

# INTER-NOISE 2018

## Impact of Noise Control Engineering

### Poster Sessions

Tuesday, August 28, 2018

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#### Building and Architectural Acoustics

Tuesday, 09:00 – 10:30, 7<sup>th</sup> Floor, Exhibit Area

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

- 09:00 1647 **Display System for Distribution of Virtual Image Sources by using Mixed Reality Technology**  
Wataru Teraoka; Yuta Kataoka; Yasuhiro Oikawa; Yusuke Ikeda
- 09:00 1878 **Adjustment of the Reverberation Time and Dimensions in the Reverberation Chamber for the Reduction of the Measurement Dispersion**  
Bartłomiej Chojnacki; Aleksandra Majchrzak; Monika Sobolewska; Adam Pilch; Katarzyna Baruch
- 09:00 2199 **A Characteristic of Floor Impact Noise Reduction using Slab Reinforcement of the Existing Apartment**  
Seong Shin Hong; Bon Soo Koo; Byung Kwon Lee
- 09:00 1450 **The Effect of Artificial Lightweight Aggregate in Foamed Concrete of Floor Slabs on Impact Sound Insulation**  
ChangYeon Yun; HwuyWan Seo; ChangGu Kang; ChangGeun Cho; BoHyeong Lee; KiHong Park
- 09:00 1644 **The Performance of Heavy-Weight Mortar-Based Buffer-Type Floor Structure against Floor Impact Sound**  
Myoungsoon Jun; Youngsoo Chun; Bunsik Lee
- 09:00 2249 **Floor Impact Sound and Vibration Characteristics with Types of Ceiling Structure and Finishing Material in Wall Structure Testing Facility of Slab Thickness 120mm**  
In Ho Kim; Jongkwan Ryu; Daeho Mun
- 09:00 2307 **Evaluation of Floor Impact Sound Reduction Effect of the Buffer-Type Floor Structure according to the Shape of Shear Connect**  
Nagkyeng Hwang; Youngsoo Chun; Sangmo KIM
- 09:00 1350 **Noise Emissions of a Mail Processing and Distribution Center: A Case Study**  
Andrea Nicolini; Michele Goretti
- 09:00 1922 **Classrooms Acoustical Comfort in Tucuman, Argentine. Analysis, Evaluation and Awareness**  
Leonardo Paterlini; BeatrizSilvia Garzón
- 09:00 2039 **The Acoustics of the Church of Santa Sofia in Benevento**  
Ilaria Lombardi; Gino Iannace; Amelia Trematerra

**09:00 2194 The Acoustic of a Courtyard**  
Ilaria Lombardi; Gino Iannace; Amelia Trematerra

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**Advances in Analytical Simulation and Ship / Offshore NVH**

**Tuesday, 10:30 – 12:00, 7<sup>th</sup> Floor, Exhibit Area**

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

- 10:30 1460 Numerical Simulation and Experiment Research of Lower Arm B**  
Zhihong Liu; Huigang Wang
- 10:30 1735 A FSI Simulation of Tire-Water Interaction Noise**  
Chonglei Zhao; Yintao Wei
- 10:30 1905 Cabin Tractor Acoustic Design at Mid-High Frequency by Statistical Energy Analysis**  
Silvia Milana; Annalisa Fregolent; Walter D'Ambrogio; Antonio Culla
- 10:30 2044 Use of the Raytracing Based Solver BEAM for the Evaluation of Transfer Functions within the Time Domain**  
Ralf Burgschweiger; Ingo Schäfer; Martin Ochmann
- 10:30 1311 High Speed and Weakly Nonlinear Propagation of Quasi-Monochromatic Acoustic Waves in Bubbly Liquids**  
Tetsuya Kanagawa; Takanori Yoshimoto
- 10:30 1503 Numerical Study on Bubble Dynamics in a Human Joint: Effect of Liquid Viscosity and Surface Tension**  
Hisao Taira; Tetsuya Kanagawa
- 10:30 1446 Reconstruction of Radiated Noise Demodulation Spectrum by Exploiting the Structure of Group Sparsity**  
Qisong Wu; Ping Xu; Shiliang Fang
- 10:30 1556 Statistical Analysis for Ship Parametric Resonance in Irregular Waves**  
Zhang Xiao; Yang Hezhen
- 10:30 1611 Nonlinear Structural and Acoustic Responses of Debonded Sandwich Shells**  
Yegao Qu; Wenming Zhang; Zhike Peng; Guang Meng
- 10:30 1990 Localization of Propeller Tip Vortex Noise Assisted by Spectral Kurtosis**  
Jeung-Hoon Lee; Dong-Ho Kim; Yun-Ho Shin
- 10:30 1599 Study on Load Fluctuation and Vibration Characteristics on Structure Caused by Dam Breaking Structure**  
Dongyan Shi; Zhikai Wang; Ham Li
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## Advances in Transportation Noise

