

# 178th Meeting of the Acoustical Society of America

The 178th meeting of the Acoustical Society of America will be held Monday through Friday, 2–6 December 2019 at The Hotel del Coronado, San Diego, California, USA.

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## 1. HOTEL INFORMATION

The Hotel del Coronado is the headquarters hotel where all meeting events will be held.

The cut-off date for reserving rooms at special rates has passed. Please contact The Hotel del Coronado, 1500 Orange Avenue, Coronado, CA 92118 (800-468-3533/619-435-6611) for information about room availability.

## 2. TRANSPORTATION AND TRAVEL

San Diego is served by the San Diego International Airport. Taxi fare to the Hotel del Coronado is approximately \$30.

## 3. MESSAGES FOR ATTENDEES

A message board will be located in the Ballroom 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.

## 4. 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 Monday, 2 December, at 7:30 a.m. in the Ballroom (see floor plan on page A11).

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 \$660 for members of the Acoustical Society of America; \$810 for non-members, \$200 for Emeritus members (Emeritus status pre-approved by ASA), \$380 for ASA Early Career members (for ASA members within three years of their most recent degrees – proof of date of degree required), \$150 for ASA Student members, \$250 for students who are not members of ASA, \$25 for Undergraduate Students, and \$200 for accompanying persons.

One-day registration is available at \$380 for members and \$455 for nonmembers (one-day means attending the meeting on only one day either to present a paper and/or to attend sessions). A nonmember who pays the \$810 nonmember registration fee and simultaneously applies for Associate Membership in the Acoustical Society of America will be given a \$50 discount off their dues payment for 2020 dues.

Invited speakers who are members of the Acoustical Society of America are expected to pay the Member full-week or one-day registration fees. Nonmember invited speakers who participate in the meeting only on the day of their presentation may register without charge. The registration fee for nonmember invited speakers who wish to participate for more than one day is \$355 and includes a one-year Associate Membership in the ASA upon completion of an application form.

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.

## 5. ACCESSIBILITY

If you have special accessibility requirements, please indicate this by informing ASA (1305 Walt Whitman Road, Suite 300, Melville, NY 11747-4300; asa@acousticalsociety.org) at a minimum of thirty days in advance of the meeting. Please provide a cell phone number, email address, and detailed information including the nature of the special accessibility so that we may contact you directly.

## 6. TECHNICAL SESSIONS

The technical program includes 129 sessions with 1251 abstracts scheduled for presentation during the meeting.

A floor plan of the Hotel del Coronado appears on page A11. 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-Monday, 2 December
- 2-Tuesday, 3 December
- 3-Wednesday, 4 December
- 4-Thursday, 5 December
- 5-Friday, 6 December

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 Committee that organized the session using the following abbreviations or codes:

AA	Architectural Acoustics
AB	Animal Bioacoustics
AO	Acoustical Oceanography
BA	Biomedical Acoustics
CA	Computational 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” or “b” 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 Tuesday afternoon organized by the Engineering Acoustics Technical Committee; 3pSAb5 would be the fifth paper in the second of two sessions on Wednesday afternoon sponsored by the Structural Acoustics and Vibration Technical Committee.

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. HOT TOPICS SESSION

The Hot Topics session (3pID) will be held on Wednesday, 4 December, at 1:00 p.m. in the Hanover Room. Papers will be presented on current topics in the fields of Physical Acoustics, Biomedical Acoustics, and Computational Acoustics.

## 9. OTHER SPECIAL TECHNICAL EVENTS

A 3-hour hands-on workshop using an HITU SIMULATOR will be offered on Monday morning, 2 December, at 8:15 a.m. in the Coronet Room. This workshop is sponsored by the Biomedical Acoustics Technical Committee and will be available to all who are interested. There is no fee to participate, however, at-meeting registration is subject to availability of space in the workshop.

