# **Structural Acoustics and Vibration Technical Committee**

Open Meeting
177<sup>th</sup> ASA Meeting in Louisville, Kentucky
14 May 2019
7:30 p.m.
Stopher (3<sup>rd</sup> floor, The Galt House)

### **Minutes**

- 1. Call to Order (meeting called to order at  $7.35\ PM$ ) / Officially Welcomed Colby Cushing as New Student Council rep to SAVTC
  - In attendance (30 people): Reza Afrough, Brian E. Anderson, Ben Beck, Anthony Bonomo, Colby Cushing, David Feit, Tyler Flynn, Seth Hall, Ryan Harne, Andrew Hull, Trevor Jerome, Robert M. Koch, Stephanie Konarski, Ting-Wei Liu, Liz Magliula, Katie Matlack, Connor McCluskey, Cameron McCormick, Kyle Myers, Christina Naify, James Phillips, David Raudales, Daniel A. Russell, Benjamin Shafer, Scott D. Sommerfeldt, Sam Wallen, Andy Wixom
- 2. Louisville Meeting Agenda (additions or other modifications) No Agenda modifications. proposed
- 3. Approval of the 176th ASA Meeting Minutes from Victoria, Canada Victoria Minutes approved without modification or discussion (Motion: Scott Sommerfeldt, Second: Ben Shafer)

## **Meetings**

 176th Meeting, Joint ASA/CAA meeting in Victoria, British Columbia, Canada, 5-9 November 2018 Stan Dosso, Chair

Winners of The Best Paper Awards for Students and Young Presenters for SAVTC at the 176<sup>th</sup> ASA Meeting in Victoria, Canada:

## 1st Place

Caleb Goates, Brigham Young University, Provo, UT A quasi-analytical formulation for acoustic radiation modes of simple curved structures

#### 2nd Place

Mark Cops, Boston University, Boston, MA Finite element modeling of fluid-saturated metallic foams from micro-computed tomography Thank you to Ben Shafer, with help from other SAVTC folks, for organizing the student and young presenter paper awards in Victoria (6 contestants).

Mtg. Discussion: Ben Shafer brought up the issue of how to best handle the situation when a student with multiple papers entered for the award receives multiple high rating scores and would potentially rate as winner of both the first and second place awards. Ben made to the committee the proposition that that student should receive the highest award selection earned and then the next available award should be given to the next entrant with the next highest rated student paper. This solution prevents any one student from receiving both awards. Solution was met with general concurrence by the committee members present and will be the policy of the SAVTC for the Louisville awards and going forward.

- 5. 177th Meeting, Louisville, Kentucky, 13-17 May 2019 Pavel Zahorik, Chair
- a. 70 SAV papers total: 15 invited, 55 contributed (50+% increase over last few meetings!)
  - Thank you to the following SAVTC-related Louisville special session organizers:
     Mohammad Afrough, Ben Beck, Hubert Hall, Robert Koch, Elizabeth Magliula,
     Katie Matlack, Christina Naify, James Phillips, Bogdan Popa, Benjamin Shafer,
     Alexey Titovich
  - Technical Program Organizers: Benjamin Shafer and Robert Koch
    <u>Mtg. Discussion</u>: Robert Koch asked committee if there were any additional volunteers who are interested in also learning/being technical program organizers for the SAVTC. Involves being intermittently available during program organizing period 3-4 weeks after any current meeting and remotely attending the web-based 'virtual TPOM' shortly after that. Anthony Bonomo volunteered to assist Ben and Robert starting with the San Diego meeting TPOM.
  - Student and young presenter paper awards: Benjamin Shafer and David Raudales
    - There are 29 (!) student and young presenter award contestants at this meeting
    - Please consider assisting Ben and David at this meeting in (a) providing your own reviews for student papers you are in the audience for as well as (b) potentially distributing/retrieving paper reviews in a given SAVTC session if Ben or David asks you to.
    - Mtg. Discussion: Ben Shafer asked committee members in Louisville if there was a volunteer to help cover one last session Ben was chairing. Andy Wixom volunteered to help.
  - b. ASA no longer live-streaming technical sessions (since Victoria and thereafter)
    - All talks offered opportunity at Louisville to record presentation slides and audio (authors must give approval during abstract upload stage)
    - ASA contracted company for this task at ~\$20K
    - Recordings made available free to all conference registered attendees

- Recordings to be made available for others at cost (e.g., ~one-day registration fee)
- c. Women in Acoustics Luncheon
  - Held Wednesday, 15 May at 11:45 AM -1:45 PM (Sampson)
  - Open to all attendees, \$30 per ticket (students \$15 per ticket).
- d. Society Luncheon and Lecture
  - Sponsored by College of Fellows
  - Held Thursday, 16 May at 12:00 noon 2:00 PM (Sampson)
  - Program speaker is Andy Cavatorta who will present a lecture titled "Music, Machines, and Meaning."
  - Open to all attendees, \$30 per ticket.
- 6. 178th Meeting, San Diego, California, 2 6 December 2019 Peter Gerstoft, Chair
  - a. Final Special Sessions:

Finalized in Victoria.

