

OPEN SEMINAR on ACOUSTICS OSA 2021

Tuesday 14.09.2021

10:00	Open Ceremony	
10:30	Plenary Lecture	
	<p>Tadeusz Gudra The electroacoustic system at the National Museum "Panorama of the Battle of Racławice" in Wrocław (1985-2020). Retrospective description</p>	
11:30	<p>Session In Memoriam Profesor Zbigniew Engel Wojciech Batko, Zbigniew Engel, Adam Lipowczan, Dariusz Pleban</p>	
12:30	Break	
14:00	SHA 2021 - Hydroacoustics	Ultrasounds and Electroacoustics
14:00	<p>Karol Listewnik Calibration of hydrophones at low frequencies using the vibrating water column method</p>	<p>Józefczak, Arkadiusz*; Kubiak, Tomasz Ultrasound-triggered cargo release from capsules</p>
14:20	<p>Piotr Grall Method for the correlation coefficient estimation of the bottom echo signal in the shallow water application using interferometric echo sounder</p>	<p>Rafał Bielas; Bassam Jameel; Tomasz Hornowski; Arkadiusz Józefczak The influence of magnetic fields on acoustic properties of magnetic dispersions and emulsions</p>
14:40	<p>Zbigniew Łubniewski; Monika Gierszewska; Tomasz Berezowski Classification of flooded areas in a natural wetland during early spring season using various polarimetric SAR methods</p>	<p>Marek Moszyński Using FreeFEM open software for modelling the vibrations of piezoelectric devices</p>
15:00	<p>Przemysław Falkowski-Gilski; Zbigniew Łubniewski Pseudorange Error Estimation in Mobile GNSS Android System</p>	<p>Bartłomiej Chojnacki Statistical analysis with Kolmogorov-Smirnov distance for reflections' directions of arrival and amplitudes for sound field diffuseness estimation</p>
15:20	<p>Ryszard Studański; Andrzej Żak Hydroacoustics Laboratory at Gdynia Maritime University</p>	<p>Karol Czesak, Piotr Kleczkowski Directivity pattern of Distributed Mode Loudspeakers</p>
15:40	<p>Andrzej Żak; Ryszard Studański Application of Diversity Combining with RLS Adaptive Filtering in Data Transmission in a Hydroacoustic Channel</p>	<p>Paweł Dziechciński Speech transmission index in public address system design - a simplified method for central systems</p>
16:00	<p>Jan H.Schmidt; Aleksander M. Schmidt Underwater acoustic communication system using broadband signal with hyperbolically modulated frequency</p>	<p>Michał Kmieć The use of optimization in the design of loudspeakers with special characteristics - a cardioid subwoofer</p>
16:20	<p>Iwona Kocharńska A New Direct-Sequence Spread Spectrum Signal Detection Method for Underwater Acoustic Communications in Shallow-Water Channel</p>	<p>Teresa Makuch 4th order ambisonic microphone in acoustic field analysis</p>

16:40	Henryk Lasota, Roman Śmierzchalski, Piotr Cywiński, Mateusz Rzymowski, Łukasz Kulas Marine Autonomous Technologies for Support of Marine Observations	Dominik Mleczko Using MLS method in laboratory measurement of airborne sound insulation
Wednesday 15.09.2021		
10:00	Plenary Lecture:	
	Zdzisław Madej Variable acoustic fields of resonators of anatomically active spaces in the supposition to the laryngeal tone in the voice in the context of variable spatial acoustics	
11:00	Building and Room Acoustics	XXIV Conference on Acoustic and Biomedical Engineering IAB 2021 Speech processing and biomedical acoustics
11:00	Anna Sygulska Educating of architectural students in acoustics as an answer to the reverberant noise standard	Piotr Staroniewicz Effect of Sleepiness in the Voice on Speaker Recognition Performance
11:20	Jan Radosz Pilot studies of noise annoyance in relation to time, amplitude and frequency characteristics of sound	Stefan Brachmański,; Andrzej B. Dobrucki Impact of the Level of Noise and Reverberation on the Reaction Time of Listeners in the Perception of Logatoms
11:40	Mirosław Meissner Application of high-density sound absorbing materials for improving low-frequency spectral flatness in room response	Katarzyna Kotarba; Michał Kotarba Voice pathology assessment using x-vectors approach
12:00	Wojciech Binek; Aleksandra Chojak; Tadeusz Kamisiński The impact of the sound reflection model on the ray tracing simulation variability	Katarzyna Kotarba; Michał Kotarba MFCC and GFCC-based x-vectors for voice pathologies identification: a comparative study
12:20	Krzysztof Brawata Systems modifying the acoustic properties of room furnishings	Krzysztof J Opiełński; Piotr Pruchnicki A method of precise pulse onset determination using the Akaike Information Criterion for ultrasound transmission tomography
12:40	Adam Pilch; Piotr Duda; Jarosław Rubacha Impact sound reduction measurement method for lightweight floor screed	Natalia Damps; Maciej Kłaczyński Usefulness of the Matching Pursuit Method in Phono-cardiographic Signal Analysis
13:00	Magdalena Mitera The influence of noise in the workspace on soundscape perception in break rooms	Tomasz Świetlik; Krzysztof J Opiełński Possibilities to improve imaging in Doppler Tomography using selected algorithms and measurement system components
13:20	Break	
14:00	Plenary Lecture:	
	Mirosław Meissner Application of modal analysis in the study of acoustics of confined spaces: theoretical foundations and results of numerical simulations	

