

# ASA Structural Acoustics and Vibration Technical Committee

Open Meeting

173rd ASA Meeting in Boston, Massachusetts

26 June 2017

8:00 p.m.

Hynes Room 312

## Minutes

1. Call to Order (meeting called to order at 8:03 PM)
2. Boston Meeting Agenda (additions or other modifications)  
No Agenda modifications were proposed
3. Approval of the 172<sup>nd</sup> ASA Meeting Minutes from Honolulu, Hawaii  
Honolulu Minutes were approved

## Meetings

4. 172<sup>nd</sup> Meeting, Honolulu, Hawaii, 28 November – 2 December, 2016  
David Adams and Whitlow Au, Co-chairs

Winners of The Best Paper Awards for Students and Young Presenters (eligible up to one year after graduation) for SAVTC at the 172<sup>nd</sup> ASA Meeting in Honolulu:

### 1st Place

Colby Cushing, University of Texas

Experimental validation of the underwater sound focusing properties of a pentamode gradient index metamaterial lens

### 2nd Place

Alyssa T. Liem, Boston University

Estimation of material properties using vibration magnification

Thank you to Ben Shafer for organizing the student and young presenter paper awards in Honolulu.

5. 173<sup>rd</sup> Meeting/ “Acoustics ’17 Boston” Joint ASA/EAA meeting in Boston, MA, 25-29 June 2017  
Damian Doria, ASA Chair, Robert Koch, ASA Technical Program Chair

a. 158 SAV papers total: 43 invited, 115 contributed (including 14 poster format)

- Thank you to the following SAVTC-related special session organizers:  
Brian Anderson, Donald Bliss, Kenneth Cunefare, Linda Franzoni, Robert Koch,

Christina Naify, James Phillips, Marcel Remillieux, Dan Russell, Benjamin Shafer, Micah Shepherd

- Technical Program Organizers: Robert Koch and Benjamin Shafer

Update: Robert Koch noted that the meeting room for Metamaterials Sessions was too small to accommodate large audience (up to 80 attendees in the room)

- Student and young presenter paper awards: Benjamin Shafer
  - There are **40** student and young presenter award contestants at this meeting
  - This is a VERY large number of entrants (AKA: “a good problem to have!”) and we must assist Ben at Boston in overseeing paper reviews. Volunteers?

Update:

- Thanks to Christina Naify and Micah Shepherd for assisting Ben Shafer in this difficult job by distributing rating sheets at their own special sessions
- A discussion occurred at the SAVTC meeting on consideration of eligibility for a student who submits award entries for multiple SAVTC papers. Conclusion was that nothing specifically precluded this (refer to Call for Papers) and thus the SAVTC will currently allow this practice.

b. ASA's Students Meet Members for Lunch program

- New approach at Jacksonville led to large increase in number of interested students ever since
- David Blackstock requesting assistance
- Member volunteer sign-up sheet to be passed around

c. ASA broadcasting/recording 29 sessions (no longer any TC and Admin Meetings) at the Boston meeting

- Boston SAV special session proposed streaming but did not make the final list
- Recordings available for two weeks to those who registered
- Live streaming no longer tied to specific meeting rooms
  - Virtually no impact now on TPOM related planning
- Streaming in Boston cost \$12K (\$15/hour to some “volunteer” folks)
- Still investigating a long-term approach/plan

Update: Honolulu Live Streamed session stats: 261 Livestream viewers, 797 recorded viewers (recordings available to registrants for over two weeks after meeting)

6. 174<sup>th</sup> Meeting, New Orleans, Louisiana, 4-8 December 2017  
Joel Mobley, Chair, Natalia Sidorovskaya, Technical Chair

a. **Final Special Sessions:**  
Finalized in Honolulu.

- **Acoustic Metamaterials:** Chair, Christina Naify

- **Standards in structural acoustics and vibration:** Chair, Benjamin Shafer (ASACOS Standards committee has agreed to co-sponsor the session)
  - **SAV applications of FEA, BEA, and SEA Computational Methods:** Co-chairs, James Phillips and Elizabeth Magliula
  - ~~**Active Control of Sound and Vibration Fields:** Co-chairs, Scott D. Sommerfeldt and Jon D. Blotter~~ (Cancelled by Scott Sommerfeldt on 19 Jun 2017)
- b. Student and young presenter paper awards: Benjamin Shafer
- c. TPO: Benjamin Shafer (New Orleans Pre-Virtual TPOM: 31 Jul – 7 Aug 2017)  
Virtual TPOM: 10 August 2017)
- d. Notes on New Orleans Meeting:
- New Orleans meeting back to running Monday – Friday
    - not Boston's Sunday-Thursday
    - thus our SAV TC meeting in New Orleans back to Tuesday evening
  - Usual 20 minutes Invited, 15 Contributed paper lengths
7. 175<sup>th</sup> Meeting, Minneapolis, Minnesota, 7-11 May, 2018  
Peggy Nelson and Bruce Olson, Co-Chairs
- a. **Finalize** Special Sessions:  
Must be finalized in Boston.
- Metamaterials: Chair, Christina Naify
  - Noise and vibration in rotating machinery: Chair, Robert Koch
  - Improving Education in Structural Acoustics and Vibration: Co-chairs, Brian E. Anderson and Scott D. Sommerfeldt
  - Model Reduction for Structural Acoustics and Vibration: Chair, Kuangcheng Wu
  - ~~Applications of smart materials for acoustics and vibration (or something similar)?~~: ~~Chair(s), ??~~ Update: No claims by SAVTC members to organize this Smart Materials for SAV special session → Removed from Minneapolis Meeting and placed in 'Brainstormed Session Ideas' list below
- b. Technical Program Organizer: Benjamin Shafer
- c. Student and young presenter paper awards: Benjamin Shafer
- d. ASA School 2018 (follows offerings in 2012, 2014, and 2016)
- 5-6 May 2018 in Minnesota (just prior to ASA Minnesota)