The Acoustical Society of America (ASA) seeks to engage and foster members by hosting the Early-Career Acousticians Retreat (EAR) 2019! EAR is a two-day workshop for early career professionals in the field of acoustics focused on developing leadership and networking skills for early career professionals in the field of acoustics. The workshop also will allow you to connect and socialize with your fellow early career acousticians as well as more senior members of the Society, learn about mentoring relationships and about the Society, and contribute to the future of ASA. Preregistration was required for this event.

The ASA is hosting a grant panel discussion designed to allow early career scholars to learn more about funding opportunities, which will be held on Wednesday, 4 December, from 2:00 p.m. to 3:15 p.m. in the Garden Room. Representatives from various granting agencies (e.g., NIH, NSF, ONR) as well as scholars experienced with navigating the funding landscape will provide information about grants geared towards early career scholars. Following the presentations, attendees will have opportunities to ask questions of the panelists. This event will be most relevant for those in the early career stage (e.g., post-doctoral fellows or assistant professors) or senior graduate students. If you have any questions about this event, contact Tessa Bent (tbent@indiana.edu) or Tyrone Porter (tmp@bu.edu).

ASA is partnering with the United States Jet Noise Reduction Science and Technology Panel to hold a workshop targeting emerging trends and technologies in jet noise solutions. The workshop will occur on Friday, 6 December, from 8:45 a.m. to 4:15 p.m. in the Continental/Crystal Room and is open to all meeting registrants.

## 10. MEDWIN PRIZE IN ACOUSTICAL OCEANOGRAPHY AND ACOUSTICAL OCEANOGRAPHY PRIZE LECTURE

The 2019 Medwin Prize in Acoustical Oceanography will be presented to Dr. Chen-Fen Huang, Institute of Oceanography, National Taiwan University, at the Plenary Session on Wednesday, 4 December. Dr. Huang will present the Acoustical Oceanography Prize Lecture titled “The Development of Acoustic Mapping of Ocean Currents in Coastal Seas” on Tuesday, 3 December, at 11:00 a.m. in Session 2aAOB in the Empress Room.

## **11. ROSSING PRIZE IN ACOUSTICS EDUCATION AND ACOUSTICS EDUCATION PRIZE LECTURE**

The 2019 Rossing Prize in Acoustics Education will be presented to Preston S. Wilson, University of Texas at Austin, at the Plenary Session on Wednesday, 4 December. Dr. Wilson will present the Acoustics Education Prize Lecture titled "Learning and teaching acoustics through bubbles" on Tuesday, 3 December, at 11:00 a.m. in Session 2aEDb in the Carousel Room.

## **12. TUTORIAL ON EFFECTIVE MEDIA INTERACTIONS TRAINING WORKSHOP**

The Public Relations Committee and the AIP Media Services team present this hands-on workshop for meeting attendees who are interested in effectively communicating scientific work to the public on Monday, 2 December, at 7:00 a.m. in the Regent Room. The workshop will consist of short presentations by media professionals to provide a toolkit of specific ideas and techniques for speaking to the media as well as structured small group activities that will give participants an opportunity to discuss and apply those techniques. Participants should come prepared to give a one-minute "elevator talk" about their own research.

The registration fee is USD \$25 (USD \$12 for students with current student IDs).

## **13. SHORT COURSE ON ACOUSTOFLUIDICS**

A short course on Acoustofluidics will be given in two parts: Sunday, 1 December, from 1:00 p.m. to 5:00 p.m. and Monday, 2 December, from 8:00 a.m. to 12:30 p.m. in the Carouse Room.

The instructor is James Friend, Professor at the Center for Medical Devices and Instrumentation in the Department of Mechanical and Aerospace Engineering, Jacobs School of Engineering, and the Department of Surgery, School of Medicine at the University of California, San Diego. Acoustofluidics involves acoustic wave propagation in solids and fluids and through interfaces; nonlinear effects including acoustic streaming and turbulence; bulk fluid, free surface, and suspended particle physical effects.