- Acoustic metamaterials: Chairs, Christina Naify and Bogdan Popa.
- Flow-induced vibration and noise: Chairs, Kuangcheng Wu and Robert Koch
- Novel methods for energy dissipation in structures: Chairs, Jerry Ginsberg and Greg McDaniel
- Treatment methods and computational analysis of vehicles: Chairs, Ben Shafer and Michael T. Rose
- Computational methods for mid-frequency structural acoustic problems: Chairs, Anthony Bonomo and David Raudales
- Acoustics of 3D-printed materials and structures: Chairs, Alexey Titovich and Stephanie G. Konarski

Mtg. Discussion: In answer to Katie Matlack's stated issue where perspective author's for a special session incorrectly select 'invited' vs the correct 'contributed' when submitting abstracts, Robert Koch responded that session organizers have final say on that decision and have the option to change it prior to the TPOM. Robert reminded organizers to check this important data when submitting their final special session forms to ASA.

- b. Student and young presenter paper awards: Benjamin Shafer, Jason Smoker, and David Raudales
- c. Technical Program Organizers: Benjamin Shafer, Robert Koch, and Anthony Bonomo
  - San Diego Abstract Deadline is: 8 July 2019

- Remote TPOM Meeting: 15 August 2019
- TPO Guidelines have been developed and will be sent out to TC TPO's:
  - 'living document'
  - Requesting feedback from TPO's to improve product
- 7. 179<sup>th</sup> Meeting, Chicago, Illinois, 11-15 May 2020 ??, Chair
  - a. Finalize Special Sessions:

Must be finalized in Louisville.

- Acoustic metamaterials: Chairs, Christina Naify, Bogdan Popa, and Alexey Titovich
- Non-contact vibration measurement methods: Chairs: Ben Shafer and T.J. Flynn
- Active or tunable structural acoustics: Chairs, Christina Naify and Ben Beck
- Real World Case Studies in structural acoustics and vibration of vehicles: Chairs: Robert Koch and Sue Sung
- Retrospective on fuzzy structures for structural acoustics and vibration: Chairs, Jerry Ginsberg, David Feit, and Kuangcheng Wu
- Soft and compliant metamaterials: Chairs, Ryan Harne, Katie Matlack, and Stephanie Konarski
- b. Technical Program Organizers: Benjamin Shafer, Robert Koch, and Anthony Bonomo
- c. Student and young presenter paper awards: Benjamin Shafer and David Raudales
- d. ASA School 2020 to be held at ASA Chicago:
  - Held the weekend before Chicago meeting (Friday night through Sunday)
  - Many costs covered (see ASA 2020 Flyer)
  - There is an application process coming soon
  - Save the date: 9-10 May 2020
  - Attendees must be at least a co-author on an ASA Chicago paper to register
- 8. 180<sup>th</sup> Meeting, Cancun, Mexico, 9-13 November 2020 ??, Chair
  - a. **Preliminary** Special Sessions:

SAVTC must set Preliminary Special Sessions in Louisville. Sessions must be finalized in San Diego, May 2019.

 Acoustic metamaterials: Chairs, Christina Naify, Bogdan Popa, and Alexey Titovich

- Perspectives from senior researchers in structural acoustics and vibrations: Chairs, Kuangcheng Wu and Ben Shafer
- Capabilities and limitations of the computational analysis of metamaterials: Chair, Anthony Bonomo
- Novel techniques for nondestructive evaluation in structural acoustics and vibration: Chairs, Brian Anderson and T.J. Flynn
- b. Technical Program Organizers: Benjamin Shafer, Robert Koch, and Anthony Bonomo
- c. Student and young presenter paper awards: Benjamin Shafer and David Raudales
- 9. Future meetings:

181<sup>st</sup> Meeting, potentially Portland, Oregon (still needs site visit), Spring 2021 182<sup>nd</sup> Meeting, Sydney, Australia, 6 – 10 December 2021 183<sup>rd</sup> Meeting, Denver, Colorado, Spring 2022

