

# 3rd Joint Meeting: Acoustical Society of America and European Acoustics Association

The 3rd Joint Meeting of the Acoustical Society of America and the European Acoustics Association, which incorporates the 173rd Meeting of the Acoustical Society of America and the 8th Forum Acusticum, will be held Sunday through Thursday, 25–29 June 2017 at the John B. Hynes Veterans Memorial Convention Center

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## 1. VENUE AND HOTEL INFORMATION

All meeting events, excluding some committee meetings, will be held at The John B. Hynes Veterans Memorial Convention Center which is located in Boston's historic Back

Bay neighborhood [900 Boylston Street, Boston, MA 02115; T: 617-954-2000].

The deadline for making hotel reservations has passed. Please visit the meeting webpage for information about hotels close to the convention center.

## 2. TRANSPORTATION AND TRAVEL

### AIR

Logan International Airport is located a convenient two miles from the city center, with several public airport transportation options from downtown and suburban locations. There are approximately 40 airlines that serve Boston.

### RAIL

Amtrak passenger rail service connects Boston, New York, Washington, D.C., Philadelphia, Baltimore, Portland (Maine) and other points nationwide. Amtrak trains depart from South Station (Red Line), Back Bay Station (Orange Line) and North Station (Green and/or Orange Line). Amtrak's high-speed train Acela provides fast service along the Northeast Corridor High-Speed Rail between Washington, New York and Boston.

### BUS SERVICE

Nationwide bus companies stop downtown at South Station (adjacent to the South Station train terminal). Ticket counters are located on the third level of the Transportation Center. For information, call the South Station Bus Terminal at 617-737-8040.

### AUTO

There are three main routes into Boston: I-90 (Massachusetts Turnpike) from the West; I-95 from the North and South; I-93 from the North and South. Driving directions can be obtained from sources such as Google Maps or Mapquest. See the Ground Transportation section of this document for specific driving directions and parking information.

### LOCAL TRANSPORTATION

Local transportation details can be found at <http://www.mta.com/>. Ground transportation options include the "T"-Boston's public transportation system, known as the "T", offers subway, bus, trolley car and boat service to just about everywhere in the Greater Boston area and beyond, Logan Express to Back Bay, taxis, and Uber.

Taxi service from Logan International Airport to most hotels in Boston and Cambridge costs approximately \$25-\$35.00, one way.

The Hynes Convention Center is conveniently located close to four T stops – the Hynes Convention Center stop, Prudential Center stop, and Copley Square stop on the Green Line and the Back Bay stop on the Orange Line.

### DRIVING/PARKING INFORMATION

Driving directions to the Hynes Convention center can be found at [http://s3.amazonaws.com/signatureboston/documents/HynesDirections\\_1.pdf](http://s3.amazonaws.com/signatureboston/documents/HynesDirections_1.pdf)

Within a three-block walk of the Hynes Convention Center are numerous parking garages totaling over 4,400 spaces. There

is limited meter parking available around the Hynes and adjacent streets. Sample rates are \$34 up to 12 hours; \$38 12 to 24 hours. Download a guide of nearby garages for a full list of options.

### 3. STUDENT TRANSPORTATION SUBSIDIES

To encourage student participation, limited funds are available to defray partially the cost of travel expenses of students to attend Acoustical Society meetings. Instructions for applying for travel subsidies are given in the Call for Papers which can be found online at <http://acousticalsociety.org>. The deadline for the present meeting has passed but this information may be useful in the future.

### 4. MESSAGES FOR ATTENDEES

A message board will be located in Exhibit Hall D near the ASA registration desk. Check the board during the week as messages may be posted by attendees who do not have cell phone numbers of other attendees.

### 5. REGISTRATION

Registration is required for all attendees and accompanying persons. Registration badges must be worn in order to participate in technical sessions and other meeting activities.

Registration will open on Saturday, 24 June, 1:00 p.m. in Exhibit Hall D (see floor plan on page A15).

Checks or travelers checks in U.S. funds drawn on U.S. banks and Visa, MasterCard and American Express credit cards will be accepted for payment of registration. Meeting attendees who have pre-registered may pick up their badges and registration materials at the pre-registration desk.

The registration fees (in USD) are \$675 for Full Registration; \$150 for Student Registration, \$200 for Emeritus Members (Emeritus status pre-approved by ASA or EAA), and \$200 for accompanying persons.

**Special note to students who pre-registered online: You will also be required to show your student id card when picking-up your registration materials at the meeting.**

### 6. TECHNICAL SESSIONS

The technical program includes 230 sessions with over 2200 abstracts scheduled for presentation during the meeting.

