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**Editor's Note:** Readers of this journal are encouraged to submit news items on awards, appointments, and other activities about themselves or their colleagues. Deadline dates for news and notices are 2 months prior to publication.

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## 2019—2020 Reports of Technical Committees and Technical Specialty Groups of the Acoustical Society of America

Technical Committees and a Technical Specialty Group represent fourteen different areas of acoustics in the Society. Appointments to the Technical Committees take place in January. Members who are interested in being appointed to a technical committee should send a message to [asa@acousticalsociety.org](mailto:asa@acousticalsociety.org).

### Acoustical Oceanography

This annual report reviews the activities of the Acoustical Oceanography Technical Committee for the 178th and 179th meetings of the Acoustical Society of America, spanning December 2019 through November 2020. This is the year of the Coronavirus pandemic, so it has been an eventful and unusual year in many respects, including the cancellation of the 179th meeting scheduled for Chicago this spring and the creation of the 179th all-virtual "Acoustics Virtually Everywhere" meeting scheduled for the fall.

The 178th meeting in San Diego was especially active for Acoustical Oceanography with 4 special sessions, 2 regular sessions, and 79 presentations. Special session topics covered Observational Acoustical Oceanography, Bioacoustics and Acoustical Oceanography, Marine Seismoacoustics, and a named special session in honor of Michael Buckingham, one of our committee's founding members who has made a lifetime contribution to both acoustical oceanography and underwater acoustics. The 2019 Medwin Prize in Acoustical Oceanography was presented to Dr. Chen-Fen Huang, who gave an excellent lecture titled "The development of acoustic mapping of ocean currents in coastal seas." The A. B. Wood Medal winner, Dr. Julien Bonnel also gave an excellent lecture titled "Acoustical oceanography with a single hydrophone. Propagation, physics-based processing and applications." Best Student Paper Awards were awarded to the following students: First place, Elizabeth Weidner, University of New Hampshire, "Tracking the spatiotemporal variability of the oxic-anoxic interface in the Baltic Sea with broadband acoustics," and Second place, Jen Gruber, Naval Postgraduate School, "Measurement of acoustic backscattering from rocky outcrops in Monterey Bay."

The 179th meeting spring, scheduled for Chicago, was cancelled in response to the Coronavirus pandemic. Although there is little to report on this meeting, the AOTC did hold a virtual meeting to discuss technical committee business. The excellent attendance at the meeting and the smooth operation of the technology was a good start to virtual gatherings, a necessity that can be expected to become more prevalent until social distancing rules are relaxed.

Many thanks to our student representative, Elizabeth (Liz) Weidner, our Medal and Awards Committee representative, Martin Siderius, our Technical program meeting organizer, David Dowling, our representative on the ASA Committee on Standards, Gopu Potty, and our representative of the Membership Committee, Andone Lavery. Your service is gratefully appreciated! Finally, I would like to acknowledge and thank John Colosi for his energetic and active support during his tenure as chair of the AOTC.

Grant C. Deane  
 Chair, 2019–2022

### Animal Bioacoustics

This report covers activities of the Technical Committee on Animal Bioacoustics (TCAB) from May 2019 to May 2020, including the San Diego meeting (December 2019) and the May 2020 virtual meeting.

During the latter half of this time period, most of us have had to adjust to a new way of conducting life due to COVID-19. Nonetheless, several of the 57 members of TCAB have generously volunteered their time to represent the TC within the Society.

In San Diego, TCAB sponsored four, well-attended special sessions: "Applications of machine learning to bioacoustics," "Low-frequency sound production and passive acoustic monitoring," "Standards in Animal Bioacoustics—Purpose, need, and application," and "Urban noise: Its effects on animals' acoustic communication," in addition to two other general topic sessions. TCAB offers awards for Best Paper in Animal Bioacoustics at each meeting. Twenty-one entries resulted in some healthy competition for this award at the San Diego meeting. Madelyn Strahan won first prize for "Relationship between biosonar click emissions, age, and hearing bandwidth in bottlenose dolphins, *Tursiops truncatus*," and Youenn Jezequel won second prize for "Propagation distances and sound properties of the antennal rasps produced by spiny lobsters (*Palinurus elephas*) in European coastal waters." Congratulations to the winners and a big thanks to those who evaluated presentations for Best Paper in San Diego!

TCAB also held its first fully virtual meeting in May 2020 as the spring ASA meeting in Chicago had to be rescheduled to December 2020. There were 55 attendees at the virtual meeting and it was nice to see so many familiar faces. We finalized the special sessions for Chicago and Seattle meetings, began planning for the Sydney meeting, and received important updates from several TCAB representatives on various committees of the Society. Including in these, were updates from Kali Burke, our outgoing TCAB representative on the ASA Student Council. I thank Kali for doing a fantastic job in this role over the last two years and welcomes Hilary Kates Varghese as the incoming TCAB rep on the Student Council.

In terms of Animal Bioacoustics Technical initiatives for 2019–2020, the ASA has approved co-sponsorship and support of student and early career participation at the following events: DCLDE Workshop, NE Regional Environmental Acoustics Symposium, SeaBASS summer school, and the International Congress on Neuroethology.

Members of TCAB are actively involved in the development of acoustic standards. Currently, there are S3/SC 1 working groups on the Effects of Sound on Fish and Turtles; Towed Array Passive Acoustic Operations for Bioacoustic Applications; Description and Measurement of the Ambient Sound in Parks, Wilderness Areas, and Other Quiet and/or Pristine Areas; Noise and Vibration in Animal Laboratory Facilities; Auditory Evoked Potential Testing of Toothed Whale Hearing; and Acoustic Metadata for Passive Acoustic Monitoring. Everybody is welcome to join working groups and actively participate.

I thank all of the members of TCAB for their support and involvement in various Society activities over the past 12 months.

Marla Holt  
 Chair, 2018–2021

### Architectural Acoustics

The Technical Committee on Architectural Acoustics currently has about 300 members, divided mostly into academics, practitioners (consultants), and students.

At the Louisville meeting (May 2019), Ana Jaramillo assumed the Chairship of the Committee and David Woolworth was appointed Chair-Elect, to serve in the meantime as an assistant to the Chair. Mallory Morgan is the current Student Representative for the TC.

