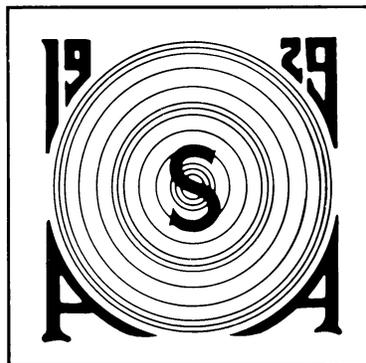


# **Announcement and Call for Papers**

**175<sup>th</sup> Meeting**

**Acoustical Society of America**



**Hyatt Regency Minneapolis  
Minneapolis, Minnesota**

**7-11 May 2018**

**Deadline for receipt of abstracts: 20 November 2017**

## MEETING ANNOUNCEMENT AND CALL FOR PAPERS

The 175<sup>th</sup> Meeting of the Acoustical Society of America (ASA) will be held Monday through Friday, 7-11 May 2018 at the Hyatt Regency Minneapolis, Minneapolis, MN. A block of rooms has been reserved at the Hyatt Regency Minneapolis at discounted rates. Information about the meeting also appears on the ASA webpage at [AcousticalSociety.org](http://AcousticalSociety.org).

**The deadline for receipt of abstracts 20 November 2017. This deadline will be strictly enforced.**

*Susan E. Fox, Executive Director*

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# TECHNICAL PROGRAM AND SPECIAL SESSIONS

## TECHNICAL PROGRAM

Contributed papers are welcome in all branches of acoustics. The technical program will consist of lecture and poster sessions. Technical sessions will be scheduled Monday through Friday, 7–11 May.

Every effort will be made to schedule contributed abstracts in accordance with author and Organizing Committee 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. Abstracts will be rejected if they do not comply with the instructions.

Special sessions described below are planned for the meeting. Authors of invited papers must indicate the title of the special session in which they have been invited to participate when the abstract is submitted. Authors of contributed papers have the option to request placement of their abstracts in these sessions. If no special session placement is requested, contributed papers will be scheduled in sessions with abstracts of similar technical content.

## SPECIAL SESSIONS, ORGANIZERS, AND DESCRIPTIVE SENTENCES

### ACOUSTICAL OCEANOGRAPHY (AO)

Ambient Noise Oceanography in Polar Regions: Noise Properties and Parameter Estimation  
(Joint with Animal Bioacoustics, Underwater Acoustics)  
Organized by: Oskar Glowacki, Grant Deane

Acoustics in Naturally Constrained Environments: Estuaries, Bays, Inlets, Fjords and Rivers  
(Joint with Underwater Acoustics)  
Organized by: Andone Lavery, Benjamin Reeder

Acoustic Seabed Characterization  
(Joint with Underwater Acoustics)  
Organized by: David Knobles, Preston Wilson

### ANIMAL BIOACOUSTICS (AB)

History of Animal Bioacoustics  
(Joint with ASA Committee on Standards)  
Organized by: David Mellinger

Lessons on Auditory 'Perception' from Exploring Insect Hearing  
Organized by: Norman Lee

Plant Bioacoustics  
Organized by: Aaron Thode, Simon Freeman

### ARCHITECTURAL ACOUSTICS (AA)

Acoustics in Classrooms and Other Educational Spaces  
(Joint with: Noise, ASA Committee on Standards, Speech Communication)  
Organized by: David Lubman, Kenneth Good

### DESCRIPTIVE SENTENCES

Measurement and use of ambient noise in Polar regions: cryogenic sources of underwater noise, propagation effects impacting noise signals and the use of noise to study physical processes at the ice-ocean boundary, such as ice melting, calving, iceberg tracking, ice shelf breakup, to name a few

Observations and modeling of acoustic propagation and scattering characteristics of naturally occurring constrained environments such as estuaries, bays, inlets, fjords and rivers, including the environmental features and physical mechanisms that affect temporal, spatial and spectral acoustical properties

Acoustic characterization of the seabed including direct, inverse and statistical inference methods

Development of animal bioacoustics from antiquity to the present across many taxa (including birds, fishes, marine mammals, etc.) and many areas of study (including sound production, hearing, behavior, acoustic monitoring, and soundscapes)

Insect hearing has evolved independently many times, giving rise to the potential for a diversity of sensory solutions to common problems encountered by humans and other animals that rely on hearing. These sensory solutions may provide insights into fundamental auditory processes, neural mechanism, and inspire the development of sensor technology

Bioacoustics of sound production and reception by plants, how sound is used to study the function and health in plants, and passive acoustic detection of the sounds made by pests in plant products

Exploration of continued advancements in Classroom Acoustics, including a fresh look at other educational spaces such as those used for physical education and other purposes. From classrooms to the stadium, verbal instructional and learning bring unique challenges for a variety of space types

## **ARCHITECTURAL ACOUSTICS (AA) (continued)**

Acoustics of Lobbies, Atria, Stairways, Corridors, Pre-Function and Similar Spaces  
(Joint with ASA Committee on Standards)  
Organized by: Logan Pippitt

AIA CEU Course Presenters Training Session  
Organized by: K. Anthony Hoover, Bennett Brooks

Architectural Acoustics Experimental Methods in Laboratories  
(Joint with Noise)  
Organized by: Jin Yong Jeon, Ning Xiang

Assistive Listening Systems in Assembly Spaces  
(Joint with Physical Acoustics, Speech Communication, ASA Committee on Standards, and Psychological and Physiological Acoustics)  
Organized by: Damian Doria, Thomas Burns

Auditory Perception in Virtual, Mixed, and Augmented Environments  
(Joint with Psychological and Physiological Acoustics, Speech Communication)  
Organized by: Philip Robinson, G. Christopher Stecker

Interactions Between Acoustics and Architectural Design  
Organized by: Ana M. Jaramillo, Adil Hinawi

## **BIOMEDICAL ACOUSTICS (BA)**

Acoustic Imaging of Small Vessels and Low Speed Flow  
Organized by: Mahdi Bayat

Induction Mechanisms for Bubble Nucleation  
(Joint with Physical Acoustics)  
Organized by: J. Brian Fowlkes

Transcranial Focused Ultrasound for Targeted Brain Therapies  
Organized by: Emad S. Ebbini

Using Acoustic Wave Propagation to Estimate Quantitative Material Properties of Tissue  
Organized by: Matthew Urban

## **EDUCATION IN ACOUSTICS (ED)**

Developing and/or Using Interactive Simulations for Teaching Acoustics  
Organized by: Andrew Piacsek, Daniel Russell, Peggy Nelson

Hands On for Middle School Students  
Organized by: Peggy Nelson, Keeta Jones

Listen Up and Get Involved  
(Joint with Women in Acoustics)  
Organized by: Peggy Nelson

## **DESCRIPTIVE SENTENCES**

Case studies, research and discussion of the need for good acoustics in these types of spaces

Architects must continue their education by taking courses in order to maintain their registration. TCAA offers a class to architects. Members of TCAA need to complete this training session in order to qualify as a presenter of the course

Laboratories are home to much of the research and development in architectural acoustics undertaken today. Researchers are invited to showcase their recent developments of advanced experimental methods, including, but not limited to, those in academic and independent laboratories

User requirement specifications for next generation assistive listening systems, building upon the presentations and panel discussion during Acoustics '17 Boston

Possibilities and challenges presented by recent advances in audio visual displays including methods for evaluating perception and techniques for creating compelling experiences

The intersection between architecture and acoustics should be used as an opportunity for great collaborations with other building sciences and design decisions

Motivated by recent advances in visualization of sub-millimeter vessels and monitoring low speed perfusion using long ensembles of ultrasound data, fundamental aspects of tissue

Methods to purposefully induce bubble nucleation in a variety of medical and industrial applications such as for ultrasound contrast imaging and therapy and fluid degassing and materials production

Transcranial focused ultrasound (tFUS) is being investigated in a range of therapies from neuromodulation to tumor ablation. Research on various aspects of monitoring and control of in vivo tFUS applications in small animals, nonhuman primates and human patients. This session will provide a forum to represent the latest results from leading groups

Approaches to the use of compressional, shear, and guided waves for quantitative evaluation of soft tissues and tissue mimicking materials

