

Physical Acoustics Technical Committee Meeting

Tuesday, December 5, 2023
Chair: Christopher Kube
Acting Chair: Joseph Turner
kube@psu.edu



All links in the slides have a unified QR

*This QR code will
appear on many slides*



Scan for Any of the Links

Passcode: "PA"

Welcome, Attendance, and Introductions

- **Everyone sign in. The sign-in sheet is circulating**
 - Name
 - Institution
 - E-mail
- **Please indicate if you**
 - ... are a student and/or first-time attendee
 - ... want to be added to TC email list
- **New Attendee Introductions**
 - Name, organization, research area



Additional new faces...

Chris Kube, PATC Chair



Penn State
Assistant Professor of Engineering
Science and Mechanics
Affiliate Faculty Member of Acoustics
[kuba@psu.edu](mailto:kube@psu.edu)

John (Jack) Case
Student Council Representative



Penn State
PhD Student in Penn State's
Graduate Program in Acoustics
jac7175@psu.edu

Student Council Report



Student Council Rep

TC: Physical Acoustics



Term: Fall 2023-Fall 2025

John (Jack) Case

Penn State

Graduate Program in Acoustics

Interested in joining Student Council?





Student Events

Monday (Dec. 4th)

First-Time Attendee/Student Orientation

5:30 – 6:00 PM

Student Meet and Greet

6:00 – 7:30 PM (Wrong on program)

Student Informal Outing

8:00 – 10:00 PM

Tuesday (Dec. 5th)

Student Reception

5:30 – 7:30 PM

All times local to Sydney





Join SONIC!

Student Outreach for Networking & Integrating Colleagues

A blue poster with the word 'SONIC' in large, bold, yellow letters at the top. Below it, in white text, is 'Student Outreach for Networking and Integrating Colleagues'. Further down, in yellow text, is 'Make connections as a Newbie!' and 'Help fellow students as a Guide!'. At the bottom left, it says 'Info / sign-up:' above a QR code. At the bottom right, it says '19 students signed up for Sydney!' in white text. The ASA STUDENTS logo is in the top right corner. The background of the poster features a silhouette of two hands reaching towards each other.

SONIC

Student Outreach for
Networking and Integrating Colleagues

Make connections as a Newbie!
Help fellow students as a Guide!

Info / sign-up:

**19 students
signed up for
Sydney!**

SONIC pairs first-time attendees with experienced students to help guide them through the ASA meeting and help with networking.

Checkout our website:
asastudents.org



CONTACT US



@asastudents



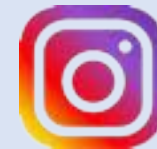
@ASAStudents



Acoustical Society of America Students

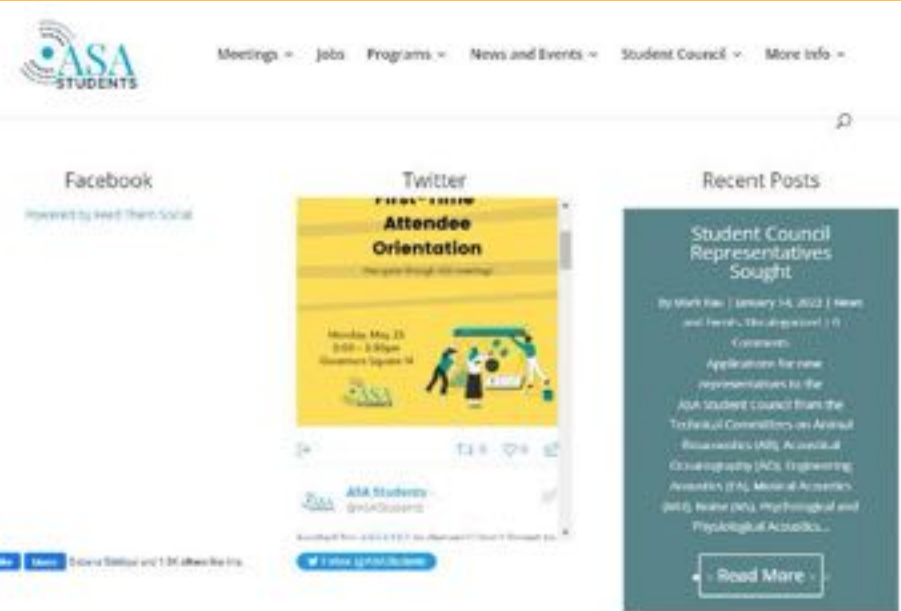


asastudentcouncil@gmail.com



@students_ASA

NEW!



