

AGENDA – ED Com Meeting – ASA #182 Denver

(Tuesday, May 17, 2022 – 4:00-6:00pm EDT)

This was virtual online meeting via Zoom during the ASA Admin week prior to the ASA 182 Denver meeting. Recording of the meeting is available at: https://psu.mediaspace.kaltura.com/media/1_pj61801m

Attendance: (30 people attended the Zoom meeting. 7 others registered but did not attend.)

Hassan Azad, Freddie Bell-Berti, David Brown, John Buck, Marion Burgess, Andrea Calilhanna, Bob Celmer, John Cormack, Eric Dieckman, T.J. Flynn, Kurt Hoffman, Chris Jasinski, Martin Lawless, Jill Linz, Subha Maruvada, Brian Monson, Thomas Moore, Andrew Morrison, Peggy Nelson, Gordon Ramsey, Kim Riegel, Olivier Robin, Dan Russell, Juli Simon, Scott Sommerfeldt, Adam Svec, Steve Thompson, Benjamin Tucker, Cameron Vongsawad, Rand Worland

Meeting was called to order at 4:02pm.

Approval of Minutes from Nov. 2021 ASA 181, Seattle meeting

Motion to approve minutes as posted – *Freddie Berti-Bell*

Seconded – *Gordon Ramsey*

Note: Keeta Jones (*ASA Education and Outreach Coordinator*) is on parental leave with a new baby! And will not be participating in this ED Com meeting.

Updates for ASA #185 Sydney Australia – (Fall, 2023e)

Marion Burgess and Andrea Calilhanna were both logged on from Australia (but both had to leave early to catch planes) this agenda item was moved up so they could provide a quick update about the Fall 2023 Sydney meeting.

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

⇒ Website for this meeting is active: <https://acoustics23sydney.org/>

The ASA Technical and Executive councils have asked that special sessions for this meeting involve a co-chair/co-organizer from both the ASA and also the Australian Acoustical society and/or one of the Asian acoustical societies.

ED Special Sessions --- Plans for this meeting will need to be solidified in Nashville (Fall 2022).

- **Connections between Music and Math** – Andrea Calilhanna and (need additional organizer)
 - Targeted toward younger school students (younger) – focusing on connections between music, math, psychoacoustics
 - Possible collaboration with the Marks institute for Brain Behavior
- **Online Resources for Teaching Acoustics (with a music flavor?)** – Andy Morrison and Joe Wolfe?
 - Descriptive sentence still needed
- **Approaches to Acoustics Education in the Asia Pacific Region** – Marion Burgess and ???
 - Descriptive sentence still needed
- **Distance Learning for Acoustics Professionals Across International Boundaries** – Marion Burgess and Dan Russell
 - Descriptive sentence still needed
- **Teaching Acoustics across Trans-Disciplinary areas** – (organizers needed)
 - Teaching acoustics to non-acoustics professionals (short courses, etc.)
 - Helping Understanding metrics, consulting reports for people without the appropriate background

Reminder of ED special sessions for ASA #182 Denver

ED Special Sessions

- **Tuesday, May 24**
 - **2aMU** – 9:00am-11:50am – **Strategies for Online and Hybrid Teaching of Musical Acoustics**
 - 7 papers
 - **2pED** – 1:00pm-3:15pm – **Connecting Industry and Education (Part 1)**
 - 6 papers and a Panel Discussion
- **Thursday, Dec, 2**
 - **4pEA** – 1:15pm-5:30pm – **Low Cost Acoustical Measurement Systems**
 - 15 papers

Note: there are no hands-on demonstration sessions for Denver (Discussion later)

ED special sessions for ASA #183 Nashville (December 5-9, 2022)

Call for Papers appearing in June.