Using simulations in education

Hands on activities for Minneapolis area middle school students

Hands-on activities for Minneapolis area Girl Scouts

## **EDUCATION IN ACOUSTICS (ED) (continued)**

Take Fives  
(Joint with Speech Communication)  
Organized by: Peggy Nelson

## **ENGINEERING ACOUSTICS (EA)**

Advanced Transduction Technologies for Sonar Applications  
(Joint with Signal Processing in Acoustics, Underwater Acoustics)  
Organized by: Dehua Huang

Miniature Acoustic Transducers  
(Joint with Physical Acoustics)  
Organized by: Vahid Naderyan

## **INTERDISCIPLINARY (ID)**

Acoustical Standards In Action: Realization, Application, and Evolution  
(Joint with ASA Committee on Standards, Noise, Structural Acoustics and Vibration, Architectural Acoustics)  
Organized by: Christopher J. Struck

## **MUSICAL ACOUSTICS (MU)**

Acoustics of Choirs and Vocal Ensembles  
Organized by: James P. Cottingham

Pitch Perception in Musical Context  
(Joint with Psychological and Physiological Acoustics)  
Organized by: Bobby Gibbs

Sound Effects and Perception  
(Joint with Psychological and Physiological Acoustics, Signal Processing in Acoustics)  
Organized by: Jonas Braasch

## **NOISE (NS)**

Effects of Natural Soundscapes on Recreation Areas  
(Joint with ASA Committee on Standards)  
Organized by: David Braslau, Kurt Fristrup

Groundborne and Structureborne Noise Within Sensitive Spaces  
(Joint with Architectural Acoustics, Structural Acoustics and Vibration, ASA Committee on Standards)  
Organized by: James E. Phillips

Hearing Health Across a Lifespan: Hearing Screening from Cradle to Grave  
(Joint with Psychological and Physiological Acoustics, Speech Communication)  
Organized by: William J. Murphy, Alexander L. Francis

Hearing Protection: Impulse Peak Insertion Loss, Specialized Hearing Protection Devices, and Fit-Testing  
(Joint with Psychological and Physiological Acoustics, ASA Committee on Standards)  
Organized by: William J. Murphy, Elliott H. Berger, Cameron Fackler

## **DESCRIPTIVE SENTENCES**

Presentation of your favorite acoustics teaching ideas, including short demonstrations, teaching devices, and videos to share with colleagues. No abstract required

Acoustic transduction materials characters, element engineering, array signal processing and system design for Sonar applications

Miniature acoustic transducers, including MEMS microphones, Balanced Armature speakers, and new transduction methods

Acoustical standards, their practical application and implementation

Exploration of acoustical considerations related to performance of choirs and smaller vocal ensembles

Research that furthers and challenges the current understanding of pitch perception within the ecological context of musical stimuli

Digital and analog effects in (popular) music productions and psychophysical experiments to evaluate these effects

Effects of natural soundscapes on quietude in recreational areas. Special emphasis will be given to National Parks and areas like the Boundary Waters Canoe Area and the Natural Wild and Scenic Rivers System

Analyzing, measuring, and controlling groundborne and structureborne noise within sensitive spaces from external sources

Advances in hearing screening for newborns, children, adolescents, occupational and aging adults. Methods for assessing the hearing using otoacoustic emissions, speech tests and advances in wireless or mobile testing technology will be featured

Performance assessment of hearing protection devices in impulsive noise, specialized protection choices for workers and the applications of hearing protection fit-testing technologies for the occupational and recreational user

## **NOISE (NS)**

Novel Materials for Sound Absorption, Insulation, and Vibration Control  
(Joint with Architectural Acoustics, Physical Acoustics, Structural Acoustics and Vibration)  
Organized by: Yun Jing, Ning Xiang

Open Source Audio Processing Platforms  
(Joint with Psychological and Physiological Acoustics, Signal Processing in Acoustics, Speech Communication, Musical Acoustics)  
Organized by: Odile Clavier, William J. Murphy

## **PHYSICAL ACOUSTICS (PA)**

Infrasound for Global Security  
Organized by: Philip Blom

Novel Methods in Computational Acoustics  
(Joint with Structural Acoustics and Vibration, Architectural Acoustics, Underwater Acoustics)  
Organized by: D. Keith Wilson, Amanda Hanford

Sonic Boom  
(Joint with Noise, ASA Committee on Standards)  
Organized by: Alexandra Loubeau, Joel B. Lonzaga

Ultrasound and High Frequency Sound in Air in Public and Work Places: Applications, Devices, and Effects  
(Joint with Biomedical Acoustics, Psychological and Physiological Acoustics, Public Relations)  
Organized by: Timothy Leighton, Craig Dolder

## **PSYCHOLOGICAL AND PHYSIOLOGICAL ACOUSTICS (PP)**

Acoustics Outreach: Planting Seeds for Future Clinical and Physiological Collaborations '18  
(Joint with Speech Communication)  
Organized by: Anna Diedesch, Elin Roverud

Consequences of Asymmetrical Hearing  
Organized by: Matthew Goupell, Lina Reiss

Future Directions for Hearing Aids: Multi-Sensor, User-Informed and Environment-Aware  
(Joint with Signal Processing in Acoustics)  
Organized by: Martin McKinney, Tao Zhang

Honoring Neal Viemeister's Contributions to Psychoacoustics  
Organized by: Peggy Nelson, Andrew Oxenham

Honoring the Contributions of David Kemp to the Discovery of Otoacoustic Emissions and their Utility for Assessing Hearing Function  
(Joint with Animal Bioacoustics, Noise)  
Organized by: Glenis R. Long, Bastian Epp

## **DESCRIPTIVE SENTENCES**

New advances and novel phenomena in the exciting field of novel materials for sound absorption, insulation, and vibration control. The novel materials may include, but are not limited to acoustic/elastic metamaterials, phononic crystals, new micro-perforated absorbers, and aerogel

Development and use of open source hardware, software and algorithms for audio processing for acoustics and hearing researchers

Recent developments and research highlights in infrasound and atmospheric acoustics with emphasis on applications to explosion monitoring, nuclear forensics, and other topics related to global security and nuclear non-proliferation

Novel and unconventional methods, or combinations of multiple methods in new ways, to solve computational acoustics problems

All aspects of sonic boom noise, including noise generation, propagation through the atmosphere, interaction with buildings and terrain, and human response

Recent years have seen an increase in devices which project sound of 15-25 kHz into air in public places without the knowledge of the public. There are anecdotal reports of adverse effects in some humans, although very few scientific studies. Guidelines for exposure are inadequate, and standards for the measurement of such fields need review

Presentations by students and post-docs from neighbouring fields (clinicians and physiologists/neuroscientists) intended to facilitate future engagement of young researchers in these fields in ASA

Consequences of asymmetrical hearing using behavioral, physiological, and electrophysiological methodologies, and clinical implications

Incorporation of sensors (including EEG, EOG, and accelerometers) into hearing aids and research including auditory attention decoding, multi-modal speech enhancement, eye-gaze tracking, self-fitting/adjustments, individualization and auditory ecology

Neal Viemeister's contributions to psychoacoustics on the occasion of his retirement

Will honor David Kemp and his discovery of otoacoustic emissions (sounds generated by the inner ear). Will feature researchers who have worked with or been influenced by David Kemp to highlight his contributions to otoacoustic emissions and cochlear biophysics

**PSYCHOLOGICAL AND PHYSIOLOGICAL ACOUSTICS (PP)**  
**(continued)**

Phase Locking and Rate Limits in Electric Hearing  
(Joint with Speech Communication and Signal Processing in  
Acoustics)  
Organized by: Mathias Dietz

Physiology Meets Perception  
Organized by: Sarah Verhulst, Antje Ihlefeld

**SIGNAL PROCESSING IN ACOUSTICS (SP)**

Acoustics of Virtual and Augmented Reality  
(Joint with Psychological and Physiological Acoustics, Architectural  
Acoustics, Noise)  
Organized by: Buye Xu, Jens Meyer

Continuous Active Acoustics  
(Joint with Underwater Acoustics)  
Organized by: Zachary J. Waters

Co-Prime Arrays and Other Sparse Arrays  
(Joint with Underwater Acoustics)  
Organized by: R. Lee Culver, Kainam T. Wong

Reconfigurable and Conformal Array Processing, Design, and  
Applications  
(Joint with Underwater Acoustics, Physical Acoustics, Engineering  
Acoustics)  
Organized by: Ryan L. Harne