Onsite registration at the meeting will be on a space-available basis.

## **14. TECHNICAL COMMITTEE OPEN MEETINGS**

Technical Committees will hold open meetings on Tuesday, Wednesday, and Thursday at The Hotel del Coronado. The schedule and rooms for each Committee meeting are given on page A16.

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. EXHIBIT**

An instrument and equipment exhibition will be located in the Ballroom near the registration area and meeting rooms and will open on Monday, 2 December, with an evening reception

serving lite snacks and a complimentary drink. Exhibit hours are Monday, 2 December, 5:30 p.m. to 7:00 p.m., Tuesday, 3 December, 9:00 a.m. to 5:00 p.m., and Wednesday, 4 December, 9:00 a.m. to 12:00 noon.

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.

Contact the Exhibit Manager for information about participating in ASA Exhibits: Dan Cooke, Director of Advertising and Exhibit Sales, AIP Publishing, LLC, 1305 Walt Whitman Road, Suite 300, Melville, NY 11747-4300, Tel: 516-576-2629; E-mail: dcooke@aip.org.

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

A plenary session will be held Wednesday, 4 December, at 4:15 p.m. in the Grande Hall.

ASA scholarship recipients will be introduced. The Medwin Prize in Acoustical Oceanography, the Rossing Prize in Acoustics Education, the A. B. Wood Medal and Prize, the Silver Medal in Musical Acoustics, and the Silver Medal in Physical Acoustics will be presented, Certificates will be presented to Fellows elected at the Louisville meeting. See page 2966 for a list of fellows and award recipients.

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

## **17. ANSI STANDARDS COMMITTEES**

Meetings of ANSI Accredited Standards Committees will not be held at the San Diego meeting.

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 A16 or on the standards bulletin board in the registration area, e.g., S12/WG18-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: Nancy Blair-DeLeon, 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: asastds@acousticalsociety.org

## **18. COFFEE BREAKS**

Morning coffee breaks will be held each day from 9:45 a.m. to 11:00 a.m. in the Ballroom near the Exhibit and in the Grande Hall Foyer. On Tuesday there will be a coffee break in the Ballroom near the Exhibit from 2:30 p.m. to 3:30 p.m.

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

Hospitality Suite 3101 off the Garden Patio will be set up as an A/V preview room for authors' convenience and will be available on Monday through Thursday from 7:00 a.m. to 5:00 p.m. and Friday from 7:00 a.m. to 12:00 noon.

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

The San Diego meeting will have a published proceedings, and submission is optional. The proceedings will be a separate volume of the online journal, "Proceedings of Meetings on Acoustics" (POMA). This is an open access journal, so that its articles are available in pdf format for downloading without charge to anyone in the world. Authors who are scheduled to present papers at the meeting are encouraged to prepare a suitable version in pdf format that will appear in POMA. It is not necessary to wait until after the meeting to submit one's paper to POMA. Further information regarding POMA can be found at the site <http://acousticsauthors.org>. Published papers from previous meeting can be seen at the site <http://asadl/poma>.

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

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

Computers providing e-mail access will be available 7:00 a.m. to 5:00 p.m., Monday to Thursday and 7:00 a.m. to 12:00 noon on Friday in the Grande Hall Foyer.

Tables with power cords will be set up in the Grande Hall Foyer for attendees to gather and to power-up their electronic devices.

## **22. SOCIALS**

Socials will be held on Tuesday and Thursday evenings, 6:00 p.m. to 7:30 p.m. Tuesday's social will be held on the Beach and Thursday's social will be held at the Vista Walk (outdoor venue) and in the Ballroom.

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 Technical Committees that begin immediately after the socials

## **23. SOCIETY LUNCHEON AND LECTURE**

The Society Luncheon and Lecture, sponsored by the College of Fellows, will be held Thursday, 5 December, at 12:00 noon in the Ballroom.