## Meetings:

1. San Diego (Fall 2019): TCAA had 73 papers presented in 7 special sessions

83 members attended the TC meeting on Tuesday December 3rd

Student paper awards:

TCAA awards two prizes at each meeting for best student papers.

The winners for San Diego were:

1st Place: Shaira Gozun, "Hibla: An alternative sound absorption material"

2nd Place: Ally Taylor, "Improving the clinical environment soundscape"

Virtual TC meeting (Spring 2020): With the cancellation of the ASA conference in Chicago, TCAA went ahead with a virtual TC meeting attended by 118 members.

At this meeting, a lot of ideas were given by the members for virtual engagement and the idea of a virtual conference was favorably received.

Other:

Two active TCAA members passed away during this year: Bill Cavanaugh and Fred Schafer. They were remembered during the TC meetings.

Ana Jaramillo  
 Chair, 2019–2022

## Biomedical Acoustics

This annual report summarizes the activities within the Biomedical Acoustics TC between the Louisville meeting (Spring 2019) the May 2020 virtual meeting including the San Diego meeting (December 2019).

The 178th ASA meeting was held in San Diego at the beautiful Hotel del Coronado. We held six special sessions: Cavitation Nuclei: Bubbles, droplets, and more organized by James Kwan and Shashank Sirsi, High frame rate ultrasound imaging: technical developments and clinical applications organized by Libertario Demi and Alessandro Ramalli, Cavitation Bioeffects organized by Juliana Simon and Hong Chen, Application of Quantitative Ultrasound *in vivo* in humans organized by Jonathan Mamou and Michael Oelze, New Frontiers in Doppler Ultrasound organized by Alfred Wu and Jeff Ketterling and Ultrasound Phantom development and Tissue Characterization organized by Yunbo Liu and Matt Myers. Josh Sonesson from the FDA conducted our second BA modeling workshop on his HITU Simulator program. It was well-attended and well-received by students and professionals alike. We had an eventful BATC meeting where we discussed several ASA initiatives including an upcoming Strategic Plan meeting, ASA-Government Relations Improvement, International Year of Sound, and better acoustics outreach. Congratulations to new ASA Fellow Martin Verweij!

The May 2020 virtual meeting was first of its kind and a learning experience for all of us. The BATC meeting was held via Zoom and we had nearly 60 participants from all over the world. We discussed improved outreach, especially in light of the current COVID-19 situation and the work of the newly created ASA Virtual Task Force for whom we surveyed our members regarding upcoming December Chicago meeting. Most members who responded to the survey indicated they did not know whether travel in December would be possible but would attend a fully virtual or hybrid virtual meeting in case an in-person meeting was not possible. We discussed future meetings and conferences: ASA Seattle, ASA School and ISNA in June 2021, Sydney in December 2021, and Denver in May 2022. Congratulations to new ASA Fellows Stanislav Emilianov, Joel Mobley, and Xiaoming Zhang! We also wish a hearty congratulations to Dr. David T. Blackstock! The Mentor Award has been renamed in his honor.

The efforts of everyone who contributed to the Biomedical Acoustics Technical Committee this past year are gratefully acknowledged. This includes, but is not limited to, incoming and outgoing BATC representatives on committees:

- Medals and Awards—Jeff Ketterling
- Membership—(outgoing) Tom Matula and (incoming) Bob McGough
- International Research and Education (CIRE), Chair—Vera Khokhlova
- Archives and History—Juliana Simon

- ASACOS—Wayne Kreider
- Student Council—Asis Lopez

We are grateful to the Acoustical Society, Associate Editors, special session organizers, session chairs, the student council representative, poster session judges, and the poster session organizer for all their support and service. The Associate Editors of JASA and JASA-EL for BA related areas are W. W. L. Au, C. C. Church, R. R. Fay, J. J. Finneran, M. C. Hastings, G. Haat, D. K. Mellinger, D. L. Miller, A. N. Popper, T. J. Royston, A. M. Simmons, C. E. Taylor, K. A. Wear, and Suk Wang Yoon. Timothy G. Leighton is the BA editor for POMA. Many thanks to Kang Kim and Libertario Demi for representing BA on the TPOM sessions for these meetings. I would also like to thank everyone else who contributed to or participated in Biomedical Acoustics activities during the past year. In closing I would like to congratulate the incoming BA Chair, Ken Bader!! I truly enjoyed serving as BATC Chair these last three years but now am very excited for Ken to lead us moving forward.

Best wishes to all our ASA community

Subha Maruvada  
 Chair, 2017–2020

## Computational Acoustics

The Computational Acoustics Technical Specialty Group hit its stride in 2020, as it entered its second full year. The CA TSG, which was approved at the Minneapolis meeting in Spring of 2018, provides a forum for researchers interested in numerical methods, optimization of calculations, benchmarking, and practical application of computational models. Additional information on the formation and purpose of the TSG can be found in the Acoustics Today "Sound Perspectives" article (<https://acousticstoday.org/technical-specialty-group-report-computational-acoustics-d-keith-wilson/>).

The CA TSG met officially, for the third time, at the ASA Fall 2019 meeting in San Diego, with 46 attendees. The TSG took the lead in sponsoring two special sessions in San Diego: "Application of Model Reduction in Computational Acoustics" (joint with SA and SP, organized by K. Wu and K. Wilson), and "Parabolic Equation Methods Across Acoustics" (joint with 5 other TCs and organized by J. Cooper, M. Swearingen, and S. Maruvada). The TSG also held its first general session of contributed papers in San Diego (co-chairs J. Cooper and M. Morgan). The CA TSG co-sponsored 10 other special sessions, perhaps illustrating the ubiquity of computation in contemporary acoustics.

Due to the cancellation of the ASA Spring 2020 meeting in Chicago, we held a virtual TSG meeting, with a very healthy attendance of 53. We had planned four exciting special sessions for Chicago, which were organized by Anthony Bonomo, Jennifer Cooper, Benjamin Goldsberry, Micah Shepherd, Shung (Sue) Sung, Michelle Swearingen, and Kuangcheng Wu. Hopefully, these sessions will all make an appearance at a future meeting. Steffen Marburg and I had also worked on a special session for the Cancun meeting.