- **Connecting Industry and Education (Part 2)** – Jim DeGrandis and Dan Russell
 - Case studies and examples of successful partnerships between industry and educational institutions. Internships, equipment donations, educational programs, mentoring, etc.
 - This session was added for Nashville after several industry and academic speakers who were invited for the Denver session backed out due to uncertainty and concerns about COVID (when abstracts were due in January 2022)
- **Resources for Teaching Waves in a Physics class?** –Cameron Vongsawad, Andy Piacsek, Andrew Morrison, Dan Russell
 - Educational resources (websites, online repositories, apps, demonstrations, projects, hands-kits, etc.) suitable for teaching waves in a physics class. Focused on High School physics courses, including AP.
 - Reach out to Twitter #iteachphysics community?
- **My Favorite Homework Problems** – [PA and ED] -- Dan Russell, Thomas Szabo, Preston Wilson
 - In this session, speakers will present descriptions of their favorite homework problems and/or classroom activities based on measured data from physical acoustics experiments or demonstrations. Talks will include descriptions of the demonstration or experiment that inspired the homework problem or activity, and how the measured data or the demonstration was incorporated into the homework problem or in-class activity.
- **Field Trip?** – Scott Hawley
 - Belmont (Atmos Theater and brand new concert hall). Schermerhorn. (need to check whether this is still happening)

BIG Discussion Item #1: Outreach Activities by ED during ASA meetings

Discuss the current and future status of traditional ED outreach activities:

- **Hands-on Demonstrations** (targeted to local area middle-/high-school students)
- **Listen-Up and Get Involved** (targeted to local area Girl Scout Troops)- Women in Acoustics

Note: Original plans for Denver meeting were to combine these two events into a single, larger, formal demonstration show (with hands-on interaction) to be held at an off-site location Wednesday evening. The off-site location was reserved but we (Keeta Jones – ASA EOC, Dan Russell – ED, Anna Diedesch – WiA) were not able to effectively organize the event or solicit attendees or volunteers to serve as demo presenters.

OPEN DISCUSSION about Hands-on Demonstration Outreach Activities:

Note: these discussion comments were collated and condensed from both live discussion and posts to the Zoom chat window

Freddie B-B – demonstration outreach events are worth trying . . . outreach to an age group we want to target (get them excited about acoustics)

Bob C – numbers were dropping (even before COVID) . . . we still aren't out of COVID yet . . . it is too early to "give up" since we aren't back to normal yet

Kim R – does a lot of local outreach activities . . . school districts have specific things / topics to cover (Girl Scout badges) . . . how could we better FIT/match local school curriculum needs? Partner with schools . . .

Dan R. – what about reaching out to local area teachers

Scott S. – there are big problems with timing to get school students to an event at ASA meetings . . . next week (ASA Denver) is the week before Memorial Day – last week of school for many local districts, so unlikely to attract students/teachers. We need better engagement with local area contacts in meeting location for future meetings..

Kurt H. – rethink who we are targeting these demonstration outreach activities . . . instead of focusing on physics/science classes, maybe we should also try to target choir / band / music instructors . . . maybe even involve local area professional musicians for a "physics/acoustics/science of musical instruments" activity

Peggy N. – suggested reaching out to local area international baccalaureate programs . . . Suggested we ignore Nashville and plan for Chicago? (early May 2023) – having time to plan ahead would allow for greater engagement.

Olivier R -- Agree that it would be important to reach in advance teachers in various domains, and fit to 'local' needs (even if 'global' topics can be covered as well) - Teachers will be more motivated to promote the proposed activities, and be relays of fun demonstrations to be done in class, if it is too difficult to move their students. At Internoise2018, a STEM workshop was organized the day before the congress : <https://internoise2018.org/public-outreach.php>. We mostly reached teachers that were looking for ideas, examples, demos. It was overall quite successful.

Andrea C – will be trying some of these approaches for Sydney . . . coordinating with local school, community, music teachers?

Julie S – why not go physically to the school instead of bringing students to the ASA meeting hotel. . . (do the demonstration at the school).

Brian M – daytime assembly at school (during the school hours) . . . does this outreach event have to occur DURING the meeting? . . . what about Monday morning? Friday afternoon? The Friday before the meeting? (this might require \$\$ to get ASA members there to help). Do the outreach event but not directly attached to the ASA meeting . . .

Gorgon R – all of these ideas are possible for Chicago (lots of schools . . . and colleges with music programs . . . faculty and musicians) . . . suggested placing the emphasis on teachers (workshops for teachers)

Adam S – suggested hosting a workshop for social media influencers who make podcasts, Zoom, Tic-Toc . . . a tutorial for how to get the “best acoustics” for your podcast or social media posts . . .

