





24th INTERNATIONAL CONGRESS ON SOUND AND VIBRATION

23–27 July 2017, London

The International Institute of Acoustics and Vibration (IIAV) and the UK's Institute of Acoustics are pleased to invite scientists and engineers from all over the world to attend the 24th International Congress on Sound and Vibration (ICSV24) to be held in London from 23 - 27 July 2017.

This congress is a leading event in the area of acoustics and vibration and provides an important opportunity for scientists and engineers to share their latest research results and exchange ideas on theories, technologies and applications in these fields.

The congress will feature a broad range of high-level technical papers from across the world: distinguished plenary lectures will present recent developments in important topics of sound and vibration and include discussions about future trends.

THE CONGRESS VENUE: PARK PLAZA WESTMINSTER BRIDGE HOTEL, LONDON

London is an exciting, dynamic and welcoming destination. The congress venue, the grand Park Plaza Westminster Bridge Hotel, is ideally situated on the vibrant South Bank in the heart of London overlooking the River Thames with views across to Big Ben.

FOR MORE INFORMATION, VISIT: WWW.ICSV24.ORG



DISTINGUISHED PLENARY LECTURES

IIAV HONORARY FELLOW

Dame Ann P Dowling OM DBE FRS FREng,
University of Cambridge, UK

Jens Blauert Emeritus professor, Ruhr-Universität Bochum, Germany Reading the World with Two Ears

Eric J Heller Professor, Physics and Chemistry, Harvard University USA The Miracle of Resonance and Formants

Haiyan Hu Professor, President and Vice Chairman of the University Council, Beijing Institute of

Technology, China Advances in Flutter Analysis and Control of Aircraft Structures

Timothy Leighton Professor, Engineering and the Environment, University of Southampton, UK Climate Change, Dolphins, Spaceships and Antimicrobial Resistance — the Impact of Bubble Acoustics

Andrei Metrikine Professor, Civil Engineering & Geoscience, Delft University of Technology, The Netherlands Nonlinear Dynamics of Offshore Structures Subject to Marine Currents and Level Ice

Jérémie Voix Dr. Research Chair in Ear Technologies, École de technologie supérieure, Canada The Ear Beyond Hearing

International Journal of Acoustics and Vibration



- Investigation on a High-Frequency Controller for Rotor BVI Noise Alleviation
- Reliability-Based Optimization of the Coupled Structural-Acoustic System with Random Parameters
- Frequency Identification of Flexible Hub-Beam System Using Control Data
- The Effect of Crack Geometry on the Nondestructive Fault Detection in a Composite Beam
- Nonlinear Transverse Vibrations of a Slightly Curved Beam resting on Multiple Springs
- Fault Diagnosis For Exhaust Fan Using Experimental Predictive Maintenance Method
- Dynamic Analysis of Draft Gear and Draft Pad of Freight Wagon due to Localized Defects using FEM
- Effects of Young's Modulus on Disc Brake Squeal using Finite Element Analysis
- Acoustic Characteristic Analysis of Prestressed Cylindrical Shells in Local Areas
- Nonlinear Vibrations and Chaos in Rectangular Functionally Graded Plates with Thermo-mechanical Coupling
- Response of a Cylindrical Shell with Finite Length Ring Stiffeners
- Aeroelastic Analysis of Unrestrained Aircraft Wing with External Stores Under Roll Maneuver
- Research on Fault Feature Extraction of Rubbing Rotor Based on Vector-Bispectrum Energy
- Performance of Sound Insulation in Buildings A Case Study
- Dynamic Feature Extraction for Speech Signal Based On MUSIC and Modulation Spectrum
- Exact Solution for a Free Vibration of Thermoelastic Hollow Cylinder Under GNIII Model

September 2016

Volume 21, Number 3



International Journal of Acoustics and Vibration

The International Refereed Journal of the International Institute of Acoustics and Vibration (IIAV)
Indexed and abstracted in Science Citation Index Expanded and Scopus

EDITOR-IN-CHIEF Malcolm J. Crocker

Department of Mechanical Engineering Auburn University 1418 Wiggins Hall, Auburn, AL 36849, USA Telephone: +1 334 844 3248

Fax: +1 334 844 3306 E-mail: ijav@eng.auburn.edu

ASSOCIATE EDITOR – Book Reviews Zhuang Li

E-mail: Li.Zhuang.yuxie@gmail.com

ASSOCIATE EDITOR Nickolay Ivanov

E-mail: noise@mail.rcom.ru

EDITORIAL ASSISTANT Macie Franklin Neha Patel

E-mail: vibrate@auburn.edu

MANAGING EDITOR Marek Pawelczyk

Institute of Automatic Control Silesian University of Technology ul. Akademicka 16, 44-100 Gliwice, POLAND

Telephone: +48 32 237 2398 Fax: +48 32 237 2127

E-mail: Marek.Pawelczyk@polsl.pl

ASSOCIATE EDITOR

Dariusz Bismor

E-mail: Dariusz.Bismor@polsl.pl

ASSISTANT EDITORS Teresa Glowka Sebastian Kurczyk Karol Jablonski

IJAV WEBSITE www.iiav.org/ijav

The International Journal of Acoustics and Vibration is the refereed journal of the International Institute of Acoustics and Vibration (IIAV). The IIAV is a non-profit international scientific society founded in 1995. The primary objective of the Institute is to advance the science of acoustics and vibration by creating an international organisation that is responsive to the needs of scientists and engineers concerned with the acoustics and vibration problems all around the world.

Manuscripts of articles and technical notes should be submitted for review electronically in PDF format to the Editor-in-Chief. The full paper handling process is carried out electronically using the IJAV website at www.iiav.org/ijav — more details can be found on the journal website. Manuscripts are refereed by at least two referees and are reviewed by the Editor-in-Chief before acceptance. On acceptance, revised articles, brief biographies, and photographs of all authors should be submitted to the Managing Editor using the IJAV website. Manuscripts of the articles must be prepared in strict accordance with the author instructions. No honorarium is paid for articles.

All information concerning subscription, new books, journals, conferences, etc. should be submitted to the Editor-in-Chief.

Starting in March 2016, IJAV became an open access journal and published electronically.

The journal and all articles and illustrations published herein are protected by copyright. No part of this journal may be translated, reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written the permission of the publisher.

Copyright © 2016, International Institute of Acoustics and Vibration ISSN 1027-5851

Photos from the 23th International Congress on Sound and Vibration Athenas, Greece, 10–14 July 2016



Opening Ceremony: Prof. Kostantinos Vogiatzis, General Chair.



View of Athenaeum Intercontinental — Coffee Area.



IIAV Members Special Event Guided Tour to Theater of Dionysus at the downhill of Acropolis.



 $Banquet\ Dinner\ at\ Zapeion\ Megaron.$



 $\begin{array}{c} \textit{IIAVs Past, Present, Elect Presidents and Officers at ICSV23} \\ & \textit{Banquet Dinner.} \end{array}$



IIAVs Past, Present and Elect Presidents, the ICSV23 General Chair and ICSV23 staff.