I had the privilege of attending the International Congress on Acoustics in Aachen, Germany, in Sept. 2019, where I was able to join a meeting of the European Acoustics Association's Computational Acoustics TC, chaired by Maarten Hornikx. We hope to build connections between the groups in areas such as software repositories and code benchmarking.

The CA TSG chair is particularly grateful to Jennifer Cooper for continuing to serve so capably as the CA TPOM representative through all the challenges of the past year. Jennifer, Ralph Muehleisen, and Laura Brill helped to ready the TSG to hold its first Young Presenter award competition, for the Fall 2020 meeting.

Computational Acoustics now has a full cadre of editors involved in all ASA publications: Kuangcheng Wu is the CA Coordinating Editor for JASA; John B. Fahline, Nail A. Gumerov, Ying-Tsong Lin, Assad Oberai, and Nickolas Vlahopoulos serve as the Associate Editors for JASA; Vlahopoulos and D. Keith Wilson are AEs for JASA Express Letters; and Matthew Blevins and Amanda Hanford are AEs for POMA.

The CA TSG looks forward to welcoming new members and expanding its activities during the coming year, whether virtually or in

person. More than ever, we value the bonds of research and friendship provided by the ASA.

*D. Keith Wilson*  
Chair, 2018–2021

## Engineering Acoustics

This annual report reviews the efforts in Engineering Acoustics (EA) from between June 2019 and May 2020. The information in this report is inclusive of the 178th meeting in San Diego, California on 2–7 December 2019 and the cancelled 179th meeting that was scheduled to take place in Chicago, Illinois from 11–15 May 2020. In that time span, the members and contributors to the Technical Committee on Engineering Acoustics (TCEA) published 28 full-length articles in *The Journal of the Acoustical Society of America* under the category of Engineering Acoustics.

TCEA-sponsored sessions in the 178th Meeting included two special session and two ad hoc sessions. The two special sessions were “Acoustical Engineering in Consumer Electronics,” (2aEA) chaired E. Okorn and “Acoustic Holography and Visualization of Sound: Methods and Applications” (3pEA) which was chaired by M. Scanlon. The two ad hoc sessions were “Engineering Acoustics Mixtape: Microfluidics, Arrays, Pipes, Ducts, and Damping” (2aEA) chaired by R. Williams and R. Logan and “Transducers,” (4aEA) chaired V. Naderyan and R. Williams. The TCEA chair also presented an “Introduction to TCEA” in an interdisciplinary session entitled “Introduction to Technical Committees Carousel” (2pIDb) sponsored by the ASA Student Council. No best student paper award was given as no entries were received. The TCEA meeting took place at 16:45 on 3 December 2019. The primary topics of discussion included a continued push to organize special sessions sponsored or co-sponsored by TCEA, updates on JASA publication metrics and Acoustics Today articles, solicitations for Technical Initiatives, and announcements about the upcoming events associated with the International Year of Sound. Details of that meeting were provided in the meeting minutes prepared by the TCEA chair.

As with many things associated with the year 2020, the meeting initially planned to take place in Chicago was cancelled and all planned TCEA-sponsored and co-sponsored sessions special sessions did not take place. However, the technical committee was able to meet virtually via Zoom on 12 May 2020 in order to provide the membership with an update regarding the meeting cancellation and to discuss plans for upcoming meetings. Despite some minor technical difficulties (two attendees were unable to join), there were twenty-three members and guests in attendance. The primary topics of discussion included the special session organization given that the sessions that were originally planned for the Spring meeting were obviously not going to take place and the creation of an ASA Task Force to consider the possibility of hosting an online conference for the Fall meeting. It was also announced that the meeting in Cancun, originally planned for Fall 2020, would be cancelled and that the site of the Fall meeting would be Chicago, if an in-person meeting is to take place. Details of that meeting were provided in the meeting minutes prepared by the TCEA chair.

*Michael Haberman*  
Chair, 2018–2021

## Musical Acoustics

This report covers the activities of the Technical Committee on Musical Acoustics (TCMU) for the period May 2019 to May 2020. Andy Piacsek was appointed as Chair to replace Andrew Morrison, who was elected to serve on the Executive Council. An election was held in March 2020 for a three-year term as TCMU chair, beginning in 2020; Andy Piacsek was elected as chair for the new term. The representatives to the Society committees were Thomas Moore, Medals and Awards; Andrew Morrison, Committee on Standards; William Hartmann, Membership; Eric Rockni and Mark Rau, Student Council. Those appointed or reappointed as TCMU members during the year were: Christopher Elmer, Jill Linz, Mark Rau, Andrew Morrison, Seiji Adachi, Jim Beauchamp, George Bissinger, Annabel Cohen, Jim Cottingham, Diana Deutsch, Jack Dostal,

Uwe Hansen, Peter Hoekje, Thomas Moore, Robert Pyle, Peter Rucz, Gary Scavone, and Stephen Tufte.

Associate editors of the society publications for the area of musical acoustics were Thomas Moore, Andrew Morrison, Tamara Smyth, and Joe Wolf (JASA); D. Murray Campbell and Thomas Moore (JASA Express Letters); and Randy Worland (POMA). For the upcoming year, Psyche Louie will replace Joe Wolf as an Associate JASA editor. The Technical Program Organizing Committee (TPOM) representatives for the fall meeting of the ASA (in San Diego) were Whitney Coyle and P ter Rucz; for the spring meeting (postponed), the representatives were Chris Jasinski and Peter Rucz. Andrew Morrison has taken over responsibilities for maintaining the TCMU website.

TCMU is proud to acknowledge D. Murray Campbell as the recipient of the Silver Medal for contributions to the understanding of the acoustics of brass wind instruments.

At the 178th meeting of the ASA in San Diego, CA, December 2–6, 2019, the TCMU sponsored three special sessions, two general sessions, and a concert. The three special sessions were: Asian Musical Instruments (Jim Cottingham, chair), Experimental Methods: Best practices (Andy Piacsek, chair), Machine Learning in Musical Acoustics (Scott Hawley and Bozena Kostek, co-chairs). Winners of the award for best student papers were Montserrat P mies-Vil  and Jade Case.