Agenda

- **Committee Reports**
- **Announcements, Awards, New Fellows**
- **Sydney Special Sessions**
- **Future Meetings/Special Sessions**
- **Technical Council Business**
- **Publications**

Administrative Committee Representative Reports

- **Medals and Awards** (Jay Maynard)
- **Standards** (ASACOS, Greg Lyons)
- **Web Committee** (Aaron Vaughn)
- **Membership** (Kent Gee)

Updates?



Announcements – Push for Full Society Membership

- **Non-students are encouraged to apply for full membership.**
 - Associate member dues: \$150 for years 1-5, \$200 years 6+
 - Full members \$200/year
 - Access to JASA online, eligible for awards,
- **Nonmembers who become members at the meeting may receive a discount off the cost of membership dues (see 57.2). Ottawa registration fee: \$1050/nonmember, \$750/member**



Link to Full Membership Form

Abstract Submission is Open!



PennState

ONR Symposium on Acoustic Metamaterials 2024

Technical sessions:

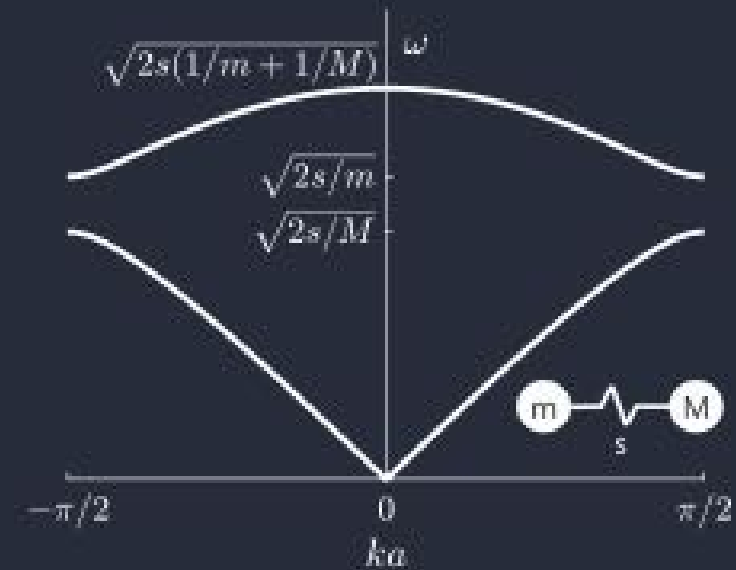
- Computational methods
- Elastic and underwater acoustic metamaterials
- Active acoustic metamaterials
- Beyond the benchtop
- New frontiers

20-21 March, 2024

Request registration at
sites.psu.edu/metamaterials



PennState
Applied Research
Laboratory



Amanda Hanford, ald227@psu.edu



Director of the National Center for Physical Acoustics



THE UNIVERSITY OF
MISSISSIPPI

Office of
Research and
Sponsored Programs

Open Position
For more information:
Joel Mobley (jmobley@olemiss.edu)

NATIONAL ACADEMIES Sciences
Engineering
Medicine

SEEKING FELLOWS
FOR A
**MECHANICS OUTREACH
PILOT PROGRAM**

ORGANIZED BY THE UNITED STATES NATIONAL
COMMITTEE ON THEORETICAL AND APPLIED MECHANICS



**TO APPLY BY DECEMBER 1, 2023 OR GET MORE
INFORMATION, PLEASE GO TO**
[HTTPS://TINYURL.COM/BDCSPFNC](https://tinyurl.com/BDCSPFNC)



- WHAT** Pilot Program involving nationwide virtual outreach activities on mechanics with K-12 classrooms
- WHO** Academic and industrial professionals in the areas of solid and fluid mechanics, from postdoctoral positions onward
- WHEN** January 2024 - December 2024, with training beforehand and compiling best practices afterward
- WHY**
- Join a community of mechanics developing impactful mechanics outreach activities
 - Enhance your science communication skills and strengthen your broader impact
 - Earn recognition as one of the inaugural USNC/TAM Outreach Fellows

Physical Acoustics Summer School

- 2-7 June, 2024, University of Mississippi, Oxford, MS, USA
- PASS brings together graduate students, distinguished lecturers and discussion leaders for a series of lectures and related activities over five days.
- Topics include Biomedical Ultrasound, Metamaterials, Bubbles and Drops, Atmospheric Acoustics, Infrasound, Nonlinear Acoustics, and Condensed Matter Acoustics
- Application Deadline: 8 February 2024
 - Note that only graduate students are eligible to apply.
- Held every other year. This will be the 17th PASS since 1992.
- See <https://ncpa.olemiss.edu/pass-2024/>



