

46th International Congress and Exposition on Noise Control Engineering (Internoise 2017)

Taming Noise and Moving Quiet

Hong Kong, China
27 – 30 August 2017

Volume 1 of 9

ISBN: 978-1-5108-5238-9

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



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Detailed Programme

Opening Ceremony

Sunday, 27 August | 1600-1700 | Convention Hall A & B, Level 1

Keynote 1

Sunday, 27 August | 1700-1800 | Convention Hall A & B, Level 1

Chair: Li Cheng

1700 **Computational Aeroacoustic Study of Leading Edge Noise**
Zhang, Xin

T14.1 Soundscape in architecture, urban planning and landscape

Monday, 28 August | 0800-1040 | Convention Hall A & B, Level 1

Chairs: Francesco Aletta, Jooyoung Hong

- 0800** 434 **Exploring the soundscape quality of five nursing homes in Flanders (Belgium): preliminary results from the AcustiCare project** **1**
Aletta, Francesco; Botteldooren, Dick; Thomas, Pieter; Vander Mynsbrugge, Tara; De Vriendt, Patricia; Van de Velde, Dominique; Devos, Paul
- 0820** 954 **Effects of Human Factors on the Interaction between Visual Scene and Noise Annoyance** **11**
Sun, Kang; De Coensel, Bert; Echevarria Sanchez, Gemma Maria; Van Renterghem, Timothy; Botteldooren, Dick
- 0840** 820 **Appropriate levels of natural sounds to enhance soundscapes in urban areas** **18**
Hong, Joo Young; Lam, Bhan; Ong, Zhen Ting; Gupta, Rishabh; Gan, Woon Seng; Chong, Shyh Hao; Feng, Jing
- 0900** 842 **Effect of masker orientation on masking efficacy in soundscape applications** **23**
Ong, Zhen Ting; Hong, Joo Young; Lam, Bhan; Gupta, Rishabh; Gan, Woon Seng; Chong, Shyh Hao; Feng, Jing; Ooi, Kenneth

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0920	298	Fast calculation of far-field sound directivity based on HF-FMBEM	69
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0940	305	Fundamental investigation of sound absorption efficiency of MPPs for incubators by using FDTD method	77
		<i>Anai, Ken</i>	
1000	451	Exact and asymptotic solutions of wedge fields for sound propagation modeling using the physical theory of diffraction	84
		<i>Xiang, Ning; Rozyanova, Aleksandra</i>	
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Chair: Timothy Van Renterghem

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0900	622	Efficient Simulation of Sound Paths in the Atmosphere <i>Mecking, Jens; Stienen, Jonas; Schäfer, Philipp; Vorländer, Michael</i>	111
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1000	645	Study on prediction method for tire/road noise based on FSI method	212
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Chairs: Jingtao Du, Tiejun Yang

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0920	222	Active vibration reduction from the perspective of systems engineering <i>Li, Qiaojiao; Sheng, Meiping; Han, Yuying; Li, Xiaopeng</i>	237
0940	344	An experimental investigation of active vibration control for pipeline system <i>Xinhui, Li; Yang, Tiejun; Minggang, zhu; Lu, Dai</i>	243
1000	345	A demonstration about industrial product of active vibration reduction system on seat <i>Wu, Lei; Yang, Tiejun; Li, Xinhui</i>	252
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<i>Wszolek, Tadeusz; Kukulski, Bartłomiej</i> | 440 |
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Chair: Venugopalan Pallayil

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| 0940 | 424 | Significant wave height estimation with ambient noise during typhoon period in deep ocean | N/A |
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| 1000 | 425 | A method for modeling typhoon-generated noise field in range dependent deep ocean | N/A |
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| 1020 | 457 | Analysis of Doppler factor based on multi-path sound channel | 466 |
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Chair: Patrick Kurtz

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- 0940** 456 **Field study on the sound insulation performance of a CLT residential building in a subtropical climate** **519**
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- 0940** 894 **An Enhanced System for Online Applications for Construction Noise Permits and Noise Emission Labels** **551**
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- 1000** 908 **Innovation for Renovation - Quieter Methods to Minimize Structural-borne Noise** **559**
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- 1020** 1036 **Quieter Pipe Lining for Less Night-time Disturbance** 567
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Keynote 2

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Chair: S K Tang

- 1100** **Soundscape and Noise Management - a Matter of Lifequality**
Schulte-Fortkamp, Brigitte

T14.1 Soundscape in architecture, urban planning and landscape

Monday, 28 August | 1300-1520 | Convention Hall A & B, Level 1

Chairs: Francesco Aletta, Jooyoung Hong

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- 1320** 196 **Effects of Soundscape on Public Visiting Experience in City Park: A Case Study in Xihu Park, Fuzhou** 586
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- 1440** 972 **Characteristics of soundscape in various urban environments** 617
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Chairs: Delphine Bard, Toru Otsuru

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- 1340** 677 **Data Recording of Audio Stimulus for Continuing Nurse Training Using Auditory Virtual Environment** **638**
Fela, Randy Frans; Sarwono, Joko; Utami, Sentagi Sesotya; Prasetyo, Iwan; Azzahra, Iva Rofiatun Nisa
- 1400** 821 **A discussion on impedance boundary conditions for room acoustics simulations measured by ensemble averaging method** **645**
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- 1420** 1005 **Finite element sound field analysis for reverberation time in non-diffuse sound field with unevenly-distributed sound absorbing surfaces** **652**
Tomiku, Reiji; Otsuru, Toru; Okamoto, Noriko; Kimura, Youtaro
- 1440** 1065 **SILENT TIMBER BUILD – modelling acoustic characteristics of timber structures** **659**
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Chairs: J. M Barrigón Morillas, Jordi Romeu

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Chairs: Sonoko Kuwano, Takeo Hashimoto

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1340	488	Impression on tire-pattern noise	730
		<i>Hashimoto, Takeo; Hatano, Shigeko; Shin, Sung-Hwan</i>	
1400	411	Fluctuation component control technology for time periodic fluctuating sound	736
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- 1420** 627 **Finding the most pleasant spectral envelope of background noise: An explorative study for aircraft cabin noise** 743
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- 1440** 718 **An examination of ordering effects in a test to evaluate transient environmental sounds as heard indoors** 752
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- 1500** 297 **Influence of unexpected engine start sound and vibration of hybrid vehicle in cabin** 761
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T1.1 Active vibration control

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Chairs: Jingtao Du, Tiejun Yang

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- 1340** 312 **Implications of the modal representation of vibrating structures in Kalman filtering implemented on embedded microcontrollers** 779
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- 1400** 155 **High Accuracy Multi Axes Micro-Vibration Control Based on Adaptive Harmonic Cancellation** 791
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- 1420** 679 **Synchrophase vibration control for isolated rotating machines** 799
Huang, Di; Ferguson, Neil; Yang, Tiejun; Li, Xinhui; Liu, Zhigang; Zhu, Minggang
- 1440** 668 **Active control of single layer vibration isolation system based on plate-cylindrical coupled structure** 811
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Chairs: S K Tang, Cui Fangsen

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| | | <i>Cui, Fangsen; Yu, Xiang; Zhang, Qide</i> | |
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| | | <i>Lee, Hsiao Mun; Tan, Long Bin; Lim, Kian Meng; Lee, Heow Pueh</i> | |
| 1440 | 353 | Boundary Control of Sound Transmission into a Cavity through its opening | 863 |
| | | <i>Wang, Kang; Wang, Peng; Qiu, Xiaojun</i> | |

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T20.S1 Acoustic black holes

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Chairs: Adrien Pelat, Stephen Conlon

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Chairs: Jung-Woo Choi, Yang-Hann Kim

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		<i>Yu, Liang; Jiang, Weikang; Chen, Guangtao; Abe, Motoyuki</i>	
1400	747	Applications of Spatial Equalizer	926
		<i>Kim, Yang-Hann; Kim, Whan; Kim, Jueseok</i>	
1420	480	Dynamic crosstalk cancellation for spatial audio reproduction	930
		<i>Otani, Makoto; Matsuda, Ryo</i>	
1440	757	Resonator Design for Multiway Thermo-Acoustic Loudspeaker	941
		<i>Park, Soo Yeon; Shin, Eui Joong; Cho, Byung Jin; Choi, Jung-Woo</i>	

T7.4 Noise barriers, absorptive claddings and diffractive barrier tops

Monday, 28 August | 1320-1500 | S228, Level 2

Chairs: Kin Cheng, Jean Piere Clairbois

- | | | | |
|-------------|------|---|------------|
| 1320 | 613 | Environmental noise control by Parallel Barriers integrated with Helmholtz Resonator | 949 |
| | | <i>Wang, Zhi-bo; Choy, Yat Sze</i> | |
| 1340 | 657 | Using on-site measurement to test the efficacy of increasing area of noise absorbing material on sound proofing walls on viaducts in high-speed rail lines | 958 |
| | | <i>Matsunuma, Masaaki; Kuribayashi, Kenichi</i> | |
| 1400 | 810 | A Scale Model Test of High-speed Railway Channel Girder for Noise Reduction | 964 |
| | | <i>Guo, Jing; Yan, Xiang; Chen, Yuxiao; Lu, Shuai; Ma, Guang; Hu, Xuhong</i> | |
| 1420 | 973 | Acoustical performance of noise barrier with acoustic wells on its top edge | 971 |
| | | <i>Ng, H. T.; Tang, Shiu Keung; Choy, Yat Sze</i> | |
| 1440 | 1060 | Acoustic performance of high-speed railway noise barriers under different conditions and some proposals for design guidance | 977 |
| | | <i>Fei, G. H.</i> | |

28 August, 2017

T8.2 Duct acoustics

Monday, 28 August | 1300-1500 | S421, Level 4

Chairs: Lixi Huang, Ray Kirby

- | | | | |
|-------------|-----|---|------------|
| 1300 | 205 | Modelling sound radiation from an axial fan in a finite length duct | 985 |
| | | <i>Kirby, Ray; Duan, Wenbo</i> | |
| 1320 | 790 | Wavenumber-frequency analysis of internal flow noise in simple constriction-expansion pipe | 992 |
| | | <i>Ku, Garam; Kim, Kuksu; Lee, Songjune; Cheong, Cheolung; Park, Junho</i> | |

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|-------------|------|--|-------------|
| 1340 | 594 | Sound transmission loss across coupled cavities in close proximity in a low Mach number duct
<i>Tang, Y.J.; Tang, Shiu Keung</i> | 1000 |
| 1400 | 802 | Valve application in Exhaust Line Systems
<i>Boennen, Dennis; Yuan, Bo; Egan, James; Poullard, Olivier</i> | 1008 |
| 1420 | 1032 | Analytical model and numerical simulation of internal sound fields of an infinitely long duct with aperture array
<i>Chu, S. H. K.; Tang, Shiu Keung</i> | 1017 |
| 1440 | 273 | Acoustic behavior evaluation and analysis of perforated plates with bias flow by using time-domain CFD approach
<i>Chen, Zhixiang; Ji, Zhenlin</i> | 1023 |

T3.4 Turbomachinery noise

Monday, 28 August | 1340-1500 | S423, Level 4

Chair: Xun Huang

- | | | | |
|-------------|-----|---|-------------|
| 1340 | 169 | Compressive sensing bases spinning mode detection for aeroengine noise
<i>Yu, Wenjun; Ma, Zhengyu; Huang, Xun</i> | 1031 |
| 1400 | 251 | A modified Fourier solution for the Flapwise bending vibration analysis of rotating beams with elastic boundary conditions
<i>Liu, Siyuan; Chen, Meilong</i> | 1043 |
| 1420 | 533 | Tonal noise characteristics of mulit-rotor micro aerial vehicles
<i>Fattah, Ryu; Zhou, Teng; Zhang, Xin</i> | 1055 |
| 1440 | 720 | Turbomachinery Tonal Noise Cfd-Caa Modeling In Presence Of Sas Complex Acoustic Impedance Boundaries
<i>Timushev, Sergey F.; Gavrilyuk, Vladimir N.; Aksenov, Andrey A.</i> | 1067 |

T7.5 Noise management, policy and public engagement

Monday, 28 August | 1320-1500 | S424, Level 4

Chair: Simon Shilton

- | | | | |
|-------------|------------|--|-------------|
| 1320 | 148 | Public participation of noise action planning by the Modell project "Do it quieter" in Leipzig | 1077 |
| | | <i>Steindorf, Annett</i> | |
| 1340 | 356 | Study on the acoustic environmental monitoring methods and evaluation technologies in china | 1083 |
| | | <i>Wen, Xiangcai; Wang, Yun; Li, Xiantong; Wei, Junshan</i> | |
| 1400 | 472 | Environmental Noise monitoring and the Migration to Loudness | 1092 |
| | | <i>Adams, Keith M.</i> | |
| 1420 | 727 | Soundscape preservation policy and local society correspondence: A case of "100 soundscapes of Japan" | 1099 |
| | | <i>Daimon, Shinya; Minoura, Kazuya</i> | |
| 1440 | 812 | The management of low noise pavement in Korea | 1110 |
| | | <i>Yoon, Soung Cheol; Yoo, Yong Jun; Woo, Jun Hyeok; Lee, ChangHyeok; Lee, ByungChan; Park, Sang Kyu</i> | |

28 August, 2017

T17.4 Acoustic properties of road surfaces

Monday, 28 August | 1320-1500 | S425, Level 4

Chairs: Luc Goubert, Piotr Mioduszewski

- | | | | |
|-------------|-------------|--|-------------|
| 1320 | 1087 | How to design semi-dense asphalt mixtures that guarantee acoustic performance and durability? | 1115 |
| | | <i>Buehlmann, Erik; Hammer, Emanuel</i> | |
| 1340 | 653 | Development of Low Noise Road Surfacing Materials in Hong Kong | 1125 |
| | | <i>Leung, Joe; Mak, Vince; Lee, C.K.; Lau, Kwok Keung</i> | |
| 1400 | 708 | Exploration of crumb rubber modified asphalt as a durable low noise surface in Hong Kong | 1131 |
| | | <i>Leng, Zhen; Lee, C.K.; Cheung, L.W.; Hung, W.T.</i> | |

1420 556 **Comparative acoustic performance in the long term of different asphalt configurations** 1137
Buret, Marc; McIntosh, James; Simpson, Cassandra

1440 336 **Pavement ageing influence on tyre/road noise** 1145
Mioduszewski, Piotr; Kowalski, Karol J.

T2.3 Micro-perforated materials

Monday, 28 August | 1300-1520 | S426, Level 4

Chairs: Cédric Maury, Teresa Bravo

1300 238 **Modeling improvement for multilayer micro-perforated panels, screens and porous materials** 1154
Losso Hermes, Julio Henrique; Cavalheiro, Thiago; Val Quintans Kulakauskas, Fabio Luis; Lenzi, Arcanjo

1320 334 **Bayesian Design and Fabrication Framework for Multilayered Microperforated Panel Absorbers** 1162
Hou, Yiqiao; Fackler, Cameron J.; Xiang, Ning

1340 520 **Investigation of parallel microperforated panel absorbers under high acoustic excitation** 1169
Chiang, Yan Kei; Choy, Yat Sze

1400 571 **Low frequency sound absorption of thin elastic plates in a rigid duct** 1176
Kim, Hyun-Sil; Ma, Pyung-Sik; Kim, Bong-Ki; Lee, Seong-Hyun; Seo, Yun-Ho

1420 617 **Effect of anisotropic fibrous materials on the broadband absorption of micro-perforated partitions.** 1187
Bravo, Teresa; Maury, Cedric; de la Colina, Carlos

1440 624 **Effect of micro-perforations on the attenuation of discrete cavity tones induced by a low-speed flow** 1199
Maury, Cedric; Bravo, Teresa; Mazzoni, Daniel; Amielh, Muriel

1500 302 **Micro Perforated Plate (MPP): On its hole geometry and performance** N/A
Leung, Hing Shun; Wong, Hon Yiu

T4.4 Speech transmission / privacy

Monday, 28 August | 1300-1520 | S427, Level 4

Chairs: YW Lam, YS Choy

- | | | | |
|-------------|-------------|---|-------------|
| 1300 | 314 | A design of comfortable masking sound for real-time informational masking | 1210 |
| | | <i>Hioka, Yusuke; James, Jesin; Watson, Catherine</i> | |
| 1320 | 462 | A comparative study on the acoustic behaviour of free-standing curved and flat single panel screens in an open-plan enclosed environment | 1219 |
| | | <i>Arjunan, Arun; Foteinou, Aglaia</i> | |
| 1340 | 529 | Open space rooms - using a computational program to determine necessary elements of the acoustic treatment | 1230 |
| | | <i>Mikulski, Witold</i> | |
| 1400 | 849 | Prediction of acoustic response and speech intelligibility based on a hybrid ray tracing / SEA technique. | 1238 |
| | | <i>Mejdi, Abderrazak; Gardner, Bryce; Musser, Chad</i> | |
| 1420 | 988 | Are existing speech-rating criteria adequate for characterizing speech in an unamplified soundscape? | 1249 |
| | | <i>Villegas Rudolph, Simon Andres; Jordan, Pamela</i> | |
| 1440 | 1024 | Subjective experiment on speech privacy focusing on speech intelligibility test | 1255 |
| | | <i>Lee, Hyojin; Sakamoto, Shinichi</i> | |
| 1500 | 1090 | Calculation of sound in workrooms to support noise control and acoustic optimization | 1262 |
| | | <i>Probst, Wolfgang</i> | |

T7.3 Construction noise, its management & control

Monday, 28 August | 1320-1500 | S428, Level 4

Chairs: Douglas Manvell, Grace Kwok

- | | | | |
|-------------|------------|---|-------------|
| 1320 | 873 | Tuned Mass Damper for Breaker and Piling Noise Control | 1269 |
| | | <i>Ho, Wilson; Wong, Wylog; Yiu, Max</i> | |

- 1340** 1040 **Noise Propagation along Construction Tunnels** 1276
Ho, Wilson; Tsui, Dragon; Cheng, Morgan; Wong, Ken; Lee, Roger
- 1400** 868 **Noise and vibration monitoring around construction sites – examples of standards and practice from around the world** 1288
Manvell, Douglas
- 1420** 1034 **Construction Noise and Vibration in Practice for Urban Infrastructure Project** N/A
Liu, Yuyou; Gao, Yan; Hu, Wencheng; Shields, Paul
- 1440** 100 **On the shock performance of a zero-clearance-single-sided vibro-impact non-linear energy sink** 1297
Yang, Tiejun; Li, Wenke; Li, Xinhui; Zhu, Minggang; Yu, Liuding

P1 - Poster Presentation (1)

Monday, 28 August | 1500-1540 | Theatre Foyer, Level 1

- T7** 171 **Wind turbine blade surface damage detection by sound signal** 1305
Wang, CHao-Nan; Luo, Fang-Chun
- T7** 477 **Research of the assessment system of low frequency environmental noises in residential areas along the traffic** 1311
Zhang, Weichen; Shao, Zhiyue; Zhu, Wenying
- T7** 481 **A study on the acoustic performance and durability monitoring method of interference device for noise reduction of the high speed railroad using Honam high-speed railroad test-bed section** N/A
Seo, Hyosun; Kim, Young-Chan; Jang, Kang-Seok; Yoon, Je-Won; Hong, Byung-Kook; Choi, Chan-Yong
- T7** 482 **The Main Characteristics of Environmental Noise Function Zoning and Adjustment in Large Cities** 1315
Chu, Yiping; Zhou, Yude; Zhu, Wenying; Zhang, Weichen
- T7** 596 **Investigating the Impacts of Wind Farm Noise in South Korea** 1320
Kim, Kyoung Min; Park, Young Min; Kang, Kwang Kyu
- T7** 649 **Error Analysis of Real-time Acoustic Maps for Dynamap** 1323
Zambon, Giovanni; Benocci, Roberto; Roman, H. Eduardo; Smiraglia, Maura