# Reports

- 10. Topics from Monday's Louisville Technical Council Meeting:
  - JASA Editor-In-Chief (EIC) Report:
    - o Thesaurus "Keyword" Search Input nearly done
    - o Usual request for 'Special Content' articles
      - These articles do wonderfully in IF, along with reviews and tutorials
    - o New JASA 'Reflections' coming
      - New monthly feature to be added to JASA for next decade
      - 1-2 page descriptions of "classic" / seminal JASA articles before 2000
      - Needs 5-10 of these per TC total—will be considered a publication itself
      - EIC recommends each TC form sub-committee ASAP to identify:
        - 1) Specific worthy classic papers
        - 2) Potential *Reflections* authors for each paper

<u>Update</u>: Robert Koch is currently seeking 2-3 SAVTC volunteers to form this sub-committee in summer 2019 (latest, prior to San Diego Meeting).

- o <u>Two</u> new JASA Topic Headings coming:
  - 'Computational Acoustics'
  - 'Acoustical Standards & Practice'

<u>Update</u>: Robert Koch is currently seeking SAVTC feedback on any additional possible SAV topic headings for the future to ensure our TC is forward thinking and on the forefront of SAV technology.

- Executive Council Updates Report:
  - o Note the 'Get Involved' volunteer link on the ASA Membership page
  - o Note to all Associate ASA Members: upgrading to Full ASA Member has been dramatically streamlined and is now a quick and painless process!

- o ASA has developed a new ASA Meetings Sexual Harassment Policy:
  - May tell any ASA Leadership person of experienced or observed sexual or other harassment, or
  - Submit it anonymously using 'STOPIT' app
    - →App may be obtained directly by a link on ASA Louisville site or by just searching for 'STOPIT' on the ASA Home website
- o Survey on government relations outreach completed by Vic Sparrow:
  - 1,900 responses to government survey
  - Responses ranged from 'why?!' to 'Definitely Yes'
  - 'Do something' is general consensus → details on 'what' to come...
- o ASA Technical Council Strategic Plan Summit was held in Feb. 2019
  - Goal of summit was to help set Strategic Plan for next ~3-5 years
  - Output of Summit consisted of dozens of Technical Initiatives
  - Then, following an Executive Council Summit thereafter, <u>four</u> main Strategic Initiatives were developed (which capture most of the Tech Council Summit's output):
    - 1) "<u>Identification and Promotion of Emerging Scientific /</u>
      <u>Technical Areas</u>" (or "where is the society going in the future in a technical way?")
    - 2) "<u>Better Engagement of Industry and Practioners</u>" (potentially through the use of industry-focused special sessions, etc.)
    - 3) "<u>Improved Communications and Public Relations</u>" (or "how ASA can better interface and communicate with news organizations, how to organize that interface, etc.")
    - 4) "<u>Member Engagement Outside of Meetings</u>" (specifically increasing outreach to ASA members in-between meetings and to those not attending meetings regularly).
  - Interested SAVTC members <u>highly</u> encouraged to attend Thursday's 2PM 'Champions Meeting (Wilkinson Room)
    - 1) Task Forces for each of the above initiatives will be coming
    - 2) Get involved!!
- 11. Report from Student Council: Colby Cushing

(Note: Colby's first ASA meeting as SAVTC Student Council rep!)

- Follow ASA students and get students you know to follow us on twitter and facebook: @ASAstudents and ASA students respectively.
- Sign up for SMMFL, and the college of fellows luncheon to host a student. Great way to meet students and maybe find a potential hire later down the road
- Robert Koch to give 10 min overview talk on SAVTC at ASA San Diego
- If you have a local/student chapter of the ASA, check to make sure they are represented on exploresound.org. If not, get in touch with Colby to get it fixed.
- 12. Report from Medals and Awards Committee: James Phillips
  - Earl Williams received the ASA Silver Award a couple of years back

- Based on SAVTC membership size, only eligible for another Silver medal after meeting certain criteria, so we won't be eligible for quite awhile
- Open for promoting candidates for the ASA Gold Medal and Lyndsay award, however.
- Encourage applications from SAVTC
- For Silver, needed 3 candidates 2 candidates that got passed over for last Silver could be nominated for Gold medal
- 13. Report from Membership Committee: Robert Koch
  - Update on EC proposal to split Membership Committee into two Committees:
    - o Fellowship and Member Advancement Committee
    - o Member Engagement Committee
  - Robert Koch looking for next official SAVTC Membership rep once term ends in year or so (must be a Fellow)
- 14. Report from ASACOS: Robert Koch
  - New ASA Standards Manager hired (Ms. Nancy Blair-Deleon, since Apr 2019)
  - JASA Jan 2019: "A History of Standards" Article
  - ASA Standards promotional video (link on Standards Home site)
  - New JASA Heading on "Acoustical Standards and Practice"
  - Close Call for the Decibel!
    - o Per the Standards Director Louisville Report:

