


## TECHNICAL PROGRAM AND SPECIAL SESSIONS


The technical program will consist of oral presentations and poster sessions. Technical sessions will be scheduled from Monday to Friday, 9 to 13 September 2019. Sessions will be subdivided into slots of 20 minutes for each oral presentation (15 minutes of talk, short discussion and time for room change). Posters will be displayed at the end of the session and in the poster exhibition. A share of time will be specially allocated to the poster forum with authors present at their posters for discussion of their presented work. Special Euroregio Sessions are marked with the EAA Logo: 

Every effort will be made to schedule contributed abstracts in accordance with the author's and Technical Committee's preferences. However, authors should be prepared to accept assignment to poster sessions. Assignments will take into account: a) author preference, b) program balance, and c) Technical Committee instructions. The committee reserves the right to reject abstracts which do not comply with general scientific standards.

- The special sessions described below will be organized by the Technical Program Committee. During paper submission, **Authors of invited papers** must select for their abstracts the title of the special session in which they have been invited to participate.
- **Authors of contributed papers** have the option to request placement of their abstracts in the sessions. Alternatively, they can choose the "General" session given in each topic.

Topic "Active acoustic systems"	Organizers: Xiaojun Qiu, Joachim Bös
Sessions	Session chairs
Physical aspects for active control of noise and vibration	Jordan Cheer, Chuang Shi
Applications of active control of noise and vibration	Sven Herold, Emiliano Rustighi
Metamaterials for active and passive acoustic control	Hervé Lissek, Steven A. Cummer
Signal processing and systems for active control of noise and vibration	Marek Pawełczyk, Yoshinobu Kajikawa




Topic "Audio signal processing (measurement, sensors, arrays)"	Organizers: Boaz Rafaely, Gary Elko
Sessions	Session chairs
Microphone array methods in room acoustics	Efren Fernandez-Grande
Acoustic and audiovisual source localization	Maximo Cobos, Dorothea Kolossa
Acoustic Scene Analysis: Fundamentals and Applications	Steven van de Par, Simon Doclo
Loudspeaker arrays and sound field control	Jens Ahrens
Microphone array systems and methods	Gary Elko
Perceptual aspects in spatial audio processing	Karlheinz Brandenburg
Phase-Aware Time-Frequency Signal Processing	Franz Zotter, Georg Tauböck
Machine learning for audio signal processing	Maximo Cobos, Walter Kellermann

Topic "Animal Bioacoustics"	Organizers: Hermann Wagner, John Hildebrand, Jakob Christensen-Dalsgaard
Sessions	Session chairs
Acoustical Signal Processing in biological systems: Mathematical Methods and Algorithms	Hartmut Führ, Peter Balazs
Evolution of the ear	Geoffrey Manley, Jakob Christensen-Dalsgaard 


Sound localization - bioacoustics and neural processing	Lutz Wiegrebe , Björn Kampa
Mechanisms of underwater hearing	Magnus Wahlberg
Anthropogenic noise impact (continuous and intermittent sources; connections to soundscape; behavioral response)	Wouter Halfwerk, Hans Slabbekoorn
Ecoacoustics and bioacoustics monitoring	Karl-Heinz Frommolt, Ilse van Opzeland

<b>Topic "Building acoustics"</b>	Organizers: Stefan Schoenwald, Jin Yong Jeon
<b>Sessions</b>	<b>Session chairs</b>
Prediction methods for sound insulations	John Davy, Cathy Guigou
Sound insulation in wooden construction	Berndt Zeitler, Federica Morandi
Acoustic regulations and quality classes for buildings	Birgit Rasmussen, Jeong-Ho Jeong
Structure-borne sources in buildings	Andreas Mayr, Stefan Schoenwald
Advanced measurement techniques – Part 1: Building elements in lab and in-situ	Patrizio Fausti, Christoph Hoeller
Advanced measurement techniques – Part 2: Material characterization	Andrea Santoni, Christoph Hoeller
Low frequency sound and vibration in buildings	Delphine Bard, Anders Homb
Insulating and absorbing materials made from renewables	Francesco Martellotta, Volker Wittstock
Facade Sound Insulation	Krister Larsson, Luca Barbaresi
Evaluation of floor impact sound insulation	Jin Yong Jeon, Carl Hopkins