T7	829	Analysis of relationship between road traffic noise and urban form indicators through machine learning method	1331
		<i>Kim, Phillip; Ryu, Hunjae; Jeon, Jong June; Chang, Seoil</i>	
T9	246	Cytotoxic and Cytogenetic Effect of Low-Frequency Sound Impulses	1337
		<i>Siegmann, Silvester; Siegmund, Klaus; Gebauer, J.; Royer-Pokora, B.</i>	
T9	537	Analysis and Verification of Electromagnetic Vibration Characteristics of Small Induction Motor	1342
		<i>Kong, Defeng</i>	
T14	794	Effects of vegetation on soundscape perception in urban open public places	N/A
		<i>Shi, Ke; Kang, Jian</i>	
T14	940	Effect of Traffic Noise on Property Price in a Compact Urban Form	N/A
		<i>Sheng, Ni</i>	
T16	211	Railway noise reduction effect by absorption of tunnel entrance hood	1354
		<i>Takata, Yukihiro; Saito, Hidetoshi; Shimizu, Kenta; Yamauchi, Nobuaki</i>	
T16	850	The research of the influence of torsional vibration damper on torsional vibration of transmission system	N/A
		<i>Li, Qiuyue; Lu, Chihua</i>	
T17	473	Evaluation of utility of two-layer low noise pavement with equivalent continuous sound level; Lessons from Korean cases	1361
		<i>Han, Dae Seok; Lee, Soo Hyung; Lee, Sang Hyuk; Yoo, In Kyoon</i>	
T17	489	An Analysis on Noise Reduction Effects of 2-Layer Low Noise Pavement using Statistical Methods	1367
		<i>Lee, Sang Hyuk; Lee, Soo Hyung; Han, Dae Seok; Yoo, In Kyoon</i>	
T17	599	Changing Characteristics of Tire-pavement Friction Noise of Asphalt Pavements over time	1377
		<i>Lee, Soo Hyung; Yoo, In Kyoon; Lee, Sang Hyuk; Han, Dae Seok</i>	
T17	601	Evaluation of the Noise Reduction Effect between single and 2-layer Low-noise Pavement using CPX Method	1384
		<i>Ohm, Byung Sik; Lee, Soo Hyung; Yoo, In Kyoon</i>	

T19	413	Preparation and characterization of M-Aramid/PPS fiber composite materials applied high heat-resistant materials as a automotive sound insulation materials	N/A
		<i>Yong, Seok-Jun; Park, Jang-Seok; Chae, Su-Kwan; Kwon, Choong-Ho; Kwon, Hoi-Hyun</i>	
T19	463	Noise emission levels associated with the 2016 UWR Formula 3 Car and the influence of an aftermarket silencer end cap	1390
		<i>Arjunan, Arun</i>	
T19	581	The effect of cylinder pressure on the diesel combustion noise	N/A
		<i>Cao, Yipeng; Luan, Xiang; Li, Quan; Zhang, Runze</i>	
T19	681	Study on the engine vibration and noise characteristic caused by transmission system	N/A
		<i>Yanfeng, Zhao; Yipeng, Cao; Quan, Li</i>	

T10.2 Acoustic quality, soundscape, health, quality of life

Monday, 28 August | 1540-1820 | Convention Hall A & B, Level 1

Chairs: Irene van Kamp, Brigitte Schulte-Fortkamp

1540	119	Towards a “global” definition of the comfort of earplugs	1399
		<i>Terroir, Jonathan; Doutres, Olivier; Sgard, Franck</i>	
1600	141	Preferences for restorative places: the role of sound and other features.	1406
		<i>Van Kamp, Irene</i>	
1620	197	Classification comparison of music emotions by multiple training data sets for studying soundscape mood perception	1415
		<i>Hsu, Cheng-Kai; Cheng, Stone</i>	
1640	245	Noise Pollution in a German Hospital: Level Measurements and Survey Results on the Wards	1422
		<i>Siegmann, Silvester; Notbohm, Gert; Schmook, Renate; Anduleit, Norbert; Sauer, Holger; Angerer, Peter</i>	
1700	399	Sounding Art and Urban Ecology	1431
		<i>Cobussen, Marcel</i>	

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|-------------|-----|--|-------------|
| 1720 | 644 | Hospital Soundscape: Perception Analysis of Acoustics Environment in Intensive Care Unit | 1440 |
| | | <i>Azzahra, Iva Rofiatun Nisa; Fela, Randy Frans; Sarwono, Joko; Utami, Sentagi Sesotya; Hardjoprawito, Tri Judo Airlangga; Sedono, Rudyanto</i> | |
| 1740 | 816 | A Study on the Evaluation of Aircraft Noise Using the Stress Index | N/A |
| | | <i>Kim, Hyun Sup; Park, Jae Sik; Son, Jong Won; Park, Sang Kyu</i> | |
| 1800 | 939 | How does the focus of attention influence the sound quality evaluation of a complex auditory scene? | 1446 |
| | | <i>Skoda, Sabrina; Fiebig, André; Schulte-Fortkamp, Brigitte; Becker-Schweitzer, Jörg</i> | |

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T7.7 Noise mapping and long term monitoring

Monday, 28 August | 1540-1820 | Theatre 1, Level 1

Chairs: J. M Barrigón Morillas, Jordi Romeu

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|-------------|-----|--|-------------|
| 1540 | 964 | Noise mapping system with acoustical measurement blimp robot. | 1447 |
| | | <i>Saitou, Ryouzi; Ikeda, Yusuke; Oikawa, Yasuhiro</i> | |
| 1600 | 528 | A standardised and practicable approach to calculating aircraft noise according to CNOSSOS-EU | 1456 |
| | | <i>Bopst, Juliane</i> | |
| 1620 | 819 | Calculation tool of strategic noise map in Japan based on ASJ RTN-Model with GIS | 1459 |
| | | <i>Fukuda, Taiki; Hiraguri, Yasuhiro</i> | |
| 1640 | 885 | Technical aspects of the implementation of Directive EU 2015/996 into noise mapping software | 1469 |
| | | <i>Notario, Antonio</i> | |
| 1700 | 938 | Build 3D Urban Model for Noise Mapping | 1477 |
| | | <i>Park, Taeho; Chun, Bumseok; Chang, Seoil</i> | |

1720	1052	Evaluation of Calculation of Road Traffic Noise in Australia	1482
		<i>Peng, Jeffrey; Kessissoglou, Nicole; Parnell, Jeff</i>	
1740	870	Verification of noise mapping using stratified assessment windows	1494
		<i>Shilton, Simon; Stimac, Alan; Grilo, Alvaro</i>	
1800	1031	Fitting "bad urban" roadside motor traffic sound level to skewed distribution models	1506
		<i>Muaz, Muhammad; Tang, Shiu Keung; LIN, Tsair-Chuan; Ng, H. T.</i>	

T20.3a Low frequency numerical methods in vibroacoustics

Monday, 28 August | 1540-1820 | Theatre 2, Level 1

Chairs: Steffen Marburg, Jie Pan

1540	485	Investigation on the stability of temporal basis function for the time domain boundary element method	1512
		<i>Zhang, Yang; Zhang, Xiao-Zheng; Bi, Chuan-Xing; Zheng, Chang-Jun</i>	
1600	788	Parameter Identification for Vibro-Acoustic Systems by using Parametric Model Order Reduction	1520
		<i>Komori, Kengo; van de Walle, Axel; Toi, Takeshi; Desmet, Wim</i>	
1620	741	Analytical Modelling of Vibroacoustics Interaction for Conjugate Enclosures	N/A
		<i>Ji, Xi; Chin, Cheng Siong</i>	
1640	286	Dynamic Topology Optimization of Elastic Boundary Plate	1528
		<i>Zhao, He Tao; Shi, Dong Yan; LI, Dong Ri; Teng, Xiao Yan</i>	
1700	168	Modified FEA and ExtraTree algorithm for transformer Green's function modelling	1538
		<i>Du, Xuhao; Pan, Jie</i>	
1720	393	An improved Fourier series method for rectangular structural-acoustic coupling system with arbitrary boundary conditions	1546
		<i>Zha, Shuai; Shi, Dong Yan; Zhang, Hong; He, Dongze</i>	

1740 452 **Numerical investigation of the effects of corrugated cylinder geometries on the acoustic field** 1556
Mahato, Bikash; Bhumkar, Yogesh G.

1800 860 **A FEM/BEM based topology optimization of submerged bi-material shell structures under harmonic excitations** 1566
Chen, Hai-Bo; Zhao, Wen-Chang

T1.3 Application of active control

Monday, 28 August | 1540-1820 | S221, Level 2

Chairs: C R Fuller, Xiaojun Qiu

1540 629 **Experimental Comparison on the Effect of the Number of System Components of an Active Noise Blocker** 1569
Eder, Johanna; Hanselka, Jonas; Sachau, Delf

1600 636 **A Hybrid Approach of Active and Passive Noise Control for Open Window: Experimentation Evaluation** 1579
Murao, Tatsuya; Nishimura, Masaharu; Gan, Woon Seng

1620 697 **Active noise control at the openings of a compact acoustic enclosure** 1589
Carme, Christian; Clavard, Julien; Schevin, Olivier

1640 492 **Active noise mitigation window employing transparent piezoelectric film speakers** 1596
Sharifzadeh Mirshekarloo, Meysam; Tan, Chin Yaw; Yu, Xiang; Lei, Zhang; Chen, Shuting; Yao, Kui; Cui, Fangsen; Pandit, Sai Murugan; Chong, Shyh Hao; Tan, Sze Tiong

1700 269 **Development of Smart Pillows for Reducing Wind Turbine Noise** 1605
Chen, Yi-Rou; Chang, Cheng-Yuan; Kuo, Sen M

1720 321 **A boundary secondary source arrangement for a virtual sound barrier system at a cavity opening** 1612
Wang, Shuping; Tao, Jiancheng; Qiu, Xiaojun; Pan, Jie

1740 712 **Numerical Modeling of an Active Headrest** 1620
Bean, Jacob; Schiller, Noah; Fuller, Christopher Robert

- 1800** 628 **Headrest Application of Multi-Channel Feedback Active Noise Control with Virtual Sensing Technique** 1631
Hasegawa, Rina; Kajikawa, Yoshinobu; Chang, Cheng-Yuan; Kuo, Sen M

T7.8 Wind farm noise

Monday, 28 August | 1540-1840 | S222-3, Level 2

Chairs: Danielle Moreau, Franck Bertagnolio

- 1540** 313 **Wind turbine noise – German regulations and further research activities** 1643
Koerper, Steffen; Bauerdorff, Andrea
- 1600** 378 **The Experimental Measurement and Prediction on Wind Turbine Noise** 1649
Tu, Tsung-Hsien; Yu, Pei-Yao; Chung, Chiou-Fong; Tang, Wun-Yuan; Chen, Ruei-Chi
- 1620** 442 **Subjective assessment of wind turbine noise at workplaces** 1656
Pleban, Dariusz
- 1640** 458 **Annoyance to wind turbine noise – influence of different acoustical characteristics** 1661
Schäffer, Beat; Pieren, Reto; Schlittmeier, Sabine J.; Brink, Mark; Heutschi, Kurt
- 1700** 831 **Cotton Farm Wind Farm long term community noise monitoring 4 years on: testing compliance and AM control methods.** 1669
Large, Sarah; Stigwood, Michael Anthony; Stigwood, Duncan
- 1720** 863 **A Temporal Wind Turbine Model for Low-Frequency Noise** 1680
Bertagnolio, Franck; Madsen, Helge Aagaard; Fischer, Andreas
- 1740** 864 **Wind turbine noise at neighbor dwellings, comparing calculations and measurements** 1689
Egedal, Rune; Søndergaard, Lars Sommer; Hansen, Morten Bording
- 1800** 944 **Effect of wind speed and wind direction on amplitude modulation of wind turbine noise** 1701
Paulraj, Thileepan; Välisuo, Petri Olavi

1820 983 **Automated wind turbine noise analysis by machine learning** N/A
Välisuo, Petri Olavi

T20.S1 Acoustic black holes

Monday, 28 August | 1540-1840 | S224-5, Level 2

Chairs: Fabio Semperlotti, Stephen Conlon

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- 1540** 129 **Phase accumulation in plates with embedded Acoustic Black Holes** 1712
Conlon, Stephen; Feurtado, Philip
- 1600** 765 **Sound Insulation Properties of Thin Plate with Embedded Two-dimensional Acoustic Black Hole** 1719
Wang, Xiaodong; Ji, Hongli; Qiu, Jinhao; Cheng, Li
- 1620** 721 **An overview of the performance of metamaterial lenses based on Acoustic Black Holes** 1731
Semperlotti, Fabio; Zhu, Hongfei
- 1640** 217 **1D Phononic Lattice with Periodic Compound Acoustic Black Hole Indentations for the Generation of Ultra-wide Energy Attenuation Bands** 1739
Tang, Liling; Cheng, Li
- 1700** 899 **Dispersion curves for bending waves in a meta-plate made with a periodic lattice of ABH like scatterers** 1746
Aklouche, Omar; Wang, Ao; Pelat, Adrien; Gautier, François
- 1720** 730 **Numerical studies on the optimal exploitation of the acoustic black hole effect in curved panels** 1753
Dorn, Matthias; Blech, Christopher; Langer, Sabine Christine
- 1740** 715 **Aircraft cabin noise reduction by means of acoustic black holes** 1764
Blech, Christopher; Langer, Sabine Christine
- 1800** 357 **Power-law density metafluids to achieve the acoustic black hole effect in duct terminations** 1771
Guasch, Oriol; Sánchez-Martín, Patricia
- 1820** 183 **Limiting capability of one-dimensional acoustical black hole** 1782
Mironov, Mikhail; Gladilin, Alexey

T12.0 Acoustic signal processing - General**Monday, 28 August | 1540-1840 | S226-7, Level 2***Chairs: Jing Lu, Kainam T Wong*

28 August, 2017

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|-------------|-----|--|-------------|
| 1540 | 176 | A Generalized Spatial Filtering Method in Broadband Active Noise Control based on Independent Sound Field Component Analysis
<i>Liu, Yangfan; Wang, Shenwei; Wang, Xuchen</i> | 1785 |
| 1600 | 560 | Speech dereverberation in multi-source situation based on weighted prediction error algorithm
<i>Xiang, Teng; Lu, Jing</i> | 1797 |
| 1620 | 562 | Dual-channel speech enhancement system attenuating both background noise and interfering speech
<i>Wang, Zelin; Lu, Jing</i> | 1806 |
| 1640 | 563 | Influence of of the spectral relation between the reference signal and the acoustic path on different adaptive algorithms for acoustic echo cancelation
<i>Fan, Wenzhi; Lu, Jing</i> | 1814 |
| 1700 | 589 | Enhanced Audio Spot based on Multiple Carrier Waves with Extra Parametric Loudspeaker
<i>Ogami, Yoshinori; Fukumori, Takahiro; Nakayama, Masato; Nishiura, Takanobu</i> | 1823 |
| 1720 | 591 | Investigations on Raw Features in Deep Neural Network for Indoor-environmental Sound Classification
<i>Mishima, Sakiko; Wakabayashi, Yukoh; Fukumori, Takahiro; Nakayama, Masato; Nishiura, Takanobu</i> | 1831 |
| 1740 | 592 | Evaluations on Reproducing Sound Field Control with Film Acoustic-Lens for Parametric Loudspeaker
<i>Ariyoshi, Kirara; Fukumori, Takahiro; Nakayama, Masato; Nishiura, Takanobu</i> | 1839 |
| 1800 | 595 | Dereverberation using denoising deep auto encoder with harmonic structure
<i>Wakabayashi, Yukoh; Ota, Rikuto; Fukumori, Takahiro; Nakayama, Masato; Nishiura, Takanobu</i> | 1847 |

- 1820** 966 **Experimental comparison of gearbox fault detection methods using acoustic and vibration signals** 1853
Hartono, Dennis; Halim, Dunant; Wyn Roberts, Gethin

T4.7 Impact and structure-borne noise in buildings

Monday, 28 August | 1540-1840 | S228, Level 2

Chairs: Berndt Zeitler, Hiramitsu Atsuo

- 1540** 209 **'Barbells and Crayons': Contemporary issues with Fitness Centers near sensitive spaces.** 1865
Luck, David; Krikke, Tom
- 1600** 600 **Effect of floor structure and floor finishing structure on walking sense and dynamic displacement** 1876
Tomita, Ryuta; Inoue, Katsuo
- 1620** 674 **Accuracy of prediction methods for the improvement of impact sound pressure levels using floor coverings** 1887
Griffin, Daniel
- 1640** 778 **An Experimental Investigation Of Evaluation Method Of Horizontal Vibrations In Detached Houses** 1896
Hayashi, Kentaro; Matsumoto, Yasunao
- 1700** 856 **Experimental study on floor impact sound insulation and vibration characteristics in cross laminated timber building** 1904
Hiramitsu, Atsuo; Hirota, Tomohito; Miyauchi, Junichi; Uematsu, Takeyoshi; Nabeta, Yuki
- 1720** 924 **Effect of the application of the plaster layer preconized by the standard EN 29052-1 for dynamic stiffness measurements** 1912
Crispin, Charlotte; Mertens, Christian; Wuyts, Debby
- 1740** 980 **Comparing input energy to output energy measurements of heavy weight impacts on fitness flooring solutions** 1922
Gartenburg, Paul Richard
- 1800** 1003 **The Measurement of the Total and Resonant Radiation Efficiencies for Lightweight Constructions** 1931
Mahn, Jeffrey; Hoeller, Christoph

- 1820** 1002 **Dynamic representation of excitation sources on construction-induced vibration problems based on multiple harmonic loads applied on the ground** 1938

Arcos, Robert; Clot, Arnau; Romeu, Jordi

T8.2 Duct acoustics

Monday, 28 August | 1540-1820 | S421, Level 4

Chairs: Lixi Huang, Ray Kirby

- 1540** 133 **Resonators on the charged air side of combustion engines – solutions to prevent disturbing noise generated by resonators** 1946
- Buck, Ralf; Denker, Dietrich*
- 1600** 706 **Experimental study of broadband noise attenuation using variable locally reacting impedance** 1958
- Zhao, Xiaochen; Grosh, Karl; Liu, Gongmin; Zhao, Chuming*
- 1620** 242 **The Helmholtz resonator with different types of necks** 1968
- Cai, Chenzhi; Mak, Cheuk Ming; Shi, Xiaofeng; Wang, Xu*
- 1640** 752 **Eligibility of further modularization of narrow sidebranch array for duct noise control** 1975
- Yu, Ho Man*
- 1700** 612 **A virtual Herschel-Quincke tube using slow sound** 1982
- Kim, Da-Young; Zhang, Zhe; Abom, Mats; Ih, Jeong-Guon*
- 1720** 252 **Numeical analysis for transversal modes of silencers by using mesh free method** 1987
- Fang, Zhi*
- 1740** 376 **Muffler design for improving acoustical attenuation performance at multiple target frequency** 1997
- Oh, Kee Seung; Lee, Jin Woo*
- 1800** 450 **Circular duct hybrid bar silencer insertion loss measurement with comparison to prediction** 2001
- Williams, Paul Timothy; Kirby, Ray; Hill, James; Abom, Mats*