"ISO 80000-8 FDIS - Quantities and units -- Part 8: Acoustics This document was revised by ISO TC 12, and circulated as FDIS with the decibel replaced by the neper (!?!). Objections from ISO TC 43 & TC 43/SC1 and TC 43/SC2, IEC TC-29, CEN, ANSI via the US TAG, and the Norwegian Committee did manage to put a halt to this and rescind this change, reverting the basic unit of acoustic level back to the decibel. Thanks to everyone who took the time to review the document and submit comments. That is what makes this process work."

- 15. Report from SAVTC Liaison to the Education in Acoustics TC: Matthew Kamrath
  - Reza Afrough filled in for Matthew as SAVTC rep at ASA Louisville EDCOM mtg.
  - 2020 has been named the International Year of Sound by ICA
    - Goal: Highlight importance of sound in all aspects of life on earth
    - More workshops, improving website for 2020
  - There was also a discussion about approval of ASA abstracts in past took a lot to be rejected (e.g., written in another language, etc.). Abstract acceptance now being revisited by ASA to specify specific things warranted to reject abstracts. Topic will be discussed further in ASA San Diego

- 16. Report on SAVTC webpage– Ryan Harne is our new volunteer (likely hasn't started work yet).
  - Robert Koch submitted a SAVTC Web Maintenance Technical Initiative at Victoria for 2019-20 (≤ \$500 per year for two years). Ryan Harne to see either Brian Anderson or Robert Koch for detail on process for billing against the TI for payment.
  - Robert Koch received updates/omissions list for SAVTC website from ASA's Elaine Moran and will forward this to Ryan Harne.

# **Other SAVTC-Relevant News/Issues/Requests:**

- 17. Status of Robert Koch "TC Chair with/without Navy Affiliation" issue:
  - Just for your information only; minor issue that will not affect our TC at all
  - Summary: Unless/until Navy works out acceptable Ethics arrangement for Robert Koch to attend ASA conferences as TC Chair in his official capacity as US Navy Senior Technologist (ST), Robert is attending meetings as a non-Navy affiliated person on his own time/funding.
- 18. Welcome to the following new members who were included in a new appointment request to ASA (made in early 2019) to become official new SAVTC members for the 2019-2022 term:

• Ryan Harne (harne.3@osu.edu)

• Stephanie Konarski (stephanie.konarski@nrl.navy.mil)

Bogdan Popa (bipopa@umich.edu)
 Michael Rose (rose.michael@byu.edu)
 Jason Smoker (jason.smoker@navy.mil)

### Please see/contact Robert Koch if:

- You wish to become an SAVTC member (highly encouraged!), or
- You are an SAVTC member whose term expires in 2020 and you do not wish to be reappointed as a SAVTC member
- 19. Request from Panel on Public Policy Chair (Ed Walsh) for SAVTC Rep:
  - Robert Koch is soliciting an SAVTC member volunteer to serve as SAVTC rep on this Panel.
- 20. Technical Initiatives for 2018-19
  - Robert submitted a \$500 per year Technical Initiative at the Victoria meeting to support web maintenance and improvement and content loading for the SAVTC website.
  - Others? (e.g., short courses, addendum for upcoming special sessions, external conference development/participation, Development/assembly of SAV software, etc.)

### 21. New Business:

- Two last items were brought up for discussion prior to meeting adjournment:
  - o In answer to a question from a committee member, Scott Sommerfeldt stated that the hotel venue selected by the ASA for the upcoming 2020 Chicago meeting is the Marriott in Downtown Chicago.
  - A Technical Initiative discussion ensued, initiated by Christina Naify but centered among proposers Ben Beck and Andy Wixom regarding the ASA co-sponsoring a two-day acoustic metamaterials workshop or symposium at Penn State University in the Fall 2020 timeframe. Committee discussed various factors including SAVTC/ASA interest, possible venue options (PSU, ASA Meeting, etc.), funding assistance, planning and scheduling, etc. More details to be provided before/at ASA San Diego as the plans for the workshop and potential Technical Initiative are more thoroughly vetted.
- 22. Adjourn (Meeting adjourned at 9:07PM).