Signal Processing for Complex Environments  
(Joint with Underwater Acoustics, Architectural Acoustics)  
Organized by: Sandra Collier, Kainam T. Wong

Time Reversal Acoustics  
(Joint with Underwater Acoustics, Physical Acoustics, Noise)  
Organized by: Brian E. Anderson

**SPEECH COMMUNICATION (SC)**

Adapting Methods and Models for Vocal Production Across Human  
and Non-Human Primate Species  
(Joint with Animal Bioacoustics, Psychological and Physiological  
Acoustics)  
Organized by: Benjamin Munson, Michael L. Wilson, Mary E.  
Beckman

Session in Memory of James J. Jenkins  
Organized by: Kanae Nishi, Linda Polka, Terry Gottfried

South Asian Languages  
Organized by: Kelly Berkson, Sameer ud Dowla Kahn

**DESCRIPTIVE SENTENCES**

Cochlear implant users are limited in interaural time difference and rate pitch below 400 pulses per second, despite higher phase locking rates observed in isolated auditory nerve fibers with acoustic stimulation. This session will bring together physiologists, psychoacousticians, and modelers to shed light on where and why temporal coding is lost

Recent research combining physiological (e.g., neural correlates, OAEs) and behavioral approaches in the same species with a focus on auditory coding mechanisms, including measures of speech intelligibility and attention, as well as audiometry and the steering of auditory prostheses

Signal processing methods for recording, analyzing and reproducing real world acoustic scenes for applications of virtual and augmented reality

Recent advances in high duty cycle active acoustics including sonar configurations and signal processing methodologies accounting for diverse environmental issues

Design, implementation, deployment and application of co-prime and other sparse arrays

Means to control arrays and their physical or virtual topologies for wave field guidance; including signal processing techniques for conformal arrays, design strategies for reconfigurable or deployable arrays, linear and nonlinear acoustic aspects of reconfigurable/conformal arrays, and applications of reconfigurable/conformal arrays

Signal processing techniques to overcome the effects of complex environments and to accurately characterize these environments

Research, development and applications of time reversal acoustics in communications, source localization and high energy focusing

Reviews methods and models for analyzing the production of socially significant vocalizations in primates, with particular focus on comparing and applying methods across human and non-human species

A tribute to James J. Jenkins who is remembered as an extraordinary colleague and mentor in the ASA speech communication community

South Asian languages (SAL) test the limits of current phonetic theory due to their complex array of features, pervasive multilingualism, and sparse descriptions. We solicit research in all SAL areas, including but not limited to prosody, phonation type, tone, & their interactions; breathy voiced segments; degrees of retroflexion & its perception

## STRUCTURAL ACOUSTICS AND VIBRATION (SA)

Acoustic Metamaterials  
(Joint with Physical Acoustics, Engineering Acoustics)  
Organized by: Christina J. Naify, Alexey Titovich

Improving Education in Structural Acoustics and Vibration  
(Joint with Education in Acoustics)  
Organized by: Brian E. Anderson, Scott Sommerfeldt

Model Reduction for Structural Acoustics and Vibration  
(Joint with Signal Processing in Acoustics, Noise)  
Organized by: Kuangcheng Wu

Noise and Vibration in Rotating Machinery  
(Joint Noise, Engineering Acoustics, and ASA Committee on Standards)  
Organized by: Robert M. Koch

## UNDERWATER ACOUSTICS (UW)

High Performance Computing Applications to Underwater Acoustics  
(Joint with Signal Processing in Acoustics, Physical Acoustics)  
Organized by: Ying-Tsong Lin, Megan S. Ballard

Target Scattering in Underwater Acoustics: Imaging, Spectral Domain, and Other Representations  
Organized by: Daniel Plotnick, Timothy Marston

## DESCRIPTIVE SENTENCES

Focus on recent advances in the study concerning acoustic metamaterials and phononic crystals which have witnessed a growing interest in basic research and potential engineering applications

Presentations on demonstrations, laboratory experiments in courses, educational tools, and outreach in the area of structural acoustics and vibration aimed at any level of educational instruction

The computational time and resources for processing big data, generated from test data or numerical analyses, can be overwhelming in structural Acoustics and Vibration. This special session invites research and idea that uses analytic and/or numerical approaches to reduce the computational time needed for large numerical models or test data

Experimental, analytical, and/or computational investigations into the sources of unwanted noise and vibration in rotating machinery possibly also including discussion of potential solution approaches and remedies

The practice of utilizing high performance computing clusters to solve large problems in underwater acoustics

How certain representations, such as the imaging or spectral domains, allow for different scattering characteristics to be leveraged in order to determine a target's size, shape, orientation, or make up

## OTHER TECHNICAL EVENTS AND INFORMATION

### EXHIBITION

An instrument and equipment exhibition will be located near the registration area and meeting rooms and will open on Monday, 7 May, with an evening reception with lite snacks and a complimentary drink. Exhibition hours are Monday, 7 May, 5:30 p.m. to 7:00 p.m., Tuesday, 8 May, 9:00 a.m. to 5:00 p.m., and Wednesday, 9 May, 9:00 a.m. to 12:00 noon.

The Exhibition will include computer-based instrumentation, scientific books, sound level meters, sound intensity systems, signal processing systems, devices for noise control and acoustical materials, active noise control systems, and other exhibits on acoustics.

Contact the Exhibition Manager for information about participating in the exhibit: Robert Finnegan, Advertising and Exhibits Division, AIP Publishing, LLC, 1305 Walt Whitman Road, Suite 300, Melville, NY 11747-4300, Tel: 516-576-2433; Fax: 516-576-2481; E-mail: [rfinnegan@aip.org](mailto:rfinnegan@aip.org).

### TECHNICAL TOUR

A tour of the recently completed U.S. Bank Stadium will be held during the week. The multi-purpose stadium and home to the Minnesota Vikings is owned and operated by the Minnesota Sports Facilities Authority. The 66,200 seat stadium is located in the heart of Minneapolis, Minnesota. With 137,000 square feet on the stadium floor and six club spaces throughout the building, this state-of-the-art facility will host prominent national and international programming including the Minnesota Vikings, concerts, family shows, college and high school sporting events, conventions, trade/consumer shows, and corporate or private meetings and other community events. U.S. Bank Stadium opened on July 22, 2016 and

has been chosen as the site of the Summer X Games (2017 and 2018), Super Bowl LII (2018) and the NCAA Men's Final Four (2019). Transportation will be provided. The cost is USD \$20 and is limited to 30 participants.

Attendees may wish to note that the acclaimed chamber group, Accordo, will have a concert on Monday evening. Accordo is made up of the principal players from the Minnesota Orchestra and the St. Paul Chamber Orchestra. Details of the concert that would work can be found at <https://boxoffice.ordway.org/schubert/Online/mapSelect.asp>

### **OPEN MEETINGS OF TECHNICAL COMMITTEES**

Technical Committees will hold open meetings on Tuesday, Wednesday, and Thursday evenings. These are working, collegial meetings. Much of the work of the ASA is accomplished by actions that originate and are taken in these meetings including proposals for special sessions, workshops, and technical initiatives. All meeting participants are cordially invited to attend these meetings and to participate actively in the discussions.

### **HOT TOPICS**

A "Hot Topics" session sponsored by the Tutorials, Short Courses, and Hot Topics Committee will cover the fields of Engineering Acoustics, Signal Processing in Acoustics, and Structural Acoustics and Vibration.

### **INTERNATIONAL QUIET OCEAN EXPERIMENT**

A forum organized by the International Quiet Ocean Experiment (IQOE) to discuss approaches for studying effects of sound on marine organisms and ecosystems will be held on Sunday, 5 May 2018, 9:00 a.m. to 5:00 p.m. in conjunction with the spring meeting of the ASA. Please visit <http://www.iqoe.org/> for information about IQOE and its activities. The results of the discussions at the forum will help in implementation of IQOE.

The forum is open to anyone who is interested in participating, up to 50 people. Morning and afternoon coffee breaks will be provided; participants will be responsible for their own lunches.

Register online at <http://AcousticalSociety.org> or use the printed registration form to register for the Forum

### **STUDENT DESIGN COMPETITION**

The 2018 Student Design Competition will be displayed and judged at the Minneapolis ASA meeting. This competition is intended to encourage students in the disciplines of architecture, engineering, physics, and other curriculums that involve building design and/or acoustics to express their knowledge of architectural acoustics and noise control in the design of a facility in which acoustical considerations are of significant importance. The competition will be a poster session.