T16.0 Transportation vehicle noise and vibration - General

Monday, 28 August | 1540-1800 | S423, Level 4

Chairs: Joseph Lai, KC Lam

- | | | | |
|-------------|-----|---|-------------|
| 1540 | 194 | Semi-active vibration isolation using an inerter connected to a spring
<i>Matsuda, Makoto; Iwamoto, Hiroyuki</i> | 2009 |
| 1600 | 214 | Development of an assistive system for checking the vibration magnitude exposed to the hand-arm of workers at the worksite
<i>Miyashita, Kazuhisa; Maeda, Setsuo; Takemura, Shigeki; Tsuno, Kanami; Yosimasu, Koichi</i> | 2017 |
| 1620 | 278 | Principal vibration modes of sports bicycle at the running condition
<i>Nakano, Kojiro; Yoshida, Junji</i> | 2022 |
| 1640 | 360 | Assistive Technology Device for Helping Speech Intelligibility of Emergency Signal from Outside under noise and vibration exposure condition of transportation vehicles
<i>Maeda, Setsuo; Tatsuno, Junya; Abe, Yasunari; Tomoda, Haruhisa</i> | 2031 |
| 1700 | 493 | Analysis of warning sounds used in public transportation system
<i>Chuprasert, Pavarit; Phupantachsee, Nawasch; Park, Munhum</i> | 2039 |
| 1720 | 832 | On Noise Reduction Of Motorcycle Helmets
<i>Terzioglu, Furkan; Ozer, Mehmet Sait; Ozturk, Sinem</i> | 2046 |
| 1740 | 835 | A Study Of Noise Source Localization In Motorcycles
<i>Ozer, Mehmet Sait; Terzioglu, Furkan; Ozturk, Sinem</i> | 2051 |

28 August, 2017

T19.1 Air- and structure-borne noise in vehicles

Monday, 28 August | 1540-1800 | S424, Level 4

Chairs: Jian Pang, Mike Ma

- | | | | |
|-------------|-----|--|-------------|
| 1540 | 127 | Development of a Small Reverberation Cabin for Sound Absorption Tests according to SAE J2883
<i>Wu, Qunli; Li, Can</i> | 2057 |
|-------------|-----|--|-------------|

- 1600** 277 **Verification of a New Sound Power Measuring Method and Application to Vehicle Component Testing** 2063
Albers, Albert; Landes, David; Behrendt, Matthias
- 1620** 280 **Extraction of high contributing vibration modes to vehicle interior noise using operational TPA. -Obtaining method for vehicle body panel mode contribution by applying principal component model to each surface-** 2072
Hayashi, Daiki; Yoshida, Junji; Kajiyama, Takuya
- 1640** 667 **Modeling and Experimental Investigation of Mechanism of Tire Cavity Noise** 2082
Peng, Bo; Pang, Jian; Gong, Shichao; Zhang, Jun
- 1700** 882 **Study of Element Size and Seal Model Length on TL of the Automobile Door Sealing System** 2093
Deng, Guoming; Wu, Xian; Shao, Jianwang
- 1720** 1037 **Study on multi-body dynamics based suspension-rig simulation for early stage road noise prediction and bushing stiffness optimization** 2102
Lee, Jinmo; Kim, Joong-Kwan; Kim, Hyoung-Gun; Cho, Mun-Hwan; Ih, Kang Duck; Shim, Jeong-Soo; Ko, Han-Young
- 1740** 1046 **A Study on the Reduction of Road-induced Noise Level through Improving Suspension Transfer Characteristics by Using Suspension Rig** 2109
Kim, Hyoung-Gun; Cho, Mun-Hwan; Kim, Joong-Kwan; Ih, Kang Duck

T15.0 Speech and communication

Monday, 28 August | 1540-1740 | S425, Level 4

Chairs: Estella Ma, Fei Chen

- 1540** 294 **Relationship among speech intelligibility and non-parametric distortion measures under various noise conditions** 2114
Mizumachi, Mitsunori; Moriyama, Yumiko
- 1600** 509 **Effect of active noise control and masking sound on speech intelligibility** 2120
Kim, Yeongseok; Park, Youngjin

1620	804	Mandarin Speech Recognition in Babble for Chinese- and Korean-Native Listeners <i>Xu, Can; Liu, Chang; Ding, Hongwei</i>	2125
1640	806	Identification of English Edge Tones by Americans and Chinese Learners of English <i>Zhang, Hui; Ding, Hongwei</i>	2131
1700	935	An automatic loudness control method in MDCT domain <i>Lin, Zhibin</i>	2139
1720	1088	A Study on the Compressibility of Speech for Compressive Speech Enhancement <i>Low, Siow Yong; Yiu, Cedric Ka Fai</i>	2144

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T13.2 Perception of electric and hybrid vehicles: from alert sound design to interior noise

Monday, 28 August | 1540-1800 | S426, Level 4

Chairs: Ercan Altinsoy, Katsuya Yamauchi

1540	558	Challenges in the Vehicle Acoustics – What We Can Learn from Music? <i>Altinsoy, M Ercan</i>	2151
1600	811	Questionnaire Survey on the Encounter Experience with Quiet Vehicles <i>Yamauchi, Katsuya</i>	2154
1620	387	The sound of silence of electric vehicles – Issues and answers <i>Misdariis, Nicolas; Pardo, Louis-Ferdinand</i>	N/A
1640	504	Artificial Neural Network (ANN) Based Detectability Prediction of Synthesized Exterior Electric Vehicle Sounds <i>Steinbach, Lisa; Atamer, Serkan; Altinsoy, M. Ercan</i>	2166
1700	886	Relationship between fluctuation strength and detectability of alert sounds for hybrid and electric vehicle <i>Yasui, Nozomiko; Miura, Masanobu</i>	2173

1720 1010 **EV exterior Sound Alarm for pedestrian (AVAS) : process for Sound Design and 3D sound Simulation** 2181
Boussard, Patrick; Dendievel, Clément; Hourcade, Sylvain; Minard, Antoine; Lambourg, Christophe

1740 432 **Necessity of acoustic vehicle alerting system for electric motorcycle to ensure pedestrian safety** 2191
Sekine, Michiaki; Sakamoto, Ichiro; Houzu, Hiroyuki; Nishi, Takahiro; Morita, Kazumoto

T4.9 Experimental methods

Monday, 28 August | 1540-1820 | S427, Level 4

Chairs: Ning Xiang, Shinichi Sakamoto

1540 186 **A correction method for the two-microphone transfer function technique in the free field using numerical modeling** 2203
Hall, Hubert Seth; Vignola, Joseph F.; Judge, John J.; Turo, Diego

1600 213 **Measurement of sound scattering coefficients of surfaces in a non-diffuse sound field: theoretical and experimental investigation** 2211
Kanev, Nikolay

1620 267 **Experimental study on incident sound field in the insulation performance measurement for partition walls** 2223
Aida, Yu; Inoue, Naohisa; Sakuma, Tetsuya

1640 514 **A Calibration Method for Sound Insulation Measurement with 3-D Sound Intensity** 2231
Wang, Hong Wei; Yang, Ya Jie; Zhang, Long

1700 517 **Practical Aspects of the ISO Procedure for Measuring the Scattering Coefficient in Scaled Reverberation Chamber** 2238
Pan, Li Li; Zhao, Yuezhe

1720 664 **A study on the measurements of the absorption coefficient by using a parametric loudspeaker** 2243
Sugahara, Akiko; Lee, Hyojin; Sakamoto, Shinichi; Takeoka, Shigeto

- 1740** 1021 **Verification and Application on Two-Dimensional Boundary Measurement Technique of Directional Diffusion Coefficient** 2252
Chou, Chuan Wen; Yeh, Po-Hung; Lin, Fon Ming; Sun, Yu Ting
- 1800** 1074 **A 1/10 Scale model studying the effects of the balcony in an auditorium** 2255
Cheung, L.Y.; Tang, Shiu Keung

T14.3 Urban sound planning

Monday, 28 August | 1540-1840 | S428, Level 4

Chairs: Dick Bottleldooren, Luigi Maffei

- 1540** 469 **Residential development in noise polluted urbans areas** 2266
Yordanov, Andrey Penev
- 1600** 587 **Effect of temporary open-air markets on the acoustic environment and sound perception** 2275
Sun, Yang; Meng, Qi; Kang, Jian; Han, Yanjun
- 1620** 602 **Quiet areas inside historical city centers** 2282
Maffei, Luigi; Masullo, Massimiliano; Oliviero, Antonella
- 1640** 616 **On the specification of general sound environmental zones and planning** 2287
Zhang, Jiping; Wu, Xiaodong; Zheng, Liuqing; He, Li
- 1700** 654 **A VR experiment testing the effects of fountain sound and visible vegetation in areas exposed to aircraft noise** 2299
Lugten, Martijn
- 1720** 693 **Integrated urban sound planning - From noise control to sound quality for the everyday city** 2308
Maag, Trond
- 1740** 883 **Holistic design method for the urban acoustic environment** 2317
Gísladóttir, Arnþrúður; Kirkegaard, Poul Henning
- 1800** 898 **An exploratory study on the attitude to soundscape preservation by focus group interview** 2329
Jia, Yihong; Ma, Hui; Kang, Jian
- 1820** 931 **Long-term noise monitoring and urban planning - a case study** 2335
Bite, Pal Zoltan; Sillo, Szabolcs; Varfi, Laszlo

T4.1 Hall and auditorium acoustics

Tuesday, 29 August | 0840-1020 | Convention Hall A & B, Level 1

Chairs: Jin Jeon, Takayuki Hidaka

- 0840** 230 **The sound directivity measurement of Chinese musical instrument Gaohu** 2341
Zhao, Yuezhe; Zhou, Ting
- 0900** 310 **Acoustic Performance Study for The Grand Hall of Atatürk Culture and Art Center at Anadolu University** 2347
Ozcevik, Asli; Kul, Hilal
- 0920** 402 **Assessment of perceptual diffuseness in the time domain** 2359
Martinez-Villalba, Julian; Jeong, Cheol-Ho; Brunskog, Jonas; Nolan, Melanie
- 0940** 444 **Cinema design to meet high acoustic demands without breaking the budget** 2371
Johansson, Bengt
- 1000** 536 **Investigation on the Acoustic Environment of Tianjin Children's Hospital** 2386
Liu, Xiaoyang; Zhang, Sen; Yao, Xintao; Zhao, Yachen; Zeng, Jian

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T14.4 Soundscape and its application

Tuesday, 29 August | 0840-1020 | Convention Hall C, Level 1

Chairs: Brigitte Schulte-Fortkamp, André Fiebig

- 0840** 122 **A Soundscape Analysis to the Historical and Ethnomusicology Area of Ethnic Tourism** 2393
Deng, Zhiyong; Liu, Aili; Gao, Siyuan; Wang, Daiwei
- 0900** 123 **Relationship between Visual-Soundscape Perception and Tourist Satisfaction** 2399
Liu, Aili; Liu, Fucheng; Deng, Zhiyong; Han, Xue
- 0920** 124 **Noise Perception and Its Effects on Tourists' Satisfaction: A Case Study of Nanluoguxiang Lane in Beijing** 2406
Han, Xue; Liu, Aili; Liu, Min

- 0940** 403 **Virtual Reality and Sonic Perception** 2417
Chung, Andy; To, W M; Schulte-Fortkamp, Brigitte
- 1000** 519 **Relationship between overall comfort and combined thermal and acoustic conditions in urban recreational spaces** 2422
Bjerre, Lærke Cecilie; Santurette, Sébastien; Jeong, Cheol-Ho

T12.5 Signal identification and separation

Tuesday, 29 August | 0820-1040 | Theatre 1, Level 1

Chairs: Jung-Woo Choi, Yang-Hann Kim

- 0820** 271 **Factor analysis of cab vibration of a construction machine model using mode shape correlation between operational principal component mode and vibration mode** 2430
Yoshida, Junji; Tanaka, Koki; Majima, Ryo; Nakamoto, Rie; Fukasawa, Ken
- 0840** 281 **Contribution analysis of drum type washing machine noise during drying using multi-layered operational TPA** 2439
Yoshida, Shota; Okajima, Masahiro; Yoshida, Junji; Hosokawa, Akihiro; Hujii, Tomohiro
- 0900** 323 **Use of a zero-crossing matching algorithm for leak detection in buried water pipes** 2449
Ma, Yifan; Gao, Yan; Liu, Bin; Yang, Jun
- 0920** 326 **Leak detection in pipelines using Hilbert transform** 2457
Gao, Yan; Liu, Yuyou; Ma, Yifan; Liu, Bin; Yang, Jun
- 0940** 474 **Identification of loose rail fasteners by sound signals** N/A
Liu, Qiang; Zhang, Huijuan; Hu, Wencheng; Song, Ruixiang
- 1000** 632 **Study on Rail Fastener Failure Testing with Pulse Stimulation and Synchronized Detection Method** N/A
Zhang, Huijuan; Liu, Qiang; Hu, Wencheng; Song, Ruixiang
- 1020** 1051 **Noise Suppression Method by Jointly Using Bone- and Air-Conducted Speech Signals** 2464
Ikuta, Akira; Orimoto, Hisako

T11.1 Recent topics in environmental psychoacoustics

Tuesday, 29 August | 0820-1020 | Theatre 2, Level 1

Chairs: Sonoko Kuwano, Takeo Hashimoto

0820	623	Conception of a Psychoacoustic Study for Noise Optimized Rail Grinding <i>Huth, Christine; Liepert, Manfred; Möhler, Ulrich; Lange, Susanne</i>	2471
0840	207	Effect of dental drilling sound on the behavior of C57BL/6J mice <i>Yamada, Tomomi; Kuwano, Sonoko; Nozaki, Kazunori; Sato, Hajime; Kato, Takafumi; Hayashi, Mikako</i>	2477
0900	671	Measurement of high-frequency sounds radiated from industrial equipments and auditory evaluation.-How many adults can hear the sound of around 19 kHz?- <i>Ueda, Mari; Hiroe, Masaaki; Hirayama, Masamitsu; Komatsu, Noriyuki</i>	2484
0920	862	A grounded theory investigation on subjective evaluation of the sound environment in large interior spaces <i>Chen, Jing; Ma, Hui</i>	2491
0940	547	Effect of music on crowd behaviours in urban open spaces <i>Zhao, Tingting; Meng, Qi; Kang, Jian</i>	2499
1000	1058	A study of the perception of urban noise in city of Porto, Portugal <i>Rocha, Cecilia; Teixeira, Tatiana</i>	2508

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T1.3 Application of active control

Tuesday, 29 August | 0820-1040 | S221, Level 2

Chairs: Jing Lu, Xiaojun Qiu

0820	655	Evaluation Of A Decoupled Feedforward-Feedback Hybrid Structure For Active Noise Control Headphones In A Multi-Source Environment <i>Rivera Benois, Piero; Nowak, Patrick; Zölzer, Udo</i>	2520
0840	165	Generating a Position-Adaptive Quiet Zone in Enclosed Spaces <i>Höber, Sven; Pape, Christian; Reithmeier, Eduard</i>	2529

- 0900** 397 **Optimization of Secondary Sources Configurations and Directivity Patterns for Active Noise Control in a Helicopter Cabin** 2538
Xu, Jian; Chen, Kean; Liu, Yang; Wei, Qinhua
- 0920** 282 **A Proposal of Active Noise Control Method for the Attenuation of MRI Noise.** 2548
Goto, Tatsuhiko; Enamito, Akihiko; Nishimura, Osamu
- 0940** 177 **The Stochastic Domain Design of a Real-Time Controller for an Active Noise Control Headrest based on Finite Element Analysis** 2559
Liu, Yangfan; Liu, Jiawei
- 1000** 609 **Active Noise Control in the application of large suction side type range hood** 2571
Li, Zhonghua; Li, Changming; Wei, Ximing; Cheng, Jiefeng; Wang, Yue; Yu, Yueyong; Lai, Yuwen; Hu, Ziqiang
- 1020** 268 **Development of active noise control system for centrifugal fans** 2577
Liu, Xiu-Wei; Chang, Cheng-Yuan; Kuo, Sen M

T3.3 Airport community noise

Tuesday, 29 August | 0820-1040 | S222-3, Level 2

Chairs: Ichiro Yamada, Idar Ludvig Nilsen Granøien

- 0820** 911 **Research on the effect of the aircraft noise pollution on the noise environment** 2584
Tokashiki, Takeshi
- 0840** 700 **Analysis of the Influence of Aircraft Noise on Indoor Environment** 2593
Zhao, Yachen; Zhang, Haichao; Liu, Xiaoyang; Yao, Xintao; Zeng, Jian
- 0900** 847 **Aircraft sound quality as Pareto ranking criterion in multi-objective MDO** 2599
Iemma, Umberto; Centracchio, Francesco; Burghignoli, Lorenzo
- 0920** 807 **Efforts for further airport function enhancement without increasing noise impact at Narita** 2609
Ogata, Saburo; Tamaki, Kazuya

- 0940** 175 **Challenges and Potentials of Aircraft Noise Modeling using enhanced Aircraft Performance Parameters and Flight Deck Procedures** 2618
Struempfel, Christoph; Lehmann, Oliver
- 1000** 390 **The sonAIR aircraft noise simulation tool** 2630
Wunderli, Jean Marc; Zellmann, Christoph; Köpfl, Micha; Schwab, Olivier; Schlatter, Felix; Schäffer, Beat
- 1020** 789 **Difference in airport noise calculation procedures between AERC Model and ECAC DOC.29** 2640
Nakazawa, Toshiyasu; Sugawara, Masayuki; Shinohara, Naoaki; Yamada, Ichiro

T20.0 Vibroacoustics - General

Tuesday, 29 August | 0820-1040 | S224-5, Level 2

Chairs: Zhenbo Lu, Li Cheng

- 0820** 226 **Equivalent Modeling Method of Mechanical Admittance in Convex Structure** 2649
Ma, Jiangang; Sheng, Meiping; Han, Fei
- 0840** 928 **Modeling of the vibro-acoustic behavior of an air-core coil** 2656
Gning, Paul; Lanfranchi, Vincent; Dauchez, Nicolas
- 0900** 266 **Identification of the dynamic loads on machineries based on the reconstruction of distributed response with an optimized measurement setup** 2666
Jiang, Hao; Wu, Haijun; Jiang, Weikang
- 0920** 415 **Vibroacoustic characteristics of functionally graded piezoelectric material cylindrical shells filled with quiescent fluid** 2677
Jin, Guoyong; Huang, Jin; Li, Shanjun
- 0940** 288 **Low-noise hyper-elastic membrane wings for a flapping wing MAV** 2686
Lu, Zhenbo; Debiasi, Marco; Nguyen, Quoc Viet; Chan, Woei-Leong; Khoo, Boo Cheong

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- 1000** 276 **Study on Analysis of Noise Source for the Rotating Part of Large Radar** 2693
Shin, Dong Jun; Kim, Seong Jin; Lee, Jong Hak; Kang, Young Sik
- 1020** 574 **Coupled vibration analysis of fluid-filled cylindrical shells with a circumferential surface crack** 2703
Jin, Chaochao; Zhu, Xiang; Li, Tian Yun; Fang, Min

T8.6 Flow induced noise and vibration - Computational methods and applications

Tuesday, 29 August | 0820-1040 | S226-7, Level 2

Chair: Randolph Leung

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- 0820** 240 **Effect of Cavity Flow on High Speed Train Pantograph Aerodynamic Noise** 2713
Kim, Hogun; Hu, Zhiwei; Thompson, David
- 0840** 275 **Validation of Slosh Noise and Vibration Predictions for HDPE tank** 2723
Charpentier, Arnaud; Jo, Seong il; Hwang, Yi; Noh, Jinchae; Yoo, Young jin; Jang, Uk kyeong
- 0900** 576 **Efficient modeling of sideglass seals for interior windnoise analysis** 2731
Kosaka, Fumihiko; Okutsu, Yasuhiko; Kawai, Hideki; Yanase, Junichi; Mizukuti, Daiki; Charpentier, Arnaud
- 0920** 689 **Modeling the wall pressure of a turbulent flow to predict the noise radiated by a structure** 2738
Morilhat, Sylvain; Simon, Frank; Chedeveigne, François; Aupoix, Bertrand
- 0940** 731 **Flow simulations of a high-speed train to investigate the ballast flight** 2750
Zhu, Jianyue; Hu, Zhiwei
- 1000** 974 **Smoothed Particle Hydrodynamics Method for the Acoustic Wave Propagation with the FDTD Dealing with Boundary Conditions** 2761
Zhang, Xinyu; Yang, Jie; Zhang, Wenping; Zhu, Xiaosong