Kim R – is that something that could be done virtually?

Brian M – Re: staffing the demos, when I was on student council it was expected that we would help with hands on demos. I'm not sure if this tradition has continued. I think incorporating the student council would be helpful

Olivier R – One of the best examples I have ever seen is from Ophonius (https://www.youtube.com/watch?v=jKpHHQ-hJ68&ab_channel=QuintetOphonius, sorry in French). It is a 'scientific show': A band plays some tunes, and between these tunes explains what is resonance, frequency, etc... It can be proposed in a theater and played 2-3 times / a day (that is what we did in Sherbrooke, Québec and we reached more than 500 persons in a single day - general public, scholars, students). This nevertheless requires a large amount of work before being ok (it took them a couple of years to get to a well-oiled show).

Jill L – using audacity (in local schools) to show students their voice / instrument . . . going to the school to work with students . . . (Andrea C) => psychoacoustics also . . .

Andrew M – A lot of you might be surprised to learn how much sound is covered in the NGSS in elementary school, not middle or high school

Kurt H – Many teachers need help with even the basics. All levels will benefit from talking about topics - especially topics they have taught already and may have questions about details they can't answer for their students

Brian M – It seems this may need to be something that is scheduled 6-12 months in advance. We know where we'll be a couple years in advance, so this is something we may need to jump on in the meeting planning

Kim R – have we tried local libraries?

Bob C – Local Libraries often host events for kids in a library community room

Bob C – suggested revisiting demos with greater “WOW!! Factor” . . . (reverse thermos acoustic demo . . . Rubens flame tube . . . Rikje tube, etc.)

Freddie B-B – ASA Teaching Kits are aimed at younger students so should not expect “Wow!”

Dan R – but our Demo equipment is also not “Wow” but has apparatus aimed at middle school or younger

Freddie B-B -- Tom Rossing and Uwe Hansen used to have workshops at the end/after ASA meeting for teachers (AAPT) . . . which very successful. We should reach out to them to learn about what they did.

David B. – teachers need CEU (continuing education units?) . . . badges? CEU credit? . . . Curriculum is so tightly structured . . . find out the local curriculum needs . . . state requirements

Kim R. – is ASA still relatively “unknown” . . . how do we better represent and identify ourselves? Could we provide some virtual/online workshops (videos, demos) as an introduction . . . before we try to ask for an-person event?

After this lively discussion, the decision was made to form a subcommittee to explore options for a more effective demonstration outreach activities for future ASA meetings – including a demonstration show with hands-on activities for younger students as well as workshops for teachers.

ED Outreach Subcommittee – *Dan Russell, Gordon Ramsey, Kim Riegel, Kurt Hoffman, Brian Monson, Jill Linz, Andrea Calilhanna.* This subcommittee will meet in-person at Denver, and online in June to begin exploring options for ASA 184 Chicago (May 2023).

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- **Resume Help Desk?** – for several years (spearheaded by David Dowling), ED provided a resume help desk for students to bring their resumes and receive feedback and suggestions. Dan R. will talk to student council about this to see if there is any interest in providing this service again at future meetings.
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BIG Discussion Item #2: Budget Cuts from Executive Council that Affect ED

As an administrative committee, ED submits budget requests to the Outreach Administration Council for approval. OAC forwards approved requests to the Executive Council for final approval and fund allocation. The Executive Council is currently looking for ways to reduce financial burden for ASA. In March, 2022 Dan Russell (ED chair) was asked to submit a report, responding in detail to a series of questions from the EC to explain and defend the mission and goals of the Education in Acoustics Committee, to assess the effectiveness of ED activities, and to justify ED budget requests. (This Report can be made available to ED members upon request).

