

— 18th INTERNATIONAL CONFERENCE

noise
control
'19

26-29 May 2019, Janów Podlaski, Poland

PAN

POLSKA AKADEMIA NAUK

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noise control '19

26-29 May 2019, Janów Podlaski, Poland

Program • Programme

PATRONAT HONOROWY • HONORARY PATRONAGE

Minister Rodziny, Pracy i Polityki Społecznej
Minister of Family, Labour and Social Policy

Główny Inspektor Ochrony Środowiska
Chief Inspector of Environmental Protection

ORGANIZATORZY • ORGANIZERS

Komitet Akustyki Polskiej Akademii Nauk •
Committee on Acoustics of the Polish Academy of Sciences

Centralny Instytut Ochrony Pracy – Państwowy Instytut Badawczy •
Central Institute for Labour Protection – National Research Institute

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Adam Lipowczan

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Wiktor M. Zawieska

Wiceprzewodniczący • **V-ce Chair**

Dariusz Pleban

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Alfred Brzozowski, Leszek Morzyński, Jan Radosz, Małgorzata Suhecka, Agnieszka Szczygielska, Lucyna Wyciszkiwicz-Pardej

18. MIĘDZYNARODOWA KONFERENCJA ZWALCZANIA HAŁASU

18th INTERNATIONAL CONFERENCE

noise control '19

26-29 maja 2019 r. • 26-29 May 2019, Janów Podlaski

Program • Programme

Niedziela, 26 maja 2019 • Sunday, 26 May 2019

- 14.00 – 18.00 Rejestracja uczestników • Registration of participants
- 18.00 – 19.00 Uroczyste otwarcie Konferencji • Opening Ceremony
- 19.00 – 23.00 Kolacja przy ognisku • BBQ dinner

Poniedziałek, 27 maja 2019 • Monday, 27 May 2019

7.00 – 9.00

Śniadanie • Breakfast

9.00 – 11.00

Referaty plenarne • Plenary papers

Sala A • Room A

Chair

Stefan Weyna

9.00

Adam Lipowczan
Acoustics of silence

9.30

Eleonora Carletti, Francesca Pedrielli
Noise and vibration risk assessment for the operators of crawler loaders

10.00

Eugeniusz Kozaczka, Grażyna Grelowska
Propagation of underwater noise emitted by shipping in the shallow seas

10.30

Dariusz Pleban, Bożena Smagowska, Jan Radosz
Assessment of occupational risk in the case of the ultrasonic noise exposure

11.00 – 11.30

Przerwa na kawę • Coffee break

11.30 – 13.30 Referaty sekcyjne • Session papers

Sala A • Room A •

Akustyka budowlana •
Building acoustics

Sala B • Room B •

Ograniczenie hałasu •
Noise reduction

Chair

Dariusz Pleban

Chair

Tadeusz Kamiński

11.30

Jacek Nurzyński

Acoustic performance of transfer air devices positioned in a wall, an experimental study

11.30

Wiesław Fiebig, Damian Dąbrowski

Use of acoustic camera for noise sources localization and noise reduction in the industrial plant

11.50

Martin Liedtke

Acoustics in open plan offices

11.50

Krzysztof Mazur, Stanisław Wrona, Anna Chrapońska,
Jarosław Rzepecki, Marek Pawełczyk*FXLMS with multiple error switching for active noise-cancelling casings*

12.10

Witold Mikulski

Evaluation of acoustic properties of open space offices. The influence of sound absorption coefficient of a sound-absorbing suspended ceiling on the acoustic properties of a room

12.10

Anna Chrapońska, Jarosław Rzepecki,
Stanisław Wrona, Krzysztof Mazur, Marek Pawełczyk*Influence of double-panel structure modifications on vibroacoustical properties of the rigid device casing walls*

12.30 **Irena Polewczyk, Mikołaj Jarosz**
Influence of acoustic treatment of school rooms on changes in the functioning of students and teachers. Self-assessment of users

12.30 **Stanisław Wrona, Krzysztof Mazur, Jarosław Rzepecki, Anna Chrapońska, Marek Pawełczyk**
Sound transmission through a thin plate with shaped frequency response

12.50 **Krzysztof Rudno-Rudziński**
Consequences of the amendment of the standard PN-B-02151-2 in restricted-use areas

12.50 **Jan Radosz**
Design of noise barrier based on sonic crystals with resonant elements

13.10 **Marcin Rosak**
Normative requirements and modern methods for improvement of the reverberant conditions in "open space" offices

13.30 – 14.30 **Obiad • Lunch**

14.30 – 16.30 Referaty sekcyjne • Session papers

Sala A • Room A •

Hafas w środowisku pracy (1) •
Noise in the work environment (1)

Sala B • Room B •

Drgania mechaniczne •
Mechanical vibration

Chair Janusz Kompata

Chair Jan Adamczyk

14.30 Małgorzata Pawlaczyk–Luszczynska,
Małgorzata Zamojska–Daniszewska, Kamil Zaborowski,
Adam Dudarewicz
Audiometric hearing threshold levels in call centers operators