Entries may be submitted by individual students or by teams of a maximum of three students. Undergraduate and graduate students from all countries are encouraged to participate. Students must be enrolled in either the fall term of 2017 or the spring term of 2018 (or equivalent if a particular school does not operate on a spring and fall term basis) to be eligible for the competition. It is not necessary to attend the Minneapolis meeting to participate in the competition, although attending the meeting is encouraged.

All competition entries will respond to a design scenario. Information about the design scenario, entry rules, and registration for the competition will be available on the Newman Fund website, [www.newmanfund.org](http://www.newmanfund.org). Additional information may be obtained by emailing [sd@newmanfund.org](mailto:sd@newmanfund.org). The Student Design Competition is sponsored by the ASA Technical Committee on Architectural Acoustics, with generous support from the Wenger Foundation, the Robert Bradford Newman Student Award Fund, and the National Council of Acoustical Consultants.

## GALLERY OF ACOUSTICS

The Technical Committee on Signal Processing in Acoustics will sponsor the 17th Gallery of Acoustics at the 175th Meeting of the Acoustical Society of America (ASA). Its purpose is to enhance ASA meetings by providing a setting for researchers to display their work to all meeting attendees in a forum emphasizing the diversity, interdisciplinary, and artistic nature of acoustics. The Gallery of Acoustics provides a means by which we can all share and appreciate the natural beauty, aesthetic, and artistic appeal of acoustic phenomena: This is a forum where science meets art.

The Gallery will consist of a collection of images, videos, audio clips, and narrations of images and/or sounds generated by acoustic processes or resulting from signal and image processing of acoustic data. Images and videos can consist of actual visualizations of acoustic processes or of aesthetically and technically interesting images resulting from various signal and image processing techniques and data visualization. Audio clips and segments should also have aesthetic, artistic, and technical appeal. It is possible to submit a poster entry but permission from Michael Muhlestein should be obtained prior to submission. The top 3-6 submitted entries are then displayed in a main lobby of the conference hotel for all to see. Video entries must be limited to 3 minutes in duration (STRICTLY ENFORCED), and must be submitted electronically, either by e-mail attachment, or by mailing a CD, or DVD to the address given below. Creation and transport of static images are the responsibility of the author, but a digital copy of the image should also be submitted electronically by e-mail attachment.

Entries must be accompanied by all authors' names and affiliations, a title, a brief description of the entry and importance or interest of the entry (no more than 200 words), and statement of permission to display the entry at the meeting. Please indicate the primary point of contact. The meeting attendees will vote on the entries on the basis of aesthetic/artistic appeal, ability to convey and exchange information, and originality. A cash prize of USD \$400 and \$200 will be awarded to the winning and first runner-up entries, respectively.

(1) 26 March 2018: Deadline for notice of intent to submit. Include a title, an abstract, a complete author list with full contact information, and a basic description of the proposed entry. This information will not be published anywhere, rather it is used to help guide entrants in their submissions. Please indicate the primary point of contact.

(2) 23 April 2018: Deadline for the receipt of all entries and materials.

Entries, questions, and all other communications regarding the Gallery should be directed to:

Michael B. Muhlestein, T: (603) 646-4214  
E-mail: [mimuhle@gmail.edu](mailto:mimuhle@gmail.edu)

## PROCEEDINGS OF MEETINGS ON ACOUSTICS (POMA)

All authors of Minneapolis meeting papers are encouraged to submit a pdf manuscript to ASA's Proceedings of Meetings on Acoustics (POMA). Things to note:

- There is no publication fee, but presentation of the paper at the meeting is mandatory.
- POMA does not have a submission deadline. Authors may submit manuscripts before or after the meeting; note, however, that review will not take place until after the meeting.
- POMA has new Word and LaTeX manuscript templates and cover pages are now generated automatically at the time of publication.
- Published papers are being both indexed in scholarly venues and highlighted on Twitter and Facebook.
- Visit <http://asa.scitation.org/pma/authors/manuscript> for additional information, including recent changes to the manuscript preparation/submission process.

## ITINERARY PLANNER, MOBILE APP AND MEETING PROGRAM

An itinerary planner and mobile app will be available for the Minneapolis meeting. A complete meeting program will be mailed as Part 2 of the April issue of JASA. Abstracts will be available on the ASA webpage <<http://AcousticalSociety.org>> in April.

## ABSTRACT SUBMISSION GUIDELINES

An abstract of not more than 200 words is required for each paper, whether invited or contributed. **Abstracts longer than 200 words will be truncated.** Authors must submit abstracts online (see page 23).

### ABSTRACT SUBMISSION GUIDELINES

**All abstracts must be submitted by 20 November 2017.** This deadline will be strictly enforced. Abstracts submitted via postal mail or e-mail will not be accepted. Abstracts will be rejected if they do not comply with the instructions.

Authors should be prepared to accept assignment to lecture or poster sessions.

Authors of invited papers must indicate the title of the special session in which they have been invited to participate at the time the abstract is submitted.

Authors of contributed papers may request placement of their abstracts in special sessions. The request will be honored, if possible, but there is no guarantee such abstracts will be scheduled in the requested sessions.

If no special session placement is requested, contributed papers will be scheduled in sessions with abstracts of similar technical content.

### ABSTRACT DISCLOSURE STATEMENTS

Authors will be asked to answer the following questions during the submission process:

- Compliance with ethical principles
- Confirmation that all authors are aware of and agree with the submission of abstracts on which their names appear
- Whether or not they are interested in having their abstract presentation broadcast live over the internet and/or recorded for later broadcast.

### ABSTRACT LIMITATIONS

● A contributor in Speech Communication may be the principal author of only one paper, and, subject to time and space limitations, may be the co-author of only one additional paper. Authors contributing papers in Speech Communication are also encouraged to select poster-style presentation.

● Contributed papers in Psychological and Physiological Acoustics and Underwater Acoustics may be scheduled for lecture or poster presentation.

● While authors may indicate a preference for presentation style, it may not always be possible to honor the request. Authors should be prepared to accept assignment of their abstracts to either lecture or poster presentation.

### ACKNOWLEDGMENT OF RECEIPT OF ABSTRACTS SUBMITTED ONLINE

Corresponding authors will receive an e-mail message confirming that their abstracts have been received. Acceptance notices will be sent to authors in February.

## ASA BEST PAPER AWARDS FOR STUDENTS AND YOUNG PRESENTERS

The ASA Technical Committees on Acoustical Oceanography, Animal Bioacoustics, Architectural Acoustics, Biomedical Acoustics (spring meeting only), Engineering Acoustics, Musical Acoustics, Noise, Signal Processing in Acoustics, Speech Communication, Structural Acoustics and Vibration, and Underwater Acoustics offer Best Paper Awards to students or young presenters who present papers at meetings. Authors need not be members of ASA to qualify. **If you want your paper to be considered for an award, you must indicate this when you submit your abstract.** Please read the entry qualifications to be sure that you are eligible and follow the instructions for entering the individual Technical Committee competitions that appears on page 24.

## **AUDIO-VISUAL AND SPECIAL EQUIPMENT AND SOFTWARE**

### **AUDIO-VISUAL EQUIPMENT**

PC computers with monaural audio playback capability, computer projectors, and laser pointers will be provided in all lecture sessions. All other equipment is considered to be special equipment. Refer to the "Special Equipment" section below for additional information. Note that Mac computers will not be provided.

### **SPECIAL EQUIPMENT, COMPUTER EQUIPMENT, AND SOFTWARE**

Any equipment other than PC computers with monaural audio playback capability, computer projectors, and laser pointers is "special equipment." Requests for special equipment (e.g., stereo sound playback, special speakers) must be specified at the time of abstract submission. Provision of unusual special equipment will depend upon availability and cost. Special software requests should also be made, if required.

Stereo sound playback is considered special equipment and must be requested when your abstract is submitted.

Please be specific about your audio needs, including number of channels and preferred loudspeaker arrangement.

### **POSTER SESSION BOARDS**

Poster boards and fastening materials will be provided. Poster boards are 8 ft. wide by 4 ft. high.