[1] ASA Teaching Activity Kits (previously supported by annual \$20,000 budget item):

- 2019 – the company that had been assembling and storing kits had to stop (federal regulations for employing handicapped persons). Existing kits were shipped, and stock depleted.
- 2020 – Subcommittee was formed to develop Teaching Kit 2.0. Met sporadically to begin exploring new kit ideas, options for assembling and storing. But, COVID stalled any progress.
- 2021 – Subcommittee met in-person at ASA 181 Seattle – discussed ideas for Kit 2.0. Discussed option of using an Amazon “store” for dissemination of Kit items, supplemented with instructions on how to assemble and use items. Submitted request annual for \$20,000 to get Kit 2.0 off the ground and initial development, with intent for Kit to become “self-supporting” (Amazon store?) or to secure outside funding for future development and dissemination.
- At the ASA 181 Seattle meeting, the Executive Committee denied the request from ED to continue setting aside a recurring line item of \$20,000 for the development, assembly, and shipping of the ASA Teaching Activity Kits..
- Need Teaching Activity Kit subcommittee to become more active (working between ASA meetings) to develop alternative method of developing and disseminating Kit 2.0

OPEN DISCUSSION about ASA Teacher Activity Kits:

Andrew M. – we should still consider asking ASA for initial startup funds . . . but we need a definite plan to move toward a self-sustaining financial support for Activity Kits. Expressed frustration that EC was cutting \$20,000 from a recurring budget line-item that we have not spent for two years (is that really saving \$\$ if the \$\$ wasn’t spent?)

Freddie B-B – recalled experience from chairing Archives & History) . . . there are problems with recurring budget items . . . it looks bad when we have a recurring budget request that is not spent several years in a row

David B. – knows of a non-profit organization in Rhode Island . . . East Bay Education Collaborative (see chat) – possible source for having kits assembled, stored, and shipped?

After discussion, the decision was made to add volunteers to the subcommittee and that the subcommittee needs to more actively (aggressively?) work on developing version 2.0 of the Teaching Activity Kit and to explore options that would allow dissemination of a kit to become self-supporting.

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

This subcommittee will attempt to meet in-person at Denver, and online in June to begin exploring options for the Teacher Activity Kit. Any budget request for 2023 will need to be submitted at the Fall 2022 ASA 183 Nashville Meeting.

[2] The normally recurring budget item requests which ED makes each year include:

Budget items which are specific to Education Committee activities during ASA meetings

Normally Recurring Budget Items renewed every Fall:

- \$2500 – shipping, maintenance, repair/replacement of demonstration equipment (2 large crates) used for the “Hands-on Demonstrations” and “Listen-Up and Get Involved” outreach events to local students at each ASA meeting. A significant cost is the shipping of these two large cases from ASA headquarters to the Spring/Fall meeting sites. These hands-on demonstration outreach events cannot happen without this equipment. REVISIT . . . ask for only when needed.

New (non-recurring) Budget Requests

- \$1500 – for Undergraduate Research Symposium Best Poster Awards (*we don’t have an undergraduate research poster session planned for Denver or Nashville*)

Budget items which are specific to the duties of the ASA Education and Outreach Coordinator

Items marked in red have been identified by the Executive Council as activities that ED should consider scaling back or terminating. Requests to keep these items need to be assessed and justified with evidence (metrics?) of the quantitative benefits.

- **\$5000 – Booths Initiative (SACNAS, AAPT, AAAS, NSBP, SWE)**
- **\$2000 – Booth Kits – purchase and distribution of ASA swag items at outreach events.**
These funds allow Keeta to attend and staff a booth at 2-3 meetings of professional societies attended by students and teachers, especially those from underrepresented minorities, Specific meetings are selected dependent on location, time of year, and potential interaction.
- **\$9700 – ASA sponsorship of ISEF (International Science & Engineering Fair)**
- \$3000 – ASA sponsorship of USASEF (USA Science & Engineering Festival)
The charge to EDCOM in the 2019 ASA Rules (section 28) stipulates that EDCOM will provide judges (appointed by the EDCOM chair) to represent the Society at international science and engineering fairs held in North America. Prior to 2022, ASA leadership had committed to financially sponsoring both science fairs, and the sponsorship gets the ASA logo and brand displayed. In addition, Keeta Jones coordinates outreach activities and staffs a booth at these events and works with the judges awarding prizes for acoustics entries.
- \$3000 – ASA sponsorship for PhysCon

OPEN DISCUSSION about ISEF, Booths initiative and EC recommended budget cuts:

Note: these discussion comments were collated and condensed from both live discussion and posts to the Zoom chat window

Andrew M – part of ASA mission is dissemination of information (outreach and education) of acoustics. But since outreach events do not bring in \$\$ so it looks like ED is a negative cost to ASA. Some of the things ED does are hard to quantify. EC membership changes . . . 3 years from now EC will be different people.