A floor plan of the Hynes Convention Center appears on pages A13–A16. Session Chairs have been instructed to adhere strictly to the printed time schedule, both to be fair to all speakers and to permit attendees to schedule moving from one session to another to hear specific papers. If an author is not present to deliver a lecture-style paper, the Session Chairs have been instructed either to call for additional discussion of papers already given or to declare a short recess so that subsequent papers are not given ahead of the designated times.

Several sessions are scheduled in poster format, with the display times indicated in the program schedule.

### 7. TECHNICAL SESSION DESIGNATIONS

The first character is a number indicating the day the session will be held, as follows:

- 1-Sunday, 25 June
- 2-Monday, 26 June
- 3-Tuesday, 27 June
- 4-Wednesday, 28 June
- 5-Thursday, 29 June

The second character is a lower case “a” for a.m., “p” for p.m., or “e” for evening corresponding to the time of day the session will take place. The third and fourth characters are capital letters indicating the primary Technical Area sponsor of the session using the following abbreviations or codes:

- AA Architectural Acoustics
- AB Animal Bioacoustics
- AO Acoustical Oceanography
- BA Biomedical Acoustics
- EA Engineering Acoustics
- ED Education in Acoustics
- ID Interdisciplinary
- MU Musical Acoustics
- NS Noise
- PA Physical Acoustics
- PP Psychological and Physiological Acoustics
- SA Structural Acoustics and Vibration
- SC Speech Communication
- SP Signal Processing in Acoustics
- UW Underwater Acoustics

In sessions where the same group is the primary organizer of more than one session scheduled in the same morning or afternoon, a fifth character, either lower-case “a,” “b,” “c,” “d,” “e,” or “f” is used to distinguish the sessions. Each paper within a session is identified by a paper number following the session-designating characters, in conventional manner. As hypothetical examples: paper 2pEA3 would be the third paper in a session on Monday afternoon organized by the Engineering Acoustics; 3pSAb5 would be the fifth paper in the second of two sessions on Tuesday afternoon sponsored by Structural Acoustics and Vibration.

Note that technical sessions are listed both in the calendar and the body of the program in the numerical and alphabetical order of the session designations rather than the order of their starting times. For example, session 3aAA would be listed ahead of session 3aAO even if the latter session begins earlier in the same morning.

### 8. OPENING SESSION AND CLOSING CEREMONY

The meeting will begin with Opening Ceremonies on Sunday, 25 June, at 8:00 a.m. in Ballroom B. The meeting will end with Closing Ceremonies on Thursday, 29 June, at 6:00 p.m. in Ballroom B.

### 9. KEYNOTE LECTURES

Four Keynote Lectures will be presented—two on Sunday morning, 25 June, one on Monday morning, 26 June, and one on Tuesday morning, 27 June. All plenary lectures will be held in Ballroom B.

Sunday, 25 June, 8:15 a.m. to 9:15 a.m. and 9:20 a.m. to 10:20 a.m.

Dr. Tuomas Virtanen of Tampere University of Technology, Finland, will present “Computational analysis of acoustics events in everyday environments”

Prof. Steven A. Cummer of Duke University, USA, will present “A sound future for acoustic metamaterials.”

Keynote Lectures on Sunday will be followed by a coffee break from 10:20 a.m. to 10:40 a.m. Morning sessions on Sunday will begin at 10:40 a.m.

**Monday, 26 June, 8:00 a.m. to 9:00 a.m.**

Prof. Constantin-C. Coussios of the University of Oxford, Oxford, UK, will present “Making, mapping and using acoustic nanobubbles for therapy.”

**Tuesday, 27 June, 8:00 a.m. to 9:00 a.m.**

Dr. Darlene R. Ketten, Harvard Medical School, Cambridge, US will present “Hearing as an extreme sport: Underwater ears, infra to ultrasonic and surface to the abyss.”

Keynote Lectures on Monday and Tuesday will be followed by a 20-minute break to allow the audience to move to technical sessions.

**10. WILLIAM AND CHRISTINE HARTMANN PRIZE IN AUDITORY NEUROSCIENCE AND THE AUDITORY NEUROSCIENCE PRIZE LECTURE**

The 2017 William and Christine Hartmann Prize in Auditory Neuroscience will be presented to Cynthia F. Moss, John Hopkins University, at the Plenary Session on Tuesday, 27 June. Cynthia Moss will present the Acoustics Education Prize Lecture titled “Active listening in 3D auditory scenes” on Sunday, 25 June, at 10:55 a.m. in Session 1aPPb, in Room 311.

