

Education in Acoustics Committee

MINUTES - ED Com Meeting - ASA #184 Chicago

(Wednesday, May 3, 2023 – 6:00-7:30pm EDT)

ASA Administrative Committee on Education in Acoustics meeting was held online via Zoom prior to the ASA 184 Chicago in-person meeting.

Link to the Zoom Recording: https://psu.mediaspace.kaltura.com/media/t/1_4haw8yzy

Meeting was run by ED chair, Dan Russell (dar119@psu.edu) who called the meeting to order at 6:04pm EST.

Attendance: (gathered from Zoom registration and Zoom recording/snapshot.)

[39 members attended at least part of the meeting; 7 people registered but did not attend]
Andrew Barnard, Frederika Bell-Berti, David Brown, John Buck, Marion Burgess, Andrea Calilhanna, Eric Dieckman, Jack Dostal, Philip Faraci, Mahdi Farahikia, Steven Garrett, Kurt Hoffman, Chris Jasinski, Keeta Jones, Ronald Kumon, Martin Lawless, Susannah Levi, Jill Linz, JingFei Liu, Subha Maruvada, Brian Monson, Andrew Morrison, Peggy Nelson, Noah Parker, Andy Piacsek, Tyrone Porter, Gordon Ramsey, Kim Riegel, Laura Ruhala, Richard Ruhala, Dan Russell, Juli Simon, Victor Sparrow, Tim Stiles, Adam Svec, Lucky Tsaih, Benjamin Tucker, Michelle Vigeant-Haas, Randy Williams

Approval of Minutes from Dec. 2022 ASA 183 Nashville meeting

Motion to approve minutes as posted – Freddie Bell-Berti

Seconded – Ben Tucker

Reflection on the passing of Uwe Hansen

Uwe Hansen passed away at the end of March, 2023. Uwe served as the chair of EDCOM from 2000-2006. Together with Tom Rossing, Uwe started the first "Take-5" sessions at the 1997 Penn State ASA meeting, and Uwe was also instrumental in starting the Hands-on demonstration sessions for middle school and high school students during ASA meetings. Uwe chaired the Musical Acoustics TC from 1990-1996, and he also served on several other committees including Medals and Awards, Tutorials, College of Fellows, Women in Acoustics, Prizes and Special Fellowships, and he chaired the inaugural Rossing Prize Selection Committee in 2006. Uwe received the ASA Distinguished Service Citation in 2011 for his contributions to the society.

JASA Special Issue on Education in Acoustics is online!

https://pubs.aip.org/jasa/collection/1310/Education-in-Acoustics <= UPDATED URL

ED special sessions at ASA #184 Chicago

- Tuesday, May 9
 - 2aPAb 9:45am-11:45am Acoustics Demonstration Extravaganza (PA,ED,SA)
 - Follow-up: This demonstration show was a HUGE success. The session was professionally recorded, and is currently being edited (computer displays did not get captured, so we are "repeating" some demos to insert "live" data)
 - → 2pED- 1:00pm-4:35pm Assessment of Acoustics Education
 - This was a very useful and informative session.
- Wednesday, May 10
 - 3aSP 8:00am-12:00pm My Favorite Signal Processing Homework Problems (SP,ED,PA)
 - → 3pED 1:00pm-2:00pm Education in Acoustics Rossing Prize Lecture
 - Dr. Kathleen Wage → DJ Prof: Reflections on Teaching
- Thursday, May 11
 - 4aED 8:00am-11:50am When Doing it Right Goes Wrong (PA, AA, NS)
 - This was a very lively session, well attended, and with lots of actively engaged discussion afterward.
- Friday, May 11
 - > 5aED 9:00am-11:55am Resources for Teaching Waves in a Physics Class [Hybrid Session] (PA,EA,MU)

ED Special Sessions for upcoming ASA meetings

ED special sessions for ASA #185 Sydney, Australia (December 4-8, 2023)

ASA 185 Sydney is a JOINT meeting with the Australian Acoustical Society and WESPAC.