### **PROJECTION GUIDELINES FOR AUTHORS**

A PC computer with monaural playback capability and projector will be provided in each meeting room on which all authors who plan to use computer projection will load their presentations. Authors should bring computer presentations on a USB drive to load onto the provided computer and should arrive at the meeting rooms at least 30 minutes before the start of their sessions. Authors also have the option to connect their own laptops to the computer projector, however authors using their own laptops must also arrive at the meeting room at least 30 minutes before start of the session to setup this connection. Assistance in loading presentations onto the computers and switching to alternate computers will be provided.

If you utilize your own computer for your presentation you should also bring your presentation materials on a USB drive as a backup. This may solve any possible interface or cable problems between your computer and the projector.

Note that only PC format will be supported so authors using Macs must save their presentations for projection in PC format. Also, authors who plan to play audio or animations during their presentations should ensure that their sound and animation files are also saved on the USB drive.

Guidelines for use of computer projection will be supplied with acceptance notices.

### **AUDIO/VISUAL PREVIEW ROOM**

Computer presentations can be reviewed by authors in the audio/visual preview room at the meeting. Separate computers will be made available in this room for accessing email.

# **TUTORIAL LECTURE ON HEARING LOSS AND THE FUTURE OF AUDITORY IMPLANTS**

A tutorial on "Hearing Loss and the Future of Auditory Implants" will be presented by Andrew Oxenham of the University of Minnesota, on Monday, 7 May at 7:00 p.m.

## **ABSTRACT**

Hearing loss is a major and growing health concern worldwide. According to the National Institute on Deafness and Communication Disorders (NIDCD), 17% of the adult population in the US (around 36 million people) report some form of hearing loss, with the proportion of affected individuals rising to nearly 50% among those aged 75 or older. Loss of hearing has been associated with increased social isolation, more rapid cognitive decline, and other more general health issues, although causal relationships have yet to be established. This tutorial will review the physiology of hearing loss, along with its perceptual consequences, as measured in the laboratory and experienced in everyday life. The focus of the tutorial will be on implantable technologies that have been used to alleviate severe hearing loss and deafness, with particular emphasis on cochlear implants. Although cochlear implants have enjoyed remarkable success over the past few decades, they do not restore normal hearing, and may be approaching their technological limits in terms of the benefits that patients can gain from them. The tutorial will end by exploring future directions of implantable and other technologies in the quest to restore and maintain hearing throughout the lifespan.

## **LECTURE NOTES**

Lecture notes will be available at the meeting in limited supply. Those who register by 9 April 2018 are guaranteed receipt of a set of notes.

## **TUTORIAL LECTURE PREREGISTRATION**

To partially defray the cost of the lecture, a registration fee is charged. The fee is USD \$15 for registration received by 9 April 2018 and USD \$25 thereafter including on-site registration at the meeting. The fee for students with current ID cards is USD \$7 for registration received by 9 April 2018 and USD \$12 thereafter, including on-site registration at the meeting. Register online at <http://AcousticalSociety.org> or use the registration form on page 22 to register for the Tutorial Lecture.

# SHORT COURSE ON OPEN SCIENCE AND RELATED TOOLS IN HEARING RESEARCH

## INTRODUCTION

Open Science aims at providing transparency in scientific processes and their accessibility by all levels of society. It becomes more and more prominent in a scientist's life, interfering with the traditional scientific workflow. Git or Subversion, Open Access, Gold or Green: Open Science demands fateful decisions and requires new tools, all of which act at different levels. This may change the way scientists collect their data, analyze their results, share and discuss them within the research group, and finally publish their work. This workshop will cover various parts of Open Science and provide researchers from the hearing-research area with hands-on tools and workflow examples related to Open Science.

## OBJECTIVE

The objective of this course is to introduce the various parts of Open Science and to provide researchers related to hearing research with hands-on tools and workflow examples for their everyday use.

## INSTRUCTOR

Piotr Majdak is senior researcher and deputy director of the Acoustics Research Institute of the Austrian Academy of Sciences. In 2002, he received a master's degree in Audio Engineering from the University of Music and Performing Arts (KUG) in Graz, Austria. In 2008, he completed his doctoral studies in the area of signal processing and psychoacoustics, with a Phd thesis dedicated to spatial hearing in cochlear-implant listeners. In 2015, he earned a higher doctoral degree (*venia legendi*, equivalent to a professorship) from the KUG for the teaching area "acoustics and audio engineering". He teaches various undergraduate courses related to audio engineering and cognitive hearing science at the University for Applied Sciences Technikum in Vienna as well as at the KUG in Graz. Living and working in Vienna, Piotr Majdak is president of the Austrian section of the Audio Engineering Society and member of the ÖGA, DEGA, ARO, and ASA.

## PROGRAM

Sunday, 6 May 2018, 1:00 p.m. to 5:00 p.m.

Monday, 7 May 2018, 8:30 a.m. to 12:30 p.m.

## REGISTRATION

The full registration fee is USD \$300 (USD \$125 for students) and covers attendance, instructional materials and coffee breaks. The number of attendees will be limited so please register early to avoid disappointment. Only those who have registered by 9 April 2018 will be guaranteed receipt of instruction materials. There will be a USD \$50 discount off the full registration fee (discount does not apply to student fee) for registration made prior to 9 April 2018. Full refunds will be made for cancellations prior to 9 April 2018. Any cancellations after 9 April 2018 will be charged a USD \$25 processing fee. Register online at <<http://AcousticalSociety.org>> or use the form on page 22. If you miss the preregistration deadline and are interested in attending the course, please send an email to [asa@acousticalsociety.org](mailto:asa@acousticalsociety.org).

## **FUNDING OPPORTUNITIES**

### **STUDENT TRANSPORTATION SUBSIDIES**

A student transportation subsidies fund has been established to provide limited funds to students to partially defray transportation expenses to meetings. No reimbursement is intended for the cost of food or housing. The amount granted each student depends on the number of requests received. To apply for a subsidy, submit a proposal by e-mail to be received by 9 April 2018 to: Jolene Ehl, [jehl@acousticalsociety.org](mailto:jehl@acousticalsociety.org). The proposal should include your status as a student; whether you have submitted an abstract; whether you are a member of ASA; method of travel.

### **YOUNG INVESTIGATOR TRAVEL GRANTS**

The Committee on Women in Acoustics (WIA) is sponsoring a Young Investigator Travel Grant to help with travel costs associated with presenting a paper at the Minneapolis meeting. Young professionals who have completed their doctorate in the past five years are eligible to apply if they plan to present a paper at the Minneapolis meeting, are not currently students, and have not previously received the award. Each award will be of the order of \$500 with four awards anticipated. Awards will be presented by check at the WIA luncheon at the meeting. Both men and women may apply. Applicants should submit a request for support, a copy of the abstract for their presentation at the meeting, and a current resume/vita which includes information on their involvement in the field of acoustics and in the ASA. Submit materials by e-mail to Laura Kloepper <[lkloepper@saintmarys.edu](mailto:lkloepper@saintmarys.edu)>. Deadline for receipt of applications is 5 March 2018.

### **DEPENDENT CARE SUBSIDIES**

The Committee on Women in Acoustics (WIA) is sponsoring a Dependent Care Subsidy to help with dependent care costs associated with attending the Minneapolis meeting. Meeting attendees are eligible to apply if they plan to present a paper at the Minneapolis meeting or hold a leadership position in ASA. Each subsidy will be of the order of \$500 with four awards anticipated. Both men and women may apply. Applicants should submit a paragraph describing how the funds would assist their dependent care expenses, a copy of the abstract for their presentation at the meeting and/or a paragraph describing their leadership position in ASA. Submit materials by e-mail to Kari Harper <[kharper@nist.gov](mailto:kharper@nist.gov)>. Deadline for receipt of applications is 5 March 2018.

## **STUDENT ACTIVITIES**

### **STUDENT ORIENTATION AND MEET AND GREET**

A New Students Orientation will be held from 5:00 p.m. to 5:30 p.m. on Monday, 7 May, for all students to learn about the activities and opportunities available for students at the Minneapolis meeting. This will be followed by the Student Meet and Greet from 5:30 p.m. to 6:45 p.m. where refreshments and a cash bar will be available.