<b>Topic "History"</b>	Organizers: Armin Kohlrausch, Karin Bijsterveld
<b>Sessions</b>	<b>Session chairs</b>
Modern history of acoustics	Joeri Bruyninckx, Viktoria Tkaczyk
Archeoacoustics	Braxton Boren, Areti Andreopoulou
Philosophy in Acoustics	Monika Gatt

<b>Topic "Noise and vibration policy and assessment"</b>	Organizers: Sergio Luzzi, Marion Burgess
<b>Sessions</b>	<b>Session chairs</b>
Policy and regulation for industrial noise and vibration	Eleonora Carletti, Francesca Pedrielli
Policy and regulation for recreational noise	Sergio Luzzi, Chiara Bartalucci
Policy and regulation for noise and vibration in transportation	Nickolay Ivanov, Kostantinos Vogiatzis, Georges Kourossis
Policy and regulation for noise in urban planning and urban soundscapes	Giovanni Brambilla, Gaetano Licitra, Cesar Asensio
Policy and regulation for noise and vibration in workplaces	Florian Schelle, Yucel Demiral
Policy for noise and vibration in buildings	Antonino Di Bella
EPA Network-IGNA: Progress report on the impact, technology and regulations to abate noise in Europe	 Hans Bögli, René Weinandy
European harmonized calculation model for environmental noise CNOSSOS	 Bert Peeters, Arnoud Kok
Working on a better noise climate in the Eurocities	 Theo Benjert

<b>Topic "Health effects of noise"</b>	Organizers: Irene van Kamp, Takashi Yano
<b>Sessions</b>	<b>Session chairs</b>
Measuring Annoyance: New approaches	Dirk Schreckenberg, Takashi Yano
Intervention studies	A. Lex Brown, Timothy Van Renterghem
Perception of and responses to infrasound and low-frequency sound including wind turbines	S. Yokoyama, Frits van den Berg
Audio-visual effects of noise	Massimiliano Masullo 

Contribution of the number of events and other traffic conditions to annoyance	R. Guski, M. Morinaga
Response to transportation noise and vibration	S. Yokoshima, O. Breugelmans
Sleep	Mathias Basner , Michael Smith
Cognitive effects	Maria Klatt, Charlotte Clark
Cardiovascular effects	Elise van Kempen, Natalie Riedel
Mental Health	Charlotte Clark , Katarina Paunovic
Noise and health in children	Irene van Kamp, K. Kawai
Implication WHO Guidelines 	Stephen Stansfeld, Irene van Kamp

<b>Topic "Vehicle acoustics (air, road, rail, water, ...)"</b>	Organizers: Wolfgang Kropp, Stuart Bolton, Takeo Hashimoto
<b>Sessions</b>	<b>Session chairs</b>
Automotive sound and its sound quality	Sung-Hwan Shin, In-Soo Jung
Design of warning sound – from honking impact to sound quality in electric vehicles	Masayuki Takada, Ercan Altinsoy
Design and control of the sound environment in a vehicle cabin	Takeshi Toi, Dr. Wan-Ho Cho
Road Traffic Noise Prediction Methods	Shinichi Sakamoto, Katsuya Yamauchi
TPA - Transfer Path Analysis	Matthias Wegerhoff
Railway Noise	Stefan Lutzenberger, Ard Kuijpers
Aircraft noise	Carsten Spehr, Thomas Geyer
Silent Road Surfaces	Julien Cesbrone
Tyre/road noise simulation	Wolfgang Kropp, Carsten Hoever