⇒ Website: https://acoustics23sydney.org/

ED Special Sessions (joint with AAS and WESPAC)

- Connections between Music and Math Andrea Calilhanna and (need additional organizer)
 - Exploring the connections between music, math, and psychoacoustics. Especially targeting younger school students (younger) focusing on connections between music, math, psychoacoustics
- Online Resources for Teaching Acoustics Andy Morrison (Dan Russell) Jack Dostal and Joe Wolfe?
 - Development of on-line based resources for both teachers and learners to explore acoustics concepts
- Initiatives in Acoustics Education in the Asia Pacific Region Marion Burgess and ???
 - Acoustics education initiatives that take into consideration the regional diversity
 - ASA regional chapter East/Southeast Asia . . . outreach activities?
- Distance Learning for Acoustics Professionals Across International Boundaries Marion Burgess and Dan Russell
 - Challenges in developing distance learning programs that are equally applicable and relevant for those learners in different countries with different approaches to building methods, environmental and workplace noise limits, etc.
- Teaching Acoustics across Trans-Disciplinary areas Lucky Tsaish,
 - Designing content for short courses, micro-credentials, etc. to assist non-acoustics professionals engage with acoustic
 professionals/consultants and understand reports, etc.
 - Dave Woolworth (check what they are at Nashville). . . . Tony Hoover . . . ASA Academy Michael Vorlander

COMMENT: Poll of EDCOM attendees indicated that 12 (out of 38) are planning to attend Sydney. Depending on how many abstracts are submitted, we may have to condense and combine some of the proposed special sessions.

ED special sessions for ASA #186 Ottawa, Canada (May 13-17, 2024)

Call for papers will go out in December 2023

- Artistic and Technical approaches to Acoustics Gordon Ramsey, Olivier Robin, and Andrea Calilhana
 - This session is designed to provide a cross feed that can integrate artistic elements (music and visual arts) and technical elements (physics and technology) into acoustics courses and vice-versa.
- Teaching Acoustics with (or without) Math Jill Linz, Kurt Hoffman, Dan Russell . . .
 - No matter what level acoustics we teach, the math level used is always a strong consideration in the course design. Instructors of acoustics related courses at all levels are invited to submit papers sharing best practices or innovative ideas for integrating mathematical techniques and/or concepts into their courses. At the non-major or introductory level the choices are often how to discuss important concepts without utilizing mathematical tools beyond the capability of students, whereas at the advanced undergraduate or graduate level, acquiring facility with advanced mathematical techniques is likely a learning goal of the course, thus changing the pedagogical options. We are interested in contributions at the single lecture or unit level of planning to the scaffolding of an entire course or maybe even sequential courses.
- Acoustics education: A potpourri of classical and unusual materials and demonstrations . . . Olivier Robin, Dan Russell?
 - This session aims to bring together acoustics education specialists, educators and solicitate demonstrations, talks and a panel discussion.

ASA 187 -- Fall 2024 . . . Virtual ONLY

- Undergraduate Poster Session (with presentations?) Session SURIEA students? Keeta Jones, Dan Russell Discussion Comments (will continue and finalize at SYDNEY EDCOM meeting)
 - SURIEA students, grads, instructors, mentors . . . 2023 cohort?
 - Open to all undergrads . . . but there are not a lot of undergads attend ASA . . .
 - Request \$\$ for poster prizes we want more than just SURIEA students . . .
 - Contrasting desires:... faculty want their students to present in a "normal" session... students like to present in a less scary type session...
 - Should this be a POSTER session? OR just a special session for undergraduate research?
 - Ask / invite Robert Young Undergrad Award Winners to present their work?
 - Need some "older" members to attend the session to talk to and provide feedback / questions for undergrad presenters
 - Be careful of prizes for posters and presentations . . . not fair to compare posters and presentations
 - Is this the right meeting? Online is NOT the same as in-person
- Book(s) that inspired me to change my approach to teaching Dan Russell, John Buck
 - Share a book that changed your approach to teaching. Summarize the book, explain what you took away from reading it, and how it changed your teaching.
- Virtual Show 'N Tell: virtual tours of teaching labs / demos / experiments) Dan Russell, ???
 - Showing a demonstration or laboratory experiment from your own laboratory.
- Embracing ChatGPT as an instructional tool for acoustics education ???
 - Using ChatGPT (perhaps real-time?) as an educational tool . . . starting point (first draft) of a paper that students then edit, helping to write homework problems, developing rubrics, writing code (debug).
- Teaching Acoustics Virtually Laura Ruhala? . . .
 - Online tools for teaching acoustics

ASA 188 New Orleans . . . (Spring 2025)

- Workshop for presenting to (target audience) organizer . . .
 - For all attendees . . . how to present to non-scientists
 - Andy Piacsek Public Relations committee communication of science ideas
 - John Buck -- I just got a sci comm book called "Don't be such a scientist" by Randy Olson, who is a marine biology prof who turned filmmaker. I haven't read it yet, but wonder if he could be a keynote/invited speaker for such a session.
 - David Brown -- "Talk like an Acoustician" -- like in Steve Garret's book
- Additional Special Session #1 ???
 - Using ChatGPT (perhaps real-time?) as an educational tool . . . starting point (first draft) of a paper that students then edit, helping to write homework problems, developing rubrics, writing code (debug).
- Additional Special Session #2 ???
 - description.