TCMU proposed a technical initiative to host a concert at the San Diego meeting, “Musical Traditions of Thailand,” in coordination with the Asian Musical Instruments session. This concert, organized by Jim Cottingham, was well attended by a wide cross-section of the ASA membership.

The 179th ASA meeting, originally planned for Chicago, IL, in the spring of 2020, has been postponed to spring of 2021. A virtual open meeting of the technical committee was held via Zoom on May 14, 2020, attended by over 40 members (from at least four continents). At this meeting, the schedule of special sessions for the next two meetings was decided.

The upcoming year will be full of challenges as traditional scientific conferences are held virtually. TCMU members will work diligently and creatively to help the Society meet these challenges.

*Andy Piacsek*  
Chair, 2019–2023

## Noise

During 2019–2020, the membership of the Technical Committee on Noise continues to be active in the Society and been honored to serve. Victor Sparrow served as President of the Society while Peggy Nelson served as Vice President. Bennett Brooks continues to serve on the Executive Council. All have been active within TCNS through chairing sessions and helping to organize recent meetings.

The year 2020 is International Year of Sound and many TCNS members participated in related events, as well as World Hearing Day (3 March annually) and International Noise Awareness Day (last Wednesday of April, annually). We received word that due to the special circumstances of the worldwide pandemic, the International Year of Sound will be extended through 2021.

TCNS has promoted the development of upcoming talent. This year marks the fifth year of the Leo and Gabriela Beranek Scholarship in Architectural Acoustics and Noise Control. This year’s recipient is Brian Puckett who is pursuing his Ph.D. in Architectural Engineering at the University of Nebraska. TCNS member Dr. Erica Ryherd is Brian’s advisor. In addition, this year is the fourth year for the Virginia and Frank Winker Memorial Scholarship for Graduate Study in Acoustics. This year’s recipient is Kenton Hummel who is also pursuing a Ph.D. in Architectural Engineering at the University of Nebraska, under the guidance of TCNS member Dr. Erica Ryherd. I encourage faculty at all universities to encourage students to apply for these two scholarships. I, along with the other members of the Beranek scholarship committee (Ana Jaramillo (TCAA Chair), Bennett Brooks, Alex Case, and Carl Rosenberg) and the Winker scholarship committee (Christopher Struck (ASA Standards Director), Ana Jaramillo (TCAA Chair), Michael Haberman (Chair TCEA), and Daniel Russell) have been privileged to review the applications of the students.

The 177th meeting of the ASA was held in Louisville, Kentucky with 7 TCNS-led sessions and 57 papers presented. Three Young Presenters were honored for excellent papers that they presented in Louisville: Mylan R. Cook for "Improved automated classification of basketball crowd noise," Jonathan R. Weber for "Quiet time impacts on the neonatal intensive care unit soundscape and patient outcomes," and Gregory Scott Farber for "Soundprint and the ASA's International Noise Awareness Day campaign - results, what worked, and going forward."

The 178th meeting of the ASA was held in San Diego, California with 9 TCNS-led sessions and 65 papers presented and one, well attended, all-day workshop on Jet Noise Reduction, organized by TCNS members Kent Gee and Alan Wall from Brigham Young University. The workshop took place on Friday and was complemented by two sessions on Supersonic Jet Aeroacoustics the day before. A Technical Initiative in the amount of \$2,000 was proposed by members of the technical committee, and subsequently approved by ASA, to fund the cost of materials and software to develop a prototype for a wearable sound level meter, the details of which could be shared for promoting noise awareness to the public. TCNS members David Woolworth and Eric Reuter volunteered to develop a prototype in time for demonstration at the next ASA meeting. Three Young Presenters were honored for excellent papers that they presented in San Diego: Jonathan Broyles for "Perceived annoyance of Mach-cutoff flight ground signatures compared to common transportation sounds," Jacob Ward for "Spectral comparisons between ground runup and flyover operations of a high-performance military aircraft," and Andrew Mitchell for "Making cities smarter with new soundscape indices."

Due to the worldwide pandemic, the 179th meeting of the ASA, intended for Chicago, was postponed taking the place of the fall meeting originally planned to be held in Cancun, Mexico. However, all ASA committee meetings for the spring meeting were held virtually, including the open meeting for TCNS. Thanks to the hard work of ASA and volunteers, the Spring 2020 open meeting for TCNS was as well attended and productive as a physical meeting. A demonstration of the wearable sound level meter described above was provided by video.

Thanks to following people who have represented TCNS within the ASA during this time: Brigitte Schulte-Fortkamp on the Medals and Awards Committee, Alex Case on the Membership Committee, Aaron Vaughn on Student Council, Rich Peppin on ASACOS (Committee on Standards), and Christopher Struck, Standards Chair. For the Young Presenter Award, James Phillips coordinated both the Louisville and San Diego meetings. The JASA Associate Editors for Noise are Anurag Agarwal, Jordan Cheer, Sanford Fidell, Kirill Horoshenkov, Yun Jing, Alexandra Loubeau, David Michaud, William Murphy, and Alan Wall. The JASA Express Letters Associate Editors for Noise are Eddie Lau, Alexandra Loubeau, and Tracianne Neilsen. The Editor for the Proceedings of Meetings in Acoustics is Kent Gee with Alan Wall and Cameron Fackler serving as associate editors. I also welcome the following new members to TCNS who have been selected to join their peers for the term ending in 2023: Sergio Beristan, Jeanine Botta, Joseph Keefe, Roderick Mackenzie, David Michaud, Ralph Muehleisen, Ed Okorn, Edward O'Neill, and Kieren Smith.

In conclusion, I wish to thank the members of TCNS for their participation and enthusiasm this past year, making my role as Chair an enjoyable experience. My apologies to anyone whose contribution I may have overlooked in the above report. Please don't hesitate to let me know if I did. I look forward to continuing to serve as your Chair.