### **STUDENTS' RECEPTION**

The Students' Reception will be held on Wednesday, 9 May, from 6:00 p.m. to 8:00 p.m. This reception, sponsored by the Acoustical Society of America and supported by the National Council of Acoustical Consultants, will provide an opportunity for students to meet informally with fellow students and other members of the Acoustical Societies of America and Japan. All students are encouraged to attend, especially students who are first time attendees or those from smaller universities.

### **STUDENTS MEET MEMBERS FOR LUNCH (SMMfL)**

A student in the SMMfL program meets one-on-one with an ASA member over lunch during the ASA meeting. The purpose is to encourage students, as they embark on their acoustical careers, to network with more senior members. Each lunch pairing is arranged to ensure a good match between the student's and member's acoustical interests. Each participant pays for his/her own meal. Students who wish to participate should check the SMMfL check box in the on-line pre-registration form. They will be contacted later for additional information to assist with the matching process. The Students Meet Members for Lunch program is sponsored by the Committee on Education in Acoustics.

### **OTHER INFORMATION FOR STUDENTS**

Students are also encouraged to visit the official ASA Student Home Page at <http://asastudentcouncil.org/>.

# PLENARY SESSION, AWARDS CEREMONY, SOCIAL EVENTS, LUNCHEONS

## PLENARY SESSION AND AWARDS CEREMONY

The ASA Plenary session will be held Wednesday afternoon, 9 May, where Society awards will be presented and recognition of newly-elected Fellows will be announced.

## SOCIAL HOURS

Two socials with complimentary buffets and cash bars will be held on Tuesday and Thursday, 8 and 10 May at the Hyatt Regency Minneapolis.

The ASA hosts these social hours to provide a relaxing setting for meeting attendees to meet and mingle with their friends and colleagues as well as an opportunity for new members and first-time attendees to meet and introduce themselves to others in the field. A second goal of the socials is to provide a sufficient meal so that meeting attendees can attend the open meetings of the Technical Committees that begin immediately after the socials.

## WOMEN IN ACOUSTICS LUNCHEON

The Women in Acoustics luncheon will be held on Wednesday, 9 May. The fee is USD \$25 (students USD \$15) for pre-registration by 9 April 2018 and USD \$30 (students USD \$15) at the meeting. Those who wish to attend this luncheon must register online at <http://AcousticalSociety.org> or use the form on page 22.

## SOCIETY LUNCHEON AND LECTURE

A Society Luncheon and Lecture sponsored by the College of Fellows will be held Thursday, May 10, at 12:00 noon. This luncheon is open to all attendees and their guests. Our program will be presented by members of Cantus, the acclaimed men's vocal ensemble ([cantussings.org](http://cantussings.org)). Cantus has been lauded as the premier men's vocal ensemble in the United States. They are committed to ensuring the future of ensemble singing by mentoring young singers and educators. Since the very early years, Cantus has been offering master classes and lectures. Register online at [AcousticalSociety.org](http://AcousticalSociety.org) or use the form on page 22. Tickets cost USD \$30.00 each.

## JAM SESSION

Once again the College of Fellows will be hosting the ASA Jam Session on Wednesday, 10 May, at 8:00 p.m.. Bring your axe, horn, sticks, voice, or anything else that makes music. Musicians and non-musicians are all welcome to attend. A full PA system, backline equipment, guitars, bass, keyboard, and drum set will be provided. All attendees will enjoy live music, a cash bar, and all-around good times. Don't miss out.

## TRANSPORTATION AND TRAVEL INFORMATION

### AIR TRANSPORTATION

The Minneapolis-St Paul International Airport (MSP), is the country's 14th busiest travel hub with 34 million passengers passing through each year. MSP's central location offers a speedy trip (15 – 30 minutes) to the city.

Travelers who need to transfer from one terminal to the other use the light rail transit service. Trains operate 24 hours a day between terminals. No fare is required between airport stations. There is no pedestrian access between the buildings.

Transportation to downtown Minneapolis: Catch the Blue Line and enjoy the ride from MSP Airport.

### GROUND TRANSPORTATION

**Light Rail:** The Terminal 1 light rail station is located below the Transit Center, between the Blue and Red ramps. From the Tram Level (one level below bag claim), take the tram to the Transit Center. When you exit the tram, follow the signs to the light rail station.

The Terminal 2 light rail station is located on the north side of the Orange Ramp. From Level 1 near Ticketing take the elevator or escalator up to the Orange Ramp skyway. Follow the signs to the LRT station. Take the escalators or elevators down one level to the station platform.

The light rail stations are fully accessible.

Take the Blue Line to the Nicollet Avenue stop, the hotel is 8 blocks south on Nicollet Avenue. You can use your Light Rail ticket to take a bus on Nicollet Mall to 13th Street. Fares are \$2.00 for Off-Peak times and \$2.50 from 6-9 am and 3-6:30 pm.

**Taxi:** Taxi service at Terminal 1 is accessible via the Tram Level (Level T). Signs direct passengers one level up to the taxi starter booth, where airport staff will assist passengers in obtaining a taxi. At Terminal 2, taxi service is available at the Ground Transport Center, located on the ground level of the Purple Ramp directly across from the terminal building.

Downtown Minneapolis is approximately 12 miles from the airport, with fares averaging \$39-\$49.

**Uber, Lyft, app-based ride service:** If you plan to use Uber, Lyft, or another app-based ride service at Terminal 1, your ride will pick you up on Level 2 of the Green Parking Ramp, above the Ground Transportation Center. Pick up is available from the Ground Transport Center for Terminal 2, on the ground level of the Purple parking ramp.

**Airport Shuttle:** Shared ride service to and from the airport is available through SuperShuttle. Ticket counters are located in the Terminal 1-Lindbergh Ground Transport Center, accessible via the terminal's Tram Level. Follow the signs to the escalator or elevator up. Advance reservations are highly recommended. Travelers arriving at Terminal 2-Humphrey can call for pick up at the Super Shuttle kiosk in the Ground Transport Center, located on Level 1 of the Purple Ramp across from the terminal building.

**Car Rental:** On-airport rental car counters at Terminal 1 are located on the second and third levels between the Blue and Red parking ramps. Passengers can take the underground tram to the ramps and then take an elevator to the second or third floor. At Terminal 2, on-airport rental car counters are located in the Ground Transport Center on the ground level of the Purple Ramp directly across from the terminal building.

Driving from the airport to the Hyatt Regency, take Airport Rd to MN-5 East. Take first ramp right to MN-55 West toward Minneapolis. Keep straight onto MN-62 West. Take ramp right and follow signs for I-35W North. At Exit 16A, take ramp left for MN-65 North toward Downtown Exits. Take ramp right and follow signs for 11th Street / E Grant Street. Bear left onto S 11th Street, then turn left onto S 2nd Avenue, then keep left onto E Grant Street. Turn right onto Nicollet Mall and then left into the hotel garage or entry.

### **DRIVING DIRECTIONS/PARKING INFORMATION**

Minneapolis is at the intersection of Interstate 35W from the north and south, Interstate 94 from the east and northwest, and I-394 from the west. It can be reached by car in 8 hours or less from Chicago, IL, Kansas City, MO, Omaha, NB, and Green Bay, WI.

Eastbound on I-394: Take I-394 E to exit 9A for 12th Street N. Turn right onto N 12th Street. Turn right onto LaSalle Avenue. Turn left onto W Grant Street. Turn left onto Nicollet Mall and then left into the hotel garage or entry.

Eastbound on I-94: Take I-94 E to exit 231A-231B for Lyndale Ave/I-394 W/US-12 W toward Hennepin Ave. Keep left to continue on Exit 231B, follow signs for Hennepin Avenue/Lyndale Avenue and merge onto West Lyndale Ave N and continue onto Lyndale Ave S. Turn left onto Oak Grove Street, then continue onto W 15th Street. Turn left onto Nicollet Mall and then left into the hotel garage or entry.

Westbound on I-94: Take I-94 W to exit 233A. Merge onto E Grant Street, then continue onto S 11th Street. Turn left onto S 2nd Avenue, then keep left onto E Grant Street. Turn right onto Nicollet Mall and then left into the hotel garage or entry.

Northbound on I-35W: Take I-35W N to Exit 16A. Take ramp left for MN-65 North toward Downtown Exits. Take ramp right and follow signs for 11th Street / E Grant Street, then bear left onto S 11th Street. Turn left onto S 2nd Avenue, then keep left onto E Grant Street. Turn right onto Nicollet Mall and then left into the hotel garage or entry.