Updates from ED subcommittees

SMMfL (Students Meet Members for Lunch) - Martin Lawless, Chair

We successfully matched 58 students, representing all 14 of the technical committees. We had more volunteers than students this time, which always makes my job a little easier, so a big thank you to the 74 volunteers who signed up to meet with students!

Resolved problems with signing up during registration process!!!

ED Outreach Subcommittee – Dan Russell, Gordon Ramsey, Kim Riegel, Kurt Hoffman, Brian Monson, Jill Linz, Andrea Calilhanna.

Sub-committee has not met since the Nashville meeting. Perhaps we can re-engage over the summer and fall of 2023 to prepare something for Ottawa in Spring 2024? Or more long-range planning for Spring 2025 in New Orleans.

OR reconfigure and incorporate this subcommittee into the new (admin) Committee on Acoustics Outreach and Education?

Teaching Activity Kit 2.0 Subcommittee – Keeta Jones, Andrew Morrison, Kim Riegel, Dan Russell, Andrea Calilhanna, Ben Tucker, David Brown.

Reconfigure this committee into the new (admin) Committee on Acoustics Outreach and Education?

Keeta – has done quite a bit of work to design the new version of the kit . . . one longstanding kit (tuning forks) that repeats every year . . . supplemental "mini-kit" (maybe every year or other year) . . . one-time offering . . . lesson plans and activities . . . something new every year . . . themes for new kits

Looking for ways to make it so ASA doesn't have to fund the bill for all of the materials . . . Amazon? (we assemble the kit as a list of things you can purchase on Amazon . . . we provide the lesson plans for how to use them) . . . option to pay forward a kit for someone else.

The 2023 Rossing Prize Selection Subcommittee:

Dan Russell (ED Com chair 2018-2024)
Dan Ludwigsen (appointed by ED Com chair – 2022-2025)
Barbara Shinn-Cunningham (selected by ASA president – 2021-2024)
Karen Helfer (selected by Chair of Prizes & Special Fellowships Chair – 2022-2025)
Brad Story (selected by Chair of Prizes & Special Fellowships Chair – 2022-2026)

Two (2) new nominations were received, along with four (4) carry-over nominations from 2022. Four nominations were quite strong, and there was a near tie between the top two. We have made a recommendation to the ASA Prizes & Special Fellowships Committee and are awaiting approval from the Executive Council. We asked for the delivery of the Rossing Prize Lecture to be delayed until Spring 2024 ASA 186 Ottawa, Canada so that more ED members can attend.

COMMENT: Make the Rossing Prize a Spring lecture for the near future? (need to check the rules and MOU)

Reports from ASA Outreach and Education Coordinator (Keeta Jones)

Update for SURIEA 2023

- students
- mentors

8 previous SURIEA students will be attending Chicago . . .

Keeta will be presenting about "Explore Sound" website at AS 184 Chicago (let Keeta know if you see broken links)

Every one can now write a lay-language paper (not just those invited by news media) . . . AIP media still goes through all abstracts and invites authors to submit a lay-language paper

Read Keeta Jones' article in <u>Acoustics Today</u> . . . about why to write a lay-language paper . . . 300 words . . . helps people find your research (greater exposure) . . . form of outreach!

Twitter Posters for posting research to social media (3-5 easy to read slides . . . animated GIF file) . . . template is on asaedcom.org . . get involved

Steve Garrett – comment . . . about outreach . . . substitute teacher (great way to engage HS students after retiring!) – look for article in next issue of *Acoustics Today*

BOOTHS and STEM Fairs for 2023

- SACNAS October 2023
- NSBP November 2023
- ISEF

NEW Business (Discussion Topics)

Discussion Topic #1: Elevation of ED to a Technical Committee

NOTE: Follow-up after the Executive Committee meeting at ASA Chicago is appended to these Minutes.

