



# 2017 ICU Honolulu FIRST CALL FOR PAPERS

International Congress on Ultrasonics  
Honolulu, Hawaii December 18 - 20, 2017

hosted by the University of Hawai'i, College of Engineering in collaboration with  
the Acoustical Society of Korea

## Aloha! Greetings from Hawai'i!

We are pleased to invite you to the International Congress on Ultrasonics (ICU), which will be held in Honolulu Hawaii on December 18 - 20, 2017. This Congress brings together multidisciplinary subjects on all aspects of Ultrasonics and will lead us into the future of "Eco-sound."

The allure of Hawai'i is well known. However, few understand how deeply Aloha can energize our lives and renew our spirit. Come and join in the discussion on what's being accomplished in our respective specialties. Relax your body but reinvigorate your mind as we all learn what role we can play in shaping our society.

Our Congress success will rely on how well the Aloha spirit will make an extraordinary experience for all who attend.

We look forward to seeing you soon in Waikiki, a paradise of "Green Sound."

-S. Wang Yoon

## VENUE

**Hawai'i Convention Center**  
1801 Kalakaua Ave, Honolulu, HI 96815  
U.S.A.

## HOMEPAGE

<http://www4.eng.hawaii.edu/~icu2017/>

## ORGANIZING COMMITTEE

### Executives:

S. Wang Yoon, Ph.D. – Sungkyunkwan University, Korea  
Song K. Choi, Ph.D. - University of Hawaii, Manoa, U.S.A.  
Kendall H. Kido – U.S.A.

### Technical:

Thomas J. Matula, Ph.D. - University of Washington, U.S.A.  
Yoshiaki Watanabe, Ph.D. - Doshisha University, Japan  
Badreddine Assouar, Ph.D. - Université de Lorraine, France  
Jin Ho Chang, Ph.D. - Sogang University, Korea  
Kang Il Lee, Ph.D. - Kangwon National University, Korea  
Hideyuki Nomura, Ph.D. - University of Electro-Communications, Japan

### International:

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Hiroshi Kanai, Japan  
Pascal Laugier, France  
Peter A. Lewin, USA  
Bogumil Linde, Poland

## IMPORTANT DATES

Abstract: 9/15/17

Accept: AS RECEIVED

For U.S. Visa, Acceptance Date: 9/15/17

Paper (LaTeX or MSWord): 12/15/17

Kentaro Nakamura, Japan  
Michiel Postema, Norway  
Stefan Radel, Austria  
Enrique Riera, Spain  
Wolfgang Sachse, USA  
Xiuming Wang, China

# PROGRAM

## Technical Structured Special Sessions:

### Memorial Session for Leif Bjorno

#### Physical Acoustics

Acoustic and Elastic Metamaterials  
Acoustic Metasurfaces and Topological Metamaterials  
Acoustic Modeling of Sound Fields in Complex Environments.  
Acoustic Phononic Crystals  
Bubbles and Cavitation  
Bulk Acoustic Wave and Surface Acoustic Wave Resonators and Applications  
Linear and Nonlinear Granular Metamaterials and Devices  
Nanacoustics and Phonons  
Optomechanical Structures and Opto-acoustics  
Picosecond Laser Ultrasonics  
Rayleigh and Lamb Waves  
Surface Acoustic Waves and Guided Waves

#### Biomedical Ultrasound

Acoustics and Cells  
Advances in Biomedical Ultrasound  
Biomedical Ultrasound for Therapy and Diagnosis  
Focused Ultrasound Treatment using Thermal and Non-thermal Effects  
High-frequency Ultrasound and Cell Imaging  
Image-guided Focused Ultrasound  
Life at the Intersection of Light and Sound  
Noninvasive or Minimally Invasive Ultrasound Therapy

Photoacoustics and Its Clinical Applications  
Targeted and Accelerated Drug Delivery by Ultrasound  
Ultrasonic Characterization of Bone  
Ultrasound Elasticity Imaging and Biomedical Applications  
Ultrasound Transducers for Medical Treatments

#### Industrial Ultrasound

Engineering Applications of Power Ultrasonics  
High Power Ultrasound in Air  
High Power Ultrasound in Material Engineering  
Power Ultrasound in Industrial Processing  
Ultrasonic Motors and Actuators

#### Nondestructive Evaluation

Acoustic Nondestructive Evaluation and Technology  
Guided Waves  
NDE & NDT for Civil Infrastructures  
NDE Modeling for Composites  
Ultrasonic Wavefield Imaging

#### Emerging Fields

Acoustic Fluidics  
Acoustics for Autonomous Underwater Vehicles  
Acoustics in Food, Pharmaceutical and Cosmetic Sciences  
Acoustic Microfluidics and Particle Manipulation  
Forensic-related Acoustics  
Ultrasound in Air  
Underwater Network Communications & Detection

## HISTORY

The International Congress on Ultrasonics (ICU) was constituted in 2005 as the result of the merger of two existing international Congresses: The World Congress on Ultrasonics (WCU) and Ultrasonics International (UI). The ICU is currently an international affiliated member of the International Commission for Acoustics (ICA), the parent organization of many national and regional acoustical societies. The UI started in the 1960s and the WCU started in 1993. UI, the first international congress devoted to ultrasound, was linked to the journal "Ultrasonics" created by the group Butterworth-Heinemann in England and later acquired by the well known publisher Elsevier. The WCU was created in 1993, as an independent world congress, by a group of ultrasound scientists from several countries. The third WCU was held in Lyngby, Denmark jointly with the UI. This meeting was a first attempt towards a merger of WCU and UI. Finally, the last WCU meeting, again jointly with UI, was held in Beijing, China in 2005. This meeting marked the starting point of the definitive merger of both Congresses into the present ICU. The first 2007 ICU Vienna was held at the Vienna University of Technology, Austria, the second 2009 ICU Santiago in Chile, the third 2011 ICU Gdansk in Poland, and the fourth 2013 ICU was held in Singapore. In 2015 the fifth ICU was held in Metz, France. The sixth ICU will be held in Honolulu, Hawaii, U.S.A. for December 18-20, 2017.

**The 2017 ICU Honolulu is sponsored by the Acoustical Society of America (ASA), the Acoustical Society of China (ASC), the Acoustical Society of Japan (ASJ), and the International Commission for Acoustics (ICA).**