15:00	Building and Room Acoustics	Psychoacoustics and acoustics of hearing		
15:00	Witold Mikulski Masking sound distribution in an office open plan room	Katarzyna Sochaczewska; Paweł Małecki; Jerzy Wiciak Auditory perception of spatial resolution spherical ambisonic playback system validated by minimum audible angle parameter.		
15:20	Magdalena Mitera Soundscape assessment in laboratory workspace relative to office space	Karolina Stelmach The short sounds. Behavioural studies and artificial head's measurements		
15:40	Jarosław Rubacha Sound diffuser made of acoustic metamaterial: Numerical and experimental investigation	Wiesław Wszolek; Zdzisław Madej; Mateusz Gawlik Variable interpretation of the intonation process and the acoustic-physiological field in the vocal process of singers		
16:00	Aleksandra Chojak Dimensional analysis of simple acoustic metamaterials	Sylwia Makomaska Between (pseudo)silence and noise – the ontological status of music in the lo-fi environment. The case of contemporary shopping malls		
16:20 16:40	Regupol BSW GmbH Svantek Sp. z o.o.			
17:00	Marek Kwiec Competition	Meeting with sponsoring companies		
17:00	Teresa Makuch 4th order ambisonic microphone in acoustic field analysis	HOTTINGER BRUEL & KJAER POLAND SP. Z O.O	REGUPOL BSW GmbH	SVANTEK Sp. z o.o.
17:20	Bartłomiej Chojnacki Numerical directivity simulations of speaker arrays for omnidirectional sound source quality assessment			
17:40	Przemysław Falkowski-Gilski; Stefan Brachmański; Maurycy J. Kin; Andrzej B. Dobrucki Difference in subjective assessment of speech quality between bilingual and monolingual teenagers			
18:00	Anna K. Pastusiak; Honorata Hafke-Dys; Jędrzej Kociński Bimodal operation's role in detection of the breathing phenomena			
18:20	Michał Kmieć The use of optimization in the design of loudspeakers with special characteristics - a cardioid subwoofer			
18:40	Anna K. Pastusiak; Anna Warzybok; Jędrzej Kociński Masking release - effect of age and hearing impairment			
19:00	Klara M. Juros Stopband effect and sound transmission loss of periodic locally resonant structures			
Thursday 16.09.2021				

10:00	Plenary Lecture:	
	Marzena Dzida About two applications of ultrasounds – acoustic properties of ionic liquids and thermal properties of ionanofluids	
11:00	Environmental Acoustics and Noise Control	XXIV Conference on Acoustic and Biomedical Engineering IAB 2021 Vibroacoustic and Diagnostics
11:00	Krzysztof Kosała Experimental tests of the acoustic properties of sound-absorbing linings and cores of layered baffles	Wojciech Paluch; Maciej Kłaczyński Transient states analysis of automotive component using 3D sound intensity measurements
11:20	Dawid Romik Numerical investigation of noise generated by an axial fan installed in a pipeline	Joanna M.Kopania Noise emission from various shape rods at low-moderate Reynolds number
11:40	Aleksandra Chojak; Julia Idczak; Klara M. Juros; Dominik Mleczko The use of Tranquility Rating for urban spaces	Łukasz J. Pieczonka; Jakub Haładus Air-coupled ultrasound for nondestructive testing of materials
12:00	Katarzyna Suder-Dębska; Ireneusz Czajka; Paweł Łojek Determining of the sound power of the fan in in situ conditions using the virtual reference source method	Jakub Spytek; Łukasz J. Pieczonka; Łukasz Ambroziński Nondestructive testing of materials using guided ultrasonic waves
12:20	Bartłomiej Stępień The effect of prior distribution for estimation of sound power level by the engineering method	Roman Trojanowski Comparison of homogeneous and 2-part piezo actuators – numerical and experimental results
12:40	Anna Świerkoska Curve squeal – how is it influenced by different conditions? Statistical analysis of the noise generated at curves on the Stockholm metro.	Marcjanna Czapla; Tadeusz Wszótek Analysis of factors influencing the measurement result of the reverberant sound absorption coefficient in laboratory conditions
13:00	Break	
	Environmental Acoustics and Noise Control	Theoretical Acoustics
14:00	Emil Kozłowski; Rafał Młyński Verification of compliance with normative requirements concerning equipment and conditions of carrying out sound attenuation tests of hearing protectors	Paweł Łojek; Ireneusz Czajka; Katarzyna Suder-Dębska; Andrzej M. Gołaś Influence of the elastic cavity walls on cavity flow noise
14:20	Jan Radosz Model of the acoustic barrier with the use of layered structures of sonic crystals	Łukasz Gorazd Application of the scattering matrix formalism to the analysis of reflective acoustic muffler attenuation for single-mode excitation.
14:40	Romuald Bolejko; Paweł Dziechciński; Przemysław Plaskota; Barbara Rudno-Rudzińska Methods for assessing acoustic parameters of the barriers with photovoltaic modules	Agnieszka Wielgus Thinning of Microphone Array in Near-Field Broadband Beamformers
15:00	Dariusz Bismor Leaky Partial Updates in Application to Structural Active Noise Control	