New Fellows as of Spring 2023*



Libertario Demi

For contributions to lung ultrasound



Lixi Huang

*For contributions to biomedical
noise control, aeroacoustics,
and acoustics*



*with PA listed as primary or secondary area in ASA member directory OR present PATC member

In Memoriam

Richard Raspet

November 2, 2023



<https://www.colemanfuneralhome.com/obituaries/Richard-Raspet/#!/TributeWall>

[https://www.legacy.com/us/obituaries/name/richard-raspet-
obituary?id=53564753](https://www.legacy.com/us/obituaries/name/richard-raspet-obituary?id=53564753)

Donations and memorials to honor Dr. Richard "Rich" Raspet may be made to Ol' Hank's Place Senior Dog Rescue <https://olhanksplace.org/>



Sydney PA Sessions (sampled in October when program first finalized)

- 8 PA Sponsored Sessions Scheduled
- 5 Special sessions
- 67 presentations in special sessions
 - 78 total presentations

Sydney PA Sessions (sampled in October when program first finalized)

- **Acoustical Measurements and Sensors for Challenging Environments (24 Talks)**
 - Cristian Pantea, Akita Nagakubo
- **Acoustical Methods for Materials Analytics (11 Talks)**
 - Dimitrios Bessas, Nobuto Kaitoh, Raphael Hermann (11 Talks)
- **Multiphase Flow and Acoustics (16 Talks)**
 - John Allen, Richard Mannasseh , Joseph Kim
- **Nonlinear acoustics in solids (8 Talks)**
 - Chris Kube, Ching-Tai Ng
- **Artificial Intelligence for Metamaterials (8 Talks)**
 - Feruza Amirkulova, Chengzhi Shi, David Powell

Updates, comments?

Special thanks for this one!



Future Meetings

Meeting Number	Details
186 th	Ottawa, Canada, May 13-17, 2024 Submissions Deadline, Jan 8, 2024
187 th	Virtual Meeting, Nov 11-15, 2024
*188 th	Joint with the International Congress on Acoustics, New Orleans, Louisiana, May 19-23, 2025

*Mark Hamilton (general chair), Joel Mobley (vice chair), Mike Haberman (technical co-chair), and Preston Wilson (technical co-chair)



Future Meetings (Ottawa)

Meeting Number	Details
186 th	Ottawa, Canada, May 13-17, 2024 Abstract Deadline: Jan 8, 2024

Session Name	Organizers
Cyber Threats and Acoustical Systems	Kavitha Chandra, Charles Thompson
Infrasound	Philip Blom, David Green
Resonant ultrasound spectroscopy for characterizing material property and structure	Christopher Kube, Matthew Cherry, Rasheed Adebisi, Jeff Rosin
Meteorological Acoustics	Roger Waxler, Jelle Assink, Natalia Sidorovskaia
Acousto-Optic Sensing	Carl R. Hart, Oleg Sapozhnikov, Yangfan Liu
Characterization of Electronic Materials, Components, and Devices	Lauren Katch, Haley Jones, Michael Haberman
Wind Noise	Greg Lyons, Kirk Alberts
Nonlinear acoustics in solids	John Cormack, Christopher Kube



Future Meetings (Virtual)

Meeting Number	Details	Activities Number of Special Sessions (11/29)
187 th	Virtual Meeting, Nov 11-15, 2024	0

We NEED at least five submitted session activities by Thursday night. Some ideas...

- 1. Ask me anything Q&A – student/young professional (Q) session with senior PA member (A). Volunteers?
- 2. Lightning talks – broad topic 1?
- 3. Lightning talks – broad topic 2?
- 4. Hot topics in PA?
- 5. Poster Session with BA (Juli Simon/Andrea Arguelles)
- 6. Lab tours or demos?
- 7. Live one-on-one perspectives interview?



To get to special session submission form



Future Meetings (New Orleans, Call for Special Sessions!)

Meeting Number	Details	Number of Special Sessions (11/29)
*188 th	Joint with the International Congress on Acoustics, New Orleans, Louisiana, May 19-23, 2025	8 (Rocking so far, keep them coming!)

Special sessions for New Orleans
should try to include an
international co-chair



*To get to special session
submission form*



Future Meetings (New Orleans, Call for Special Sessions!)

