

# 186th Meeting of the Acoustical Society of America and Acoustics Week in Canada

The 186th meeting of the Acoustical Society of America and Acoustics Week in Canada will be held Monday through Friday, 13-17 May 2024 at the Shaw Centre and Westin Ottawa Hotel, Ottawa, Canada

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## 1. 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, 13 May, at 7:00 a.m. in Colonel By Foyer South on the First Level of the Shaw Centre.

Visa, MasterCard and American Express credit cards and checks in US dollars drawn on a bank in the US 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.

**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.**

## 2. TECHNICAL SESSIONS

The technical program includes over 1200 abstracts.

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.

## 3. TECHNICAL SESSION DESIGNATIONS

**Abstract code examples: 1aAA1, 2pBAb4, 1eID1**

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

- 1-Monday, 13 May
- 2-Tuesday, 14 May
- 3-Wednesday, 15 May
- 4-Thursday, 16 May
- 5-Friday, 17 May

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.

#### **4. EXHIBIT AND EXHIBIT OPENING RECEPTION**

An instrument and equipment exhibition will be located in the Second Floor Atrium and will open on Monday, 13 May, with an evening reception serving a complimentary drink. Exhibit hours are Monday, 13 May, 5:30 p.m. to 7:00 p.m., Tuesday, 14 May, 9:00 a.m. to 5:00 p.m., and Wednesday, 15 May, 9:00 a.m. to 2:00 p.m.

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.

#### **5. PRIZES AND PRIZE LECTURES**

The 2024 Hartmann Prize in Auditory Neuroscience and the Medwin Prize in Acoustical Oceanography will be presented at the Plenary session on Wednesday, 15 May, at 3:30 p.m. in Canada Hall 3.

The Auditory Neuroscience Prize Lecture will be presented by Christopher Shera on Wednesday, 15 May, in session 3pPP at 1:00 p.m. in Room 207. The Acoustical Oceanography Prize Lecture will be presented by Julien Bonnel on Tuesday, 14 May, in session 2pAO at 1:00 p.m. in Room 215. The 2023 Acoustics Education Prize Lecture will be presented by Scott D. Sommerfeldt on Wednesday, 15 May, in session 3pED at 1:00 p.m. in Room 212.

The Munk Award Lecture will be presented by Ross Chapman on Wednesday, 15 May, at 12:55 a.m. in session 3pAO in Room 215.

#### **6. TECHNICAL COMMITTEE OPEN MEETINGS**

Technical Committees will hold open meetings on Tuesday, Wednesday, and Thursday.

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.

#### **7. TECHNICAL TOURS**

Three Technical Tours are scheduled. Both tours to the National Research Council will be by bus. The third tour is a walking tour.

Buses for both National Research Council tours will load at the Shaw Centre at 8:15 a.m. for the 20-minute trip to the facility. Please remember that all tour participants must be

able to show a government issued id. If your id is not written in English, please provide a translation to show at the time of the tour.

Those who wish to walk to the National Arts Centre with other tour members should gather near the ASA registration desk on the 1st floor in Colonel By Foyer South.

**Tuesday, 14 May, 8:15 a.m. to 11:30 a.m.**

**National Research Council of Canada Building  
Acoustics Facilities.**

**Thursday, 16 May, 1:00 p.m. to 4:30 p.m.**

**National Research Council of Canada Aerospace  
Research Facilities.**

**Thursday, 16 May, 9:00 a.m. to 11:00 a.m.**

**National Arts Centre – refer to Google maps for directions  
Tour starts promptly at 9:15 a.m.**

#### **8. GRANT WORKSHOP: NSF FUNDING OPPORTUNITIES**

Rachel Theodore, program officer at the National Science Foundation (NSF) and ASA member, will present information about new opportunities for funding within the NSF. In particular she will describe programs for interdisciplinary research appropriate for ASA members. The workshop will be held on Monday, 13 May, 5:30 to 6:30 p.m. in Room 213.

#### **9. STANDARDS WORKSHOP**

Volunteers are sought to be part of a special Workshop developing a new ASA Standards product. This workshop—led by Dr. Donald Peterson, Dean, College of Engineering and Engineering Technology, Northern Illinois University—is tasked with promoting the involvement of stakeholders to encourage collaboration across various sectors to capture expectations for new ASA Standards “how to” guides that will accompany and complement select ASA standards—Guides designed to assist standards users (e.g., university students, industry practitioners and government officials) on how to apply the standards’ technical information in a practical, efficient way for their work or research. Consider them “quick start manuals” to putting standards into play right away! The workshop will be held on Wednesday, 15 May, from 8:00 a.m. to 9:00 a.m. in Room 202.

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

A plenary session will be held Wednesday, 15 May, at 3:30 p.m. in Canda Hall 3. The Hartmann Prize in Auditory Neuroscience, the Medwin Prize in Acoustical Oceanography, the Silver Medal in Acoustical Oceanography, the Wallace Clement Sabine Medal, the R. Bruce Lindsay Award, the Helmholtz-Rayleigh Interdisciplinary Silver Medal, and the Gold Medal will be presented. Certificates will be presented to Fellows elected at the Sydney meeting and to the recipients of 2023 Science Communication Awards.

The Canadian Acoustical Association will hold its Plenary Session and Awards Ceremony immediately following the ASA Plenary.

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

## **11. ANSI STANDARDS COMMITTEES**

Meetings of ANSI Accredited Standards Committees will be held at the Ottawa meeting.