14.30 Jacek Zając, Piotr Kowalski, Małgorzata Rejman
*Whole-body vibration at workstations associated
with the crushing of mineral raw materials*

14.50 Elżbieta Kutymba

*Methods of noise reduction in the work environment
on example of Lumileds Poland S.A.*

14.50 Robert Barański

Grip force estimation – the effect of the calibration sequence

15.10 Leszek Morzyński, Grzegorz Makarewicz

*The use of grey system theory to predict the location
of employees in the area of wireless sensor network used
for monitoring of noise exposure*

15.10 Piotr Kowalski, Jacek Zając, Małgorzata Rejman

*Hand-arm vibration measurements by using high-speed
camera on a sample hand tools*

15.30 **Bożena Smagowska, Jan Radosz, Dariusz Pleban**
Noise exposure at workstations in hospitals

15.30 **Małgorzata Rejman**
Stand for testing anti-vibration materials intended for insoles and in stocks in protective footwear

Sala A • Room A •

Wpływ hałasu na człowieka (1) •
The impact of noise on the human (1)

Sala B • Room B •

Hałas środowiskowy (1) •
Environmental noise (1)

Chair Tadeusz Wszofek

Chair Jacek Nurzyński

15.50 **Małgorzata Zamojska-Danisewska, Adam Dudarewicz, Kamil Zaborowski, Małgorzata Pawlaczyk-Łuszczczyńska**
Self-evaluation of the quality of hearing in operators of low frequency ultrasound technological devices

15.50 **Tadeusz Wszofek, Paweł Pawlik, Dominik Mleczo, Jagna Chronowska**
Estimation of noise level from a wind turbine based on the measurement at the ground level

16.10 **Jan Radosz**

Effect of tonal noise on work performance – psychological assessments using the Vienna Test System

16.10 **Bartłomiej Borkowski, Dorota Czopek, Marek Liskiewicz, Paweł Matecki, Janusz Piechowicz, Anna Szlachta, Jerzy Wiciak**
Design of acoustic panels with contemporary and decorative forms

16.30 – 17.00 Przerwa na kawę • Coffee break

17.00 – 19.20 Referaty sekcyjne • Session papers

Sala A • Room A •

Wpływ hałasu na człowieka (2) •
The impact of noise on the human (2)

Sala B • Room B •

Hałas środowiskowy (2) •
Environmental noise (2)

Chair Tadeusz Wszótek

17.00 Kamil Zaborowski, Adam Dudarewicz,
Małgorzata Zamojska-Daniszewska,
Małgorzata Pawlaczyk-Łuszczczyńska
*Evaluation of exposure to excessive sounds in the users
of portable audio players*

Chair Jacek Nurzyński

17.00 Andrzej Staniek, Cezary Bartmański
*Reverberated emission of acoustic barriers in the infra
range*

17.20 Adam Dudarewicz, Kamil Zaborowski,
Małgorzata Zamojska-Daniszewska,
Małgorzata Pawlaczyk-Łuszczczyńska
*Risk assessment of temporary hearing threshold
shift occurrence after excessive exposure to noise*

17.20 Sebastian Bernat
*Soundscape of health resort in Poland
and its revitalization*

Sala A • Room A

**Pomiary i aparatura (1) •
Measurements and instrumentation (1)**

Chair Leszek Morzyński

- 17.40 **Jan Targosz, Jan Adamczyk**
Calculation methodology for stiffness coefficient of the ground under the railway subgrade
- 18.00 **Grzegorz Szczepański**
Determination of noise emission sources using a system based on the measurement of particle velocity
- 18.20 **Witold Mikulski**
The effect of the application sound-absorbing material inside enclosure on the sound insulation of enclosure in the frequency range 10-40 kHz
- 18.40 **Dominik Mleczko, Tadeusz Wszofek**
Effect of diffusing elements in a reverberation room on the results of laboratory measurement of sound insulation of building elements
- 20.00 – 24.00 Uroczysta kolacja • **Gala dinner**

17.40 **Karolina Marciniuk, Bożena Kostek**
Road traffic event classification based on audio signal – classification algorithms overview

18.00 **Anna Taras, Margareta Sokotowska**
The importance of noise monitoring in the State Environmental Monitoring in Poland

18.20 **Bartłomiej Stepień**
Determining the number of measurements and bootstrap samples required to estimate of long-term noise indicators

18.40 **Czesław Cempel, Dariusz Pleban**
Vibroacoustic hazard in the environment

Wtorek, 28 maja 2019 • Tuesday, 28 May 2019

7.00 – 8.30 Śniadanie • Breakfast

8.30 – 13.30 Wycieczka • Tour

14.00 – 15.00 Obiad • Lunch

15.00 – 16.00 Referaty plenarne • Plenary papers

Sala A • Room A

Chair **Eugeniusz Kozaczka**

15.00 **Diana Ioana Popescu**
Environmental noise in urban areas, between acceptance and taking measures

15.30 **Martin Liedtke**
Measurement method for airborne ultrasound exposure at workplaces