<b>Topic "Environmental sound (sources, propagation)"</b>	Organizers: Timothy Van Renterghem, Maarten Hornikx
<b>Sessions</b>	<b>Session chairs</b>
Outdoor sound propagation (including urban sound propagation)	Timothy Van Renterghem
Wind turbine noise: Generation and propagation	Franck Bertagnolio
Sound and noise sensor network and its application to environmental sound	Juan Miguel Navarro
Advances in noise mapping engineering methods	Guillaume Dutilleux
Environmental sound auralisation	Jens Forssén
Natural means for noise abatement	Keith Attenborough

<b>Topic "Electro-acoustics and (3D) audio signal processing"</b>	Organizers: Chris Struck, Bosun Xie
<b>Sessions</b>	<b>Session chairs</b>
Spatial audio: Reproduction techniques and signal processing	Bosun Xie, Piotr Majdak
Local sound field control and reconstruction	Jun Yang, Woon-Seng Gan
Speech processing for normal-hearing and hearing-impaired listeners	Junfeng Li, Qinglin Meng
Measurement and modelling of electro-acoustic transducers	Manuel Melon , Gottfried Behler

<b>Topic "Flow acoustics"</b>	Organizers: Manfred Kaltenbacher, Young Moon
<b>Sessions</b>	<b>Session chairs</b>
Flow duct acoustics	Wim de Roeck, Wim Desmet
Flow acoustics of the human phonation	Nathalie Henrich Bernardoni, Michael Döllinger
Fan noise	Stéphane Moreau, Stefan Becker
Computational flow-generated hydroacoustics	Paul Croaker, Mattias Liefvendahl
Aeroacoustics and Flow Controls	Tze Pei Chong

<b>Topic "Underwater acoustics"</b>	Organizers: Stan Dosso, Michael Taroudakis
<b>Session</b>	<b>Session chairs</b>
Signal processing and inversion in underwater acoustics	Michael Taroudakis, Stan Dosso
Sound propagation and Monitoring in Underwater Acoustics	Jan Abshagen, Carsten Zerbs
Radiated Noise of Ships and Offshore Structures	Anton Homm

<b>Topic "Numerical, computational and theoretical acoustics"</b>	Organizers: Steffen Marburg, Li Cheng, Maarten Hornikx
<b>Sessions</b>	<b>Session chairs</b>
Uncertainty Quantification in Aero- and Vibro-Acoustics	Kheirollah Sepahvand, Patrick Langer
Numerical methods for acoustic materials and metamaterials	Olivier Dazel, Peter Göransson
Computational Acoustics for Auralization Applications	Jonathan Hargreaves
Boundary and finite element methods in acoustics and vibration	Holger Waubke, Wolfgang Kreuzer

<b>Topic "Musical acoustics"</b>	Organizers: Jean Kergomard, Jim Woodhouse, David Sharp
<b>Sessions</b>	<b>Session chairs</b>
Articulation and other transients	Vasileios Chatziioannou
Measurement, modelling and perception of string instruments	Colin Gough
Trends in health and safety in the musician's workplace with regard to sound exposure levels	Anton Schlesinger, Jan Michael Kimmich
Experiment, theory and perception of reed conical instruments	Jean Kergomard

<b>Topic "Physical acoustics"</b>	Organizers: Maria Heckl, Xiaoyu Wang
<b>Sessions</b>	<b>Session chairs</b>
Aeroacoustics of fluid-structure interactions	Lorna Ayton
Propagation of acoustic waves in solid waveguides surrounded by liquid	Iren Kuznetsova
Aeroacoustics and noise control	Xiaoyu Wang, Yatsze Choy
Acoustic Metamaterials	Matthew Guild
Acoustics of holes and dampers with mean flow	Aimee Morgans, Dong Yang
Acoustic propagation and flames in combustors	Jim Kok