**11. MEDWIN PRIZE IN ACOUSTICAL OCEANOGRAPHY AND ACOUSTICAL OCEANOGRAPHY PRIZE LECTURE**

The 2017 Medwin Prize in Acoustical Oceanography will be presented to Jennifer L. Miksis-Olds, University of New Hampshire, at the Plenary Session on Tuesday, 27 June. Jennifer Miksis-Olds will present the Acoustical Oceanography Prize Lecture titled “Exploring ocean ecosystems and dynamics through sound” on Sunday, 25 June, at 10:35 a.m. in Session 1aAO in Room 310.

**12. EXHIBIT AND EXHIBIT RECEPTION**

An instrument and equipment exhibit conveniently located near the registration area and meeting rooms, will be located in Exhibit Hall D.

The Exhibit 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.

The Exhibit will open with an evening reception on Sunday with lite snacks and a complimentary drink. Coffee breaks on Monday and Tuesday mornings will be held in the exhibit area as well as an afternoon break on Monday.

Exhibit hours are Sunday, 25 June, 5:30 p.m. to 7:00 p.m., Monday, 26 June, 9:00 a.m. to 5:00 p.m., and Tuesday, 27 June, 9:00 a.m. to 12:00 noon.

**13. RESUME HELP DESK**

Are you interested in applying for graduate school, a postdoctoral opportunity, a research scientist position, a faculty opening, or other position involving acoustics? If you are, please stop by the ASA Resume Help Desk in the Coral Foyer near the ASA registration desk. Members of the ASA experienced in hiring will be available review at your CV, cover letter, and research and teaching statements to provide tips and suggestions to help you most effectively present yourself in

today’s competitive job market. The ASA Resume Help Desk will be staffed on Monday, Tuesday, and Wednesday during the lunch hour (12:20 p.m. to 1.20 p.m.) for walk-up meetings in Exhibit Hall D.

Appointments during these three lunch hours will also be available via a sign-up sheet.

**14. TECHNICAL COMMITTEE OPEN MEETINGS**

Technical Committees will hold open meetings on Monday and Wednesday evenings at 8:00 p.m. following the Social Hours. The schedule and rooms for each Committee meeting are given on page A28

These are working, collegial meetings. Much of the work of the Society 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.

**15. TECHNICAL TOURS**

**Technical Tour – Berkeley College of Music – Tuesday, 27 June – 1:15 p.m. to 3:15 p.m. – Cost \$0 – Limited to 40 participants**

Berklee College of Music is a major contributor to the vibrancy and musical culture of Boston. Its outstanding world-renown programs include a rigorous core curriculum, instruction on a range of principal instruments, and a wide variety of majors and minors including jazz composition, music production and engineering, film scoring, performance, and electronic production and design.

One of Berklee’s most recent additions to its campus is right around the corner from the ASA Meeting site, and this exciting tour will include visits to major performance spaces, a new multi-purpose cabaret-style venue, recording studios, a “dub stage” and sound track production suite. These spaces include examples of room acoustics design for studios and rehearsal spaces, high sound isolation details, and state-of-the-art studio gear, all in a new stunning urban environment. The tour will include visits to these spaces with input from the acoustical designers (Acentech Incorporated and Walter Storyk Design Group), the architect, Berklee administration, as well as hands-on introduction to the studio equipment use by staff and students of the College, for interactive discussions on site.

Berklee College of Music is a short walking distance (across the street) from the Hynes Convention Center. The tour will depart from the street level foyer of the Hynes Convention Center at 1:15 p.m. and is planned to take 2 hours from departure to return.

**Tuesday, 27 June, 6:30 p.m. to 8:30 p.m.**

Note: If you are interested in attending, please send an RSVP by 23 June to Sarah DeRosa, [sederosa@mgh.harvard.edu](mailto:sederosa@mgh.harvard.edu).

The Center for Laryngeal Surgery and Voice Rehabilitation at the Massachusetts General Hospital (MGH Voice Center) brings together an interdisciplinary group of clinicians and scientists to integrate state-of-the-art clinical care with translational research in laryngeal surgery and voice disorders. The MGH Voice Center has a highly integrated combination of clinical and research facilities, including the Clinical Voice Research Laboratories and Laryngeal Surgery Research Laboratories.