*James E. Phillips*

Chair, 2018–2021

## Physical Acoustics

This report summarizes activities of the Physical Acoustics Technical Committee following the Louisville meeting (Spring 2019) and includes the San Diego meeting (Fall 2019). The Chicago meeting (Spring 2020) was postponed to fall, but a virtual PATC meeting was held on May 12, 2020.

The 178th meeting in San Diego included several special sessions:

Design of Acoustics Metamaterials: Optimization and Machine Learning, Feruza Amirkulova

Non-Reciprocal and Topological Acoustics, Yun Jing and Mike Haberman

Aqueous Acoustic Metamaterial, Matthew Guild, Shane Lani, and Jason Smoker

The 179th Meeting originally planned for spring 2020 in Chicago had 6 special sessions scheduled. Three of these will be organized in fall, while the remaining 3 are deferred to the Seattle meeting in spring 2021.

Thanks to the efforts of Kent Gee, the PATC student paper award competition has its first winners: This contest was based on POMA submissions resulting from a San Diego abstract. The paper "Numerical study on formation of an acoustic soliton in bubbly liquids based on weakly nonlinear wave equation" from Takahiro Ayuka was awarded Second Place, and first place went to Lawrence Singleton for his paper "Metaheuristic algorithm-based optimization of an elastic metamaterial for robust control of multiple modes of vibration in a structure."

The organizing committee of PASS 2020 decided to postpone the summer school to June 2021 because of the COVID-19 pandemic.

*Veerle Keppens*

Chair, 2017–2020

## Psychological and Physiological Acoustics

This report covers the activities of the Technical Committee on Psychological and Physiological Acoustics (PPTC) from June 2019 through May 2020, which includes the San Diego meeting in December 2019 and the virtual Technical Committee meeting in May 2020.

The fall meeting is generally less well attended by PPTC, due to the decision to focus on the Spring meeting, except in unusual circumstances such as international meetings. The San Diego meeting was, for this reason, lightly attended by PPTC members. There was a special session on Open Source Audio Processing Tools for Hearing Research, which attracted over 60 attendees. It was followed by a well-attended and lively demonstration poster session.

The Chicago meeting was postponed, which meant that the ceremonies associated with the awards and prizes were also postponed. The 2020 William and Christine Hartmann Prize in Auditory Neuroscience was awarded to Edwin Rubel and the 2020 Gold Medal was awarded to Judy Dubno.

ASA Leadership will include the following PPTC members in the coming year: Diane Kewley-Port (President), Peggy Nelson (Past Vice-President), Judy Dubno (Treasurer), Brian C.J. Moore (Executive Council). The following will serve as ASA Committee chairs and/or PPTC ex officio members: William Hartmann (Chair, Rules and Governance), Elizabeth Strickland (Chair, Membership), Brenda Lonsbury-Martin (Chair, Awards and Medals). Ex officio: Lori Leibold (Membership), Andrew Oxenham (Awards and Medals), Skyler Jennings (Committee on Standards), Daniel Guest (Student Council). The following have served or are newly appointed in 2020 as Associate Editors of JASA, JASA Express Letters, and Proceedings of Meetings on Acoustics: JASA: J.G.W. Bernstein, L.R. Bernstein, H.M. Bharadwaj, J. Braasch, M.J. Dietz, M., Goupell, K.S. Helfer, P.X., Joris, C.G. Le Prell, B.L. Lonsbury-Martin, C.A. Shera, G.C. Stecker (Coordinating Editor), S. Verhulst; JASA EL: C. Bergevin, M. Chatterjee, Q.-J. Fu, B.L. Lonsbury-Martin; POMA: H. Patra. PPTC is grateful to these members and to all the others who serve ASA on committees and Task Forces.

*Frederick M. Gallun*

Chair, 2017–2020

## Signal Processing in Acoustics

The Technical Committee on Signal Processing in Acoustics (TCSP) concludes a productive year highlighted by a wide-ranging set of special sessions addressing various signal processing challenges faced in acoustics.

At the fall 2019 Meeting in San Diego we hosted four special sessions: "Memorial Session for Edmund Sullivan" was organized by Ning Xiang, Brian Ferguson, and Zoi-Heleni Michalopoulou and featured 8 invited talks and 2 contributed talks discussing the impact that our dear friend Edmund had on signal processing in acoustics. "Eco Active Sonar"

was organized by Brian Ferguson and Lee Culver and featured 5 invited talks on trying to ensure that sonar is friendly to the marine ecosystem. "Signal Processing for Biological Transients" was organized by Simon Freeman, Philip Caspers, and Blaine Harker and featured 7 invited talks and 8 contributed talks and focused on analyzing transient sounds from various lifeforms. "Acoustic Signal Processing for Architectural Acoustics and Noise Control" was organized by Matt Byrne, Eddie Lau, and Thomas Wong and featured 16 invited talks split into two sessions on various related topics. Technical Program organizers were Kai Gemba and Ryan Harne.

For the spring 2020 Meeting scheduled for Chicago we planned to host 5 special sessions. Due to COVID-19 the meeting was postponed to December. We plan to host 4 of those 5 sessions in Chicago in December. We held a virtual TC meeting through Zoom and had an attendance of 36 people. Ryan Harne and Eric Dieckman both worked had to organize the Chicago meeting that ended up being canceled.

Our Young Presenter Award has been changed to a Best Student Paper Award. We thank Shima Abadi for arranging the judging of the Best Student Paper Award for the San Diego meeting. The Best Student Paper Award in San Diego was split up into two awards this time. The best presentation was given by Mark Anderson of Brigham Young University with a title of "Characterization of the effects of ground boards on acoustic signals." The best poster was given by Christine Soh of Massachusetts Institute of Technology with a title of "Alignment of canonical and realized acoustic cue labels for modification patterns in speech analysis." Obviously, no Best Student Paper Award was given out for the cancelled spring 2020 meeting.

The TCSP sponsored an International Student Challenge Problem that ended in Sep. 2019. The problem and solution requirements were described in the Spring 2019 issue of *Acoustics Today* (vol 15, issue 1). Brian Ferguson, Lee Culver, and Kai Gemba managed the competition. They determined that Joseph (Tre) DiPassio III of the University of Rochester provided the best solution. In second place was Scott Schoen Jr of Georgia Tech and in third was David Geroski and Brando Lee of the University of Michigan.