This luncheon is open to all attendees and their guests. Purchase your tickets at the Registration Desk before 10:00 a.m. on Wednesday, 4 December. The cost is USD \$30.00 per ticket.

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

Follow the student twitter throughout the meeting @ASASudents,

A New Students Orientation will be held on Monday, 2 December, from 5:00 p.m. to 5:30 p.m. in Wilder. This will be followed by the Student Meet and Greet from 5:30 p.m. to 6:45 p.m. at the Vista Walk (outdoor venue) where refreshments and a cash bar will be available.

The Students' Reception will be held on Wednesday, 4 December, from 6:00 p.m. to 8:00 p.m. at the Vista Walk

(outdoor venue). 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.

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.

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

The Women in Acoustics luncheon will be held at 11:30 a.m. on Wednesday, 4 December, at Vista Walk (outside venue). Those who wish to attend must purchase their tickets in advance by 10:00 a.m. on Tuesday, 3 December. The fee is USD \$30 for non-students and USD \$15 for students.

## **26. JAM SESSION**

You are invited to the Regent Room on Wednesday night, 4 December, 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 the San Diego meeting. The on-site registration fee for accompanying persons is USD \$200. A hospitality room for accompanying persons will be open in the Serena Restaurant, 8:00 a.m. to 10:00 a.m. Monday through Friday. This entitles you access to the accompanying persons room, social events on Tuesday and Thursday, the Jam Session, and the Plenary Session on Wednesday afternoon.

## **28. WEATHER**

San Diego experiences near perfect weather year-round. Average temperatures in December are highs of 66° F (19° C) and lows of 49° F (9° C). Chance of precipitation is about 2%.

## **29. TECHNICAL PROGRAM ORGANIZING COMMITTEE**

Aaron M. Thode, Technical Program Chair; Megan Ballard, Acoustical Oceanography; Jason Mulsow, Animal Bioacoustics; Shane Kanter, Benjamin Bridgewater, Architectural Acoustics; Kang Kim, Demi Libertario, Biomedical Acoustics; Jennifer Cooper, Computational Acoustics; Michael Haberman, Caleb Sieck, Engineering Acoustics; Daniel Russell, Education in Acoustics; Whitney Coyle, Peter Rucz, Musical Acoustics; William Murphy, James Phillips, Hales Swift; Noise; Kevin Lee, Physical Acoustics; Ellen Peng, Psychological and Physiological Acoustics; Ryan Harne, Kai Gemba, Signal Processing in Acoustics; Yoonjeong Lee, Susannah Lee, Rajka Smiljanic,

Speech Communication; Benjamin Shafer, Anthony Bonomo, Robert M. Koch, Structural Acoustics and Vibration; Timothy Duda, Underwater Acoustics; Kieren Smith, Student Council.

### 30. MEETING ORGANIZING COMMITTEE

Peter Gerstoft, Chair; Aaron M. Thode, Technical Program Chair; Ludovic Tenorio-Hallé, Eric Snyder, Student Coordination; Gihoon Bryun, Signs; Michael Bianco, JAM; Sienna Thomas, Accompanying Persons; Camille Pagniello, Luncheons, Emma Ozanich, Fun Run

### 31. PHOTOGRAPHING AND RECORDING

Photographing and recording during regular sessions are not permitted without prior permission from the Acoustical Society.

### 32. ABSTRACT ERRATA

This meeting program is Part 2 of the October 2019 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*.

### 33. GUIDELINES FOR ORAL PRESENTATIONS

#### Preparation of Visual Aids

- See the guidelines for computer projection in section 41 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.

### 34. 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.

## 35. 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 1024×768 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 1024×768 for an XGA projector or at least 640×480 for an older VGA projector. (1024×768 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.

#### 36. 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

179th Meeting, Chicago, Illinois, 11–15 May 2020  
 180th Meeting, Cancun, Mexico, 9–13 November 2020  
 181st Meeting, TBD, spring 2021  
 182nd Meeting, Sydney, Australia, 6–10 December 2021