Meeting Number	Details	Number of Special Sessions (11/29)
*188 th	Joint with the International Congress on Acoustics, New Orleans, Louisiana, May 19-23, 2025	8 (Rocking so far, keep them coming!)

Session Name	Organizers
Session in Memoriam for Richard Raspet	Joel Mobley, Roger Waxler
That's Not Physics	Steven Garrett
Celebrating Steven Garrett's fifty years of contributions in Acoustics	David Brown
Acoustics of Fire: Modeling, Measurements, and Ecological Effects	Shane Lympany, Kara Yedinak
Acoustic metamaterials for underwater applications	Nicole Kessissoglou
Viscothermal effects in phononic crystals and acoustic metamaterials	Jose Sanchez-Dehesa, Vicente Cutanda Henriquez
Acoustofluidics	James Friend, Max Denis, Charles Thompson
Acoustic holograms & wavefront modulation techniques	Noe Jimenez, Kai Melde



Committee to Improve Racial Diversity and Inclusivity (CIRDI)

- **NEW MEMBERS WELCOME!** Contact committee chair: Andrea P. Argüelles (arguelles@psu.edu)
 - Existing sub-committees: Internal Initiatives, External Initiatives, Data Collection and Dissemination

- **SURIEA 2024**
 - Short course funding request (Tyrone Porter)

- CIRDI/SURIEA requesting \$40k from Technical Initiative (TI) Funds in 2024 budget
- ~\$38k of funds would have been unspent in 2023, ended up funding student travel support to Sydney

**SUMMER
UNDERGRADUATE
RESEARCH OR
INTERNSHIP
EXPERIENCE IN
ACOUSTICS**



- Mentor application deadline: December 15, 2023
- Student application deadline: January 5, 2024
- Program dates: May 27 – Aug 16, 2024