Our student representative for the San Diego meeting was Michael Rollins of Univ. of Cincinnati and our new student representative is now Matthew Byrne of the University of Texas. John Buck, Univ. of Mass. Dartmouth serves as the TCSP representative to the Membership Committee. Ning Xiang serves as representative to the Medals and Awards Committee. Ben Faber of Faber Acoustical serves as TCSP representative to the ASA Committee on Standards. Ryan Harne maintains the TCSP website and the site is located at <http://tcspsa.org>. A talented and conscientious group of associate editors serves the TCSP and we are immensely grateful for their patience and care this year. We thank the following Associate Editors for the JASA in Signal Processing, Jianlong Li, Zoi-Heleni Michalopoulou, Karim Sabra, Kainam Wong, Julian de Rosny, and Efren Fernandez-Grande. Peter Gerstoft serves as our coordinating editor to JASA. Our JASA-EL Associate Editors are Lisa Zurk of Univ. of Washington and Paul Gendron. Our POMA Associate Editors were Ryan Harne, Paul Hursky, and Jeff Rogers.

A couple new members were added to TCSP including Ed O'Korn and Kendal Leftwich. We look forward to our fall 2020 meeting in Chicago, Illinois. TCSP will continue to lead scientific efforts to advance the theory and methods of inference from ever-increasing volumes of acoustic observations.

*Brian E. Anderson*  
 Chair, 2018–2021

## Speech Communication

This report covers the activities of the Technical Committee on Speech Communication (SCTC) from May 2019 through May 2020, which includes the San Diego meeting in December 2019 and the virtual meeting in May 2020. San Diego was my first meeting as Chair of SCTC. Many thanks to the past Chair, Linda Polka, for her excellent leadership the previous three years and her help as I took over as Chair.

In San Diego, SCTC sponsored two special sessions: "Self-Perception in Speech Production," organized by Sarah Bakst and Caroline Niziolek and "Universal and Experiential Influences on Phonetic

Perception," organized by Matthew Masapollo and Linda Polka. The TC also co-sponsored "Open Source Audio Processing Tools for Hearing Research," organized by Volker Hohmann and Caslav Pavlovic.

Fifty-six students entered the Student Poster Competition at the San Diego meeting. Reed Blaylock, USC, won the first prize for "Beatrhyming probes the nature of the interface between phonology and beatboxing" and Kirsten Meemann, UT-Austin, won the second prize for "The effect of clear speech and masking noise on listening effort in native and non-native listeners." The Student Poster Competition was organized by Rachel Hayes-Harb and Rajka Smiljanic. Congratulations to the winners and big thanks to the 49 volunteer judges who make this work so well.

Due to COVID-19, the December meeting in Cancun was cancelled and the May Chicago Meeting has been rescheduled to December 7–11 as a fully virtual meeting entitled "Acoustics Virtually Everywhere." Four special sessions originally planned for the May meeting are rescheduled for December: "Developing a Cross-Platform Federated Code Repository for Speech Research" organized by Charles Redmon, Matthew C. Kelley and Benjamin Tucker, "Ideas Worth Reconsidering in Speech Perception and Production" (with P&P) organized by Matthew Winn and Richard Wright, "Listening in Challenging Circumstances" (with Noise, AA, P&P) organized by Kristin Van Engen and Melissa Baese-Berk and "Reintroducing the High-Frequency Region to Speech Perception Research" (with P&P) organized by Ewa Jacewicz and Robert Fox.

In terms of SCTC Technical Initiatives, the ASA supported the 12th International Seminar on Speech Production and the special session "Developing a Cross-Platform Federated Code Repository for Speech Research" scheduled for December.

Even though the May meeting was cancelled, we held a SC Technical Committee Virtual Open Meeting. More than 90 people were able to attend from a number of different countries and time zones. We had interesting and lively discussions and attendees liked the idea of incorporating remote attendance for future open meetings even if in-person meetings return.

ASA continues to recognize excellence of SCTC members. Congratulations to Judy Dubno, a recipient of the 2020 ASA Gold Medal, and Anne Cutler, a recipient of the 2020 Silver Medal in Speech Communication Award! Congratulations to new Fellows elected at the fall 2019 and spring 2020 meetings: Cynthia Clopper "For contributions to the acoustics and perception of dialect variation," Linda Polka "For contributions to native and non-native speech perception in infants and adults," and Alex Francis "For contributions to understanding of cognitive-linguistic processes in speech perception, and mentorship of future scientists."

The two recipients of the 2020 Stetson Scholarship in Phonetics and Speech Production are Stefon Flego, Indiana University, for "Anticipatory vowel-to-vowel coarticulation and emergent linguistic structure" and Kaila L. Stipancic, MGH Institute of Health Professions, Boston, MA, for "The effect of sustained speech activity on speech motor learning and cortical excitability." We thank the selection committee, Rachel Theodore, Chair, Megha Sundara, Mark VanDam, and Melissa Redford for their time and effort in reviewing the applications.

The efforts of everyone who contributed to the SCTC are greatly appreciated. This includes, but is not limited to: SCTC Awards Subcommittee, Allard Jongman, Linda Polka, Zhaoyan Zhang, Rajka Smiljanic; JASA Reflections SCTC Working Group, Ben Munson, Anders Lofqvist, Cynthia Clopper, Sona Patel, Michael Kieft, Melissa Redford, Margaret Renwick, and Jan van Doorn; and SC Technical Program organizers, Cynthia Yoonjeong Lee, Susie Levi, and Matthew Faytak. We are grateful to Miran Oh, USC, our outgoing representative on the Student Council and we welcome Lucy Cheng, The University of Kansas, as our new representative.

SCTC members who served in ASA Leadership roles, on committees and Task Forces include: Diane Kewley-Port (President-Elect), Peggy Nelson (Vice President), Ben Munson (Membership Committee), Fredericka Bell-Berti (Archives and History), Tessa Bent (Member Engagement), Zhaoyan Zhang (Medals and Awards); Fredericka Bell-Berti, Suzanne Boyce, and Benjamin Tucker (Education in Acoustics); Moreen Stone (Finance); Alex Francis (Panel on Public Policy); and Christine Shadle (Prizes and Special Fellowships). Maureen Stone is the new President-Elect. The following served as JASA, JASA-EL & POMA Associate Editors: P. Alku, D. Baskent, S. Fuchs, J. Kreiman, A.