During the Open House, attendees will have the opportunity to tour the Center's main outpatient and clinical research facility and to learn about current research programs, e.g., advanced laryngeal imaging, ambulatory voice monitoring/biofeedback, vocal system modeling, studies of vocal hyperfunction, etc.

#### **16. PLENARY SESSION AND AWARDS CEREMONIES**

A joint ASA/EAA plenary session and awards ceremonies will be held Tuesday, 27 June, in Ballroom B, 3:30 p.m. to 6:00 p.m.

ASA will present the following recognitions and awards:

The William and Christine Hartmann Prize in Auditory Neuroscience will be presented to Cynthia F. Moss. The Medwin Prize in Acoustical Oceanography will be presented to Jennifer L. Miksis-Olds. The R. Bruce Lindsay Award will be presented to Bradley E. Treeby. The Helmholtz-Rayleigh Interdisciplinary Silver Medal will be presented to Blake S. Wilson and the Gold Medal will be presented to William M. Hartmann.

Certificates will be presented to Fellows elected at the fall 2016 meeting of the Society. See page 3755 for a list of fellows.

EAA will present the EAA AWARD for lifetime achievements in acoustics to Hugo Fastl and the EAA AWARD for contributions to the promotion of Acoustics in Europe to Antonio Pérez López.

All attendees are welcome and encouraged to attend. Please join us to honor and congratulate these medalists and award recipients.

#### **17. ANSI STANDARDS COMMITTEES**

Meetings of ANSI Accredited Standards Committees will be held at Acoustics '17 Boston on Sunday and Monday, 25 and 26 June.

Meetings of selected advisory working groups are often held in conjunction with Society meetings and are listed in the Schedule of Committee Meetings and Other Events on page A28 or on the standards bulletin board in the registration area, e.g., S12/WGI8-Room Criteria.

People interested in attending and in becoming involved in working group activities should contact the ASA Standards Manager for further information about these groups, or about the ASA Standards Program in general, at the following address: Neil Stremmel, ASA Standards Manager, Standards Secretariat, Acoustical Society of America, 1305 Walt Whitman Road, Suite 300, Melville, NY 11747-4300; T.: 631-390-0215; F: 631-923-2875; E: asatds@acousticalsociety.org

#### **18. COFFEE BREAKS**

Morning coffee breaks will be held each day. On Sunday the break will be held from 10:20 a.m. to 10:40 a.m. in the prefunction foyer. Monday to Thursday the breaks will be held from 10.00 a.m. to 11:00 a.m. in Exhibition Hall D and the 3rd Floor Boylston Hallway. Morning breaks on Tuesday and Wednesday will be held in the Exhibit area.

There will also be an afternoon break on Tuesday from 3:00 p.m. to 4:00 p.m. in the Exhibit area.

#### **19. A/V PREVIEW ROOM**

Room 307 will be set up as an A/V preview room for authors' convenience, and will be available Sunday through Thursday from 7:00 a.m. to 6:00 p.m.

#### **20. PROCEEDINGS OF MEETINGS ON ACOUSTICS (POMA)**

Acoustics '17 Boston meeting will have a published proceedings, and submission is optional. Authors of Acoustics '17 Boston meeting papers are encouraged to submit a pdf manuscript to the meeting's volume of ASA's Proceedings of Meetings on Acoustics (POMA).

All authors of Acoustics '17 Boston meeting papers are encouraged to submit a pdf manuscript to Volume 30 of 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.
- Click here for additional information, including recent changes to the manuscript preparation/submission process.

#### **21. E-MAIL AND INTERNET ZONE**

Wi-Fi will be available in all ASA meeting rooms and spaces.

Computers providing e-mail access will be available 7:00 a.m. to 6:00 p.m., Monday to Friday in Exhibit Hall D. Tables with power cords will be set up in Exhibit Hall D for attendees to gather and to power-up their electronic devices.

#### **22. SOCIALS**

Socials will be held on Monday and Wednesday evenings, 6:30 p.m. to 8:00 p.m. in Ballroom B at the Hynes Convention Center.

These social hours 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 Technical Committees that begin immediately after the socials.

#### **23. STUDENTS MEET MEMBERS FOR LUNCH**

The ASA Education Committee arranges for a student to meet one-on-one with a member of the Acoustical Society over lunch. The purpose is to make it easier for students to meet and interact with members at ASA Meetings. Each lunch pairing is arranged separately. Students who are interested should contact Dr. David Blackstock, University of Texas at Austin, by email dtb@mail.utexas.edu. Please provide your name, university, department, degree you are seeking (BS, MS, or PhD), research field, acoustical interests, your supervisor's name, days you are free for lunch, and abstract number (or title) of any paper(s) you are presenting. The sign-up deadline is 12 days before the start of the Meeting, but an earlier sign-up is strongly encouraged. Each participant pays for his/her own meal.