<b>Topic "Physiological, psychological and audiological acoustics"</b>	Organizers: Torsten Dau, Barbara Shinn-Cunningham, Armin Kohlrausch
<b>Sessions</b>	<b>Session chairs</b>
Physiologically inspired auditory processing models	Laurel Carney, Ian Bruce
Objective measures of auditory function	Bastian Epp, Sarah Verhulst
Rehabilitative audiology	Tobias Neher, Gurjit Singh
Binaural models: Algorithms and applications	Piotr Majdak, Jonas Braasch
Assessment of hearing ability in realistic environments	Janina Fels, Marton Marschall, Jörg Buchholz
Compensation strategies in cochlear implants	Mathias Dietz, Olivier Macherey
Machine learning based approaches to model auditory perception	Ning Ma, Dorothea Kolossa
Audio-visual (speech) perception	Volker Hohmann, Pavel Zahorik
Influences of multisensory processing on auditory perception	Jennifer Bizley, Ross Maddox
How learning alters auditory processing: brainstem to cortex	Bharath Chandrasekaran, Lori Holt
Statistics in auditory scenes	Maria Chait, Yves Boubenec
Parcellating the functions of human auditory cortex	Abby Noyce, Ingrid Johnsrude
Speech enrichment: listening effort and intelligibility POSTER SESSION	Martin Cooke, Volker Hohmann

<b>Topic "Psychoacoustics"</b>	
Organizers: Patricia Davies, Roland Sottek, Katsuya Yamauchi	
Sessions	Session chairs
Application of Psychoacoustics in Noise Evaluation	Hugo Fastl, Sonoko Kuwano
Binaural Phenomena in Psychoacoustics	Steven van de Par
Multisensory Perception and Interaction	Ercan Altinsoy, Shuichi Sakamoto
Cognitive Stimulus Integration (in the context of auditory sensations and sound perceptions)	André Fiebig, Takeo Hashimoto
Metrics and Modeling Perception of Sound Attributes	Julian Becker, Florian Völk, Patricia Davies
General Psychoacoustics	Roland Sottek, Katsuya Yamauchi, Patricia Davies

<b>Topic "Room acoustics"</b>	
Organizers: Ning Xiang, Tapio Lokki, Arianna Astolfi	
Sessions	Session chairs
Virtual auditory reality for enclosed spaces	Brian FG Katz, Makoto Otani
Wave-based room simulations	Stefan Bilbao, Brian Hamilton
Recent advances in sound absorption and diffusion of materials/devices	Peter D'Antonio, Trevor Cox
Acoustics of cultural heritage buildings	Francesco Martellotta, Zühre Sü Gül
Sound absorption including the reverberation room issues, new trends revision ISO 354	Massimo Garai, Chiara Scrosati, Mélanie Nolan
Acoustical needs for comfortable and inclusive learning spaces	Arianna Astolfi, Nicola Prodi, David S. Woolworth
Open Plan offices	Valtteri Hongisto, Andreas Liebl
Human echolocation	Monika Rychtarikova, Léopold Kritly
Production and perception of artistic voice	Alessio Carullo, Antonella Castellana, Malte Kob
Effects of noise and room acoustics on communication among occupational voice users	Viveka Lyberg Ahlander, Pasquale Bottalico, Lady Catherine Cantor Cutiva
Acoustics in hospitals and clinics	Cheol-Ho Jeong , Mai-Britt Beldam , Paul Barach
Spatial and binaural evaluation	Michelle Vigeant, Stefan Weinzierl
Room acoustical simulation methods for high and low frequencies	Uwe Stephenson, Martin Ochmann