Lofqvist, E. Jacewicz, M.I. Mandel, T.C. Bent, J.H.L. Hansen, M. Sundara, B.V. Tucker, Z. Zhang, M. Cooke, R.M. Theodore, M. Garellek, D.D. O'Shaughnessy, B.H. Story, K. Nishi, C. Rogers. Many thanks to all!

*Rajka Smiljanic*  
 Chair, 2019–2022

## Structural Acoustics and Vibration

The Structural Acoustics and Vibration Technical Committee (SAVTC) had a successful and productive set of special sessions sponsored by the committee at the ASA San Diego meeting and hosted Student and Young Presenter competitions at that meeting. The SAVTC also had a full slate of special sessions organized and ready to execute at the ASA Chicago May 2020 meeting, but that has now been postponed until December 2020. This annual report covers SAVTC activities and meetings occurring during the one-year 2019–2020 period beginning after the Spring 2019 ASA Louisville meeting and through the Spring 2019 Virtual Admin/TC meetings week. During this period, Robert Koch completed the second year of his 2018–2021 term as chair of the SAVTC.

The SAVTC extends its gratitude to the many SAVTC members and friends of SAV who actively participate as volunteer lead representatives for numerous ASA committee and editorial activities including, but certainly not limited to:

- Colby Cushing (Student Council);
- James Phillips (Medals and Awards);
- Robert Koch (ASACOS);
- Robert Koch (Membership Committee);
- Ryan Harne (SAVTC Web Page);
- Matthew Kamrath (Education in Acoustics Committee);
- Ben Shafer (Student Paper Competition);
- Anthony Bonomo, Stephanie Konarski, Ben Shafer, and Robert Koch (Technical Program Organizers);
- Nicole Kessissoglou (new Coordinating Editor), Li Cheng, Kai Ming Li, Steffen Marburg, Marcel C. Remillieux, Franck Sgard, Kuangcheng Wu (JASA Associate Editors for SAV);
- Greg McDaniel (JASA Express Letters Associate Editor for SAV);
- Steve Shepard (POMA Editor)

178th ASA Meeting San Diego, California, 2–6 December 2019

At the 178th ASA meeting in San Diego, California, SAVTC sponsored the following five special sessions and three General sessions of contributed papers with a total of 81 papers presented (24 invited, 57 contributed):

- 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
- 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
- Characterization and analysis of system properties: Chairs, Colby Cushing and Anthony Bonomo
- Topics on health monitoring and non-destructive testing: Chair, Ben Shafer
- General topics in structural acoustics and vibration: Chair, Ben Goldsberry

The TPOM representatives were Anthony Bonomo, Stephanie Konarski, Benjamin Shafer, and Robert Koch.

SAVTC had 22 papers entered in the Best Student and Young Presenter competition at the 178th ASA Meeting. Ben Shafer and Jason Smoker coordinated the competition and the winners were:

- 1st Place  
 Gage Walters, Pennsylvania State University, State College, PA  
 Impact of airfoil design uncertainty on the prediction of gust response
- 2nd Place  
 Alyssa Liem, Boston University, Boston, MA  
 Investigations into the accuracy of the light damping approximation  
 It was noted during the May 2020 SAVTC Virtual meeting that, with the student winners above, the SAVTC has now formed a particular SAVTC Best Student Paper Award “Coaching Tree” that is now starting in at least its 4th generation and it is vibrant and growing!:
- Jerry Ginsberg  
 → Greg McDaniel  
 → Andrew Wixom/Alyssa Liem/Mark Cops/...  
 → Gage Walters (student of Andrew Wixom)

- In addition, two ASA society-level awards earned by a long-time distinguished member and friend of the SAV Technical Committee at the ASA San Diego meeting should be specifically noted here. SAVTC Member Kuangcheng Wu and SAVTC Friend Michael Haberman were both elected new ASA Fellows at the ASA San Diego:
- Kuangcheng Wu “For contributions to the computational evaluation of acoustic radiation from submerged structures”
- Mike Haberman “For contributions to acoustic metamaterials and heterogeneous acoustic media”

Our heartiest congratulations, guys!!!  
 179th ASA Meeting, Chicago, Illinois, 11–15 May 2020  
 (POSTPONED to 2–6 Dec 2020)

Prior to the postponement of the May 2020 ASA Chicago meeting to December 2020, SAVTC had planned on sponsoring the following five special sessions and two General sessions of contributed papers:

- Acoustic metamaterials: Chairs, Christina Naify, Alexey Titovich, and Bogdan Popa
- Non-contact vibration measurement methods: Chairs: Ben Shafer and T.J. Flynn
- Active or tunable structural acoustics: Chairs, Christina Naify and Ben Beck
- Historical development of fuzzy structures concepts: Chairs, Jerry Ginsberg, David Feit, and Kuangcheng Wu
- Soft and compliant metamaterials: Chairs, Ryan Harne, Katie Matlack, and Stephanie Konarski
- Characterization of materials and structures: Chairs, Matthew Guild and Colby Cushing
- Structural design and analysis: Chairs, Alyssa Liem and Benjamin Treweek

The SAVTC TPOM representatives for the May 2020 Chicago meeting were Anthony Bonomo, Stephanie Konarski, Benjamin Shafer, and Robert Koch. These volunteers have agreed to be the same TPOs for the repeated Chicago TPOM which is due to be held in the late summer 2020 timeframe. Most of the sessions are expected to remain in the postponed Chicago Technical Program but that will be determined for sure during/following the late summer TPOM.

The winners of the Chicago SAVTC Best Student and Young Presenter competition will also have to wait to be determined at the December ASA Chicago meeting.