- 1020** 994 **Re-assessment of the Corcos Model for Computation of Flow-induced Noise and Vibration** 2772
Bremner, Paul

T8.3 Fan noise

Tuesday, 29 August | 0840-1020 | S228, Level 2

Chair: Lixi Huang

- 0840** 626 **Sound Source Localization on a Fast Rotating Fan Using Rotational Beamforming** 2783
Kerscher, Michael; Heilmann, Gunnar; Puhle, Christof; Krause, Ralph; Friebe, Christian
- 0900** 743 **Improved Noise Performance of Tubular fan with New Casing** 2791
Hayashi, Hidechito; Min Swe, War War; Tachiki, Sunao; Okumura, Tetsuya; Oda, Ippei; Nogami, Wakana
- 0920** 808 **Optimum orifice design of cooling fan system in outdoor unit of air-conditioner** 2801
Ryu, Seo Yoon; Kim, Sanghyeon; Cheong, Cheolung; Kim, Jong Wook
- 0940** 745 **A Numerical Study on Flow Structures around a Rotating Small Axial Fan with High-resolution Computational Scheme** 2809
Aono, Hikaru; Takahashi, Yuji; Mamori, Hiroya; Yamamoto, Makoto; Tatsukawa, Tomoaki; Fujii, Kozo; Murakami, Naoya
- 1000** 753 **MTR SIL commissioning tests for fixed plant noise** 2816
Wong, Wing Yee Felice; Cheung, M K; Yip, Zoe; Ho, Wilson; Cheng, Morgan

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T2.1 Metamaterials

Tuesday, 29 August | 0820-1040 | S421, Level 4

Chairs: Jie Zhu, Bin Liang

- 0820** 150 **Analogue Transformation Acoustics in Aeronautics** 2825
Iemma, Umberto; Palma, Giorgio

- 0840** 221 **Analysis on power flow in a metamaterial Euler-Bernouli beam with lateral local resonance** 2837
Wang, Ting; Sheng, Meiping; Wang, Xiao; Zhao, Xuan
- 0900** 291 **Control Acoustic Rainbow Trapping with Gradient Profile Change** N/A
Liu, Tuo; Liang, Shanjun; Chen, Fei; Zhu, Jie
- 0920** 315 **Experimental investigations of membrane-type acoustic metamaterials with eccentric masses for broadband sound isolation** 2844
Lau, Siu-Kit; Lu, Zhenbo; Liu, Yiyuan; Yu, Xiang; Endot, Mohamad Zuraimi Bin; Khoo, Boo Cheong
- 0940** 333 **Poro-Elastic Acoustic Meta Materials** 2850
Fuller, Christopher Robert; Mathur, Gopal
- 1000** 373 **Acoustic Wavefront Modulation with Helical Structures Array** 2860
Liang, Shanjun; Liu, Tuo; Chen, Fei; Zhu, Jie
- 1020** 388 **Acoustic bending waveguide based on anisotropic metamaterials** 2865
Kan, Wei Wei

T4.5 Acoustic regulations, enforcement and classification for new, existing and retrofitted buildings

Tuesday, 29 August | 0840-1020 | S423, Level 4

Chairs: Birgit Rasmussen, Jeongho Jeong

- 0840** 1027 **Sound insulation in multi-storey housing in Europe – Situation Anno 2017 and needs for upgrading** 2873
Rasmussen, Birgit
- 0900** 837 **A case study for implementation of the classification scheme introduced in the new sound insulation regulation in Turkey** 2883
Şentop, Ayça; Tamer Bayazıt, Nurgün; Kurra, Selma; Demir, Dilara
- 0920** 729 **Brazilian technical standard for acoustic performance of new residential buildings. Mandatory requirements vs Field tests** 2895
Akkerman, Davi; Holtz, Marcos; Monteiro, Carolina; Borin, Marcel

- 0940** 943 **A guideline of heavy-weight floor impact noise reduction for retrofitted apartment buildings in Korea** 2903
Kim, Yong Hee; Song, Guk Gon; Lee, Won Hak; Seo, Jun Bo; Kim, Myung Jun; Jeong, Jeong Ho; Ryu, Jong Kwan; Kim, Kyoung Ho
- 1000** 784 **Low frequency measurement of heavy weight impact sound in a small space** 2911
Lee, Sungchan; Jeong, Jeong Ho

T19.4 Numerical methods in vehicle noise & vibration

Tuesday, 29 August | 0840-1020 | S424, Level 4

Chair: Qunli Wu

- 0840** 187 **Optimizing the acoustic materials in vehicle components using SEA and global sensitivity analysis** 2914
Lee, Hyeong Rae; Kim, Ho Yong; Kang, Yeon June; Oh, Chi Sung; Ih, Kang Duck
- 0900** 446 **Numerical Methods for Loudspeaker Installation Effects Prediction: Detailed Evaluation on a Car Door Model** 2923
Brandstettter, Markus; Zhou, Ze; Lielens, Gregory
- 0920** 512 **Finite element model for modal analysis of engine-transmission unit: numerical and experimental investigations** 2934
Langer, Patrick; Jelich, Christopher; Hoppe, Alexander; Schneider, Andreas; Guist, Christian; Sepahvand, Kheirollah; Marburg, Steffen
- 0940** 577 **Three-dimensional free vibration of tires with the laminated composite Timoshenko beam theory** 2946
Liu, Zhe; Wen, Lu; He, Yichao; Wei, Yintao
- 1000** 1061 **Introduction of FE genetic optimization in vehicle body NVH development phase** 2957
Yoo, Ji Woo; Ronzio, Francesca; Lee, Young Chan; Lee, Jinmo; Kim, Jong Kyu

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T18.2 Predictive methods for submerged and offshore structures

Tuesday, 29 August | 0820-1020 | S425, Level 4

Chairs: Denis Blanchet, Xiang Zhu

- 0820** 192 **Three-dimensional vibrations of multilayered composite cylindrical shells exposed to hygrothermal environment** 2967
Ye, Tiangui; Jin, Guoyong
- 0840** 491 **Forced Vibration of a Finite Cylindrical Shell Submerged in Half-Space Bounded by the Free Surface with the Wave Propagation Approach** 2979
Wang, Peng; Li, Tian Yun; Zhu, Xiang; Guo, Wenjie; Chen, Fan
- 0900** 500 **Free and forced vibration of a submerged finite cylindrical shell below the free surface** 2989
Guo, Wenjie; Li, Tian Yun; Zhu, Xiang; Wang, Peng
- 0920** 559 **Free vibration of an elastically restrained circular plate coupled with fluid** 3002
Yao, Shihui; Chen, Meixia; Xie, Kun
- 0940** 682 **Validation of underwater radiated noise predictions for a merchant vessel using full-scale measurements** 3011
Lafeber, Frans Hendrik; Lloyd, Thomas; Bosschers, Johan
- 1000** 791 **Prediction of Underwater Radiated Noise caused by Airborne Noise: Empirical vs. SEA** 3021
Blanchet, Denis; Wittekind, Dietrich

T13.3 Sound in multisensory perception and interaction

Tuesday, 29 August | 0820-1040 | S426, Level 4

Chairs: Ercan Altinsoy, Maeda Setsuo

- 0820** 534 **Multimodal aspects for the design of synthetic acoustic feedback** 3027
Bergmann, Tobias; Schulte-Fortkamp, Brigitte; Fiebig, André; Treiber, Alexander
- 0840** 134 **Application of Sound Recognition Techniques for Identification of the Squeak and Rattle Noises** 3034
Pogorilyi, Oleksandr

- 0900** 607 **How we can describe good vibrations? – Context-independent descriptors for whole body vibrations** 3040
Schwendicke, Anna; Altinsoy, M. Ercan
- 0920** 518 **Effect of Full-Body Vibration Generated from Audio Signal on Perceived Reality** 3046
Cui, Zhenglie; Yagyu, Hiroyuki; Sakamoto, Shuichi; Suzuki, Yôiti; Gyoba, Jiro
- 0940** 990 **Personal factors affecting the audio-visual perception of the urban public space** 3054
Echevarria Sanchez, Gemma Maria; Van Renterghem, Timothy; Sun, Kang; De Coensel, Bert; Botteldooren, Dick
- 1000** 202 **Effects of soundscape on preferences of the setting of wind parks with an audio-visual approach** 3064
Yu, Tianhong
- 1020** 1050 **The effectiveness of acoustic signals on the evacuation in underground space** 3071
Xie, Hui; Zhang, Qiumin

T4.2 Acoustics of educational facilities / classroom acoustics

Tuesday, 29 August | 0820-1020 | S427, Level 4

Chairs: Zainal Abidin Akasah, S K Lau

- 0820** 117 **Comparative Analysis of Room Acoustic and Psychoacoustic using HEAD Acoustics SQobold** 3076
Chin, Cheng Siong; Saju, Sajin; Kwee, Tiaw Joo; Woo, Wai Lok; Ji, Xi
- 0840** 161 **Effects of Psychoacoustics and Subjective Noise Annoyance Level on Student Learning in Classroom Environment** 3088
Chin, Cheng Siong; Saju, Sajin
- 0900** 431 **A review of the research on the Chinese classroom acoustics in primary and secondary school** 3098
Li, Nan; Zhao, Yuezhe; Wu, Shuoxian

- | | | | |
|-------------|------|--|-------------|
| 0920 | 525 | The acoustic box used as a tool for noise control teaching at UTS | 3103 |
| | | <i>Chapman, Chris; Eager, David; Qiu, Xiaojun</i> | |
| 0940 | 735 | Why building envelope matters? Experimental study on acoustic comfort and its impact on students learning | 3111 |
| | | <i>Md Amin, Noor Dina; Akasah, Zainal Abidin; Razzaly, Wahid</i> | |
| 1000 | 1091 | Application of the Speech Transmission Index (STI) for planning communication areas | 3125 |
| | | <i>Boehm, Michael</i> | |

T4.S2 The measurement and prediction of airborne and impact sound insulation

Tuesday, 29 August | 0840-1020 | S428, Level 4

Chair: John Davy

29 August, 2017

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|-------------|-----|---|-------------|
| 0840 | 104 | Sound transmission via structural connections in cavity walls | 3131 |
| | | <i>Davy, John Laurence; Vigran, Tor Erik</i> | |
| 0900 | 182 | A New 3-D Sound Intensity Measurement System for Airborne Sound Insulation of Building Elements | 3142 |
| | | <i>Wang, Hong Wei; Zhang, Long; Yang, Ya Jie</i> | |
| 0920 | 206 | The sound insulation of autoclaved aerated concrete panels lined with gypsum plasterboard | 3151 |
| | | <i>Davy, John Laurence; Debevc, Mark; Blanc, Christophe</i> | |
| 0940 | 339 | Acoustic characterization of vehicle interior trims | 3162 |
| | | <i>Liu, Zhengqing; Fard, Mohammad; Davy, John Laurence; Yoshimura, Takuya</i> | |
| 1000 | 527 | Comparison of several ways to calculate the single-number quantity for airborne sound insulation in buildings. | 3173 |
| | | <i>Foy, Cédric; Glé, Philippe; Falwisanner, Thierry</i> | |

P2 - Poster Presentation (2)

Tuesday, 29 August | 1020-1100 | Theatre Foyer, Level 1

- T2** 354 **A round robin test of the acoustical properties of porous media** **3184**
Pompoli, Francesco; Bonfiglio, Paolo; Horoshenkov, Kirill; Khan, Amir; Jaouen, Luc; Becot, Francois-Xavier; Sgard, Franck; Asdrubali, Francesco; D'Alessandro, Francesco; Hübel, Jörn; Atalla, Noureddine; Amédin, Celse; Lauriks, Walter; Boeckx, Laurens
- T2** 641 **Low-frequency sound absorption to enhance porous material by embedding structure of logarithmic spiral** **3189**
Zhou, Yu Kun; Hao, Tong; Li, Yong
- T4** 149 **The Effect Of Connection Joints On The Sound Insulation Of Windows** **3193**
Rubáš, Pavel
- T4** 258 **Floor impact sound and vibration characteristics by finishing structure on wall and ceiling** **3202**
Kim, In-Ho; Ryu, Jong Kwan; Baek, Kiyoul; Go, Jongcheol
- T4** 272 **A preliminary survey on the effects of noise and reverberation on the hearing of the elderly** **3210**
Geng, Zhongjiang; Lin, Xiang; Qin, Qilin; Xu, Yu; Li, Chuyin; Liang, Juan; Li, Xin; Peng, Jianxin
- T4** 362 **Characteristics of heavy-weight impact noise in MSK-based floating floor structure** **3216**
Lee, Bum Sik; Chun, Young Soo; Kim, Hye Ran; Bae, Ji Woong
- T4** 363 **Characteristics of heavy-weight floor impact noise of joist slab according to joist depth and interval** **3221**
Chun, Young Soo; Lee, Bum Sik; Lee, Seong-Bok
- T4** 367 **Free vibration analyses for axial-bending-shear coupled composite beams** **3226**
Tian, Jiajin; Su, Jinpeng; Zhou, Kai; Hua, Hongxing
- T4** 369 **Vibration and sound radiation analysis of in-plane pre-stressed plates with closed form solutions** **3238**
Zhou, Kai; Lei, Zhiyang; Su, Jinpeng; Hua, Hongxing

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- T4** 418 **Conceptual design of ventilated acoustic devices applicable to the balcony of multi-residential buildings** 3250
Yang, Hong Seok; Gil, Ji-Won; Kim, Gil-Tae; Yoo, Jung-Hyun
- T4** 465 **The Acoustic Characteristics of the "Dives in Misericordia" Church in Rome.** 3258
Lombardi, Ilaria; Cicala, Sirio; Iannace, Gino; Trematerra, Amelia
- T4** 506 **Noise Attenuation By One Leaf** N/A
Mengmeng, Li; Jian, Kang
- T4** 570 **Field measurements on propagation characteristics of water supply and drainage noise from the apartment bathroom to neighbouring space** N/A
Cho, Hyun-Min; Yang, Hong Seok; Kim, Myung Jun
- T4** 579 **Characteristics of Floor Impact Sound Isolation Performance by Ceiling Structure in Renovating Aged Apartment House** N/A
Lee, Seong-Bok; Cho, Hyun-Min; Kim, Myung Jun
- T4** 610 **Relationships between Deformation Characteristics and Various Performances Aim at Daily Safety and Comfortableness of Floor Covering on Concrete Groundwork** 3269
Fukuda, Shintaro; Yokoyama, Yutaka
- T4** 637 **Investigation of Sound Insulation Performance of Classroom Walls in Korea** N/A
Park, Chan Jae; Ryu, Da Jung; Haan, Chan Hoon
- T4** 749 **Measurement about Walking Vibration on Cross Laminated Timber Floor, and Examination Span Table Result by Finite Element Method** 3278
Koyama, Yuhei; Matsushita, Hitoshi; Fukuda, Shintaro; Yokoyama, Yutaka
- T4** 796 **A relation between the surface temperature of a polyvinyl chloride flooring material and an impact sound generated therefrom** 3289
Tokunaga, Yasunobu; Terashima, Takane

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| T4 | 825 | A survey on acoustic comfort of conversing in multi-group conversation spaces
<i>Maruyama, Naoya; Takata, Shiho; Kawai, Keiji; Hiraguri, Yasuhiro; Ueda, Mari</i> | 3294 |
| T4 | 827 | Façade sound pressure level variations due to an external shading system: study with a calibrated finite element model
<i>Zuccherini Martello, Nicolo'; Fausti, Patrizio; Secchi, Simone</i> | N/A |
| T4 | 841 | The influence of slits on sound insulation and its uncertainty
<i>Cai, Yangsheng; Zhao, Yuezhe</i> | N/A |
| T4 | 852 | Effect of resonator absorber on the ceiling on heavy-weight floor impact sound
<i>Song, Hansol; Ryu, Jong Kwan; Kim, Yong Hee; Song, Guk Gon; Lee, Won Hak</i> | N/A |
| T4 | 901 | Influence Of The Configuration Associated With The Representation Of The "Misteri" In The Acoustics Of The Basilica Of Santa Maria D'Elx
<i>Planells, Ana; Cibrián, Rosa; Segura, Jaume; Cerdá, Salvador; Daumal, Francesc; Giménez, Alicia</i> | 3302 |
| T4 | 902 | Virtual Acoustics In Heritage Buildings: Accuracy Degree Of Acoustic Parameters In The Simulation Of The Basilica Of Santa María D'elx
<i>Planells, Ana; Cibrián, Rosa; Cerdá, Salvador; Segura, Jaume; Daumal, Francesc; Giménez, Alicia</i> | 3309 |
| T4 | 1033 | Comparison the Performance Hall between with and without the Balcony by Computer Simulation
<i>Tang, Tommy KS; Shek, Patrick Tat Ming</i> | N/A |

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Keynote 3

Tuesday, 29 August | 1100-1200 | Convention Hall A & B, Level 1

Chair: Stephen Hambric

- | | | |
|-------------|---|------------|
| 1100 | Conventional Boundary Element Techniques: Recent Developments and Opportunities
<i>Marburg, Steffen</i> | N/A |
|-------------|---|------------|

T4.1 Hall and auditorium acoustics

Tuesday, 29 August | 1320-1500 | Convention Hall A & B, Level 1

Chairs: Jin Jeon, Takayuki Hidaka

- 1320** 538 **Analysis Preference Reverberation Time of Celempung Sunda** 3317
Simanjuntak, Jack Arthur; Sarwono, Joko; Kurniadi, Deddy
- 1340** 761 **Acoustic design of the Jiangsu Grand Theatre** 3323
Scelo, Thomas; Exton, Peter; Fearnside, Peter; Su, Shenzhi
- 1400** 762 **Acoustic considerations for the West Kowloon Cultural District Lyric Theatre Complex** 3333
Scelo, Thomas; Kwok, Ka Kin; Su, Shenzhi
- 1420** 779 **Theoretical model on reverberation decay in a rectangular room with specular reflective walls** 3345
Hanyu, Toshiki
- 1440** 780 **Acoustics of Beijing Tianqiao Performing Arts Centre** 3352
Li, Hui; Wang, Peng; Yan, Xiang

T14.4 Soundscape and its application

Tuesday, 29 August | 1300-1500 | Convention Hall C, Level 1

Chairs: Brigitte Schulte-Fortkamp, André Fiebig

- 1300** 734 **Urban Embodiment – Effects of the visual surroundings on the auditory perception – An interdisciplinary approach on a case study on two urban squares in Berlin** 3359
Tatlikazan, Pinar; Poetter, Justus; Hannemann, Ajan; Bürkle, Stefanie; Schulte-Fortkamp, Brigitte
- 1320** 839 **Evaluating Perceived Acoustic Environment in Executive Class Passenger Train using Soundscape Approach** 3371
Zakri, Keysha Wellviestu; Hidayah, Nurul; Hamdani, Nida Nurmadi; Sarwono, Joko; Utami, Sentagi Sesotya
- 1340** 892 **The measurement of soundscapes – A study of methods and their implications** 3377
Fiebig, André; Herweg, Andreas