<b>Topic "Soundscape and Urban Sound Planning"</b>	
Organizers: Brigitte Schulte-Fortkamp, Andy Chung, Jian Kang	
Sessions	Session chairs
Towards standardized soundscape methodologies	Brigitte Schulte-Fortkamp, André Fiebig
Soundscapes of public spaces	Jooyoung Hong, Tin Oberman
Quiet areas	Itziar Aspuru, Miriam Weber
Soundscape indicators and modeling	Jian Kang, Francesco Aletta
Urban Sound Planning	Dick Botteldooren, Luigi Maffei
Indoor soundscaping and acoustic comfort	Papatya Nur Dokmeci, P J Lee
Acoustics in health care facilities	Hui Xie
Construction noise	Krister Larsson
Wind Turbine Noise	Stephen Cooper , Nancy Timmermann
Audio visual interactions for noise perception	Anna Preis
Noise policy in Europe and beyond	Gaetano Licitra, Marco Paviotti
Trends on the use of technology in soundscape analysis, design and planning	Andy Chung, Antonella Radicchi
Sound as part of digitalization of the Unesco and Unique sites	Jerzy Wiciak, Franz Zotter

<b>Topic "Sound design"</b>		Organizers: André Fiebig, Koichi Ohtomi
<b>Sessions</b>		<b>Session chairs</b>
Sound design in transportation equipment		Kochi Ohtomi
Sound quality of everyday-life products		Mariko Tsuruta Hamamura, André Fiebig
Sound quality of fans and HVAC-systems		Stephan Töpken
Evaluation and Refinement of Product Sound Quality		Sung-Hwan Shin, Wan-Ho Cho

<b>Topic "Speech"</b>		Organizers: Shrikanth Narayanan, Hans-Wilhelm Gierlich
<b>Sessions</b>		<b>Session chairs</b>
Speech and Audio in Cars		Gerhard Schmidt, Hans-Wilhelm Gierlich
From audio and speech quality to Quality of Experience and Aesthetic Appeal		Alexander Raake, Nick Zacharov
Intelligibility enhancement for binaural hearing assistive devices		Richard Hendriks, Peter Jax

<b>Topic "Structure-borne sound and vibration engineering"</b>		Organizers: Ennes Sarradj, Jeong Guon Ih
<b>Sessions</b>		<b>Session chairs</b>
Shape and topology optimization of vibroacoustic structures		Jakob Søndergaard Jensen , Gil Ho Yoon
Numerical analysis and experiment on structural acoustics		Seong-Hyun Lee
Vibro-acoustic behavior of structure under multi-field environments		Yue-ming Li , Gang Chen
Inverse problems in vibration and acoustics		Nicolas Totaro , Jeong-Guon Ih
Railroad vibroacoustics		Hyo-In Koh
Structural intensity – Computation, measurement, application		Heow Pueh Lee , Joachim Bös
Human Vibration		Magdalena Scholz, Ercan Altinsoy

<b>Topic "Ultrasound"</b>		Organizers: Nico Declercq, Christian Koch, Victor Sánchez Morcillo
<b>Sessions</b>		<b>Session chairs</b>
Sound fields for special purposes and transducer design		Ulrike Steinmann
Non-destructive evaluation (NDT)		Serge Dos Santos
High-frequency and ultrasonic emissions in air: Applications, measurement and human well-being		Timothy G. Leighton, M. Ueda
Hypersound and Nanoacoustics		Badreddine Assouar

<b>Topic "Biomedical Ultrasound"</b>		Organizers: Tyrone Porter, Subha Maruvada
<b>Session</b>		<b>Session chairs</b>
Metrology		Andrew Hurrell, Giovanni Durando
Novel Ultrasound imaging		Jason Raymond, Stefan Catheline
Brain applications of ultrasound		Elisa Konafagou, Lennart Verhagen

<b>Topic "Virtual Acoustics"</b>		Organizer: Michael Vorländer
<b>Sessions</b>		<b>Session chairs</b>
Auditory cognition in interactive virtual environments		Janina Fels, Alexander Raake
Audio for Mobile VR/AR		Dinesh Manocha, Philip Robinson, Axel Plinge
Sound field rendering in Virtual Reality		Lauri Savioja, Damian Murphy, Frank Wefers, Torsten Kuhlen