In closing, and on a more personal note, the SAVTC Chair would like to offer his most sincere thanks and appreciation to the members and friends of the SAVTC during the extremely difficult period for our TC, the ASA, and the country, that we have had to navigate during this annual report timeframe due to the still-active COVID-19 pandemic. Even with the postponement of the Chicago meeting (and all the effort of having to repeat a lot of hard work that was already completed), the navigation and turmoil of an entirely virtual May 2020 meeting, the TC volunteers worked tirelessly, were infinitely flexible, and continued to keep their “eyes on the ball” with our TC business and TC relationships.

Words cannot adequately express the Chair's appreciation for their professionalism, sacrifice, and friendships during this tough time. I have no doubt we will exit this period considerably stronger and more efficient as both a TC and a *Technical Society as a result!*

*Robert M. Koch*

Chair, 2015–2018, 2018–2021

## Underwater Acoustics

The 178th Acoustical Society of America (ASA) meeting was held in San Diego, CA during 2–6 Dec 2019. Special thanks to Peter Gerstoft (Meeting Chair), Aaron Thode (Tech. Prog. Chair), and Tim Duda (TPO Rep.) for their contributions to an excellent meeting! The TCUW meeting was held on Thursday, 5 Dec. 2019, with approximately 60 members in attendance. Congratulations for the best student papers at the Louisville meeting: First place went to Brandon M. Lee (“Machine learning methods for estimating probability density functions of transmission loss: Robustness to source frequency and depth”) and second place went to Matthew Charles Zeh (“Model-data comparison of sound propagation in a glacierized fjord with a variable ice top-boundary layer”). Hearty congratulations go to the following individuals: (a) ASA Fellow: Chen-Fen Huang (for contributions to geoacoustic inversion of ocean state estimation); (b) Medwin Prize in Acoustical Oceanography: Chen-Fen Huang; (c) Rossing Prize in Acoustics Education: Preston S. Wilson; and (d) A.B. Wood Medal and Prize: Julien Bonnel. TCUW-led special sessions included (1) CNTBT IMS: A global sensor network with scientific and civil applications in hydroacoustics (Nielsen/Bradley/Zampolli/Haralabus), and (2) Ship source level estimation: Methods and measurements (Tollefsen/Knobles/Hannay).

The 179th meeting (spring 2020) of the Acoustical Society of America in Chicago was cancelled due to the COVID-19 pandemic. Administrative and technical committee meetings were conducted remotely. The following is a synopsis of the information which was shared with members of TCUW in lieu of an in-person meeting: (a) New members for ‘Term to 2023’ were welcomed to TCUW, many of which are ASA Fellows whose primary field of interest is UW Acoustics but whose TCUW membership had lapsed. We now have 102 members. (b) Special thanks to the following people who have served TCUW in the following capacities up to May 2020: Bill Siegmann (Membership Committee), Tony Lyons (Medals and Awards Committee), Alex Padilla (Student Council), and Roger Logan (ASACOS). (c) The following people have graciously volunteered to serve TCUW for the upcoming year and beyond: Mohsen Badiy (Membership Committee), Preston Wilson (Medals and Awards Committee), Mark Langhirt (Student Council), and Jason Summers (ASACOS). (d) Special sessions originally scheduled for the spring and fall meetings of this year (2020) are postponed to Seattle in the spring of 2021. The currently planned special sessions are: “Acoustics of underwater explosions,” “Machine learning in underwater acoustics,” and “The waveguide invariant theory and its applications.” (e) The Fall 2020 ASA meeting originally planned for Cancun is now scheduled to be a 100% virtual meeting during the week of Dec. 7–11, 2020, entitled “Acoustics Virtually Everywhere.” (f) Special thanks to Derek Olson for serving as our TPO Rep. for the cancelled May 2020 meeting as well as our upcoming virtual meeting in Dec. 2020. (g) The International Year of Sound has been extended into 2021. See <https://sound2020.org> for more details. (h) Mark Langhirt, our new Student Council representative, posted his report online at <https://tcuwaso.org/student-interests>.

The chair sincerely thanks the many volunteers who make the activities of TCUW possible.

*D. Benjamin Reeder*

Chair, 2018–2021

## Members of Committees, Councils, Technical Groups, Task Forces the Acoustical Society of America

The Technical and Administrative Committees, Technical Groups, Administrative Councils, Task Forces, and Editorial Boards listed below have been appointed by the Executive Council. These appointments, with

such changes as may be made by the President from time to time, will be in effect until the Spring meeting of the Society in 2021.

## Technical Committees and Specialty Groups

### Acoustical Oceanography

Grant B. Deane, Chair to 2022

#### Term to 2023

David R. Barclay  
Christopher S. Bassett  
Michael G. Brown  
N. Ross Chapman  
Ching Sang Chiu  
Bruce D. Cornuelle  
David R. Dowling  
Gerald L. D’Spain  
Timothy F. Duda  
Matthew A. Dzieciuch  
David M. Farmer  
Oskar Glowacki  
Paul C. Hines  
Wu-Jung Lee  
Timothy G. Leighton  
Ying-Tsong Lin  
Scott Loranger  
James F. Lynch  
Jennifer L. Miksis-Olds  
James H. Miller  
Eva Marie Nosal  
Derek R. Olson  
Robert Pinkel  
D. Benjamin Reeder  
Robert C. Spindel  
Dajun Tang  
Hari Vishnu  
Thomas C. Weber  
Elizabeth F. Weidner  
Preston S. Wilson  
Peter F. Worcester

#### Term to 2022

Jon M. Collis  
John A. Colosi  
Orest I. Diachok  
Peter Gerstoft  
Kevin D. Heaney  
Bruce M. Howe  
Andone C. Lavery  
Anthony P. Lyons  
James A. Mercer  
Gopu R. Potty  
Karim G. Sabra  
Andrew White

#### Term to 2021

Arthur B. Baggeroer  
Julien Bonnel  
Michael J. Buckingham  
Dezhang Chu  
Stan E. Dosso  
Christopher Feuillade  
Erin M. Fischell  
Kay L. Gemba  
William A. Kuperman  
Zoi-Heleni Michalopoulou  
Hanne Sagen  
Henrik Schmidt  
Ralph A. Stephen  
Timothy K. Stanton  
Aaron M. Thode  
Lora J. Van Uffelen  
Joseph D. Warren