Tuesday, 13:30 – 15:30, 7<sup>th</sup> Floor, Exhibit Area

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

- 13:30 1519 Analysis and Comparison of Airport Noise Metrics**  
Huijuan Zhang; Lijuan Zhang
- 13:30 2202 Study on the Generation and Propagation of Metro-Induced Ground Vibration**  
Hao Xu; Guofeng Bai; Fusheng Sui
- 13:30 2205 A Revision on Mandatory Microphone Positions in the ISO11819-2 for Different Pavement Surfaces based on Noise Emission Characteristics**  
Daeseok Han; Suhjung Lee; Sang-Hyuk Lee; Byung Sik Ohm
- 13:30 2208 The Comparison Analysis Between Reference Tires of ISO Standard and OEM Tire for Pavement Noise Level Measurement**  
Sang Hyuk Lee; Soo Hyung Lee; Daeseok Han; Byungsik Ohm
- 13:30 2227 Feasibility Study for the Measurement of Tyre / Road Noise in Korea**  
Byungsik Ohm; Suhjung Lee; Inkyoon Yoo
- 13:30 1673 Investigative Research using 6-Sigma Method on the Influences of Tire Design Factors on Automobile Road Noises**  
Byung Sam Kim; Il Do Chang; Min Ho Kim
- 13:30 2228 A Study on Mid-Long Term Performance Management Methods of 2-Layer Low Noise Pavement**  
Suhjung Lee; Sang Hyuk Lee; Dae Seok Han; In Kyoon Yoo; Byung Sik Ohm
- 13:30 1367 Passband Analysis of Tire-Pavement Noise**  
Michael Staiano
- 13:30 1690 Fine-Scale Study of the Population Exposure to Road Traffic Noise in Foshan**  
Ziqin Lan; Ming Cai; Yuanyuan ZHANG; Yao Huang
- 13:30 1734 Computational Aeroacoustics Study of Tire Rolling Noise**  
Chonglei Zhao; Yintao Wei
- 13:30 1840 Noise Generated during the Passage through the Bridge Expansion Joints In Cracow - Case Study**  
Bartłomiej Chojnacki; Bartłomiej Kukulski; Magdalena Matys; Kamil Piotrowski
- 13:30 2031 Cluster Analysis for Temporal Stratification of the Week Days**  
Guillermo Quintero; Andreu Balastegui; Jordi Romeu
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## Advances in Passive and Active Noise Control

Tuesday, 15:30 – 17:30, 7<sup>th</sup> Floor, Exhibit Area

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

- 15:30 2209 **Study on Acoustic and Physical Properties Optimization of PET Composite Layers for Automotive Interior Materials**  
Kim SangMin; Ji-Young ju; Jang-Seok Park; Mee Huh; Jin-Su Ham
- 15:30 1419 **Apply Double Layer Sound Absorption System Development and Acoustic Performance Evaluation of Low Height Barrier Near Railways**  
ByungKuk Hong; JeWon Yoon; KangSeok Jang; YoungChan Kim; EunSeong Seo
- 15:30 2295 **Sound Absorption Materials for Smart Manufacturing**  
Antonio Scofano; Sabato Di Filippo; Raffaele Dragonetti; Marialuisa Napolitano; Rosario Romano
- 15:30 2087 **Active Noise Control by a Beam-Steerable Parametric Speaker with a Human Tracking System Equipped with a Motion Sensor**  
Hideo Furuhashi; Yuki Matsui; Madoka Oi
- 15:30 1650 **Acoustics of Micro-perforated Panel Silencer with Partitions in the Back-Cavity**  
Congshuang Jiang; Danqun Fang
- 15:30 1581 **Prediction and Measurement of Acoustic Transmission Loss of Acoustic Window with Composite Sandwich Structure**  
Changmin Lee; Gwansoo Jeon; Baegyun Jung; Youngmin Lee
- 15:30 1718 **Noise Reduction Strategies of Large-Scale Thermal Power Plant Based on Noise Source Contribution Analysis**  
XiWei Wang; Xiang Yan
- 15:30 2256 **Shunt Truck Noise Impact Evaluation and Control Methods**  
Mike Masschaele; Gordon Reusing; Mathew Brenner
- 15:30 2203 **Study on Characteristics of Headliner SR Noise According to Its Material and Temperature Condition for Vehicle**  
Jaewon Lee; Seung Lee
- 15:30 2297 **Effect of Vacuum Percentage on Sound Insulation of Composite Board**  
Zong Cai Liu; Zhaojin Sun; Jianqiang Guo; Shaoqing Liu