Freddie B-B – first ED meeting she chaired . . . needed a vote to increase the \$\$ of prize money . . . Hank Bass “if we don’t reach these kids now, we are dead as a society” WE can’t always count how many of them eventually become acousticians . . . but we can show that the activities these students were engaged in (with ED support) were important to them . . .

Kim R – West Chester SEF – 3 students from her school district participated in ISEF. Kim watched the awards presentation . . . ASA banner was very highly profiled (international recognition) for quite some time during the presentation. Suggested reaching out to winners to ask what impact did winning have on them . . . There are benefits to making students aware of acoustics as a viable career path, even if they don’t end up at ASA meetings.

Dan R -- Need better tracking metrics . . . how to quantify the effect/impact of ED outreach activities like these.

Scott S – not sure where he stands . . . it is challenging to successfully defend keeping our budget . . . EC needs to cut big \$\$\$ items and must decide which things are good, better, best. There are lots of good things to spend \$\$ money on – but \$\$ is limited so they have to choose. Are these activities “good” or are they truly “better” . . . we need to come up with METRICS to quantify the benefits

Andrew M – increasing awareness of ASA (making ASA better well-known) could be a “measurable metric” for justifying budgets

Kurt H – One important way to support students from underrepresented groups in science and engineering is to help them see themselves in the ASA SACNAS, NSBP, and SWE are crucial

Freddie B-B – connect Booths to CIRDI . . .

Andrea C – Could the ASA poster competition be promoted for Chicago through schools and the work presented at the ASA meeting? We could ask for funding for a video to advertise the competition as part of outreach and attendance in the ASA schools and teachers session. The winners can present their work at the session for acousticians in the audience also. The footage from Chicago could then be used for a video targeted for Sydney ASA teachers and students at the maths and music session. Can we discuss this at the next meeting? Can ASA target disadvantaged schools and kids who are needy? The poster competition could be targeted at those schools to attend perhaps sponsor free attendance?

Olivier R – If poster competition is to be promoted through schools, then posters level / accessibility has to be adjusted for such audience. This could be a good challenge and a good training in science communication for students (which could justify the financial support for such action)

David B – companies to make donations connected to education and outreach? Could we get donations directly connected to our activities? Freddie . . . not a specific education line

Andrew M – reminder that Executive Council membership will be completely new people 2-3 years from now, so the financial situation might be quite different.

Bob C – asked what Keeta Jones had to say about this

Dan R – since Keeta is on maternity leave, I have not talked with here about this at all yet. Once she is back (in June), I will discuss this in detail with her.

After discussion . . . Dan Russell will meet with Keeta Jones (after she returns from maternity leave) to discuss ISEF and the Booths Initiative and to gather information and feedback about the success, effectiveness, and “return-on-investment” for ASA involvement in ISEF, and Booths at STEM conferences (SCANAS, AAPT, NSBP, SWE, PhysCon). Andrew Morrison (currently on EC and chairing the finance subcommittee) will be kept in the loop. This discussion item will be brought back to ED for more discussion in ASA 183 Nashville to plan for our ISEF and Booths budget requests for 2023.

Reports from ED subcommittees

SMMfL (Students Meet Members for Lunch)

Update from **Martin Lawless** . . .

We have a fairly low turnout from students for ASA 182 Denver. Only 38 students (out of the 84 who checked the box on pre-registration) filled out the questionnaire. We had 45 members sign up, so we were able to successfully match every student.