## **24. STUDENT EVENTS: NEW STUDENTS ORIENTATION, MEET AND GREET, STUDENT RECEPTION**

### **Reception moved to Hilton Boston Back Bay Belvidere Room**

Follow the student twitter throughout the meeting @ ASASStudents.

A New Students Orientation will be held from 5:00 p.m. to 5:30 p.m. on Sunday, 25 June, in Room 208 for all students to learn about the activities and opportunities available for students at Acoustics '17 Boston meeting. This will be followed by the Student Meet and Greet from 5:30 p.m. to 7:00 p.m. in Room 300. Refreshments and a cash bar will be available.

The Students' Reception ~~will be held on~~ Tuesday, 27 June, from 6:00 p.m. to 8:00 p.m. in Room 102. 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 Society. All students are encouraged to attend, especially students who are first time attendees or those from smaller universities.

Students will find a ribbon in their registration envelopes to place on their name tags identifying them as students. Although wearing the sticker is not mandatory, it will allow for easier networking between students and other meeting attendees.

Students are encouraged to refer to the student guide, also found in their envelopes, for important program and meeting information pertaining only to students attending the ASA meeting.

They are also encouraged to visit the official ASA Student Home Page at <http://asastudentcouncil.org/> to learn more about student involvement in ASA.

## **25. WOMEN IN ACOUSTICS LUNCHEON**

The Women in Acoustics luncheon will be held at 11:45 a.m. on Tuesday, 27 June, in Room 102. Those who wish to attend must purchase their tickets in advance by 10:00 a.m. on Monday, 30 November. The fee is USD \$30 for non-students and USD \$15 for students.

## **26. JAM SESSION**

You are invited to Room 313 on Tuesday night, 27 June, from 8:00 p.m. to midnight for the ASA Jam. 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 with snacks, and all-around good times. Don't miss out.

## **27. ACCOMPANYING PERSONS PROGRAM**

Spouses and other visitors are welcome at Acoustics '17 Boston. The on-site registration fee for accompanying persons is USD \$200. This entitles access to the accompanying persons room, socials on Monday and Wednesday evenings, and the Jam Session.

A hospitality room for accompanying persons will be open in Room 101 at the Hynes Convention Center from 8:00 a.m. to 10:00 a.m. Sunday through Thursday.

Breakfast snacks including beverages will be provided.

## **28. HUNT RECOGNITION AND FUND RAISING INITIATIVE**

The Hunt Fellowship has been an outstanding feature of the Acoustical Society of America for 40 years. Recipients of the Fellowship have made major contributions to acoustical science and have served the Society in a variety of positions. An event to commemorate and celebrate this anniversary is being planned for the ASA's fall 2017 meeting to be held in New Orleans. In conjunction with that celebration, the Acoustical Society Foundation Fund, with the support of the Executive Council, is initiating a fund raising campaign to support Early Career Awards for development of talent within the Society. Details of the Hunt Recognition event and fund raising campaign are underway and further information will be distributed in the coming months.

## **29. WEATHER**

Summer can be delightful with the ocean breezes helping keep the humid temperatures in control. Evening temperatures can be cool and may require a light sweater. A sudden thunderstorm is not uncommon, so you may want to include an umbrella in your bag. Summers average high temperatures are above 80 °F (26.7 °C) and overnight lows above 60 °F (15.5 °C).

## **30. TECHNICAL PROGRAM ORGANIZING COMMITTEE**

Robert M. Koch (ASA) and Philippe Blanc-Benon (EAA), Technical Program Cochairs; Andone Lavery (ASA), Philippe Blondel (EAA), Acoustical Oceanography; Christine Erbe (ASA), Olivier Adam (EAA), Animal Bioacoustics; Kenneth Good (ASA), Monika Rychtáriková (EAA), Stefan Schoenwald (EAA), Architectural Acoustics; Nathan McDannold (ASA), Constantin-C. Coussios (EAA), Biomedical Acoustics; David T. Bradley (ASA), Catherine Potel (EAA), Education in Acoustics; Kenneth Walsh (ASA), Ondrej Jiricek (EAA), Engineering Acoustics; Andrew Morrison (ASA), David Sharp (EAA), Musical Acoustics; William Murphy (ASA), Jian Kang (EAA), Brigitte Schulte-Fortkamp (EAA), Noise; Joseph Gladden (ASA), Olga Umnova (EAA), Physical Acoustics; Magdalena Wojtczak (ASA), Armin Kohlrausch (EAA), Psychological and Physiological Acoustics; Paul Gendron (ASA), Boaz Rafaely (EAA), Signal Processing in Acoustics; Catherine Rogers (ASA), Alexander Raake (EAA), Speech Communication; Robert Koch (ASA), Manfred Kaltenbacher (EAA), Ines Lopez-Arteaga (EAA), Structural Acoustics and Vibration; Megan Ballard (ASA), Phillipe Blondel (EAA), Underwater Acoustics.