- 1400** 932 **Urban Soundscapes of the World: selection and reproduction of urban acoustic environments with soundscape in mind** 3384
De Coensel, Bert; Sun, Kang; Botteldooren, Dick
- 1420** 986 **Valuing the soundscape – integrating heritage concepts in soundscape assessment** 3391
Jordan, Pamela
- 1440** 1077 **Study on the Correlation Between the Temporal Factors and the Soundscape Excerpts Assessment** 3400
Chen, Guobin; Zhao, Yuezhe

T7.1 Community noise & ratings

Tuesday, 29 August | 1320-1500 | Theatre 1, Level 1

Chairs: C K Chau, Truls Gjestland

- 1320** 107 **Aircraft noise annoyance and the influence of number of aircraft movements** 3408
Gjestland, Truls; Gelderblom, Femke B
- 1340** 467 **Diminishing reliability of the application of Standards on Environmental Noise in the UK** 3412
Stigwood, Michael Anthony
- 1400** 552 **Evaluating the relative importance of acoustic, non acoustic and context related factors in noise annoyance** 3424
Baker, Daniel
- 1420** 553 **The research on objective parameters dedicated to differentiate of impulsive noise events** 3436
Kukulski, Bartłomiej
- 1440** 880 **Empirical estimation of conversion terms between the noise metrics LDay, LNight, Ldn, and Lden** 3445
Brink, Mark; Schäffer, Beat; Pieren, Reto; Wunderli, Jean-Marc

T8.0 Flow induced noise and vibration - General

Tuesday, 29 August | 1320-1500 | Theatre 2, Level 1

Chairs: Stephen Hambric, Carsten Spehr

- 1320** 532 **I-INCE Symposium Report on Flow-Induced Noise and Vibration** 3454
Hambric, Stephen
- 1400** 853 **A study of aeroacoustics of two-dimensional generic vehicle profile** 3467
Huang, Guangyuan; Seid, Ka Him; Leung, Randolph Chi Kin; Yang, Zhigang
- 1420** 423 **Computation of fluid force and oil film pressure in a three-screw pump** 3477
Lu, Hanfeng
- 1440** 145 **Fluid-solid coupling numerical analysis of dynamic vibration characteristics of the Pipeline Inspection Gauge (PIG) in the pipeline** 3488
Shi, Dong Yan; Xu, Yang; M. k. Helal, Wasim; Ren, Hongxi; Teng, Xiao Yan

T1.3 Application of active control

Tuesday, 29 August | 1300-1520 | S221, Level 2

Chairs: C R Fuller, Xiaojun Qiu

- 1300** 751 **Active Noise Control for Ventilation Soundproof Doors of Substations** 3497
Li, Hejun; Zhang, Congxin; Zhang, Linke; Zou, Haishan
- 1320** 619 **Converting an Active Noise Blocker for a Tilted Window from Feedforward Control into a Feedback System** 3505
Hanselka, Jonas; Jukkert, Sergej; Sachau, Delf
- 1340** 316 **Optimal configuration for hybrid control of indoor transformer noise** 3513
Zhang, Congxin; Zou, Haishan; Qiu, Xiaojun

- 1400** 566 **Active noise control system for reduction of the music noise radiated by the outdoor concert** N/A
Lee, Jaseung; Cho, Youngeun; Ryu, Homin; Wang, Semyung
- 1420** 719 **Implementation of adaptive IIR filter in an Active Noise Blocker to increase the controller performance and to reduce the computational load** 3521
Lorenzen, Max; Sergej, Jukkert; Delf, Sachau
- 1440** 337 **An optimized active control system for gearbox noise in a constrained space** 3533
Guo, Qin; Tao, Jiancheng; Jin, Guoyong; Qiu, Xiaojun
- 1500** 443 **Sensing strategies for a single screen active noise barrier in open-plan offices** 3541
Huang, Xiaofan; Zou, Haishan; Qiu, Xiaojun

T3.3 Airport community noise

Tuesday, 29 August | 1300-1520 | S222-3, Level 2

Chairs: Ichiro Yamada, Idar Ludvig Nilsen Granøien

- 1300** 822 **Numerical study on lateral attenuation of aircraft noise by using the meteorological effect database developed in JAXA's DREAMS project - Part 1. Air-to-ground propagation** 3550
Ishii, Hirokazu; Yokota, Takatoshi; Makino, Koichi; Matsumoto, Toshio; Shinohara, Naoaki
- 1320** 896 **Numerical study on lateral attenuation of aircraft noise by using the meteorological effect database developed in JAXA's DREAMS project - Part 2. Ground-to-ground propagation** 3559
Yokota, Takatoshi; Makino, Koichi; Matsumoto, Toshio; Ishii, Hirokazu; Shinohara, Naoaki
- 1340** 813 **Experimental study of air-to-ground lateral attenuation using results of long-term noise monitoring at Narita airport** 3567
Shinohara, Naoaki; Hanaka, Kazuyuki; Makino, Koichi; Yamamoto, Ippei

- 1400** 846 **Changes in over-ground lateral attenuation determined from short-term measurements dependent on topographical conditions** 3577
Hanaka, Kazuyuki; Shinohara, Naoaki; Makino, Koichi; Yamamoto, Ippei
- 1420** 1030 **Sound Source Identification for unattended aircraft noise monitoring** 3588
Sakoda, Keishi; Shinohara, Keinji; Ozaki, Tetsuya; Satou, Naru
- 1440** 766 **A development of aircraft type identification system by convolutional neural networks using acoustic information** 3598
Mori, Junichi; Morinaga, Makoto; Yamamoto, Ippei; Matsui, Takanori
- 1500** 515 **Active Noise Abatement Using the New Developed Pilot Assistance System LNAS** 3608
Scholz, Marco; Abdelmoula, Fethi

T20.3b Mid and high frequency numerical methods in vibroacoustics
Tuesday, 29 August | 1300-1520 | S224-5, Level 2
Chairs: Oriol Guasch, Laurent Maxit

- 1300** 484 **Noise Prediction of a Sedan Vehicle Using EFEA-SEA Hybrid Technique** 3620
Wang, Shawn
- 1320** 826 **Construction of Experimental SEA using FEM on a Mechanical Structure subjected to Displacement Excitation** 3626
Kuroda, Katsuhiko
- 1340** 377 **Research of Sound Insulation Quantity Calculation of Aluminum Plate Based on Improved SEA** 3634
Zhang, Bo; Xiang, Yang; Guo, Ning
- 1400** 224 **Loads data processing technology for vibro-acoustics prediction by SEA** 3643
Sheng, Meiping; Ma, Jiangang
- 1420** 212 **Statistical energy analysis parameters prediction under thermal environment** 3651
Chen, Qiang; Peng, Zhang; Li, Yanbin; Wu, Shaoqing; Fei, Qingguo

- 1440** 303 **Scaled Boundary FEM for Mid-frequency Acoustics of a Car Cavity** 3663
Natarajan, Sundararajan; Padmanabhan, Chandramouli
- 1500** 711 **Modelling parametric uncertainties in vibroacoustics using a DEA approach** 3674
Chappell, David James; Bajars, Janis; Tanner, Gregor

T19.0 Vehicle noise vibration and harshness (NVH) - General

Tuesday, 29 August | 1320-1500 | S226-7, Level 2

Chair: Jian Pang

- 1320** 309 **Modelling vehicles NVH performances: a probabilistic approach.** 3681
Brogna, Gianluigi; Antoni, Jérôme; Totaro, Nicolas; Gagliardini, Laurent; Sauvage, Olivier
- 1340** 361 **Misunderstanding of Vehicle Ride Comfort Evaluation according to ISO 2631-1 standard in the world** 3693
Maeda, Setsuo; Tatsuno, Junya
- 1400** 498 **Acoustic Performance Optimization of an Exhaust Muffler for Passenger Cars Using Response Surface Method** 3699
Li, Ming Rui; Zheng, Hui; Deng, Guo Yong; Yang, Jie Dan
- 1420** 590 **Discomfort Reduction of Railway Brake Sound with Lower-energy Auditory Masker** 3705
Okayasu, Sayaka; Fukumori, Takahiro; Nakayama, Masato; Nishiura, Takanobu
- 1440** 603 **Diagnostics and Control of Automotive Fuel Pump induced Noise** 3714
Wang, Wei; Pang, Jian; Kong, Xiangjie; Zhang, Jun

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T4.6 Noise reduction by improving building envelopes

Tuesday, 29 August | 1300-1500 | S228, Level 2

Chairs: S K Tang, Cui Fangsen

- 1300** 982 **Noise Reduction Performance of Balconies on a building façade** 3726
Ho, Cheuk Yei; Tang, Shiu Keung

- 1320** 1085 **Laboratory Testing of Specially Designed Noise Mitigation Measures for Proposed Residential Development in Hong Kong** 3732
Sun, Haitao; Liu, Peijie; Yeung, David B.K; Fung, William
- 1340** 208 **Sound insulation and radiation directivity of plenum windows installed with cylinder arrays.** 3738
Tang, Shiu Keung
- 1400** 903 **Sound insulation of open Supply Air Windows, comparing laboratory and field measurements** 3744
Søndergaard, Lars Sommer; Egedal, Rune; Bolberg, Mads; Hansen, Morten Bording
- 1420** 893 **Sound from rain drops impacting double layer structure consisted of mesh fabric.** 3755
Hirayama, Yuji; Hiraguri, Yasuhiro; Ueda, Mari; Kawai, Keiji
- 1440** 511 **A method of configuring fixed coefficient active noise controllers for traffic noise reduction** 3762
Zhao, Sipei; Cheng, Eva; Qiu, Xiaojun; Larcy, Jordan; Maisch, Simon

T2.1 Metamaterials

Tuesday, 29 August | 1300-1500 | S421, Level 4

Chairs: Jie Zhu, Bin Liang

- 1300** 391 **Investigation of one-dimensional phononic crystal structure vibration with uniformly variable section** 3770
He, Dongze; Shi, Dong Yan; Zha, Shuai
- 1320** 437 **Flexural wave band gaps in fluid-loaded periodic plates** 3780
Li, Jingru; Li, Sheng
- 1340** 642 **Vibration Attenuation in a Beam using Locally Resonant Acoustic Metamaterials** 3787
Nojavan, Aidin; Ring, Tobias; Langer, Sabine Christine
- 1400** 740 **Acoustic pressure fields of 2D elastic circular cylinders** 3795
Chung, Hyuck; Montiel, Fabien; Karimi, Mahmoud; Kessissoglou, Nicole

1420 891 **Analysis of radar cross section for advanced naval ships with wide-band metamaterials** 3802
Hwang, Joon Tae; Hong, Suk Yoon; Song, Jee Hun; Kown, Hyun Wung

1440 956 **Slow wave based metaporous layers for broadband sound absorption** 3810
Lee, Joong Seok; Yang, Jieun; Kim, Yoon Young

T4.5 Acoustic regulations, enforcement and classification for new, existing and retrofitted buildings

Tuesday, 29 August | 1320-1500 | S423, Level 4

Chairs: Birgit Rasmussen, Jeongho Jeong

1320 459 **Single Number Quantity of Heavy & Soft Impact Sound** 3814
Jeong, Jeong Ho; Kim, Yong Hee; Ryu, Jong Kwan; Kim, Kyoung Ho

1340 419 **Acoustical Performance Requirements and Using ASHRAE 189.1 ANSI/ASHRAE/IES/USGBC Standard 189.1 Standard for the Design of High-Performance Green Buildings** 3818
Miller-Klein, Erik Thomas

1400 848 **Discussion on measurement and classification of drainage noise in bathroom** 3824
Ryu, Jong Kwan; Song, Hansol; Jeong, Jeong Ho; Kim, Yong Hee; Kim, Kyoung Ho

1420 672 **Review of Hotels regulation and solutions** 3828
Demagnet, Cyrille; Choon Lin, John Cha; Segura, Sebastien

1440 736 **Study on the Reduction Design of Athletic Impact Vibration and Noise in Multi-Layered Sports Facilities** 3839
Lee, Byung Kwon; Koo, Bon Soo

T9.S1 Industrial noise sources - identification and control

Tuesday, 29 August | 1300-1520 | S424, Level 4

Chairs: Dick Botteldooren, James K. Thompson

- 1300** 191 **Noise related to gas bottles explosions** 3845
Swieczko-Zurek, Beata; Ejsmont, Jerzy; Ronowski, Grzegorz
- 1320** 223 **Factory noise reduction by improving process flow** 3852
Wang, Minqing; Li, Qiaojiao; Sheng, Meiping
- 1340** 366 **Evaluating 2.5" Hard Disk Drive Noise Source Identification** 3857
Ma, Yi Chao; Chin, Cheng Siong; Woo, Wai Lok
- 1400** 400 **Effects of the finite circular baffle size on the sound power measurement** 3863
Zhong, Jiaxin; Tao, Jiancheng; Qiu, Xiaojun
- 1420** 875 **Investigation of the effects of 'taps/impacts' on noise measurements using Personal Sound Exposure Meters.** 3871
Imtiaz, Ali; Goulamhousen, Guillaume
- 1440** 929 **Noise and vibration measurement of framing nailers: development and validation of a mechanized test bench.** 3879
Gaudreau, Marc-André; Padois, Thomas; Laville, Frédéric; Marcotte, Pierre
- 1500** 995 **Industrial sound source localization using microphone arrays under difficult meteorological conditions** 3886
Botteldooren, Dick; Van Renterghem, Timothy; van der Eerden, Frits; Wessels, Peter; Basten, Tom; De Coensel, Bert

T18.0 Underwater and maritime noise - General

Tuesday, 29 August | 1320-1500 | S425, Level 4

Chairs: Nicole Kessissoglou, Yegao Qu

- 1300** 204 **Noise Reduction of Unexploded Ordinance Detonations using Tunable Acoustic Resonators** 3897
Wochner, Mark S; Lee, Kevin M; McNeese, Andrew R; Wilson, Preston S

1320	750	Underwater acoustic Properties of a fluid-loaded and elastically coated plate with periodically attached distributed inhomogeneities <i>Zhang, Yanni; Pan, Jie; Chen, Kean; Gao, Nansha</i>	3901
1340	805	Numerical investigation into effects on cavitation flow of inflow gust generated by pitching hydrofoils <i>Ha, Minh; Cheong, Cheolung; Park, Warn-Gyu</i>	3913
1400	960	Finite-difference time-domain simulation of underwater vortex scattering with acoustic perturbation equations <i>Zhang, Yong Ou; Zhang, Tao; Li, Tian Yun</i>	N/A
1420	975	Solving fluid-structure-acoustic interaction problems with Lagrangian meshfree particle method <i>Yang, Li; Zhang, Yong Ou; Zhang, Tao</i>	3920
1440	981	Acoustic Response Frequency of Silky Shark and Tuna in Southern Coast of Java <i>Derian, Abiyyu Fathin; Alfadenata, Adetia</i>	3927

T3.0 Aircraft noise - General

Tuesday, 29 August | 1320-1500 | S426, Level 4

Chairs: Tatiana Kozubskaya, Xueping Guo

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1320	118	Assessment of noise control on flap side edge using VLES simulation <i>Zhou, Wangyi; Bai, Junqiang; Han, Xiao; Li, Yi; Yu, Peixun</i>	3932
1340	295	Effective acoustic flight test measurements setup on aircraft <i>Helffer, Emmanuel; Deille, Olivier; Allouche, Yohan</i>	3941
1400	521	Noise breakdown of landing aircraft using a microphone array and an airframe noise model <i>Simons, Dick G.; Snellen, Mirjam; Merino-Martinez, Roberto; Malgoezar, Anwar</i>	3944
1420	524	Broadband Trailing-Edge Noise Reduction Using Permeable Metal Foams <i>Alejandro, Rubio Carpio; Roberto, Merino Martinez; Francesco, Avallone; Daniele, Ragni; Mirjam, Snellen; Sybrand, van der Zwaag</i>	3956

- 1440** 568 **Prediction of slat noise reduction measures using RANS based hybrid CAA method** 3967
Han, Xiao; Bai, Junqiang; Zhou, Wangyi; Wang, Chen

T16.1 Road traffic noise

Tuesday, 29 August | 1300-1520 | S427, Level 4

Chair: Renzo Tonin

- 1300** 405 **The Assessment of Sustainability of Road Noise Reducing Devices** N/A
Oltean-Dumbrava, Crina Monica; Richards, Mark
- 1320** 416 **Vehicle noise emission legislation - Opportunity for innovative exhaust system solutions** 3978
Schindele, Tobias
- 1340** 475 **Sound environment impact assessment of comprehensive transportation hub and supporting road project** N/A
Wang, Beibei; Zhang, Lijuan; Liu, Qiang
- 1400** 585 **Study on the Noise Control Implements of Vehicle with Modified Exhaust pipe** 3986
Wang, Qing-Yuan; Tsai, Hung-Teh; Shieh, Ping-Fei; Chou, Li-Chung; Lin, Chi-Chwen; Lin, I-Chun; Hsieh, Jen-Shou Hsieh
- 1420** 669 **The Development of Practicable Measures for Planning of Housing Developments against Road Traffic Noise Impacts in Hong Kong** 3997
Chan, Isaac; Tong, Viviana; Hung, Tim; Lau, Kwok Keung
- 1440** 688 **30 km/h speed limit as an effective noise abatement measure?** 4003
Buehlmann, Erik; Egger, Sebastian
- 1500** 874 **The relation between particle number concentration and high frequency sound level of traffic noise** 4013
Kim, Sung Min; Hong, Joo Young; Jeon, Jin Yong

T4.S2 The measurement and prediction of airborne and impact sound insulation

Tuesday, 29 August | 1340-1500 | S428, Level 4

Chair: John Davy

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|-------------|-----|--|-------------|
| 1340 | 683 | Sound insulation performance of double leaf walls with gluing gypsum boards
<i>Sugie, Satoshi; Toyoda, Emi</i> | 4018 |
| 1400 | 755 | Airborne Sound Transmission of Cross Laminated Timber Panel Walls
<i>Tanaka, Manabu; Kasai, Yusuke; Murakami, Tsuyoshi; Kawatani, Shoji; Kawai, Makoto</i> | 4026 |
| 1420 | 905 | Listening test of walking noise from 20 Hz in dwellings
<i>Öqvist, Rikard; Ljunggren, Fredrik; Johnsson, Roger</i> | 4037 |
| 1440 | 941 | Variations in impact sound insulation from 20 Hz due to measurement uncertainty and workmanship
<i>Löfdahl, Magnus; Öqvist, Rikard; Gruffman, Johan</i> | 4045 |

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P3 - Poster Presentation (3)

Tuesday, 29 August | 1500-1540 | Theatre Foyer, Level 1

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|-----------|-----|--|-------------|
| T1 | 110 | Weakly Nonlinear Formulation on Acoustic Waves in Liquids Containing Many Spherical Gas Bubbles
<i>Kanagawa, Tetsuya</i> | N/A |
| T1 | 448 | A fractional Fourier transform domain filtered-x LMS algorithm for active noise control
<i>Wang, Yushuai; Dong, Mingming; Liu, Feng; Gu, Liang</i> | N/A |
| T1 | 618 | Modeling and Analysis of 9 Degree-of-Freedom Plate Structure with Active Mounting System
<i>Hong, Dongwoo; Kim, Byeongil</i> | 4054 |
| T1 | 638 | Vibration analysis and control of Euler beam with passive and piezoelectric active patches
<i>Lee, Kyeongnak; Kim, Byeongil</i> | 4059 |