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 110, Melville, NY 11747-4300; T: 631-390-0215; E: [asastds@acousticalsociety.org](mailto:asastds@acousticalsociety.org)

## **12. COFFEE BREAKS**

Morning coffee breaks will be held daily from 9:30 a.m. to 11:00 a.m. and an afternoon break will be held on Tuesday from 2:30 p.m. to 3:45 p.m. in the Rideau Canal Foyer on level 2. Breaks on Monday, Thursday, and Friday will be held in Rideau Canal Foyer North.

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

The A/V preview room will be set up in office 2C (entrance on Rideau Canaal North foyer) and will be available Monday through Thursday, 13-16 May, from 7:00 a.m. to 5:00 p.m. and Friday, 17 May, from 7:00 a.m. to 12:00 noon.

## **14. MOTHERS ROOM**

A Mothers Room for ASA meeting attendees will be available Monday to Friday, 13-17 May, in Room 2A Rideau Canal Foyer North. The hours are Monday to Thursday, 8:00 a.m. to 5:00 p.m. and Friday, 8:00 a.m. to 12:00 noon.

## **15. SOCIAL**

A Social will be held on Wednesday evening, 6:00 p.m. to 7:30 p.m. at the Westin Ottawa Hotel Ballroom on the 4<sup>th</sup> Level.

The ASA hosts this 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.

## **16. STUDENT EVENTS: MEET AND GREET, STUDENT RECEPTION**

Follow the student twitter throughout the meeting @ASASTudents.

The Student Meet and Greet will be held on Monday, 13 May from 5:45 p.m. to 7:30 p.m. in the Trillium Foyer on the 4<sup>th</sup> floor of Shaw Centre where refreshments and a cash bar will be available.

The National Council of Acoustical Consultants will present travel awards to students at the start of the event.

The Students' Reception will be held on Tuesday, 14 May, from 6:00 p.m. to 8:00 p.m. in Governor General of The Westin Ottawa Hotel. This reception 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.

## **17. WOMEN IN ACOUSTICS LUNCHEON**

The Women in Acoustics luncheon will be held at 11:45 a.m. on Wednesday, 15 May, in Twenty Two on the 22<sup>nd</sup> floor of the Westin Ottawa Hotel.

## **18. JAM SESSION**

You are invited to Canada 3 (3<sup>rd</sup> floor, Shaw Centre) on Wednesday night, 15 May, 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.

## **19. ACCOMPANYING PERSONS PROGRAM**

Spouses and other visitors are welcome at the Ottawa meeting. A hospitality room for accompanying persons will be open in Room 101 from 8:00 a.m. to 10:00 a.m. on Monday only.

You are welcome to the accompanying persons room, the Wednesday Social, the Plenary Session on Wednesday afternoon, and the JAM on Wednesday evening.

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

The Ottawa 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 its articles are available in pdf format for downloading without charge to anyone in the world. All 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, including MS Word and LaTeX templates, can be found at the site <https://pubs.aip.org/asa/poma>.

Authors who are members of the Canadian Acoustical Association (CAA) are invited to submit a two-page conference proceedings paper that will be published in Canadian Acoustics in the June 2024 issue.

CAA authors who also submit a paper to POMA should change the POMA paper title to differentiate it from the CAA proceedings paper. Content of the papers is also expected to differ following naturally from the 12-page limit for POMA and the 2-page format for Canadian Acoustics. See the CAA webpage at <https://jcaa.caa-aca.ca/index.php/jcaa> for details.

## **21. TECHNICAL PROGRAM ORGANIZING COMMITTEE**

Meaghan O'Reilly, Technical Program Chair; Christopher Bassett, Acoustical Oceanography; Carrie Wall-Bell, Animal Bioacoustics; Brandon Cudequest, Architectural Acoustics; John Cormack, James Kwan, Biomedical Acoustics; Amanda Hanford, Computational Acoustics; Daniel Russell, Education in Acoustics; Ahmed Allam, Michael Haberman, Engineering Acoustics; Andrew Piacsek, Gary Scavone, Musical Acoustics; Aaron Vaughn, James Phillips,

Hales Swift; Noise; Ralph Herman, Joel Lonzaga, Physical Acoustics; Gregory Ellis, Chris Steckert, Psychological and Physiological Acoustics; Trevor Jerome, Signal Processing in Acoustics; Kelly Berkson, Pasquale Bottalico, Lisa Redford, Benjamin Tucker, Speech Communication; Anthony Bonomo, Stephanie Konarski, Structural Acoustics and Vibration; David Dall’Osto, Underwater Acoustics; Brijonnay Madrigal, Student Council.

## 22. MEETING ORGANIZING COMMITTEE

David C. Barclay, Chair; Meaghan O'Reilly, Sebastian Ghinet, Joana Rocha, Canadian Acoustical Association representatives.

## 23. PHOTOGRAPHING AND RECORDING

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

## 24. ABSTRACT ERRATA

This meeting program is Part 2 of the March 2024 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*.

## 25. 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. 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 institution's 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 in the allotted time. Four elements to include are:
  - Statement of research problem
  - Research methodology
  - Review of results
  - Conclusions
- 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 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 will not 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.

## 26. 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  $\times$  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 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  $\times$  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 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  $\times$  11 sheets) to distribute to interested audience members.

## 27. 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 110, Melville, NY 11747-4300; Telephone: 516-576-2360; E-mail: [asa@acousticalsociety.org](mailto:asa@acousticalsociety.org)

187th Meeting – Virtual Meeting, 18–22 November 2024

188th Meeting – joint with the International Congress on Acoustics, New Orleans, Louisiana 19–23 May 2025

189th Meeting – joint with the Japanese Acoustical Society,

190th Meeting – Philadelphia, Pennsylvania, 2006