16.00 – 16.30 Przerwa na kawę • Coffee break

16.30 – 17.50 Referaty sekcyjne • Session papers

Sala A • Room A •

Pomiary i aparatura (2) • Measurements
and instrumentation (2)

Sala B • Room B •

Prezentacje wystawców • Exhibitors' presentations

Chair	Wiesław Fiebig	Chair	Rafał Młyński
16.30	Aleksandra Młyńska, Danuta Dobrowolska <i>A measurement study on IEC 60318-1 ear simulators being in use in Poland and the influence of their acoustic parameters on hearing tests and assessment</i>	16.30	Piotr Tadzik Bruel & Kjaer Polska Sp. z o.o.
16.50	Grzegorz Szczepański <i>Machine noise emission measurement's support system</i>	16.45	Karol Satagan SVANTEK Sp.z o.o.
17.10	Marcin Zastawnik <i>Science communication – why or how to use it?</i>	17.00	Sławomir Raab ECTEST Systems Sp. z o.o.
17.50 – 18.20	Przerwa na kawę • Coffee break	17.15	Mateusz Wejzman Systemy Pomiarowe Sp. z o.o.
		17.30	Marcin Rosak Nyquista Sp. z o.o. Sp. Komandytowa

18.20 – 19.20 Referaty sekcyjne • Session papers

Sala A • Room A •

Pomiary i aparatura (3) • Measurements
and instrumentation (3)

Sala B • Room B •

Hałas w środowisku pracy (2) • Noise in the work
environment (2)

Chair Wojciech Batko

18.20 Tadeusz Kamiński, Krzysztof Stypuła, Krzysztof Koziół,
Adam Pilch, Jarosław Rubacha, Artur Flach, Wojciech Binek,
Katarzyna Baruch
*High sound levels in examinations construction security and
reliability of equipment*

Chair

Małgorzata Pawlaczyk–Luszczyńska

18.20 Janusz Kompała, Rafał Wiśniowski
*The method of limiting the exposure to noise in selected posts
of conveyors drive services in Węglokoks Kraj Sp. z o.o. KWK
„Bobrek – Piekary”*

18.40 Cezary Kraśkiewicz, Artur Zbiciak, Andrzej Garbacz,
Anna Al Sabouni–Zawadzka

*Effect of severe environmental conditions on prototypical under
sleeper pads used in the ballasted rail track systems*

18.40 Rafał Młyński, Emil Kozłowski

*Directivity of hearing as part of assessment of level-dependent
hearing protectors*

19.00 Paweł Pawlik

*The use of the acoustic signal to diagnosing machines operating
under variable load*

19.00 Emil Kozłowski, Rafał Młyński

*Selection of hearing protectors with the application installed
on smartphone*

19.30 – 20.30

Kolacja • Dinner

Środa, 29 maja 2019 • Wednesday, 29 May 2019

7.00 – 9.00 Śniadanie • Breakfast

9.00 – 11.00 Referaty plenarne • Plenary papers

Sala A • Room A

Chair Adam Lipowczan

9.00 **Christian Giguère, Chantal Laroche, Hugues Nélisse, Véronique Vaillancourt, Jérôme Boutin**
The acoustics and psychoacoustics of reverse alarms mounted on mobile equipment

9.30 **Wojciech Batko**
Decibel algebraic structures models of measurements

10.00 **Stefan Weyna**
Vector imaging in acoustic real-live flow fields

10.30 **Stanislav Žiaran, L'ubomir Šooš, Ondrej Chlebo**
Primary noise control in the work environment by increasing the quality of bearings and effective mounting of machines

11.00 – 12.00 Referaty sekcyjne • Session papers

Sala A • Room A •

Pomiary i aparatura (4) • Measurements
and instrumentation (4)

Sala B • Room B •

Hatás w środowisku pracy (3) • Noise in the work
environment (3)

Chair Danuta Dobrowolska

Chair Jan Radosz

11.00 **Bartosz Przysucha, Agata Szeląg**
*Influence of averaging time on smoothing
the characteristics of probability distributions of sound level
measurements results*

11.00 **Bożena Smagowska, Dariusz Pleban**
Noise exposure at workstations in packaging industry

11.20 **Joanna Kolasz, Zbigniew Siejda**
*The methodology and measurement setup
for calibration of transducers used for tests
and assessment of mechanical shocks*

11.20 **Rafał Młyński, Emil Kozłowski, Leszek Morzyński**
*The use of wireless communication to implement the warning
system for users of hearing protectors*

11.40 **Jacek Zając, Piotr Kowalski, Małgorzata Rejman**
*Laboratory test stand for vibration transmissibility
measurement of PPE intended for protection against
hand-transmitted vibration according to EN ISO 10819:2013*

11.40 **Leszek Morzyński**
*Website SAFER as a source of knowledge and a tool
supporting the prevention of hazards arising from
harmful to health physical factors in the work
environment on the example of vibroacoustic
hazards*

12.00 – 12.30 Uroczyste zamknięcie Konferencji • Closing ceremony

12.30 Obiad • Lunch

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