During our ASA 183 Nashville EDCOM meeting, there was active and lively discussion concerning the administrative classification of the Education in Acoustics Committee. EDCOM is very different from most of the other administrative committees within the ASA organizational structure, and this has long been a point of frustration as to how EDCOM functions and how it relates to the other parts of ASA. We have more than 60 members, 35-45 of whom regularly attend EDCOM meetings. We currently discuss and deal with administrative issues, especially those involving outreach activities performed by or with the ASA Education and Outreach Coordinator, and we do submit budget requests for those outreach activities through the Administrative Council on Outreach. However, we also do many things which are more typical of the function of a Technical Committee:

- we organize and chair special sessions for ASA meetings (usually 2-4 special sessions at each meeting),
- we facilitate prizes for members and students (the Rossing Prize for Acoustics Education, and the Robert Young Award for Undergraduate Research),
- we coordinate activities with other Technical Committees to champion education in those technical areas,
- we have sponsored two Special Issues of JASA on Education, and
- our members actively engage in the improvement of teaching, mentoring, and the development of educational resources.
- The EDCOM chair is expected to attend meetings of the Technical Council.

The unique nature of EDCOM membership and functionality poses several challenges, some which result from our organizational structure as an admin committee, and others resulting from the many varied things we attempt to accomplish.

STATUS and UPDATES about this Issue . . .

During the ASA 183 Nashville meeting, EDCOM Chair (Dan Russell) made a presentation at the Technical Council meeting on Monday afternoon (Dec. 5). *PowerPoint slides were appended to the ASA 183 Nashville EDCOM minutes*. The presentation requested permission to begin exploring the possibility of splitting the current EDCOM functionality into two parts:

<u>Outreach and Education Committee</u> — a smaller committee (perhaps 6-10 members) that would fall under Administrative Council on Outreach, and which would focus on the administrative issues, the outreach activities that ASA is involved with (Booths at STEM fairs and professional conferences attended by under-represented minorities undergraduates and faculty), the development and distribution of the ASA Teaching Activity Kit, outreach events during ASA meetings, etc.

<u>Education in Acoustics Technical Committee</u> – elevating ED to a TC would allow for greater focus on acoustics education research, sessions on teaching pedagogy, mentoring of students, and the development of educational resources. An ED TC would also showcase the important role Acoustics Education plays in forwarding the ASA mission and purpose statement.

During the ASA 183 Nashville Technical Council meeting, there was positive response from TC chairs. The Technical Council appointed a sub-committee to explore this request (though the sub-committee has not yet met). However, there were many questions raised about the process and the rules for establishing a new TC. Current ASA rules require the following . . .

- A group wishing to establish a new Technical Committee must first create a Technical Interest Group for a three (3) years trial period.
- During that 3 year period, the TIG must convince 2% of the ASA membership to declare "ED" as their primary choice for the TC category on the ASA membership portal.
 - o It is not clear how the 2% of the membership is determined (active members? or all members?). What is the number that equals 2% of the membership?
 - There are many ASA members who are involved with education (though the majority of ASA membership
 are not involved with an educational instutition) but will enough of them be willing to select ED as their
 primary interest for 3 years?
 - o Currently only the 1st choice for TC counts . . . but there might be a very large number of ASA members who would select ED as 2nd or 3rd choice . . . would that be taken into account? Or only 1st choice?
- This 3-year trial period was established for the creation of a **new** Technical Interest area that did not exist before. Since ED has existed since 1965 and has been partly operating effectively as a TC (especially sponsoring special sessions at ASA meetings) for at least 35-40 years, is it really necessary for ED to undergo a 3-year trial period as a Technical Interest Group?
- Could there be a fast-track method, or an exception?

There is ongoing discussion with the ASA president, vice-president, and Technical Council sub-committee.

Active Discussion – unanimous support from ED COM members to proceed with a proposal to the Executive Council. Will follow-up (amend to minutes) with response from Executive Council at Chicago.

Discussion Item #2: Outreach Plans for 2024-2025

The next three ASA meetings are out-of-country:

- Fall 2023 ASA 185 Sydney, Australia
- Spring 2024 ASA 186 Ottawa, Ontario, Canada
 - o Note: Dan Russell's term as EDCOM chair ends with the Spring 2024 meeting.
- Fall 2024 ASA 187 Virtual (online only)

So our next in-person meeting in the US is Spring 2025 for ASA 188 in New Orleans. What kind of outreach activities should ASA and Education be planning for 2024-2025 and beyond?

OPEN DISCSUSSION

Keeta – in past ASA used to public hearing screenings . . .

Freddie -- P&P has people (grad programs) to do this . . .

Keeta -- ASHA . . .