## **ASA TPOC ASSISTANTS**

Aaron Thode, Animal Bioacoustics; Damian Doria, Ian Hoffman, Architectural Acoustics; Siddhartha Sikdar, Kang Kim, Biomedical Acoustics; Eoin King, Daniel Russell, Education in Acoustics; Whitney Coyle, Peter Rucz, Musical Acoustics; James Phillips, Noise; Michael Haberman, Kevin Lee, Physical Acoustics; Melissa Baese-Berk, Alexander Francis, Kristin Van Engen, Speech Communication; Benjamin Shafer, Structural Acoustics and Vibration; Derek Olson, Underwater Acoustics; Kathy Whiteford, ASA Student Council.

### 31. MEETING ORGANIZING COMMITTEE

Damian Doria, ASA Cochair and Mats Åbom, EAA Cochair; David Feit, Treasurer; Daniel Farrell, Webmaster; Michael Stinson, Communications; Christopher Jasinski and Cristina Zamorano, Student Activities; Susan Fox, Elaine Moran, Secretariat

### 32. PHOTOGRAPHING AND RECORDING

Photographing and recording during regular sessions are not permitted without prior explicit permission of the presenter.

### 33. ABSTRACT ERRATA

This meeting program is Part 2 of the May 2017 issue of *The Journal of the Acoustical Society of America*. Corrections, for printer's errors only, may be submitted for publication in the Errata section of the *Journal*.

### 34. GUIDELINES FOR ORAL PRESENTATIONS

#### Preparation of Visual Aids

- See the guidelines for computer projection in the next section below.
- Allow at least one minute of your talk for each slide (e.g., PowerPoint). No more than 12 slides for a 15-minute talk (with 3 minutes for questions and answers).
- Minimize the number of lines of text on one visual aid. 12 lines of text should be a maximum. Include no more than 2 graphs/plots/figures on a single slide. Generally, too little information is better than too much.
- Presentations should contain simple, legible text that is readable from the back of the room.
- Characters should be at least 0.25 inches (6.5 mm) in height to be legible when projected. A good rule of thumb is that text should be 20 point or larger (including labels in inserted graphics). Anything smaller is difficult to read.
  - Make symbols at least 1/3 the height of a capital letter.
  - For computer presentations, use all of the available screen area using landscape orientation with very thin margins. If your institutions logo must be included, place it at the bottom of the slide.
  - Sans serif fonts (e.g., Arial, Calibri, and Helvetica) are much easier to read than serif fonts (e.g., Times New Roman) especially from afar. Avoid thin fonts (e.g., the horizontal bar of an e may be lost at low resolution thereby registering as a c.)
  - Do not use underlining to emphasize text. It makes the text harder to read.
  - All axes on figures should be labeled.
- No more than 3–5 major points per slide.
- Consistency across slides is desirable. Use the same background, font, font size, etc. across all slides.
- Use appropriate colors. Avoid complicated backgrounds and do not exceed four colors per slide. Backgrounds that change from dark to light and back again are difficult to read. Keep it simple.
  - If using a dark background (dark blue works best), use white or yellow lettering. If you are preparing slides that may be printed to paper, a dark background is not appropriate.

- If using light backgrounds (white, off-white), use dark blue, dark brown or black lettering.
- DVDs should be in standard format.