Southbound on I-35W: Take I-35W S to exit 17B to merge onto I-94 W. Take exit 233A from I-94 W. Merge onto E Grant Street, then continue onto S 11th Street. Turn left onto S 2nd Avenue, then keep left onto E Grant Street. Turn right onto Nicollet Mall and then left into the hotel garage or entry.

Hotel valet parking is \$38/day, self-parking is \$20/day.

## HOTEL RESERVATION INFORMATION

A block of guest rooms at discounted rates has been reserved for meeting participants at the Hyatt Regency Minneapolis Hotel. **Early reservations are strongly recommended.** Special ASA meeting rates are not guaranteed after **Monday, 16 April 2018 at 11:59 p.m. CST.**

**Hyatt Regency Minneapolis  
1300 Nicollet Mall, Minneapolis, MN 55403**

Please make your reservation directly with the Hyatt Regency Minneapolis. Online reservations are recommended.

### HOTEL POLICIES

- Check in time: 3:00 p.m./Check out time: 12:00 noon
- An early departure fee of one night's room and tax will be assessed against any guest who departs earlier than the date confirmed at check-in. The fee will be automatically posted to the guest folio on or after departure. This fee will be waived only with 24-hour advance notice from departure date.
- Reservation cancellations are required within seventy two (72) hours prior to the day of arrival. A charge of first (1st) night's room and tax will be applied if a reservation is not cancelled or the guest does not arrive (no-show).
- Reservations in ASA group: Complimentary internet access in sleeping rooms.

### RESERVATION PROCEDURES

#### Online Reservations

Reservations can be made directly online at the website listed below, which has been set up specifically for the meeting where the meeting rates and all applicable information is incorporated.

<https://aws.passkey.com/go/AcousticalSocietyofAmerica2018>

#### Telephone Reservations

Online reservations are recommended. When making reservations by phone you must mention the Acoustical Society of America to obtain the special ASA room rates:

(888) 421-1442

### ROOM RATES

Single/Double: USD \$185 / Triple: USD \$210

Taxes and Fees:  
13.15%

**Reservation cut-off date: 16 April 2018 at 11:59 p.m. CST**

## **GENERAL INFORMATION**

### **ROOM SHARING**

ASA will compile a list of those who wish to share a hotel room and its cost. To be listed, send your name, telephone number, e-mail address, gender, smoker or nonsmoker preference, not later than 9 April 2018 to the Acoustical Society of America, by e-mail, [asa@acousticalsociety.org](mailto:asa@acousticalsociety.org). The responsibility for completing any arrangements for room sharing rests solely with the participating individuals.

### **COMMITTEE MEETINGS**

Meetings of Administrative, Technical and Standards Committees, including Working Groups, will be announced in the meeting program if requests are received not later than 20 November 2017. Requests for meeting space, special luncheons, etc., should be made as early as possible to: Jolene Ehl, [jehl@acousticalsociety.org](mailto:jehl@acousticalsociety.org). Reservations will not be taken by phone. Requesters should note that space is limited, and that late requests can be filled only on a space-available basis.

### **SPECIAL ACCESSIBILITY**

Meeting attendees who have special accessibility requirements, should indicate their needs by informing ASA at [asa@acousticalsociety.org](mailto:asa@acousticalsociety.org) not less than 30 days in advance of the meeting. Please provide a cell phone number, e-mail address, and detailed information so that we may contact you directly.

### **ACCOMPANYING PERSONS PROGRAM**

Accompanying Persons and other visitors are welcome at the Minneapolis meeting. The registration fee for accompanying persons is USD \$150 for preregistration by 9 April 2018 and USD \$200 thereafter, including on-site registration at the meeting. There will be a hospitality room in the hotel for participants. The program will include speakers on the history and culture of the city. Check back to the meeting website for updated information.

Minneapolis is a city rich in music, architecture and cultural institutions, as well as a hub for sports and shopping. Within a short walk of the hotel are dozens of museums and landmarks as well as a broad range of culinary experiences. There are also a variety of excellent tours from which to choose.

### **WEATHER**

In Minneapolis, the month of May is characterized by rapidly rising daily high temperatures, with daily highs increasing by 10°F, from 64°F to 74°F over the course of the month, and rarely exceeding 85°F or dropping below 51°F. The average high and low temperatures are 66°F and 46°F, respectively. The probability of rainfall is 32% during the beginning of May.

## REGISTRATION INFORMATION

The registration desk at the meeting will open on Monday morning, 7 May. Register online at <http://AcousticalSociety.org> or use the form on page 22. **If your preregistration is not received by 9 April 2018 you must register on-site.**

Registration fees in USD are follows:

<u>Category</u>	<u>Preregistration by 9 April</u>	<u>Onsite Registration</u>
ASA Members	\$550	\$650
ASA/ Members One-Day Attendance <sup>(1)</sup>	\$275	\$375
Nonmembers	\$700	\$800
Nonmembers One-Day Attendance <sup>(1)</sup>	\$350	\$450
Nonmember Invited Speakers One-Day Attendance <sup>(1)</sup>	\$0	\$0
Nonmember Invited Speakers—Full Week	\$350	\$350
ASA Early Career Associate or ASA Full Members (Members within 3 years of their most recent degree— proof of date of degree required)	\$275	\$375
ASA Student Members (must show current Student ID) <sup>(2)</sup>	\$100	\$150
Nonmember Students (must show current Student ID) <sup>(2)</sup>	\$200	\$250
Undergraduate Students (must show current Student ID) <sup>(2)</sup>	\$25	\$25
ASA Emeritus Members <sup>(3)</sup> (Must hold Emeritus status in advance of the meeting)	\$150	\$200
Accompanying Persons <sup>(4)</sup> (Registrants who will not participate in the technical sessions)	\$150	\$200

**Nonmembers** who register for the full meeting week and simultaneously apply for Associate Membership in the ASA are entitled to USD\$50 discount off their dues payment for 2018. Invited speakers who are members of the Acoustical Society of America are expected to pay the registration fee, but **nonmember invited speakers** may register for one-day only without charge. A nonmember invited speaker who pays the full-week registration fee, will be given one free year of membership upon completion of an application form.

**Note: A USD \$25 fee will be charged for cancellations after 9 April 2018.**

### **Registration Policies:**

1. **One-day registration:** For participants who attend the meeting for one day only. If you will be at the meeting for more than one day either presenting a paper and/or attending sessions, you must register and pay the full registration fee.
2. **Students:** All students must show a current (issued in 2017 or 2018) student id card or verification of student status from the university attended on university letterhead in order to be eligible for student fees. If proof of student status is not available, the full registration fee must be paid.
3. **Emeritus Members:** Only ASA members who hold emeritus status prior to the meeting are eligible for this rate. It is not possible to transfer to emeritus status at the meeting.
4. **Accompanying Persons:** These are attendees who will participate only in the Accompanying Persons Program. Acoustics professionals, who participate in the technical program, i.e., present papers, attend sessions, and/or listed as coauthors on abstracts are not eligible for this registration rate.