- Course for graduate students and early-career acousticians (i.e., within 3 years of terminal degree)
- Details:
  - \$50 Registration fee
  - Hotel & meals provided by ASA? → Update: Confirmed
  - Participant must be ASA Minnesota author/co-author

8. 176<sup>th</sup> Meeting, Joint ASA/CAA meeting in Victoria, British Columbia, Canada, 5-9 November 2018

Stan Dosso, Chair

a. **Preliminary** Special Sessions:

SAVTC must set Preliminary Special Sessions in Boston. Sessions must be finalized in New Orleans, December 2017.

- Acoustic Metamaterials: Co-chairs, Christina Naify and Alexey Titovich
- History of Computational Methods in SAV: Co-chair(s), Benjamin Shafer, James Phillips, and John Fahline

Update: Following two Victoria special sessions added after Boston SAVTC meeting:

- Advances in Thermoacoustics: Co-chairs, Matthew Kamrath and Robert Koch
- Video-based vibration measurements in SAV: Co-chair(s), Micah Shepherd and Trevor Jerome

Brainstormed Special Session Topic Ideas (for future reference):

- Site Characterization (Earl Williams)
- NDE (theoretical) /Civil Infrastructure (application) (Jinying Zhu)
- Digital Image Correlation (3D displacement, transient data gathering, ...)
- History of a specific SAV technical area
- Thermoacoustic technology
- Vibration absorber technology
- Advances in SAV sensing and/or actuation
- Nanotechnology in SAV
- Novel damping treatments again
- Real-world case studies again
- SAV testing, in some respect
- Applications of smart materials for acoustics and vibration (or something similar)?
- others ?

b. TPO: Benjamin Shafer

c. Student and young presenter paper awards: Benjamin Shafer

## 9. Future meetings:

- 177<sup>th</sup> Meeting, Louisville, Kentucky, 13-17 May, 2019
- 178<sup>th</sup> Meeting, TBD, Fall, 2019 (inside scoop: looking at San Diego, CA)
- 179<sup>th</sup> Meeting, Chicago, Illinois, 11-15 May, 2020
- 180<sup>th</sup> Meeting, Cancun, Mexico, Fall 2020

Proposed 182<sup>nd</sup> Meeting, Sydney, Australia

→ SAVTC feedback on this to report to Tech Council?

Update: Initial SAVTC impressions at meeting on a proposed Sydney meeting were that it might be:

- difficult for students to attend
- potentially difficult for Government/Federal Employees to attend

This feedback was passed on by Robert Koch to the Technical Council at the Thursday, 29 June 2017 meeting.

## Reports

### 10. Topics from the Technical Council Meeting:

- Recent 2017-2018 ASA Election results:
  - Lily Wang, President-Elect
  - (our own!) Scott Sommerfeldt, Vice-President-Elect
    - Congratulations, Scott!!
- ASA Strategic Leadership for the Future update
  - Champions Meeting this Wednesday, 28 Jun, 2-4PM, in Room 101
  - Exec Council approved \$30,000 for ‘Early Career’ Conference Travel
    - Early Career defined as  $\leq 10$  years since terminal degree
    - ASA Strategic Plan has money behind it, not just ideas!
  - Exec Council also approved \$300,000 fundraising goal to establish an endowment for ‘Early Career Leadership Fellows’ (two awards per year)
    - \$3,000 award + \$1,500 conference travel per awardee
  - Look for fundraising requests on this if interested
  - Carl Rosenberg graciously visited the SAVTC meeting and provided a brief on the ASA Foundation and the Hunt Fellowship Recognition Event (Poster Session?)
- ASA Task Force 1 (i.e., “Awareness of Acoustics”) seeking TC-promoting YouTube video content
  - Introductory videos on each TC ( $\leq 7$  minutes in length)
  - Keeta Jones (ASA Education Coordinator) will put together a template
  - Envisioned as a competition open to younger members/students
  - Contact Keeta for information or to volunteer
  - Can also link to existing playlists (e.g. from existing University Accounts)