## Poster Sessions

Wednesday, August 29, 2018

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### Advances in Measurement Methods and Signal Processing

Wednesday, 09:00 – 10:30, 7<sup>th</sup> Floor, Exhibit Area

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

- 09:00 1351 **The Determination of Sound Power with ISO3744 Method in Quasi-Anechoic Environments: Problems in the Characterization of the Measurement Environment with the Comparison Method**  
Franco Bertellino; Vincenzo Vellucci
- 09:00 2296 **Survey Location Optimization of Structural Vibration Based on Select Mode**  
Chunhui Yuan
- 09:00 1332 **Spherical Sound Sources Localization using SONAH**  
Hung Jr Chen; Adam Koutný; Ondřej Jiříček
- 09:00 1421 **A Study for Localization of Infrasound**  
Tetsuya Doi; Keiichiro Iwanaga; Tomohiro Kobayashi; Yasutaka Nakajima
- 09:00 1497 **Array Spatial Feature Based Near-Field Noise Suppression Technique**  
Shuai Yao; Jian Liu
- 09:00 1500 **Velocity Estimation Based on the Broadband Acoustic Signal**  
Ning Han; Shuxia Huang
- 09:00 1766 **Method of Spatially Correlated Wideband Ambient Noise Simulation for Underwater Acoustic Array**  
Liangxin Chen; Shiliang Fang; Liang An
- 09:00 1794 **A DEMON Line Spectrum Detection Method Based on Parameter Pre-Estimation**  
Xinwei Luo; Shiliang Fang
- 09:00 2026 **The Procedure Monitoring for the Machining Centers by Noise and Vibration**  
Mingmei Han; Xun Wang; Xiaobin Cheng; Jun Yang
- 09:00 2051 **Noise Reduction using Neural Network Trained with Amplitude Spectra**  
Mitsunori Mizumachi; Reiya Otani
- 09:00 2193 **Image Denoising via Trained Dictionaries for the Time-frequency Image of Underwater Acoustical Plus Signals**  
Jian Liu; Shiliang Fang; Shuai Yao; Yangjie Wei
- 09:00 2207 **Evaluation of Structural Health Monitoring Results utilizing Environmental Noise**  
Yoshinori Takahashi
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## **Advances in Sound Quality, Product Noise, and Health**

**Wednesday, 10:30 – 12:00, 7<sup>th</sup> Floor, Exhibit Area**

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

- 10:30 1413 Noise Mapping of Quiet Areas**  
Andreas Novak
- 10:30 2216 Initial Verification of Dynamic Acoustic Mapping Along the Motorway Surrounding the City of Rome**  
Roberto Benocci; Fabio Angelini; Alessandro Flavio Aggio; Alessandro Bisceglie; Rosa Ma Alsina-Pagès; Joan Claudi Socoró; Francesc Alías; Ferran Orgab; Patrizia Bellucci; Laura Peruzzi; Giovanni Zambon
- 10:30 1678 Basic Research for Preparing Noise Guidelines of Wind Farms in South Korea**  
Young Min Park; Kyoung Min Kim; Kwang Kyu Kang
- 10:30 1502 Effect of Sound Design by Passive Noise Control on Auditory Impression**  
Kenta Murai; Shunsuke Ishimitu; Ryosuke Ishii
- 10:30 1504 Analysis of Auditory Impression of Getting into a Car**  
Natsuki Yamagiwa; Shunsuke Ishimitsu; Yuki Date
- 10:30 1928 Assessing LED Bulb Noise**  
David Nelson; Jeff Schmitt
- 10:30 1396 On the Estimation of Psychological Stress Caused by Road Noise in a Vehicle Cabin**  
Osamu Terashima; Fumiya Kinoshita; Hideaki Touyama; Masahiro Sawada
- 10:30 1730 Difference in Annoyance of Environmental Noise between Indoor and Outdoor Hearing Situation in Residential Space**  
Hansol Song; Jongkwan Ryu; Jaeseung Hwang
- 10:30 1693 Research on the Scheme of Urban Automatic Noise Monitoring**  
Wei Wan; Ming Cai; Lve Chen; Bofan Yao
- 10:30 2089 The Risk of Temporary Hearing Threshold Shift in Bartenders**  
Adam Dudarewicz; Kamil Zaborowski; Anna Wolniakowska; Malgorzata Pawlaczyk-Luszczynska; Mariola Sliwinska-Kowalska
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