Acoustic Responses of a Complex Structure using Helmholtz Equation Least Squares Based Nearfield Acoustical Holography6426***
Logesh Kumar Natarajan, Wayne State University; Sean F. Wu, Wayne State University
- 14:00 [in18_1428.pdf](#) ***A Comparison of Sound Field Reconstructions Using a Spherical Wave Model and a Plane Wave Model6442***
Kean Chen, Northwestern Polytechnical University/Electric Power Research Institute; Yan Wang, Northwestern Polytechnical University; Xiyue Ma, Northwestern Polytechnical University; Jian Xu, Northwestern Polytechnical University; Bing Zhou, Electric Power Research Institute
- 14:20 [in18_1569.pdf](#) ***An Inverse Patch Transfer Function Method Based on the Green's Function in Free Field6450***
Dou Li, Institute of Vibration Shock and Noise, School of Mechanical Engineering, Shanghai Jiao Tong University; Haijun Wu, Institute of Vibration Shock and Noise, School of Mechanical Engineering, Shanghai Jiao Tong University; Liang Yu, Institute of Vibration Shock and Noise, School of Mechanical Engineering, Shanghai Jiao Tong University; Weikang Jiang, Institute of Vibration Shock and Noise, School of Mechanical Engineering, Shanghai Jiao Tong University

Closing Plenary: Patricia Davies

Session Chair: Gordon Ebbitt

Room: Chicago D and E

- 15:30 [in18_4001.pdf](#) ***Perception-Based Engineering: Integrating Sound Perception into Engineering Design6458***
Patricia Davies, Purdue University