Please type or print clearly

[ ] Check here if first time attending an ASA meeting

\_\_\_\_\_  
Last Name (Surname)

\_\_\_\_\_  
First Name Middle Initial

\_\_\_\_\_  
Name as it should appear on your badge

\_\_\_\_\_  
Company/Organization (will be printed on badge)

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State or Province Zip/Postal Code

\_\_\_\_\_  
Country

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
E-mail Address

\_\_\_\_\_  
Name of Accompanying Guest (for badge)

Mail form with payment to:  
Acoustical Society of America  
1305 Walt Whitman Rd., Suite 300  
Melville, NY 11747-4300  
FAX (payment by credit card only): 631-923-2875

**If your registration is not received at the ASA headquarters by 9 April 2018 you must register on-site. Preregistrations received after 9 April 2018 will not be processed.**

	up to 9 April	Onsite	
ASA Members	\$550	\$650	\$ _____
ASA Members One-Day Circle Day: M T W T F	\$275	\$375	\$ _____
Nonmembers	\$700	\$800	\$ _____
Nonmembers One-Day Circle Day: M T W T F	\$350	\$450	\$ _____
Nonmember Invited Speakers (One-Day Only) Circle Day: M T W T F	\$0	\$0	\$ _____
Nonmember Invited Speakers (More than One-Day) (includes 1 year membership in ASA upon completion of an application)	\$350	\$350	\$ _____
ASA Early Career Associate (ASA members within 3 years of their most recent degrees—proof of date of degree required)	\$275	\$375	\$ _____
ASA Student Members (attach current student ID)	\$100	\$150	\$ _____
Nonmember Students (attach current student ID)	\$200	\$250	\$ _____
Undergraduate Students (attach current student ID)	\$25	\$25	\$ _____
ASA Emeritus (pre-approved by ASA)	\$150	\$200	\$ _____
Accompanying Persons (Registrants who will not attend or participate in technical sessions)	\$150	\$200	\$ _____
<b>OPTIONS</b>			
Technical Tour	\$20	\$20	\$ _____
Intl. Quiet Ocean Experiment	\$0	\$0	\$ _____
Women in Acoustics Luncheon Students	\$15	\$15	
Nonstudents	\$25	\$30	\$ _____
Society Luncheon and Lecture	\$30	\$30	\$ _____
<b>TOTAL REMITTANCE (U.S. Dollars)</b>			\$ _____

**PAYMENT METHOD**

Check or money order payable to the Acoustical Society of America  
(Note: Checks must be drawn on a U.S. bank in U.S. dollars. Non-U.S.  
bank drafts and wire transfer will not be accepted)

VISA       MasterCard       American Express

\_\_\_\_\_  
Card Number                      Exp. Date                      Security Code

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print name above as it appears on card

## INSTRUCTIONS FOR SUBMITTING ABSTRACTS ONLINE

Complete instructions for the preparation and submission of abstracts is provided online.

Acknowledgment that your abstract has been received will be sent by e-mail. **Please note that if you do not receive an email message your abstract has not been entered into the database.**

1. Online Abstract Submission site is accessed on the ASA Home Page at <http://AcousticalSociety.org>
2. Click "Submit Abstract for the Minneapolis meeting" from the main page
3. You must first create an account and set up a username and password if you have not already done that in connection with submission of abstracts for prior ASA meetings.
4. After logging into the submission site, click the "Submission" tab.
5. To begin a new abstract click "Create a New Abstract" in the sidebar located on the left-hand side of the screen.
6. If at any time during the submission process you need technical support click the "Get Help Now" button at the top of the screen.
7. Abstracts are limited to 200 words (approximately 1500 characters).
8. The body of the abstract can be cut and pasted into the submission site. Note that LaTeX coding must be entered using the Special Character palette which appears on the Title/Body Screen.
9. Enter all authors and their affiliations in the order they should appear in the abstract. **Note: Only one affiliation may be included for each author.**
10. Carefully check the proof of your abstract. Make sure all special characters and formatting are displaying properly and that the authors and affiliations are listed in the proper order.
11. When all the required information for your submission is entered, the "Submit Abstract" button will appear at the Proof and Submit stage. Click the "Submit Abstract" button to submit the abstract.
12. Upon submission of your abstract you will receive an e-mail confirmation.
13. To view or edit an existing submission click "View Submissions" in the sidebar located on the left-hand side of the screen.
14. To edit an existing submission you must select "Return to Draft" and then select "Edit." All abstracts that are returned to draft must be resubmitted to be entered into the system. If not, the submission will remain in the Drafts table.

## ASA BEST PAPER AWARDS FOR STUDENTS AND YOUNG PRESENTERS

Several ASA Technical Committees offer Best Paper Awards to students and young presenters who present papers at Society meetings. If you want your paper to be considered for an award, you must indicate this when you submit your abstract. Follow the instructions for the appropriate technical area that appear below.

### ASA BEST STUDENT PAPER AWARDS

**Committees Offering These Awards:** Acoustical Oceanography, Animal Bioacoustics, Architectural Acoustics, Engineering Acoustics, Musical Acoustics, Speech Communication, Structural Acoustics and Vibration, and Underwater Acoustics

**Award Amounts:** For each of the Technical Committees granting awards, up to two awards will be presented to students presenting papers in sessions organized by the specific Technical Committee: USD \$300 for first prize and USD \$200 for second prize.

**Qualifications:**

To qualify for each of these awards, an author must:

- ▶ be enrolled as a student at least half-time (graduates are eligible if the work being presented was performed as a student within one year of the meeting). Note that you do not need to be a member of the ASA to qualify.
- ▶ be listed as the first author on the submitted abstract
- ▶ present the paper at the meeting

**Special Note for Speech Communication entries:** Choose Poster Only as your preferred presentation type during the abstract submission process to be eligible for the Best Student Poster Award Competition for Speech Communication. If you do not choose 'Poster Only' and your paper is subsequently assigned to an oral presentation, you cannot be considered for the Best Student Poster Award Competition for Speech Communication

**Selection:** The award winners will be selected by a subcommittee of each of the Technical Committees granting awards, based upon the quality of both the content of the paper and its presentation. The awards will be announced either at the meeting of the Technical Committee or after the close of the meeting.

**Application:** All those who wish to participate in the competition for these awards must indicate their intention to enter the competition during the abstract submission process by clicking the entry box on the online submission form.

### BIOMEDICAL ACOUSTICS STUDENT PAPER AWARD

The ASA Technical Committee on Biomedical Acoustics offers a Best Student Poster Award to students who present at spring meetings. Students who enter the competition are expected to give an oral presentation in a regular/special session and defend a poster in a separate student poster session. Only the poster presentation will be judged for the competition. Abstracts submitted by students who elect to participate in the competition will be listed in the program in appropriate oral sessions. Please read the entry qualifications that appear below to be sure you are eligible and follow the instructions for entering the competition.

**Award Amounts:**

Up to three awards will be presented to students presenting papers in sessions organized by the Technical Committee on Biomedical Acoustics and participating in the special student poster session: USD\$500 for first prize, USD\$300 for second prize, and USD\$200 for third prize.

**Qualifications:**

To qualify for an award, a student must:

- ▶ be enrolled as a student at least half-time (graduates are eligible if the work being presented was performed as a student within one year of the meeting). Note that you do not need to be a member of the ASA to qualify.
- ▶ be listed as the first author on the submitted abstract
- ▶ present the paper at the meeting
- ▶ defend the poster at a special student poster session, which will be open to all attendees

**Selection:**

The awardees will be selected by a panel of judges, based upon the quality of the content of the poster and a brief presentation to the judges during a designated poster session. The award winners will be announced either at the meeting of the Biomedical Acoustics Technical Committee or after the close of the meeting.

**Application:**

All those who wish to participate in the competition must indicate their intention by clicking the entry box on the online abstract submission form. Additional details will be sent to entrants after the program has been organized.

## ASA BEST "OUTSTANDING PAPER BY A YOUNG PRESENTER" AWARDS

Note that you need not be a student to qualify for these two awards.

**Committees Offering These Awards:** Noise and Signal Processing in Acoustics

**Award Amounts:** Noise - Up to three awards of up to USD \$250 each will be given for outstanding papers presented in sessions organized by the Technical Committee on Noise.

Signal Processing - One award of USD \$500 will be given for outstanding paper presented in a session organized by the Technical Committee on Signal Processing in Acoustics.

**Qualifications:**

To qualify for an award, the paper author must:

- ▶ be under 30 years of age as of 1 January 2018
- ▶ be listed as the first author of the paper and actually present the paper

**Selection:** Selection of the award winners will be based on the quality of the presented paper, comprising both the content and its delivery. The award winners will be chosen by a subcommittee of the Technical Committee and will be announced after the close of the meeting.

**Application:** The Award Subcommittees would like to consider papers by all authors who meet the eligibility criteria. Neither membership in the Acoustical Society, nor previous experience in the ASA, is required. Because the committees have no other way to identify eligible authors, however, it is essential that eligible authors indicate their intention to enter the competition during the abstract submission process by clicking the entry box on the online submission form.

### 175<sup>TH</sup> Meeting Committee

Cochairs ..... Peggy B. Nelson, Bruce C. Olson  
Technical Program Chair ..... Andrew Oxenham  
Accompanying Persons ..... Alan Nelson, Milton Salcedo  
Student Coordinators ..... Benjamin Munson, Adam Svec  
Signs (attach student ID)  
Matt Hildebrand  
Technical Tours ..... Peggy B. Nelson, Bruce C. Olson