We have some known issues where some students that are checking the box on pre-registration are not on the list that Elaine sends me after registration has closed. We have a feeling that this is happening with members as well but are not sure. I think I checked the box and I was not on the list, but honestly, I do not remember exactly. I'm hoping to meet with Zane and Elaine during the conference to discuss other ways of having both students and members sign up that does not involve a multi-step process. . . . email (from Google) ended up in the SPAM filter for several members . . . Still working out the bugs . . .

2022 Rossing Prize in Acoustics Education

The 2022 Rossing Prize Selection Subcommittee is:

Dan Russell (*ED Com chair 2018-2024*)

Dan Ludwigsen (*appointed by ED Com chair – 2022-2025*)

Barbara Shinn-Cunningham (*appointed by ASA president – 2021-2023*)

Karen Helfer (*appointed by Chair of Prizes & Special Fellowships Chair – 2022-2025*)

Brad Story (*appointed by Chair of Prizes & Special Fellowships Chair – 2022-2026*)

Five (5) nominations were received for the 2022 Rossing Prize, with no automatic carryover nominations from 2021. The members of the selection committee met via Zoom to discuss the nominations on Thursday, May 12, 2022. Each committee member scored the five nominations using a rubric and the scores were combined and discussed. From the five nominations, there were three who were considered notably worthy of receiving the Rossing Prize, and one nomination that was ranked slightly higher than the other two. The five subcommittee members unanimously agreed on the rankings for all five nominations. Pending approval by the ASA Committee on Prizes and Special Fellowships and the Executive Council, we hope to award the 2022 Rossing Prize in Acoustics Education at the Fall 2022 ASA 183 meeting in Nashville.

The other four nominations will be automatically rolled over for consideration in 2023.

JASA Special Issue on Education in Acoustics

Final deadline for manuscript submissions was extended to **January 14, 2022**.

A total of 45 manuscripts were submitted. At least 40 were passed on to reviews. Approximately 25 have already been accepted for publication (12 have appeared in JASA monthly issues). Several more have been reviewed and revised and are awaiting acceptance. The rest are out for review or are under revision. We hope to have the official special issue released later this summer (July / August).

Special Sessions for FUTURE ASA meetings

ASA #184 – Chicago, IL – (May 8-12, 2023)

These special sessions must be submitted in Denver.

- **Education Assessment Research** – Andy Piacsek and Dan Russell
 - [Assessment of pedagogy, concept inventories, measuring outcomes . . . Where to start and stop assessment. How to assess what we do? Application of Education theory.](#)
 - **Artistic vs Technical approaches to Acoustics** – Gordon Ramsey, Olivier Robin, and Andrea Calilhana
 - [Connection between physics & arts . . . connection between acoustics as an art vs math/physics](#)
 - **Using Math in Acoustics** – Jill Linz, Kurt Hoffman, Dan Russell . . .
 - [Undergraduate . . . teaching the math side of acoustics without the scary math.](#)
 - **When Getting it Right Goes Wrong** – Kim Riegel, John Buck, Dan Russell
 - [What you do when you try new things and it doesn't work \(flops\).](#)
 - [Open mic – panel / open discussion](#)
 - **My Favorite Homework Problems (Signal Processing)** – John Buck
 - [Too many damn problems!](#)
 - [Push off for another meeting \(after Sydney\)???. . . .](#)
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Reports from ASA Outreach and Education (Keeta Jones)

Keeta is on parental leave (new baby!!!)

SURIEA – Summer Undergraduate Research & Internship Experience in Acoustics

- 12 undergraduate students from underrepresented minorities (matched to mentors)
 - One-week (in-person) first week in June Acoustics Summer School held in Chicago (*Kim Riegel, Eric Reuter, Adrian KC Lee*)
 - 10-week research / industry internships with mentors/sponsors
 - Exploring funding sources for 2023 and beyond.
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New Business . . . things to think about for the Future of ED COM

What about an Acoustics Educational Repository for posting homework problems, lab experiments, lectures notes, course materials (exclusive to ED members). Should we form a subcommittee to think about this?

Examples: <https://www.slrbs.net/>
<http://tinyurl.com/getAER>
<http://tinyurl.com/shareAER>

5:57pm – Call to Adjourn:

Moved by: Andrew Morrison

Seconded by: Freddie Berti-Bell