### PRESENTATION

- Organize your talk with introduction, body, and summary or conclusion. Include only ideas, results, and concepts that can be explained adequately in the allotted time. Four elements to include are:
  - Statement of research problem
  - Research methodology
  - Review of results
  - Conclusions
- Generally, no more than 3–5 key points can be covered adequately in a 15-minute talk so keep it concise.
- Rehearse your talk so you can confidently deliver it in the allotted time. Session Chairs have been instructed to adhere to the time schedule and to stop your presentation if you run over.
- An A/V preview room will be available for viewing computer presentations before your session starts. It is advisable to preview your presentation because in most cases you will be asked to load your presentation onto a computer which may have different software or a different configuration from your own computer.
- Arrive early enough so that you can meet the session chair, load your presentation on the computer provided, and familiarize yourself with the microphone, computer slide controls, laser pointer, and other equipment that you will use during your presentation. There will be many presenters loading their materials just prior to the session so it is very important that you check that all multi-media elements (e.g., sounds or videos) play accurately prior to the day of your session.
- Each time you display a visual aid the audience needs time to interpret it. Describe the abscissa, ordinate, units, and the legend for each figure. If the shape of a curve or some other feature is important, tell the audience what they should observe to grasp the point. They won't have time to figure it out for themselves. A popular myth is that a technical audience requires a lot of technical details. Less can be more.
- Turn off your cell phone prior to your talk and put it away from your body. Cell phones can interfere with the speakers and the wireless microphone.

### 35. SUGGESTIONS FOR EFFECTIVE POSTER PRESENTATIONS

#### Content

- The poster should be centered around two or three key points supported by the title, figures, and text. The poster should be able to “stand alone.” That is, it should be understandable even when you are not present to explain, discuss, and answer questions. This quality is highly desirable since you may not be present the entire time posters are on display, and when you are engaged in discussion with one person, others may want to study the poster without interrupting an ongoing dialogue.
- To meet the “stand alone” criteria, it is suggested that the poster include the following elements, as appropriate:
    - Background
    - Objective, purpose, or goal

- Hypotheses
- Methodology
- Results (including data, figures, or tables)
- Discussion
- Implications and future research
- References and Acknowledgment

### Design and Layout

- A board approximately 8 ft. wide × 4 ft. high will be provided for the display of each poster. Supplies will be available for attaching the poster to the display board. Each board will be marked with an abstract number.
- Typically posters are arranged from left to right and top to bottom. Numbering sections or placing arrows between sections can help guide the viewer through the poster.
- Centered at the top of the poster, include a section with the abstract number, paper title, and author names and affiliations. An institutional logo may be added. Keep the design relatively simple and uncluttered. Avoid glossy paper.

### Lettering and text

- Font size for the title should be large (e.g., 70-point font)
- Font size for the main elements should be large enough to facilitate readability from 2 yards away (e.g., 32 point font). The font size for other elements, such as references, may be smaller (e.g., 20–24 point font).
- Sans serif fonts (e.g., Arial, Calibri, Helvetica) are much easier to read than serif fonts (e.g., Times New Roman).
- Text should be brief and presented in a bullet-point list as much as possible. Long paragraphs are difficult to read in a poster presentation setting.

### Visuals

- Graphs, photographs, and schematics should be large enough to see from 2 yards (e.g., 8 × 10 inches).
- Figure captions or bulleted annotation of major findings next to figures are essential. To ensure that all visual elements are “stand alone,” axes should be labeled and all symbols should be explained.
- Tables should be used sparingly and presented in a simplified format.

### Presentation

- Prepare a brief oral summary of your poster and short answers to likely questions in advance.
- The presentation should cover the key points of the poster so that the audience can understand the main findings. Further details of the work should be left for discussion after the initial poster presentation.
- It is recommended that authors practice their poster presentation in front of colleagues before the meeting. Authors should request feedback about the oral presentation as well as poster content and layout.

### Other suggestions

- You may wish to prepare reduced-size copies of the poster (e.g., 8 1/2 × 11 sheets) to distribute to interested audience members.

## 36. GUIDELINES FOR USE OF COMPUTER PROJECTION

A PC computer with monaural audio playback capability and projector will be provided in each meeting room on which all authors who plan to use computer projection should load their presentations. Authors should bring computer presentations on a CD or 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. Assistance in loading presentations onto the computers will be provided.

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 during their presentations should insure that their sound files are also saved on the CD or USB drive.

### Introduction

It is essential that each speaker who plans to use his/her own laptop connect to the computer projection system in the A/V preview room prior to session start time to verify that the presentation will work properly. Technical assistance is available in the A/V preview room at the meeting, but not in session rooms. Presenters whose computers fail to project for any reason will not be granted extra time.