- T1** 652 **Channel Function Modeling of ANC Based on Deep Learning network** 4064
Xiang, Qian; Zhang, Linke; Li, Hejun; Zhang, Fan
- T1** 696 **Penetration-free acoustic data transmission based active noise control** 4071
Yu, Ziyang; Wu, Ming; Yang, Jun
- T1** 698 **The design and experiment study on active vibration restraining mechanism of wind tunnel model** 4078
Chen, Lujun; Yang, Tiejun; Huang, Yong
- T1** 1035 **Identification of sound sources using inverse boundary element method** N/A
Xiao, Youhong; Li, Shaowei
- T1** 1039 **Numerical study of an active noise barrier** 4085
Sohrabi, Shahin; Pamies, Teresa; Romeu, Jordi
- T7** 1093 **HKAS Accreditation – An Effective Way to Assure Quality of Acoustic Testing** 4094
Tang, C. C. K.; So, A. C. T.
- T12** 495 **Adaptive median filtering for forward-looking sonar image registration** 4099
Cui, Jie; Hu, Changqing; Xu, Haidong
- T18** 113 **Inhomogeneous Theory Based on Sound Speed Measurement for Mixture of Water and Many Microbubbles in a Converging-Diverging Tube** 4106
Kanagawa, Tetsuya; Fujii, Keita; Uesawa, Shinichiro; Kaneko, Akiko; Abe, Yutaka
- T18** 120 **Generation of a Cracking Sound in Human Joint: Bubble Dynamics Simulations** N/A
Taira, Hisao; Kanagawa, Tetsuya
- T18** 368 **Dynamic responses of a nonlinear time-varying multi-degree-of-freedom system** 4111
Zhang, Yajing; Su, Jinpeng; Dong, Yanpeng; Peng, Xueming; Hua, Hongxing

T18	380	Flow-induced Vibro-acoustic Analysis of a Ducted Propeller Propulsion System	4120
		<i>Gao, Danni; Su, Jinpeng; Li, Ming Rui; Hua, Hongxing</i>	
T18	427	The sensitivity of noise directionality to geoacoustic parameters of bottom in shallow sea	4129
		<i>Chen, Bo; Hu, Changqing; Zhao, Mei; Klusek, Zygmunt</i>	
T18	597	Distributed friction induced vibration in shaft system with a water-lubricated bearing	4134
		<i>Gong, Xin; Zhang, Zhenguo; Su, Jinpeng; Hua, Hongxing</i>	
T18	676	Feature Enhancement Technique with Distorted Towed Array in the Underwater Radiated Noise	4146
		<i>Wu, Qisong; Xu, Ping; Li, Tengfei; Fang, Shiliang</i>	
T20	173	Diagnosis of Power Transformer Cores Based on the Vibroacoustic Signals Measurement in a Transient State	4153
		<i>Borucki, Sebastian Marcin; Cichoń, Andrzej</i>	
T20	184	Comparison of acoustic emission signals generated by high voltage current transformer insulation system	4159
		<i>Cichoń, Andrzej; Borucki, Sebastian Marcin; Kunicki, Michał</i>	
T20	236	Analysis on Vibration and Sound Radiation Characteristics of Orthotropic Stiffened Plates With Elastic Boundary	N/A
		<i>Lei, Zhiyang; Wang, Chunxu; Li, Zhaohui; Hua, Hongxing</i>	
T20	348	Music Recording Boxes Made by Acoustic Metamaterials	4166
		<i>Li, Ying; Au-Yeung, Ka Yan; Sun, Liang; Tang, Suet To; Li, Yibin; Yang, Zhiyu</i>	
T20	351	Ear Muffs Made by Acoustic Metamaterials	4170
		<i>Lau, Joshua; Tang, Suet To; Au-Yeung, Ka Yan; Sun, Liang; Yang, Zhiyu</i>	
T20	948	Formulation of the total energy and power flows into a discrete system as dissipated power and Lagrangian energy	4174
		<i>Inoue, Akira; Tanabe, Yosuke</i>	

Keynote 4

Tuesday, 29 August | 1540-1640 | Convention Hall A & B, Level 1

Chair: Tom Ho

1540 Trend of Automobile Development and Its Challenge for Noise and Vibration Control

Pang, Jian

T4.1 Hall and auditorium acoustics

Tuesday, 29 August | 1640-1800 | Convention Hall A & B, Level 1

Chairs: Jin Jeon, Takayuki Hidaka

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1640 798 A comparative analysis of acoustic energy models when applied to a typical modern theater 4186

Gao, Jianliang; Tang, Shiu Keung; Zhao, Yuezhe; Wu, Shuoxian

1700 809 Study on Stage Acoustic Parameter for Celempung Music Performance 4195

Wongso, Elsa; Prasetyo, Iwan; Sarwono, Joko; Simanjuntak, Jack Arthur

1720 1054 Architectural Design Of A Meditation Hall Through Acoustical Simulation And Auralisation N/A

Subramanian, Kandaswamy; Maran, Mithuna

1740 1055 Identification And Evaluation Of Architectural And Acoustical Design Of Musical And Performance Spaces Of Kerala-Koothambalams N/A

Subramanian, Kandaswamy; Maran, Mithuna

T14.S1 Alternative urban noise mitigation strategies

Tuesday, 29 August | 1640-1800 | Convention Hall C, Level 1

Chairs: C K Chau, Massimiliano Masullo

1640 555 An alternative noise mitigation strategy in urban green park: a laboratory experiment 4204

Masullo, Massimiliano; Maffei, Luigi; Pascale, Aniello; Senese, Vincenzo Paolo

- 1700** 614 **Study on the establishment of sound environment transition/buffer zone between the main traffic roads and the nearby residential areas** 4211
Zhang, Jiping; Zhu, Yunxiao; Wang, Zheming; He, Li
- 1720** 775 **The multisensory impact of sound source visibility on noise annoyance** 4223
Xu, Jingmei; Chau, Chi Kwan; Tang, Shiu Keung
- 1740** 1045 **Effects of Visual Environment with Multiple Environmental Features on Noise Annoyance Induced by Road Traffic Noise** 4231
Leung, T.M.; Xu, Jingmei; Chau, C.K.; Tang, Shiu Keung

T8.0 Flow induced noise and vibration - General

Tuesday, 29 August | 1640-1740 | Theatre 2, Level 1

Chairs: Stephen Hambric, Carsten Spehr

- 1640** 109 **Research on dynamics and vibration response in Pipeline Inspection Gauge (PIG) based on the CEL method** 4238
Ren, Hongxi; Shi, Dong Yan; Xu, Yang; Wang, Hongchao
- 1700** 979 **Simulations with Nyquist criterion to predict thermo-acoustic instabilities** N/A
Na, Wei; Efrainsson, Gunilla; Boij, Susann
- 1720** 1053 **Vibration and sound of a highly elastic plate** 4250
Manela, Avshalom; Weidenfeld, Michael

T1.3 Application of active control

Tuesday, 29 August | 1640-1820 | S221, Level 2

Chairs: Jing Lu, Xiaojun Qiu

- 1640** 872 **Development of a semi-circular speaker array system to control low-frequency radiation pattern** 4258
Irwansyah, Irwansyah; Kuse, Naoyuki; Usagawa, Tsuyoshi
- 1700** 215 **Active noise control algorithm for road noise in vehicle on changing pavement** 4264
Lee, Nokhaeng; Park, Youngjin

- 1720** 531 **Hybrid active sound quality control algorithm for vehicle interior noise** N/A
Liu, Feng; Dong, Mingming; Wang, Yushuai; Yang, Jun; Gu, Liang
- 1740** 108 **Mechanical noise prediction and active control of one certain ship** 4269
Wang, Hongchao; Shi, Dong Yan; M. k. Helal, Wasim; Liang, Qian; Wang, Qingshan; Ren, Hongxi
- 1800** 916 **The usage of directional secondary sources to actively control a finite line source** 4282
Hu, Qi; Tang, Shiu Keung

T3.3 Airport community noise

Tuesday, 29 August | 1640-1800 | S222-3, Level 2

Chairs: Ichiro Yamada, Idar Ludvig Nilsen Granøien

- 1640** 244 **Pilot impact on the noise abatement effect on steeper approaches – Initial analysis of wind and flight data** 4290
Rignér, Johan Olof; Moberg, Bengt Tage; Ulfvengren, Pernilla
- 1700** 542 **Aircraft Noise Sound Quality Evaluation of Continuous Descent Approaches** 4301
Pereda Albarrán, Miguel Yael; Sahai, Abhishek K.; Stumpf, Eike
- 1720** 701 **Using Trajectory Optimization to Minimize Aircraft Noise Impact** 4313
Zhang, Mengying; Filippone, Antonio; Bojdo, Nicholas
- 1740** 650 **Respite from Aircraft Noise** 4324
Porter, Nicole; Knowles, Andy; Norman, Rick; Flindell, Ian; LeMasurier, Paul

T20.3b Mid and high frequency numerical methods in vibroacoustics

Tuesday, 29 August | 1640-1800 | S224-5, Level 2

Chairs: Oriol Guasch, Laurent Maxit

- 1640** 232 **A Criterion for Piece-wise Mid-Frequency Vibro-acoustic Modelling Using the Condensed Transfer Function Approach** 4328
Hu, Zhongyu; Maxit, Laurent; Cheng, Li

- 1700** 311 **Time Domain Spectral Element Method for Simulation of Guided Wave: Analysis of Calculation Accuracy and Efficiency** 4336
Liu, Menglong; Cui, Fangsen; Su, Zhongqing
- 1720** 890 **Development of energy flow models for dilatation wave in elastic solids** 4343
Yeo, Sang-Jae; Hong, Suk Yoon; Song, Jee Hun; Kwon, Hyun-Wung
- 1740** 219 **On wave based Trefftz and weak Trefftz discontinuous Galerkin approaches for medium-frequency heterogeneous Helmholtz problem** 4351
Li, Hao; Ladevèze, Pierre; Riou, Hervé

T19.3 Buzz, squeak & rattle

Tuesday, 29 August | 1640-1800 | S226-7, Level 2

Chair: Joseph Lai

- 1640** 198 **Uncertainty Analysis for the Prediction of Disc Brake Squeal Propensity** 4360
Zhang, Zhi; Oberst, Sebastian; Lai, Joseph CS
- 1700** 317 **Radiation noise simulation and analysis of disc brake** 4370
Hu, Xiaojun; Liu, Xiandong; Shang, Ke; Liu, Yaoguang
- 1720** 320 **Frequency domain investigation of brake squeal problem using a low order nonlinear model** 4376
Sen, Osman Taha; Singh, Rajendra
- 1740** 1007 **Experimental and computational investigation of disc brake squeal** 4383
Tozkoparan, Omer Anil; Yenerer, Hakan; Sen, Osman Taha; Gunes, Sunay; Ozmen, Basaran; Haack, Matthias; Ipekoglu, Mehmet; Walther, Frank

T9.S2 Noise control application in transformer station

Tuesday, 29 August | 1640-1820 | S228, Level 2

Chairs: Jiancheng Tao, Linke Zhang

- 1640** 327 **Noise radiation from an AC filter capacitor** 4393
Tao, Jiancheng; Zhong, Jiabin; Qiu, Xiaojun
- 1700** 389 **Analysis on the accuracy of noise prediction for transformer substation** 4403
Xuelei, Zhan; Yong, Cai; Wu, Wenjun; Yonggui, Li; Xuan, Cai
- 1720** 640 **Present status and future development for active control of transformer noise** 4408
Zou, Haishan; Tao, Jiancheng; Qiu, Xiaojun
- 1740** 656 **Radiation noise prediction of outdoor substation based on improved ray tracing method** 4415
Cai, Xuan; Wang, Li; Wang, Sheng; Yao, Na; Li, Dakun
- 1800** 1049 **The influence of doors and windows on the outdoor noise propagation of typical transformer rooms in Chinese substations** 4422
Xu, Luwen; Xie, Hui; Luo, Fangfang

T4.3 Green building acoustics

Tuesday, 29 August | 1640-1800 | S421, Level 4

Chair: S K Lau

- 1640** 121 **Towards green building acoustics: Evaluation of acoustic comfort in engineering education laboratories** 4428
Md Amin, Noor Dina; Akasah, Zainal Abidin; Razzaly, Wahid
- 1700** 218 **Green roofs for noise reduction : literature review and new insights** 4436
Van Renterghem, Timothy
- 1720** 404 **The Sustainability Assessment of Acoustic Materials** N/A
Oltean-Dumbrava, Crina Monica; Richards, Mark
- 1740** 787 **New Seamless Decorative Sound Absorbing Material—Environmental Friendly Sand Acoustic Panels** 4443
Yan, Xiang

T18.4 Underwater flow induced noise

Tuesday, 29 August | 1640-1800 | S423, Level 4

Chair: Mahmoud Karimi

- 1640** 341 **Double Cylinder Coupling Characteristics of the Flow Field around Based on Lattice Boltzmann Method** **4449**
Gou, Yuxin; Shi, Dong Yan; Wang, Zhikai
- 1700** 540 **The investigation on calculating and measuring hydrodynamic noise from sonar dome with different kinds of materials** **4456**
Liu, Yongwei; Fu, Shengfeng; Qin, Qikai; Shang, Dejiang
- 1720** 586 **Computation of flow-generated sound of a flat plate using a hybrid RANS-BEM technique** **4465**
Karimi, Mahmoud; Croaker, Paul; Skvortsov, Alex; Kessissoglou, Nicole
- 1740** 1022 **Numerical analysis for non-cavitating noise of the underwater propeller** **4470**
Du, Bingxin; Gong, Jingfeng; Ming, Pingjian; Xuan, Lingkuan; Zhang, Wenping

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T10.1 Noise and health in children

Tuesday, 29 August | 1640-1800 | S424, Level 4

Chair: Irene van Kamp

- 1640** 174 **Aircraft noise exposure and children's cognition: Evidence for a daytime NAT criterion** **4480**
Spilski, Jan; Bergstroem, Kirstin; Mayerl, Jochen; Moehler, Ulrich; Lachmann, Thomas; Klatte, Maria
- 1700** 412 **A preliminary analysis of the sources of noise in an open-plan neonatal intensive care unit** **4487**
Park, Munhum; Vermeulen, Ronald; Laroche, Sabine; Gillies, Murray
- 1720** 777 **A pilot study: The restorative potential of soundscape on children** **4495**
Shu, Shan; Ma, Hui

- 1740** 933 **The relationship between elementary school children's cognitive abilities and floor impact noise in wall-structure type apartment buildings** 4502
Jeong, Yeong; Lee, Yoonjoon; Shin, Yeonghwan; Kim, Jeongrae

T17.3 Measurement methods for tyre/road noise and related issues

Tuesday, 29 August | 1640-1800 | S425, Level 4

Chair: Renzo Tonin

- 1640** 143 **Measuring the acoustic properties of audio tactile road markings** 4507
Goubert, Luc; Gail, Annette
- 1700** 190 **Degradation of reference tyres used for CPX measurements** 4517
Ejsmont, Jerzy; Swieczko-Zurek, Beata; Owczarzak, Wojciech; Sommer, Sławomir
- 1720** 292 **A Round Robin Test of CPX devices for the characterization of Road Surface Noise Properties** 4524
Lelong, Joël; Anfosso-Ledee, Fabienne; Soldano, Bertrand
- 1740** 611 **Comparison of CPX and OBSI noise measurements for different road surfaces** 4534
Tonin, Renzo; Saurer, Tina

T3.0 Aircraft noise - General

Tuesday, 29 August | 1640-1800 | S426, Level 4

Chairs: Tatiana Kozubskaya, Xueping Guo

- 1640** 673 **A Comparative Study of HWB Airframe Shielding Effect on Ducted Fan Noise** 4544
Li, Xiaodong; Liu, Jizhou; Yao, Rongnan
- 1700** 691 **A numerical investigation of the airfoil leading edge noise in transonic flows** 4554
Zhong, Siyang; Zhang, Xin; Gill, James; Fattah, Ryu
- 1720** 744 **A Model-Scale Test of Jet Installation Noise for Aircraft Turbofan Engines** 4566
Zhang, Yingzhe; Lee, Incheol; Lin, Dakai; Li, Xiaodong

- 1740** 768 **Numerical simulation study on a new active control method of cavity noise** 4578
Ning, Fangli; Liu, Zhe; Shi, Xudong; Ning, Shunshan

T7.16 Environmental low frequency noise

Tuesday, 29 August | 1640-1820 | S427, Level 4

Chair: CK Lee

- 1640** 497 **Analysis and Modeling on Low-frequency Source Levels of Fishing Vessels from an acoustic observatory in East China Sea** 4587
Peng, Zilong; Wang, Bin; Fan, Jun
- 1700** 503 **Does low frequency Sound Insulation correlate with the Standard Sound Reduction Index - Rw?** 4592
Heiden, Joergen; Soendergaard, Bo; Bonde, Regnar Oxholm
- 1720** 767 **The status and annoyance evaluation of the interior low-frequency vibration of residential buildings caused by the urban expressway** 4600
Cai, Chao; Ma, Hui; Li, Rongmao; Liu, Yishan; Wu, Yangyang
- 1740** 792 **Simulation study of the wind noise reduction by spherical shell windscreens** 4606
Zhao, Sipei; Cheng, Eva; Qiu, Xiaojun; Burnett, Ian; Liu, Chia-chun
- 1800** 854 **Study on the relationship between unpleasantness and perception of vibration in the head of subjects exposed to low-frequency noise** 4614
Takahashi, Yukio

T12.2 Acoustical holography/beamforming/microphone array

Wednesday, 30 August | 0840-1020 | Convention Hall A & B, Level 1

Chairs: Kainam T Wong, Weikang Jiang

- 1840** 199 **Linear Acoustic Holography Method for High-speed Train Sound Field Reconstruction** **4621**
Zhang, Kai; Miao, Feng; Yang, Diange
- 0900** 259 **Fault diagnosis by time-domain beamforming integrated with kurtosis method** **4629**
Chen, Long; Choy, Yat Sze; Wang, Tian Gang
- 0920** 260 **Identification of dipole sources by directivity-eliminated cross-spectral matrix method** **4636**
Pan, Xingjian; Jiang, Weikang
- 0940** 285 **The influence of calibration on the estimation of the DOA with acoustic vector sensors.** **4645**
Sobreira Seoane, Manuel A.
- 1000** 516 **Sound field reconstruction using compressed equivalent source method based on a redundant dictionary** **4655**
Liu, Yuan; Bi, Chuan-Xing; Xu, Liang; Zhang, Yong-Bin

T9.3 Machinery noises

Wednesday, 30 August | 0840-1020 | Convention Hall C, Level 1

Chair: Chris Kwok

- 0840** 135 **Evaluating time dependent pressure forces and torques in external gear machines by means of an analytical approach** **4662**
Battarra, Mattia; Mucchi, Emiliano
- 0900** 137 **Noise and vibration improvements in vibratory feeders by analytical models and experimental analysis** **4674**
Buzzoni, Marco; Battarra, Mattia; Mucchi, Emiliano; Dalpiaz, Giorgio
- 0920** 381 **Interaction of shunted loudspeakers with different resonance frequencies** **4685**
Cong, Chaonan; Tao, Jiancheng; Qiu, Xiaojun

0940 455 **Estimation of energy dissipation in Lap Joints using Scaling Approach** 4694

Naik, Abhay; Padmanabhan, Chandramouli

1000 997 **Noise Reduction on a Jumbo Drill using Patch Contribution Analysis and Scale Modeling** 4707

Herrin, David; Cheng, Gong; Campbell, Steven C.; Peterson, Shawn; Camargo, Hugo; Stencel, John

T7.6 Characterization of urban sound environments

Wednesday, 30 August | 0820-1020 | Theatre 2, Level 1

Chairs: Pierre Aumond, J. M Barrigón Morillas

0820 513 **Large array of microphones for the automatic recognition of acoustic sources in urban environment** 4716

Leiba, Raphaël; Ollivier, François; Marchal, Jacques; Misdariis, Nicolas; Marchiano, Régis

0840 270 **Analysis of cycles in urban noise based on long term data** 4725

Lenchine, Valeri V.