Keeta - Noise - sound walk in New Orleans

Keeta - Citizen Science Movement . . . check POMA and JASA - soundprint app (local noise)

Kim – wrote one of those apps (presented in Nashville – had SUREIA student working on it)

Andrea - math music psycho-acoustics (Sydney & Ottawa) . . . topic for sessions and outreach at future meetings

Freddie – music in New Orleans (potential special session)

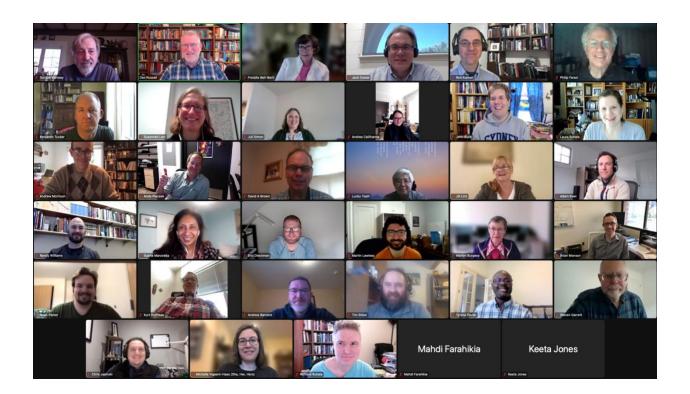
Dan – combine themes for special sessions and outreach . . .

Kim – coming at STEM from outside . . . from arts . . . STE**A**M? . . . starting with ART and discovering that there is Science!!! . . . ASA is great way to increase participation in STEM for under-represented groups. Good potential for outreach.

Call to Adjourn:

Moved by: Jack Dostal Seconded by: Gordon Ramsey

Meeting adjourned at 7:40pm Eastern



FOLLOW-UP Report from CHICAGO Executive Council:

Actions taken by Executive Council at ASA 184 regarding the proposal to fast-track the conversion of the Administrative Committee on Education in Acoustics to a full Technical Committee.

Monday, May 8 – proposal submitted to Executive Council

Friday, May 12 – Executive Council discussion and vote . . . next steps.

Motion to reorganize the Administrative Committee on Education in Acoustics into a Technical Specialty
Group in Education in Acoustics and an Administrative Committee on Outreach and Acoustics Education
Motion was Tabled for further discussion.

Motion to define the 2% clause in rules 18.2.1 to be interpreted as:

• 2% support of the individual membership of the Society must select ED as their 1st, 2nd, or 3rd choice (prior to the conversion of the Technical Specialty Group to a Technical Committee)

Unanimous vote to approve by Executive Council.

NOTE: we will need to work with Dan Farrel and ASA head office to change membership portal to reflect top 3 choices.

Original Motion – brought back to the table Vote: **Unanimous approval**

Next Steps:

Submit a proposal to **Administrative Council on Outreach** (chair Eliza Michalopoulou -- *michalop@njit.edu*), and Executive Council (ASA President Stan Dosso -- *sdosso@uvic.ca*) to:

- Establish the membership of the new **Administrative Committee on Outreach and Acoustics Education** to be 8 members:
 - ASA Education and Outreach Coordinator (Keeta Jones)
 - o The Chair of the Technical Committee on Education in Acoustics
 - o Three (3) members appointed by the Chair of ED
 - o Three (3) members appointed by the Executive Council
- The function and role of the Administrative Committee on Outreach and Acoustics Education would be to assist and advise the full-time ASA Education and Outreach Coordinator (Keeta Jones) by
 - o Overseeing the development and distribution of the ASA Teacher Activity Kit 2.0
 - Supporting the ASA Booths Initiative providing ASA presence at professional society meetings attended by undergraduate students and faculty from under-representative backgrounds (NSBP, SACNAS, etc.)
 - Planning, coordinating, and hosting outreach activities for middle- and high-school students during ASA meeting.
 - Providing input for ASA outreach activities (ExploreSound.org, etc.)

The Administrative Committee on Outreach and Education would answer directly to the Administrative Outreach Council, and then to the Executive Committee. Reports and financial requests would be submitted through the normal chain and processes for committees under the Administrative Outreach Council.

To-Do list for **ED Technical Specialty Group** (ASA Vice President Ann Bradlow -- abradlow@northwestern.edu)

- Work with ASA home office (Dan Farrell? Elaine? Jolene?) to get ED listed as a membership Primary Field choice option on the ASA Membership Portal
- Establish the method of electing the new ED chair to begin after ASA 186 Ottawa.
- Familiarize outgoing/incoming chair with the Technical Committee Chair Handbook
- Begin getting ASA members to change their Primary, Secondary, and Third Field of Interest to ED
- Continue scheduling special sessions at ASA meetings
- Seat at the table for Technical Council (non-voting)
 - o Access to \$1500
 - Ability to request Technical Initiative Funds (\$5000 \$7500)