### Guidelines

- Set your computer’s screen resolution to 1024x768 pixels or to the resolution indicated by the AV technical support. If it looks OK, it will probably look OK to your audience during your presentation.
- Remember that graphics can be animated or quickly toggled among several options: Comparisons between figures may be made temporally rather than spatially.
- Animations often run more slowly on laptops connected to computer video projectors than when not so connected. Test the effectiveness of your animations before your assigned presentation time on a similar projection system (e.g., in the A/V preview room). Avoid real-time calculations in favor of pre-calculation and saving of images.
- If you will use your own laptop instead of the computer provided, connect your laptop to the projector during the question/answer period of the previous speaker. It is good protocol to initiate your slide show (e.g., run PowerPoint) immediately once connected, so the audience doesn’t have to wait. If there are any problems, the session chair will endeavor to assist you, but it is your responsibility to ensure that the technical details have been worked out ahead of time.
- During the presentation have your laptop running with main power instead of using battery power to insure that the laptop is running at full CPU speed. This will also guarantee that your laptop does not run out of power during your presentation.

### Specific Hardware Configurations

#### Macintosh

Older Macs require a special adapter to connect the video output port to the standard 15-pin male DIN connector. Make sure you have one with you.

- Hook everything up before powering anything on. (Connect the computer to the RGB input on the projector).
- Turn the projector on and boot up the Macintosh. If this doesn't work immediately, you should make sure that your monitor resolution is set to 1024x768 for an XGA projector or at least 640x480 for an older VGA projector. (1024x768 will most always work.). You should also make sure that your monitor controls are set to mirroring.

If it's an older PowerBook, it may not have video mirroring, but something called simulscan, which is essentially the same.

- Depending upon the vintage of your Mac, you may have to reboot once it is connected to the computer projector or switcher. Hint: you can reboot while connected to the computer projector in the A/V preview room in advance of your presentation, then put your computer to sleep. Macs thus booted will retain the memory of this connection when awakened from sleep.
- Depending upon the vintage of your system software, you may find that the default video mode is a side-by-side configuration of monitor windows (the test for this will be that you see no menus or cursor on your desktop; the cursor will slide from the projected image onto your laptop's screen as it is moved). Go to Control Panels, Monitors, configuration, and drag the larger window onto the smaller one. This produces a mirror-image of the projected image on your laptop's screen.
- Also depending upon your system software, either the Control Panels will automatically detect the video projector's resolution and frame rate, or you will have to set it manually. If it is not set at a commensurable resolution, the projector may not show an image. Experiment ahead of time with resolution and color depth settings in the A/V preview room (please don't waste valuable time adjusting the Control Panel settings during your allotted session time).

#### PC

- Make sure your computer has the standard female 15-pin DE-15 video output connector. Some computers require an adaptor.
- Once your computer is physically connected, you will need to toggle the video display on. Most PCs use either ALT-

F5 or F6, as indicated by a little video monitor icon on the appropriate key. Some systems require more elaborate keystroke combinations to activate this feature. Verify your laptop's compatibility with the projector in the A/V preview room. Likewise, you may have to set your laptop's resolution and color depth via the monitor's Control Panel to match that of the projector, which settings you should verify prior to your session.

#### Linux

- Most Linux laptops have a function key marked CRT/LCD or two symbols representing computer versus projector. Often that key toggles on and off the VGA output of the computer, but in some cases, doing so will cause the computer to crash. One fix for this is to boot up the BIOS and look for a field marked CRT/LCD (or similar). This field can be set to Both, in which case the signal to the laptop is always presented to the VGA output jack on the back of the computer. Once connected to a computer projector, the signal will appear automatically, without toggling the function key. Once you get it working, don't touch it and it should continue to work, even after reboot.

#### 37. DATES OF FUTURE ASA MEETINGS

For further information on any ASA meeting, or to obtain instructions for the preparation and submission of meeting abstracts, contact the Acoustical Society of America, 1305 Walt Whitman Road, Suite 300, Melville, NY 11747-4300; Telephone: 516-576-2360; Fax: 631-923-2875; E-mail: asa@acousticalsociety.org

- 173rd Meeting, Boston, Massachusetts, 25–29 June 2017  
(The 3rd joint meeting of the Acoustical Society of America and the European Acoustics Association)
- 174th Meeting, New Orleans, Louisiana, 4–8 December 2017
- 175th Meeting, Minneapolis, Minnesota, 7–11 May 2018
- 176th Meeting, Victoria, Canada, 6–9 November 2018
- 177th Meeting, Louisville, Kentucky, 13–17 May 2019
- 178th Meeting, TBD, fall 2019
- 179th Meeting, Chicago, Illinois, 11–15 May 2020
- 180th Meeting, Cancun, Mexico, fall 2020