0900 897 **Noise pollution and the functional design of urban environments** 4732

Barrigón Morillas, Juan Miguel; Vilchez-Gómez, Rosendo; Rey-Gozaló, Guillermo; Montes-González, David; Atanasio-Moraga, Pedro; Méndez-Sierra, Juan Antonio; Trujillo-Carmona, José

0920 449 **Acoustic mapping based on measurements: space and time interpolation** 4742

Aumond, Pierre; Can, Arnaud; Mallet, Vivien; De Coensel, Bert; Ribeiro, Carlos; Botteldooren, Dick; Lavandier, Catherine

0940 647 **Real-time urban traffic noise maps: the influence of Anomalous Noise Events in Milan Pilot area of DYNAMAP** 4754

Zambon, Giovanni; Benocci, Roberto; Orga, Ferran; Alsina Pagès, Rosa Maria; Alías, Francesc; Socoró, Joan Claudi

1000 930 **Urban Soundmapping at the Edge** 4764

Park, Tae Hong; Yoo, Minjoon; Dye, Chris; You, Jaeseong; Buranintu, Varatep; Rekesh, Dima; Leonard, Isaac

T1.4 Active structural acoustic control

Wednesday, 30 August | 0840-1020 | S221, Level 2

Chair: Farnaz Tajdari

- 0840** 195 **Active control of sound radiated from a double-walled structure using active noise control and active vibration control** 4776
Okada, Kentaro; Iwamoto, Hiroyuki; Tanaka, Nobuo
- 0900** 398 **Active control of a lumped acoustic source driven by various actuators** 4786
Tajdari, Farnaz; Berkhoff, Arthur P.; de Boer, Andre
- 0920** 410 **Investigation on active control for sound transmission through a panel comprised of several flexible plates to the cavity** 4791
Zhu, Liping; Yang, Tiejun; Li, Xinhui; Pang, Lihong
- 0940** 436 **Active control of structural sound radiation using receptance method** 4801
Xia, Maolong; Li, Sheng
- 1000** 543 **Panel with piezoelectric patches connected to multi-resonant shunts set to maximise power absorption** 4809
Zientek, Michal Wladyslaw; Gardonio, Paolo

T3.2 Airframe cabin noise

Wednesday, 30 August | 0840-1020 | S222-3, Level 2

Chairs: Marshall Downing, David Angland

- 0840** 157 **Full Scale: Flight Test Characterization of Aircraft Fuselage Surface Pressure Fluctuations** 4818
Haxter, Stefan; Spehr, Carsten
- 0900** 229 **Commercial aircraft cabin noise reduction based on SEA and transfer-matrix method** N/A
Hu, Ying; Han, Feng; Feng, Zhixi; He, Liyan
- 0920** 231 **Improvements of sound transmission loss in aircraft cabin with elastomeric bulb seals** 4830
Dang, Zhigao; Wang, Mingqing; Mai, Kai; Liu, Hailin

- 0940** 307 **Fuselage Excitation during Cruise Flight Conditions: Influence of Different TBL Wavenumber-Frequency Models on Structural Response** 4839
Klabes, Alexander; Herr, Michaela; Appel, Christina; Callsen, Sören
- 1000** 738 **Cabin Noise Prediction for Propeller Aircraft in an Early Design Phase using Parametric FEM Geometry Models and Simplified Propeller Loads** 4853
Mueller, Uwe Christian; Weber, Markus Joerg

T1.S1 Spatial sound field reproduction, control and perception

Wednesday, 30 August | 0820-1020 | S224-5, Level 2

Chairs: Bosun Xie, Jing Lu

- 0820** 153 **Implicit Control Applied to Active Shielding: Non-Zero Attenuation at Boundaries** 4863
Quintana Soler, Ricardo Alonso; Patiño Guevara, Diego Alejandro
- 0840** 241 **Analysis on summing virtual source localization in the sagittal plane** 4874
Xie, Bosun; Mai, Haiming; Zhong, Xiaoli
- 0900** 261 **Similarity of head-related transfer functions in sagittal planes** 4881
Zhong, Xiaoli; Ma, Chaoli
- 0920** 262 **Individualization of head-related transfer function based on multiple databases** 4886
Zhong, Xiaoli; Peng, Congcong
- 0940** 304 **The influence of order on binaural pressure spectra and localization performance in dynamic binaural Ambisonics reproduction** 4893
Jiang, Jianliang; Xie, Bosun; Mai, Haiming
- 1000** 372 **Analysis on the Mixed-order Ambisonics Reproduction in Horizontal Plane** 4901
Mai, Haiming; Xie, Bosun; Jiang, Jianliang

T2.2 Porous media, their effects and applications

Wednesday, 30 August | 0820-1020 | S226-7, Level 2

Chairs: K Horoshenkov, Francesco Asdrubali

- | | | | |
|-------------|-----|--|-------------|
| 0820 | 325 | Investigation and optimization for blast-resistant performances of a graded aluminum foam sandwich structure | 4910 |
| | | <i>Guo, Peng Fei; Shi, Dong Yan; Li, Yong Kuan; Xue, Xiang You</i> | |
| 0840 | 329 | Investigations of the flow resistance of geometries with direction-dependent properties using numerical methods | 4920 |
| | | <i>Ring, Tobias; Langer, Sabine Christine</i> | |
| 0900 | 358 | On the effect of structure permeability on the sound of an airfoil | 4930 |
| | | <i>Manela, Avshalom; Weidenfeld, Michael</i> | |
| 0920 | 535 | Numerical Investigation Of The Acoustic Characteristics of Ducts Lined with Poroelastic Materials | 4938 |
| | | <i>Wang, Chunqi; Jiang, Changyong; Huang, Lixi</i> | |
| 0940 | 580 | Simulation and experimental study of sound absorption of porous metal at high temperatures | 4948 |
| | | <i>Zhang, Bo; Zhang, Junzhe</i> | |
| 1000 | 639 | Characterization of the frequency-dependent Biot's parameters of porous materials from FEM applications | 4955 |
| | | <i>Liu, Yaoguang; Liu, Xiandong; Dong, He; Shan, Yingchun; He, Tian</i> | |

T20.5 Vibro-acoustic experiments

Wednesday, 30 August | 0900-1020 | S228, Level 2

Chair: Li Cheng

- | | | | |
|-------------|------|---|-------------|
| 0900 | 438 | Sensitivity analysis of residual stresses in composite pressure vessels via modal analysis | 4960 |
| | | <i>John, Sebastian</i> | |
| 0920 | 1013 | Experimental Validation of Theoretical Method for Prediction of Acoustic Streaming around a Resonantly-Excited Cancer Cell | 4968 |
| | | <i>Lee, Kwanhyung; Yigit, Sinan; Han, Arum; Kim, Dongin; Kim, Yong-Joe</i> | |

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0940 181 **The measurement of damping loss factor for vibro-acoustic modelling** 4978

Zhao, Yanju; Wang, Frank; Bramner, Paul

1000 248 **Effects of isolating machine vibrations on the transmission of structure-borne and air-borne sound energy** 4985

Ziaran, Stanislav; Chlebo, Ondrej

T8.2 Duct acoustics

Wednesday, 30 August | 0820-1020 | S421, Level 4

Chairs: S K Tang, David Herrin

0820 797 **BEM Analysis of Large Two-Inlet Silencers with FEM-AML Validation** 4995

Wang, Peng; Ruan, Kangping; Wu, Tim; Herrin, David

0840 1047 **A unified energy formulation for the vibro-acoustic modeling of structural-acoustic duct silencer system** 5005

Liu, Yang; Du, Jingtao

0900 290 **Implementation Of Doe And Ga Algorithm For Optimizing The Muffler Transmission Loss** 5012

K V, Manoj; Mungara, Hari Krishna; Tom Mathew, Arun

0920 375 **Reliability-based topology optimization for optimal muffler design considering uncertainty** 5021

Lee, Jong Kyeom; Lee, Jin Woo

0940 572 **Numerical Simulation Study on Acoustics Analysis of Muffler with Water Spray** 5026

Zhang, Xinyu; Meng, Xiangci; Zhao, Xiaochen

1000 573 **Numerical Simulation and Analysis of the Effect of Spray Cooling on Muffler Performance** 5034

Zhang, Xinyu; Gao, Wu; Zhao, Xiaochen

T16.2 Rail and rolling stock noise

Wednesday, 30 August | 0840-1020 | S423, Level 4

Chairs: CW Law, Wilson Ho

- 0840** 105 **Prediction of Sound Transmission Loss of Composite Floor Structures of High Speed Trains** **5040**
Song, Shike; Chen, Hongwei
- 0900** 189 **Noise radiation from steel bridge structure-Old Årsta bridge Stockholm** **5046**
Olsen, Anders; Lützen, René Smidt; Holmes, Stewart
- 0920** 287 **Application of dynamic vibration absorbers on a double-deck circular railway tunnel to minimize the radiated vibration energy flow induced by a moving load** **5058**
Noori, Behshad; Clot, Arnau; Arcos, Robert; Romeu, Jordi
- 0940** 781 **Acoustic Properties of Aerodynamic Bogie Noise Generated from Shinkansen Train** **5067**
Yamazaki, Nobuhiro; Uda, Toki; Nakayama, Masato; Nishiura, Takanobu
- 1000** 823 **Evaluation of rolling and impact noise due to rail joints using the scale model testing** **5079**
Sueki, Takeshi; Kitagawa, Toshiki

T8.1 Jet noise

Wednesday, 30 August | 0840-1020 | S425, Level 4

Chair: Randolph Leung

- 0840** 301 **Improved Predictions Of Broadband Shock Associated Noise In Supersonic Jets** **5094**
Kalyan, Anuroopa; Gryazev, Vasily; Karabasov, Sergey A; Tan, Dominic J; Wong, Marcus; Honnery, Damon; Edgington-Mitchell, Daniel
- 0900** 694 **A Coupled LES-APE Approach for Jet Noise Prediction** **5106**
Moratilla-Vega, Miguel A.; Xia, Hao; Page, Gary J.

- 0920** 758 **Comparative study of semi-empirical jet mixing noise prediction methods in vertical to jet axis direction** 5118
Zhao, Wen ; Mao, Dongxing; Jiang, Zaixiu
- 0940** 114 **Experimental study on impulse exhaust noise related to the dynamic flow characteristics of pneumatic directional valve** 5129
Li, Jingxiang; Qiu, Hao; Zhao, Shengdun
- 1000** 1059 **Noise Emissions from Low Reynolds Number Wall Jets** 5137
Rahul, S Arackal; T.J.S, Jothi

T13.1 Product sound quality

Wednesday, 30 August | 0800-1020 | S426, Level 4

Chairs: Masayuki Takada, Ercan Altinsoy

- 0800** 692 **Sound quality evaluation of noises with spectro-temporal patterns** 5143
Sottek, Roland
- 0820** 510 **Investigation of the design direction of vehicle door-closing sounds** 5153
Takada, Masayuki; Sakamoto, Shinji; Iwamiya, Shin-ichiro
- 0840** 625 **New Acoustical End-of-Line Test Stand for Sound Quality Assurance of High Class Vehicles** 5163
Salzer, Roland; Hoffmann, Volker
- 0900** 502 **The sound quality analyses of the interior noise of the micro commercial vehicle under different road conditions** 5172
Li, Dou; Huang, Yu
- 0920** 466 **Results of a semantic differential test to evaluate HVAC&R equipment noise** 5180
Sung, Weonchan; Davies, Patricia; Bolton, J. Stuart
- 0940** 496 **Development of Sound Quality Index for Excavator's Hydraulic Relief Noise** 5189
Shin, Sung-Hwan; Noh, Gui-Bun; Sim, Sang-Deok; Lee, Yong-Sam; Kim, Seung-Won

- 1000** 499 **Prediction of the perceived pitches of a uniquely shaped bell** 5196
based on spectral pitch analysis
Cho, Wan-Ho; Arimitsu, Akihiko; Toi, Takeshi

T18.1 Vibro-acoustics of ships, underwater structures and vehicles

Wednesday, 30 August | 0840-1020 | S427, Level 4

Chairs: Meixia Chen, Laurent Maxit

- 0840** 170 **Modal coupling in the vibro-acoustic responses of submerged coupled shells** 5204
Su, Jinpeng; Qu, Yegao; Zhou, Kai; Chen, Yanhao; Hua, Hongxing
- 0900** 193 **An Effective Approach for the Analysis of the Electromechanical-Coupling Vibration in the Inverter-Fed PM Synchronous Motors Using Concise Mechanical Model** 5211
Feng, Chao; Ma, Xiao-chuan; Hu, Ze-yan; Luo, Yong; Zhang, Xin Zhou; Xiao, Jian; Chen, Mo-jiang
- 0920** 293 **Vibroacoustic modelling of periodically stiffened submerged cylindrical shells beneath a turbulent boundary layer** 5217
Maxit, Laurent; Meyer, Valentin
- 0940** 322 **Vibration analysis of coupled beam and cylindrical shell structures through an analytic method** 5228
Xie, Kun; Chen, Meixia; Zhang, Lei
- 1000** 414 **Acoustic contribution from individual cabins of a submerged hull** 5237
Li, Chenyang; Liu, Niuniu; Hua, Hongxing

T20.7 Vibration

Wednesday, 30 August | 0800-1020 | S428, Level 4

Chairs: Tiejun Yang, Jinhao Qiu

- 0800** 551 **Bolted Joints: Eigenfrequencies from non-linear FE-models and experimental modal analysis** 5243
Langer, Patrick; Hoppe, Alexander; Guist, Christian; Marburg, Steffen

- | | | | |
|-------------|-----|--|-------------|
| 0820 | 661 | Numerical investigation on the effects of the edge damping in the thin plate-like vibration system
<i>Inoue, Naohisa; Sakuma, Tetsuya</i> | 5254 |
| 0840 | 501 | The free vibration characteristics analysis of rectangular plate with central opening using in arbitrary boundary conditions
<i>Chen, Fan; Li, Tian Yun; Zhu, Xiang; Guo, Wenjie; Wang, Peng</i> | 5262 |
| 0900 | 253 | Vibration of a plate with power-law-profiled thickness variation by wavelet decomposed Rayleigh-Ritz method
<i>Ma, Li; Zhang, Su; Cheng, Li</i> | 5274 |
| 0920 | 308 | Free vibration analysis of axially loaded non-uniform Timoshenko beams attached with multiple sub-systems
<i>Ni, Zhen; Su, Jinpeng; Huang, Xiuchang; Hua, Hongxing</i> | 5282 |
| 0940 | 408 | A hybrid analytical-numerical approach for vibration analysis of cylindrical shells with internal substructures
<i>Zhang, Lei; Chen, Meixia; Xie, Kun</i> | 5292 |
| 1000 | 265 | Vibration analysis of coupled open spherical-cylindrical shells subjected to general boundary conditions
<i>Shi, Dong Yan; Zhao, Yunke; Tang, Houcheng; Wang, Hongchao; Xu, Yang</i> | 5302 |

P4 - Poster Presentation (4)

Wednesday, 30 August | 1020-1100 | Theatre Foyer, Level 1

- | | | | |
|-----------|-----|---|-------------|
| T8 | 478 | Vibration Analysis of Fluid-Structure Interaction Behavior of Pipes Conveying Fluids Based on an Improved Dimensionless Model
<i>Gongmin, Liu; Yinhang, Cao; Wen, Luo; Haoran, Wang</i> | 5312 |
| T8 | 546 | Aeroacoustics of Air Purifier Centrifugal Fan Design
<i>Wong, Yin Wai; Leung, Randolph Chi Kin; Law, Anthony, Kwong Yung</i> | 5323 |
| T8 | 561 | Application of Finite Element Transfer Matrix Method to Frequency Response Analysis of Cylindrical Shell Conveying Fluid
<i>Wang, Haoran; Liu, Gongmin; Cao, Yinhang</i> | 5336 |

T8	955	The vibration characteristic of the shafting-shell coupled structure induced by propeller force <i>Cao, Yipeng; Huang, Qishang; Zhang, Runze</i>	N/A
T8	958	Non-uniformly lined rectangular ducts energy attenuation prediction using Chebyshev collocation method with high accuracy <i>Zhang, Shangyu; Jiang, Changyong; Huang, Lixi</i>	5345
T8	1038	Characteristics of unsteady flow field and flow-induced noise in outdoor unit of an air conditioner <i>Lim, Tae-Gyun; Jung, Jae Hyuk; Jeon, Wan-Ho; Joo, Won-Gu; Minorikawa, Gaku</i>	5354
T10	763	Evaluation of noise reduction performance of hearing aids based on modified signal-to-noise ratio reflecting spectral masking effect <i>Chen, Xiaomei; Zhao, Zhenda; Zhong, Bo</i>	N/A
T10	1062	Effects of natural environmental sounds on cognition of peculiar noises in hospital ward <i>Matsumoto, Junko</i>	5360
T11	257	Investigation of Selective Attention to Auditory Cognitive Task under Meaningful or Meaningless Noise <i>Tamesue, Takahiro</i>	5367
T11	420	A basic study of a voice evacuation guidance system in plane space using precedence effect <i>Hashimoto, Miyu; Osumi, Ayumu; Ito, Youichi</i>	5373
T11	828	Relationship between masking efficiency and amplitude envelope in natural sounds <i>Tamagawa, Katsuya; Sato, Keiko</i>	5379
T11	843	Investigation of preferred playback volume according to music genre using listening test <i>Lee, Jae Kwan; Chang, Seoil</i>	5386
T13	132	Acoustics Acoustic Characteristic of Car Horn Sound <i>Kim, Yeon Soo; Shin, Taejin; Lee, Sang Kwon; Kim, Dae Hyun</i>	5392

- T13** 172 **Device of Warning Sound of a Electric Vehicle** 5404
Lee, Sang Kwon; Back, Ji Sun; Lee, Seung Min
- T13** 234 **An experimental result of influence of visual presentation method on subjective evaluation of moving boat noise** 5408
Muto, Kenji; Hosono, Suguru; Tokunaga, Yasunobu
- T13** 522 **Psychoacoustical assessment of impression of the coolness and warmness of automotive HVAC noise** 5415
Nakagawa, Seiji; Hotehama, Takuya; Kamiya, Masaru
- T15** 659 **A Study on Improvement Level of Speech Quality with Covering Bone Conduction Microphone for MRI Examination** 5421
Inagaki, Michi; Muto, Kenji; Takahashi, Kojiro; Yagi, Kazuo

T12.2 Acoustical holography/beamforming/microphone array

Wednesday, 30 August | 1100-1200 | Convention Hall A & B, Level 1

Chairs: Kainam T Wong, Weikang Jiang

- 1100** 545 **Acoustic sources distribution reconstruction from non-synchronous sound pressure measurements** 5427
Barré, Sébastien; Puhle, Christof
- 1120** 565 **Dual-microphone sound source localization in enclosed space based on time reversal and genetic algorithm** 5434
Ma, Huiying; Zeng, Xiangyang; Wang, Haitao; Du, Bokai
- 1140** 606 **Combined beamforming and deep neural networks for multichannel speech enhancement** 5440
Zhou, Haoran; Lu, Jing

T7.6 Characterization of urban sound environments

Wednesday, 30 August | 1100-1200 | Theatre 2, Level 1

Chairs: Pierre Aumond, J. M Barrigón Morillas

- 1100** 937 **Estimation of urban noise with the assimilation of observations crowdsensed by the mobile application Ambiciti** 5449
Ventura, Raphaël; Mallet, Vivien; Issarny, Valérie; Raverdy, Pierre-Guillaume; Rebhi, Fadwa

- 1120** 435 **Towards the assessment of community response to noise through social media** 5457
Gasco, Luis; Asensio, Cesar; de Arcas, Guillermo
- 1140** 1012 **Effects of soundscape on the visual attention of rural landscape** 5466
Ren, Xinxin; Kang, Jian