- JASA Editor-in-Chief (EIC) Report:
  - Nick Vlahopoulos and Kuangcheng Wu both recently volunteered to fill two new SAVTC JASA Associate Editor (AE) spots
  - SAVTC still needs to identify a “Coordinating Editor” for JASA
    - 10/13 TC’s already filled this position
    - SAVTC one of remaining three TC’s not yet doing so
    - Role: to coordinate manuscript reviews among SAVTC AE’s
    - Volunteers? Both Micah Shepherd and Brian Anderson expressed interest and followed up with JASA EIC.
    - Term limits? (Assuming it is a three year term, as with AEs)
  - JASA EIC seeking “Special Content” articles/issues recommendations
    - Free for author
    - Includes guest articles, special issues, reviews, tutorials
  - JASA EIC seeking “metrics” for publication success (e.g., review speed,...)

#### 11. Report from Student Council: Tyler “T.J.” Flynn

- Student Events at Boston:
  - New Student Orientation ~ 150 students (record!)
  - Student Meet & Greet ~ 100 students
  - Student Reception (at Hilton Back Bay) ~ 100 attendees
    - Five NCAC Student Awards presented
    - Dan Russell presented with Student Mentor Award (congrats!)
  - Resume Help Desk (M,T,W 12:20-1:20)
    - Boston will be the final meeting for the Resume Help Desk
- Graduate Programs in Acoustics Poster Session (Tuesday) was a success
- Special EdComm Session: Teaching Tip for the New (or not so new) Acoustics Faculty Member
  - Thursday at 1:15pm → very well attended
- Call for applications for the Student Mentor Award will go out soon
- Student Council Facebook hit 1000+ likes during the Boston Meeting.

The Student Council is looking for:

- Students Meet Members for Lunch → 125 students! (record)
  - Any members who are not signed up, but are interested in participating in future meetings should contact T.J. Flynn ([t.jayflynn@gmail.com](mailto:t.jayflynn@gmail.com))
- Student Council is looking for Members interested in participating on a Grant/Fellowship advice panel in New Orleans. Interested parties can contact Ela Warnecke ([elabelabohne@gmail.com](mailto:elabelabohne@gmail.com))
- An Introduction to Technical Committees Session for new students will be held at the Minneapolis Meeting. SAVTC will need a member to volunteer to present a 7 minute presentation discussing what the SAVTC is and does. (Previous presentations exist and can be edited/reused)
- Consider forwarding post-doc, job, or event information to T.J. Flynn ([t.jayflynn@gmail.com](mailto:t.jayflynn@gmail.com)) to include on Student Council website

12. Report from Medals and Awards Committee: James Phillips (officially relieves Sabih Hayek as SAV TC rep following trial run)  
Update: James reported that the M&A Committee considering changing term limits (e.g., to two 3-year terms, or a single longer term)
13. Report from Membership Committee: TBD
- Kai Ming Li stepped down as rep, still need to find new Fellow rep
  - Need a replacement Fellow SAVTC rep for Membership Meeting. Any volunteer?
    - (Meeting occurs on Tuesday at 12:00PM in Room 104)
  - Robert Koch will serve as SAVTC rep at Boston Membership Meeting  
Update: Robert Koch signed up as SAVTC's official Membership Committee rep until replacement is identified.
  - Current ASA effort to identify new ASA Fellows candidates:
    - Some TC's as low as 5% level
    - Fellows needed for basic ASA functions
    - Please consider candidates (including yourself) and contact Robert Koch
14. Report from ASACOS: Robert Koch
- Robert Koch to provide 'Standards Update' PowerPoint brief  
Update: Ben Schafer to coordinate with Chris Struck regarding potential multiple "Standards" Sessions overlap in New Orleans, Minneapolis.
15. Report from new SAVTC Liaison to the Education in Acoustics TC: Matthew Kamrath (Many thanks to T.J. Flynn for filling in for Matthew at Honolulu meeting)  
Update: Matt reported that EdComm Chair changing from Dave Bradley to Peggy Nelson (U Minnesota).
16. Report on SAVTC webpage update - Brian Anderson
- Recall Brian funded by SAVTC Web Maintenance Technical Initiative (\$500 per year for 2016 and 2017). Update for 2018-19?  
Update: Recently updated the SAVTC website. Brian will update some images in the SAVTC webpage gallery (images supplied by James Phillips). Brian decided that for now he will not require a Web Maintenance Technical Initiative for 2018
17. Technical Initiatives for 2018-19
- Funding is available!
  - Update: Scott Sommerfeldt & Brian Anderson idea: set some money aside for demo transport for ASA Minneapolis SAVTC Education special session (\$1500 was requested in Pittsburgh, not fully utilized → need to advertise)
  - Update: Robert Koch submitted a \$1,500 Technical Initiative for 2018 to ASA on 29 June 2017.
18. New Business  
 No New Business was raised
19. Adjourn (Meeting adjourned at 9:27PM)