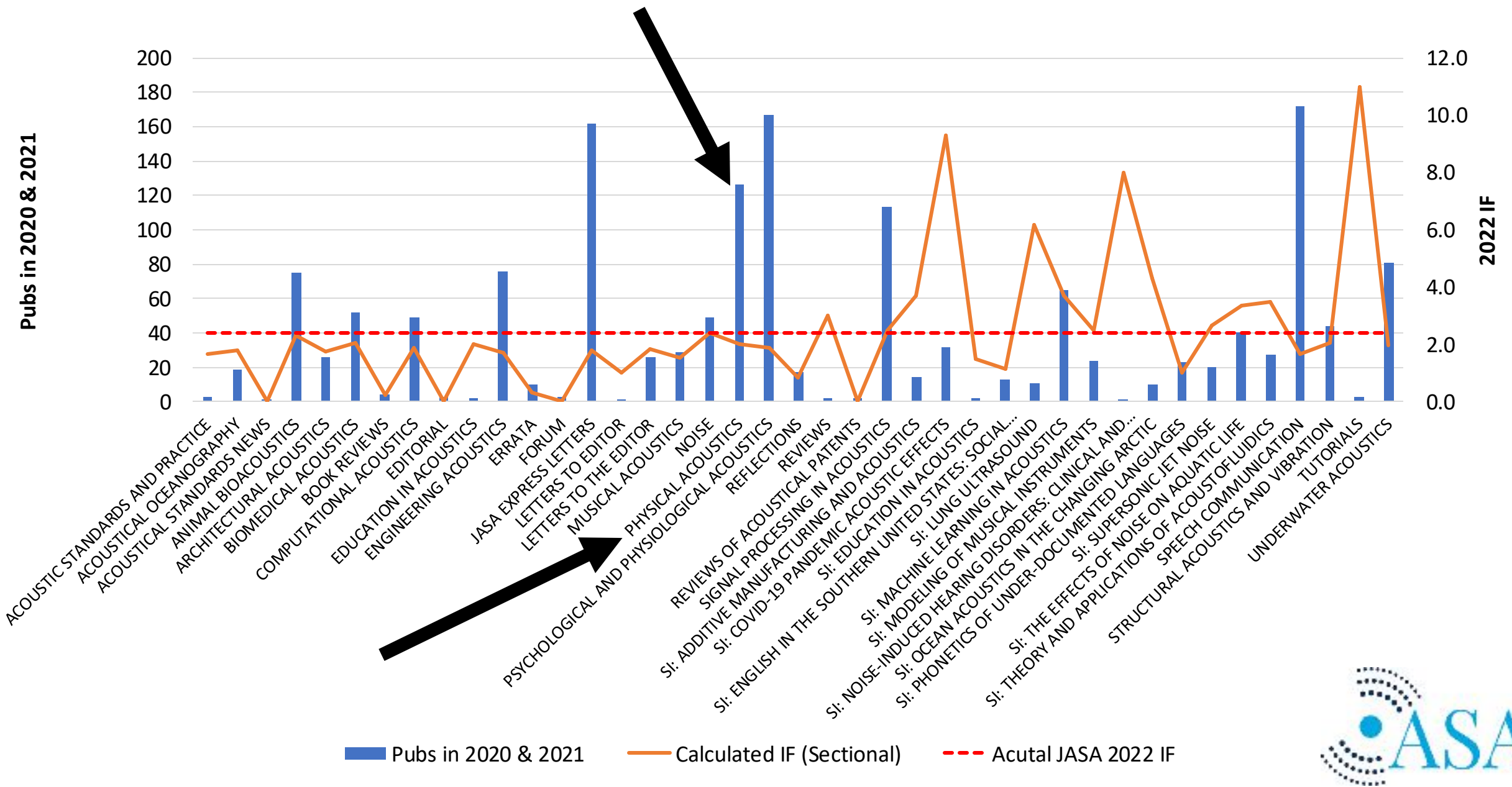
<https://acousticalsociety.org/suriea/>

CIRDI Technical Committee Representatives

- **Proposal:** Identify one individual from each technical committee to serve as a representative for the CIRDI committee and facilitate inter-committee communication and participation.
- **Rationale:** election of a TC representative for CIRDI would facilitate more efficient communication with the membership about CIRDI activities and initiatives. Representative would serve as a liaison between TC and CIRDI. Their participation would include:
 - attending monthly CIRDI meetings,
 - providing CIRDI updates at TC meetings,
 - sharing input from the TC with CIRDI.

Note: This proposal will not change the constitution of CIRDI. Other TC members will remain eligible to participate in CIRDI even if they are not the “representative” for their TC. The goal is to ensure minimum participation from each TC, not limit engagement. CIRDI meetings will still function as open meetings.

Publications (JASA, Calculated Impact Factors by Section)



Publications

- Looking for new Acoustics Today editor to start CY2025
- There will be a search for new Editor-in-Chief of JASA (to start CY2026)
- Special issues have been very important recently. Please continue to propose special issues and submit (see next slide for specifics)



Publications (Special Issues)

- Open Calls for Papers for Joint *JASA* and *JASA-EL* Special Issues
 - Verification and Validation of Source and Propagation Models for Underwater Sound (Deadline: 4 Dec 2023)
 - Acoustic Cue–Based Perception and Production of Speech by Humans and Machines (Deadline: 31 Dec 2023)
 - Iconicity and Sound Symbolism (Deadline: 1 Feb 2024)
 - Advances in Soundscape: Emerging Trends and Challenges in Research and Practice (Deadline: 29 Feb 2024)
 - Assessing Sediment Heterogeneity on Continental Shelves and Slopes (Deadline: 1 April 2024)
 - **Climate Change: How the Sound of the Planet Reflects the Health of the Planet (30 June 2024)**
 - Active and Tunable Acoustic Metamaterials (31 Sept 2024)
 - Wave Phenomena in Periodic, Near-Periodic, and Locally Resonant Systems (Deadline: 31 Dec 2024)
- Open calls available here: <https://pubs.aip.org/asa/jasa/pages/specialissues>
- Please let me know if you have any suggestions for future Special Issues!
- Also, if you have any ideas for topics/authors for other JASA special content like reviews and tutorials.

Special Issue: Climate Change: How the Sound of the Planet Reflects the Health of the Planet

The *Journal of the Acoustical Society of America (JASA)* and *JASA Express Letters* are calling for papers for this joint Special Issue.

Submission Deadline: 30 June 2024

Topics of interest

- Long-term studies documenting shifting soundscapes as global temperatures warm
- Investigations of ethological alterations and health of aquatic and terrestrial life forms (e.g., foraging, migratory patterns, communication) resulting from climate change
- Tracking changes in ocean temperature (e.g., ocean acoustic thermometry)
- Measurements of ocean acidification
- Monitoring changing weather patterns (including precipitation)
- Studies of environmental transformations caused by climate change
- Mapping underwater methane seeps
- Effects of green energy on the soundscape (e.g., wind turbines)
- Methods to monitor the carbon cycle and assess carbon sequestration
- Novel instrumentation and signal processing algorithms for monitoring climate change
- Modeling the acoustical effects of climate change
- Acoustic methods to mitigate climate change

Guest Editors

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Scan for Any of the Links

Thanks!