T1.4 Active structural acoustic control

Wednesday, 30 August | 1100-1200 | S221, Level 2

Chair: Farnaz Tajdari

- 1100** 630 **Aircraft Fuselage Controlled by 245 Tuned Vibration Absorbers** 5472
Sachau, Delf; Koehne, Christian
- 1120** 634 **Model-based active noise control for two-dimensional closed space by concentrated mass model** 5484
Hisano, Shotaro; Ishikawa, Satoshi; Kijimoto, Shinya; Koba, Yosuke
- 1140** 855 **Performance and power consumption of a decentralized velocity feedback control system with six inertial mass actuators on a laboratory truss structure** 5496
Lapicciarella, Giovanni; Rohlfing, Jens

T3.2 Airframe cabin noise

Wednesday, 30 August | 1100-1200 | S222-3, Level 2

Chairs: Marshall Downing, David Angland

- 1100** 961 **Evaluation of Royal Canadian Air Force CH-149 Hearing Protection Through Example Flight Profiles** 5508
Price, Andrew; Ghinet, Sebastian; Chen, Yong; Grewal, Anant; Wickramasinghe, Viresh
- 1120** 970 **Cabin Noise Assessment of the RCAF CH-149 Cormorant Helicopter through Flight Testing** 5520
Ghinet, Sebastian; Price, Andrew; Chen, Yong; Grewal, Anant; Wickramasinghe, Viresh

- 1140** 1070 **A synthetical application of acoustic metamaterials on aircraft cabin noise control** N/A
Wang, Xiaole; Han, Feng; Zhao, Huayong; Huang, Zhenyu; Wang, Wei

T19.5 Automotive powertrain NVH

Wednesday, 30 August | 1100-1200 | S224-5, Level 2

Chairs: Chengwu Duan, Xiandong Liu

- 1100** 384 **Dynamical behaviors of an electromechanical actuator with nonlinear stiffness in dry clutches** 5529
Chen, Li; Liu, Fengyu
- 1120** 539 **Lateral Vibration Reduction of Rotor Bearing System Using Single Circular Pocket Recess** 5539
Seperamaniam, Thandayuthapani; Abdul Jalil, Nawal Aswan; Zulkefli, Zamir Aimaduddin; As'array, Azizan
- 1140** 1072 **Development of a Research Purpose Transmission Dynamometer Facility** 5547
Yao, Jian; Duan, Chengwu; Huang, Ying

T2.2 Porous media, their effects and applications

Wednesday, 30 August | 1100-1200 | S226-7, Level 2

Chairs: K Horoshenkov, Francesco Asdrubali

- 1100** 746 **Prediction of Airflow Resistivity of Fibrous Acoustical Materials having Double Fiber Components and a Distribution of Fiber Radii** 5558
Xue, Yutong; Bolton, J. Stuart
- 1120** 834 **Lightweight Design for Fibrous acoustic package of automotive** 5567
Xie, Xiaolong; Tang, Gaofeng; Chen, Yahong; Ye, Wei
- 1140** 934 **Computational and experimental analysis of acoustic properties for random glass wools** 5575
He, Mu; Perrot, Camille; Guilleminot, Johann

T11.0 Psychoacoustics - General

Wednesday, 30 August | 1100-1200 | S228, Level 2

Chair: Klaus Genuit

- 1100** 588 **Objective and subjective sound quality evaluation of range hood** 5587
Wei, Ximing; Li, Zhonghua; He, Xinkui; Yan, Liang; Wang, Yue; Jiang, Jiwu; Ji, Junsheng; Yu, Yueyong
- 1120** 635 **Psychoacoustic indicators of road and rail traffic noise, subjective perception and psychological and physiological parameters** 5592
Lienhart, Manuel; Cik, Michael; Fallast, Kurt; Marth, Egon; Freidl, Wolfgang
- 1140** 1028 **Measurement of Water Supply and Drainage Noise in Multi-residential Buildings** 5602
Jo, Hyun In; Kim, Sung Min; Jeon, Jin Yong; Yang, Hong Seok

T16.2 Rail and rolling stock noise

Wednesday, 30 August | 1100-1200 | S423, Level 4

Chairs: CW Law, Wilson Ho

- 1100** 900 **Application of OTPA as a multi-dimensional tool for gaining a deep understanding of the sound transmission of rail-bound vehicles** 5608
Sievi, Alex; Tao, Guo; Li, Jun
- 1120** 910 **The application of OTPA and classical TPA for source contribution analysis in a high-speed train** 5615
Sievi, Alex; Brick, Haike; Stegemann, Bert; Lohrmann, Martin
- 1140** 917 **Auralisation of freight train-rolling-noise** 5627
Berkefeld, Tobias; Henning, Arne

T13.1 Product sound quality

Wednesday, 30 August | 1100-1200 | S426, Level 4

Chairs: Masayuki Takada, Ercan Altinsoy

- 1100** 386 **A sound quality model for the range hood noise and its application in noise control** **5636**
Li, Han; Chen, Kean; Wang, Xue; Gao, Yan; Nan, Jiang
- 1120** 702 **An objective speech quality assessment algorithm based on PESQ for hearing aids** **5645**
Zhong, Bo; Chen, Xiaomei
- 1140** 769 **Noise reduction for cochlear implants by enhancing the temporal envelope** **5654**
Fu, Guanghui; Zheng, Nengheng; Shao, Xiaowei

T18.1 Vibro-acoustics of ships, underwater structures and vehicles

Wednesday, 30 August | 1100-1200 | S427, Level 4

Chairs: Meixia Chen, Laurent Maxit

- 1100** 793 **An Effective Semi-analytical Model for the Inner Forced Vibration of the Power System in UUVs** **5662**
Feng, Chao; Ma, Xiao-chuan; Hu, Ze-yan; Luo, Yong; Zhang, Xin Zhou; Xiao, Jian; Chen, Mo-jiang
- 1120** 817 **Novel study of acoustic window for sonar dome based on resonance-caused sound transmission** **5668**
Qin, Qikai; Wang, Tianyu; Liu, Yongwei; Shang, Dejiang
- 1140** 971 **A Fast Modeling Method of Structural Acoustic Radiation in an Oceanic Waveguide** **5676**
Zhao, Kaiqi; Wang, Bin; Fan, Jun

T20.7 Vibration

Wednesday, 30 August | 1040-1200 | S428, Level 4

Chairs: Tiejun Yang, Jinhao Qiu

- 1040** 365 **The optimization design of a traditional DVA attached to a primary system with two close resonances** **5683**
Hua, Yingyu; Wong, Wai On; Cheng, Li
- 1100** 370 **The behavior of vibration system equipped with piezoelectric energy harvesting devices** **5695**
Yang, Tiejun; Yu, Liuding; Li, Xinhui; Zhu, Minggang; Li, Wenke
- 1120** 426 **Comparison of sampling techniques for global sensitivity analyses of scaled vibrating structures** **5704**
Adams, Christian; Bös, Joachim; Slomski, Elena M.; Melz, Tobias
- 1140** 347 **Membrane-type Vibration Dampers** **5716**
Sun, Liang; Au-Yeung, Ka Yan; Tang, Suet To; Yang, Zhiyu

T12.2 Acoustical holography/beamforming/microphone array

Wednesday, 30 August | 1300-1500 | Convention Hall A & B, Level 1

Chairs: Jun Yang, Oriol Guasch

- 1300** 359 **Convolution model for the far-field directivity of curved parametric loudspeaker arrays** **5725**
Guasch, Oriol; Sánchez-Martín, Patricia; Arnela, Marc
- 1320** 615 **Ship track localization based on ray-based blind deconvolution** **5736**
Cho, Seong il; Byun, Gi Hoon; Kim, Jea Soo
- 1340** 876 **Aspects Of The Use Of Mems Microphones In Phased Array Systems** **5744**
Pflug, Patrick von
- 1400** 879 **Dynamic beamforming using moving phased arrays with integrated 3D scanners.** **5755**
Heilmann, Gunnar; Döbler, Dirk; Meyer, Andy; Barré, Sébastien

- 1420** 888 **AVS array with spatial sampling above the Nyquist criterion for beamforming applications** 5761
Nambur Ramamohan, Krishnaprasad; Fernandez Comesana, Dani; Carrillo Pousa, Graciano; Leus, Geert
- 1440** 936 **DAMAS with compression computational grid based on functional beamforming for acoustic source localization** 5769
Ma, Wei; Liu, Xun

T7.11 Environmental sound auralisation

Wednesday, 30 August | 1300-1500 | Theatre 2, Level 1

Chairs: Kurt Heutschi, Michael Vorländer

- 1300** 130 **Evaluation of Auralization and Visualization Systems for Railway Noise Sceneries** 5777
Pieren, Reto; Heutschi, Kurt; Aalmoes, Roalt; Simons, Dick G.
- 1320** 1048 **Spectral Modelling Synthesis of Vehicle Pass-by Noise** 5789
Fu, Yang; Murphy, Damian
- 1340** 620 **Comparison of time-frequency transformations on the parameterization of short-time signals** 5799
Meng, Fanyu; Vorländer, Michael
- 1400** 724 **Auralization of selected forests in Poland** 5803
Malecki, Pawel; Piechowicz, Janusz; Wiciak, Jerzy
- 1420** 922 **Sounds of Spitsbergen ice caves** 5808
Piechowicz, Janusz; Czopek, Dorota; Malecki, Pawel; Wiciak, Jerzy
- 1440** 776 **Development of a simulation system of the audiovisual environment using the headphone and head-mounted display** 5815
Asakura, Takumi; Tsujimura, Sohei; Yonemura, Miki; Lee, Hyojin; Sakamoto, Shinichi

T20.1 Application of vibroacoustic methods to noise control treatment

Wednesday, 30 August | 1300-1500 | S222-3, Level 2

Chairs: Zhenbo Lu, Yang Zhiyu

- 1300** 1078 **Optimization of the vibro-acoustic package in the light-weighting of a van body structure** 5825
Olatunbosun, Oluremi; Song, Yanrong
- 1320** 699 **Low noise layout design of the plate structure stiffeners** 5834
LI, Dong Ri; Teng, Xiao Yan; Zhao, He Tao; Xu, Yang
- 1340** 695 **Topology optimization of micro hard disk driving arm frequency based on modal tracking technology** 5843
Teng, Xiao Yan; LI, Dong Ri; Zhao, He Tao; Jiang, Xu Dong
- 1400** 342 **Topological Optimization of Stiffness and Frequency Based on Multi - objective Theory** 5852
Jiang, Xu Dong; Zhao, He Tao; Teng, Xiao Yan; LI, Dong Ri
- 1420** 349 **Damped Noise Shields** 5864
Au-Yeung, Ka Yan; Sun, Liang; Tang, Suet To; Yang, Zhiyu
- 1440** 782 **Vibration characteristics of transformer core components** 5870
Du, Jiewei; Wang, Yuxing; Jin, Ming; Wang, Yanzhao; Pan, Jie

T1.S1 Spatial sound field reproduction, control and perception

Wednesday, 30 August | 1300-1500 | S224-5, Level 2

Chairs: Bosun Xie, Jing Lu

- 1300** 476 **Reverberant sound field reconstruction based on the superposition of orthogonal spherical wave sources** 5880
Liu, Yanshan; Zeng, Xiangyang; Wei, Qinhuo; Du, Kunkun
- 1320** 583 **Decorrelation performance of reproduced sound field by multichannel loudspeaker system** 5887
Rao, Dan
- 1340** 703 **Key anthropometric parameters of pinna correlate with individualized head-related transfer functions** 5893
Wu, Ruixing; Yu, Guangzheng; So, Richard H. Y.

- 1400 717 Loudness equalization coefficient of lateral sound source at various distances in near-field 5899**
Yu, Guangzheng; Wu, Yuye
- 1420 772 Computing the personalized HRTFs based on weighted anthropometric parameters matching 5905**
Yuan, Xiang; Zheng, Nengheng; Cai, Sudao
- 1440 1071 Evaluation of sound absorption characteristics of material with multi-channel sound field reproduction system 5914**
Goto, Kosuke; Omoto, Akira

T8.S3 Computational aeroacoustics

Wednesday, 30 August | 1320-1500 | S226-7, Level 2

Chair: Randolph Leung

- 1320 201 Flow and Aeroacoustic Simulations for a Cylinder Using Lattice Boltzmann and Acoustic Analogy Methods 5920**
Liu, Tao; Shi, Dong Yan; Wang, Zhikai
- 1340 725 Computation Of Bpf Pressure Pulsations In The Lre Screw-Centrifugal Pump With 3d Acoustic-Vortex Method 5926**
Timushev, Sergey F.; Klimenko, Dmitry V.
- 1400 786 Direct numerical simulation of flow and acoustic fields around woodwind instruments with reed oscillations 5935**
Kobayashi, Masanori; Yokoyama, Hiroshi; Iida, Akiyoshi
- 1420 914 A Numerical Study of Open-Loop Control of Bluff Body Aeroacoustics Using Periodic Forcing 5947**
Seid, Ka Him; Leung, Randolph Chi Kin; Huang, Guangyuan
- 1440 999 QUASI-1D Edge-Based Schemes on Unstructured Meshes for Solving Aerodynamics and Aeroacoustics Problems 5959**
Kozubskaya, Tatiana; Abalakin, Ilya; Bakhvalov, Pavel; Bobkov, Vladimir; Duben, Alexey; Gorobets, Andrey; Zhdanova, Natalya

T8.5 Flow induced noise and vibration - Experimental methods and applications

Wednesday, 30 August | 1340-1500 | S228, Level 2

Chair: Carsten Spehr

- 1340** 158 **A Three-Dimensional Microphone Array for Wind Tunnel Application** 5964
Ernst, Daniel; Spehr, Carsten
- 1400** 557 **Experimental investigation of the sound produced by wall-mounted finite geometries** 5972
Moreau, Danielle J.; Doolan, Con J.
- 1420** 494 **Evaluation of Aerodynamic Noise Emitted from Claddings and External Components of Buildings** 5982
Masuda, Kiyoshi; Tomitaka, Ryu; Hamada, Yukiko
- 1440** 783 **Effects of Electrode Arrangement of Plasma Actuators on Noise Control in Cavity Flow** 5989
Tanimoto, Isamu; Yokoyama, Hiroshi; Iida, Akiyoshi

T2.S3 Acoustic metasurface for noise control

Wednesday, 30 August | 1340-1500 | S421, Level 4

Chairs: Xuefeng Zhu, Yong Li

- 1340** 578 **Sound trapping barriers** 5999
Wang, Xu; Yu, Wuzhou; Jiang, Zaixiu; Mao, Dongxing
- 1400** 604 **Ultrathin Perfect Absorber Based on Acoustic Metasurface** 6004
Li, Yong; Assouar, Badreddine
- 1420** 771 **The mass law of the membrane-type acoustic metamaterials** 6008
Li, Shengming; Wang, Xu; Mao, Dongxing
- 1440** 906 **Acoustic Perfect Absorption in Coupled Resonators with Deep Subwavelength Thickness** 6015
Huang, Sibao; Li, Yong; Wang, Xu; Mao, Dongxing

T20.6 Vibroacoustics of composite panels

Wednesday, 30 August | 1300-1500 | S425, Level 4

Chairs: Jingtao Du, Stephen Hambric

- 1300** 429 **Identification of local Young's Modulus and loss factor of curved beam by using an inverse method and a finite element operator** 6023
Bottois, Paul; Joly, Nicolas; Pezerat, Charles; Ablitzer, Frédéric
- 1320** 575 **Sound radiation analysis of unbaffled rectangular functionally graded material plates** 6033
Yu, Yunyan; Zhu, Xiang; Li, Tian Yun; Han, Yueyang
- 1340** 136 **Structural-acoustic coupling analysis of orthotropic rectangular panel backed by a rectangular cavity** 6041
Shi, Xianjie; Li, Chunli; Wang, Fengjun
- 1400** 103 **Sound Transmission Loss of a Large-scale Meta-panel with Membrane and Platelet Attachments** 6050
Ang, Linus Yinn Leng; Koh, Yong Khiang; Lee, Heow Pueh
- 1420** 328 **Linear thermal-acoustic responses of a clamped composite panel in progressive wave tube based on wavenumber-frequency analysis** 6057
Huang, Xiuchang; Zhou, Kai; Tian, Yanini; Hua, Hongxing
- 1440** 608 **Vibration analysis of submerged orthogonally stiffened FGM cylindrical shells** 6069
Han, Yueyang; Zhu, Xiang; Li, Tian Yun; Yu, Yunyan

T2.4 Sound absorbers

Wednesday, 30 August | 1320-1500 | S426, Level 4

Chair: William Fung

- 1320** 838 **Acoustic Studies Of Styrene-Butadiene Rubber Composites** 6078
Ozturk, Sinem; Erol, Haluk; Sancak, Alkan; Toroz, Sertac; Trabzon, Levent
- 1340** 984 **Polyvinylpyrrolidone (PVP) / Graphene Based Soundproofing Materials Through Electrospinning** 6087
Branda, Francesco

- 1400** 1056 **Study of a nonlinear membrane absorber for low frequency broadband noise control inside 3D acoustic cavity** 6094
Shao, Jianwang; Deng, Guoming; Wu, Xian
- 1420** 1067 **Curvature effects on sound absorption properties of bended quarter wavelength resonators** 6103
Cambonie, Tristan; Mbailassem, Fulbert; Gourdon, Emmanuel
- 1440** 1069 **DAMPING OF ELASTOMER PARTICLE** 6109
Bustamante, Marcelo; Gerges, Samir Nagi Yousri

T17.1 Tyre/road noise limits and labelling – impacts and challenges

Wednesday, 30 August | 1340-1500 | S427, Level 4

Chair: Ulf Sandberg

- 1340** 156 **The future of tire/road/vehicle predicted by the mechanism of tire noise** 6118
Nakajima, Yukio
- 1400** 235 **Five years of EU tyre labelling – Success or failure?** 6125
Berge, Truls; Sandberg, Ulf
- 1420** 237 **Calibrating the ISO 10844 test surfaces used for vehicle and tyre testing** 6137
Sandberg, Ulf
- 1440** 1025 **Acoustical performance of winter tyres on two in-service road surfaces: a frequency spectrum analysis and comparison** 6147
Vieira, Tiago; Sandberg, Ulf

T7.S3 Metrology - calibration and realization of standards

Wednesday, 30 August | 1300-1500 | S428, Level 4

Chair: Longbiao He

- 1300** 163 **A comparison on WS2P microphone with both coupler comparison and electrostatic actuators method** 6159
He, Longbiao; Niu, Feng; Feng, Xiujuan; Xu, Huan; Yang, Ping

- 1320** 228 **Airborne sound pressure measurement and uncertainty analysis using photon correlation spectroscopy in a travelling wave tube** **6165**
Feng, Xiujuan; He, Longbiao; Kang, Jian; Niu, Feng; Yang, Ping; Zhong, Bo; Wang, Min
- 1340** 256 **Calibration of microphones in accordance with the International Standard IEC 61094-5:2016** **6172**
Au, Andrew C. H.; Lam, Brenda H.S.; Chau, Y. C.
- 1400** 836 **Environmental coefficients of the free-field sensitivity of measurement microphones** **6179**
Barrera-Figueroa, Salvador; Cutanda-Henriquez, Vicente; Torras-Rosell, Antoni
- 1420** 942 **Introduction Of The Small Acoustic Wind Tunnel In Nim** **6188**
Niu, Feng
- 1440** 977 **Analytical model and the characterization of an infrasound generator in the air** **6192**
Vincent, Paul

I-INCE Lecture

Wednesday, 30 August | 1520-1620 | Convention Hall A & B, Level 1

Chair: Rajendra Singh

- 1520** **Using Quieter Pavement to Move Quietly – Experiences in Tire-Pavement Noise Reduction**
Donavan, Paul