15:20	HOTTINGER BRUEL & KJAER POLAND SP. Z O.O
16:00	Workshops
16:00	Tadeusz Wszółek Wprowadzenie metody CNOSSOS-UE. Ogólna charakterystyka zmian w stosunku do metod zalecanych w Dyrektywie 2002/49/WE
17:00	Paweł Pawlik Zastosowanie metody Monte Carlo w ocenie niepewności modelowania hałasu kolejowego
18:00	Piotr Kokowski; Paweł Libiszewski Modelowanie hałasu komunikacyjnego - hałas drogowy Piotr Kokowski; Michał Gałuszka Modelowanie hałasu komunikacyjnego - hałas kolejowy
	Friday 17.09.2021
10:00	Referat Plenarny: Tadeusz Wszółek Corrections used in the assessment of the nuisance of noise sources
11:00	Workshops
11:00	Andrzej Chyla Modelowanie hałasu komunikacyjnego – hałas lotniczy
12:00	Bartłomiej Stępień Modelowanie hałasu przemysłowego – weryfikacja modeli obliczeniowych
13:00	Closing Ceremony



Sponsors



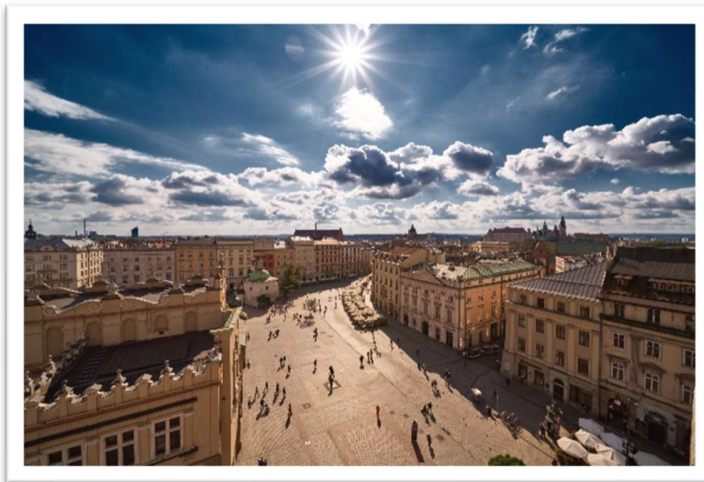
Kraków

Kraków - due to its demographic, economic, social and scientific-cultural strength – ranks second in Poland among cities. It has unique values that are the basis of its economic development and an increase in the quality of life. It has high-quality human capital at its disposal. It is a city people consciously choose as a place to live, work, study, spend free time in a variety of ways. Sustainable development and the ability to meet specific challenges with the skillful use of own resources are the main priorities.

The academic center, with its 650 year old University , is permanently connected with the city and builds an unrepeated resource of knowledge in a unique way. It is the key to competitiveness and innovation not only of Krakow, but also of the entire region. The intensively developing economy based on knowledge is a completely new process in the economic life of the City, which makes it part of the modern economies of the world.

The overriding goal for Krakow is not only to be a modern city but also to be proud of its historical heritage. It aspires to be an open, rich, friendly and safe metropolis, vibrant with culture. Smart management and strengthening the sphere of modern services and the research and development sector are the foundations for the development of Krakow - a city where innovation and effective cooperation between science and business are the focus.

We invite you to visit our website and learn about the possibilities offered by magical Krakow - rooted in tradition, sensitive to everyday life and open to development: <https://business.krakow.pl/>.



Fot. Piotr Krochmal



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Conference is held under the honorary patronage of the Dean of the Department of Mechanical Engineering and Robotics of the AGH University of Science and Technology.



The Conference is an event of the *International Year of Sound*

