# **Acoustical Society of America**

### Annual Reports of Technical Committees for the period 4 July 2008 to 22 May 2009

Acoustical Oceanography (AO)

Animal Bioacoustics (AB)

Architectural Acoustics (AA)

Biomedical Ultrasound/Bioresponse to Vibration (BB)

Engineering Acoustics (EA)

Musical Acoustics (MU)

Noise (NS)

Physical Acoustics (PA)

Psychological and Physiological Acoustics (PP)

Signal Processing in Acoustics (SP)

Speech Communication (SC)

Structural Acoustics and Vibration (SA)

**Underwater Acoustics (UW)** 

## **Acoustical Oceanography**

This is my last annual report as Chair of the Acoustical Oceanography Technical Committee. I want to thank all of the members of the AO TC for their support, encouragement, and collegiality. Our new Chair is Martin Siderius of the University of Portland and I am sure that he can depend on the membership like I did. Special thanks go to my colleague, Dr. Gopu Potty, who served as a "Vice Chair" of the Technical Committee. Dr. Potty organized the Best Student Paper competitions in New Orleans, Paris, Miami and Portland, managed the AO web site, and assisted in our AO TC meeting refreshment logistics.

Fall 2008 Meeting (Miami, Florida). The Technical Committee on Acoustical Oceanography (AO) sponsored two special sessions: "Attenuation coefficient of sediments from low- to mid-frequencies" organized by Jim Lynch and "Three-dimensional acoustics and inversions on the Continental Shelf and canyons" also organized by Jim Lynch. Both of these sessions were also sponsored by the Underwater Acoustics Technical Committee. AO also was a co-sponsor of one special session: "Acoustics of harbors, ports and shallow navigable waterways". Special thanks go to Jennie Wylie who served as the AO representative to the Technical Program Organizing Meeting for Miami. The Best Student Paper Awards in Acoustical Oceanography went to Megan Ballard (first prize) of the Pennsylvania State University for her paper "Variability of the water column sound speed profile and its effect on acoustic propagation during the Shallow Water 2006 Experiment", to Lin Wan (Second Prize) of the Georgia Institute of Technology for the paper "Sound speed and attenuation in the sea bottom from broadband sound propagation in the Yellow Sea," and to Theodore F. Argo IV (Third Prize) of the University of Texas for his paper "Laboratory measurements of sound speed and attenuation in water-saturated artificial sediments as a function of porosity." The 2007 Science Writing Award for Professionals in Acoustics was presented in Miami to Kathleen Vigness Raposa, Gail Scowcroft, Christopher Knowlton, and past AOTC Chair Peter Worcester for the website "Discovery of Sound in the Sea."

Spring 2009 Meeting (Portland, Oregon). The 2008 Medwin Prize in Acoustical Oceanography was awarded to Martin Siderius of Portland State University for his contributions to acoustic measurement of bubble, plankton and fish. Dr. Siderius presented the AO Prize Lecture entitled "For imaging the structure of the ocean bottom using ambient sound." AO sponsored two special sessions in Portland: "Temporal and spatial field coherence applied to ocean sensing" organized by Tim Duda, Kyle Becker, and Michael Brown, "Environmental inferences in inhomogeneous ocean environments" organized by Mohsen Badiey. AO also was a co-sponsor of four special sessions: "Autonomous remote monitoring systems for marine animals" with Animal Bioacoustics, "Poroelastic materials: Models, bounds, and parameter estimation" with Signal Processing in Acoustics, "Physics-based undersea clutter model verification and validation" with Underwater Acoustics, and "Session in honor of Ralph Goodman" with Underwater Acoustics. Special

thanks go to Jeffrey Nystuen who served as the AO representative to the Technical Program Organizing Meeting for Portland. Winners of the Acoustical Oceanography Best Student Paper Awards will be announced before the meeting in San Antonio. Information on these and related matters is available on the Acoustical Oceanography Technical Committee website. It can be reached through the ASA web page by clicking on "Committees."

James H. Miller, *Chair 2008-2009*Acoustical Oceanography website
List of committee members
Current chair: Martin Siderius

### **Animal Bioacoustics**

There is much to report on the activities of the Technical Committee on Animal Bioacoustics (TCAB) and its members during the period from July 2008 and May 2009.

The 156th meeting was held 14-18 November 2008 at the Doral Golf Resort and Spa in Miami, Florida. TCAB sponsored and cosponsored numerous sessions as follows: (1, 2, 3) Marine Mammal Acoustics in Honor of Sam Ridgway I, II, and III organized by Whitlow Au and Dorian Houser drew a total of 35 papers, 16 invited and 18 contributed. Session chairs were Whitlow Au (Hawaii Inst. of Marine Biology), James Finneran (U.S. Navy Marine Mammal Program, Space and Naval Warfare Systems Ctr., San Diego), and Dorian S. Houser Biomimetica). (4) Acoustics of Manatees and Alligators and Other Topics was organized and chaired by Jennifer L. Miksis-Olds (Pennsylvania State Univ.) and Ann E. Bowles (Hubbs Sea World Research Inst.) and included 11 papers, 5 invited and 6 contributed. (5) Animal Bioacoustics general session chaired by David C. Swanson (Penn State Univ.) included 10 contributed papers on topics such as bats, zebra finches, budgerigars, insects, and an online archive for natural sounds. The TCAB also cosponsored Advances in Measurement and Noise and Noise Effects on Humans and Non-Human Animals in the Environment II with the Technical Committee on Noise. The session, which included 7 invited and 1 contributed paper was organized by Ann E. Bowles, Brigitte Schulte-Fortkamp (Technical Univ. of Berlin), and Kurt Fristrip. Dorian S. Houser served as the Animal Bioacoustics representative to the Technical Program Organizing Meeting. Hsiao-Wei Tu, University of Maryland, was named recipient of the Best Student Paper Award in Animal Bioacoustics for his paper "Categorization of budgerigar (*Melopsittacus undulatus*) warble elements."

The 157th meeting was held 16-20 May 2009 at the Hilton Portland and Executive Tower in Portland, Oregon. TCAB sponsored and cosponsored 14 sessions. (1 & 2) Fish Bioacoustics: Sensory Biology, Sound Production, and Behavior of Acoustic Communication in Fishes I and II, cosponsored by Psychological and Physiological Acoustics and organized by Joseph A. Sisneros, was chaired by Joseph A. Sisneros (Univ. of Washington), Richard R. Fay (Loyola Univ.), and David Zeddies (Marine Acoustics Inc.), and included 23 invited and 2 contributed papers. (3 & 4) An Integration of Bioacoustics, Neuronal Responses, and Behavior I and II (organized and chaired by Terry Takahashi (Univ. of Oregon) drew a total of 8 invited and 5 contributed papers and concluded with a panel discussion (5 & 6) General Topics in Animal Bioacoustics I and II, chaired by Holger Klinck and David K. Mellinger respectively (both from Oregon State Univ.) included 20 papers total. (7 - 10) Autonomous Remote Monitoring Systems for Marine Animals I, II, III, and IV (cosponsored by Acoustical Oceanography and organized by Marc Lammers) was chaired by Marc Lammers, (Hawaii Inst. of Marine BiologySessions I and III), Kathleen C. Stafford (Univ. of Washington-Session II), and Catherine L. Berchock, (Alaska Fisheries Science Ctr./NOAA-Session IV) and drew a total of 40 papers including 14 invited. (11) Signal Processing Techniques for Subtle or Complex Acoustic Features of Animal Calls (cosponsored by Signal Processing in Acoustics and organized by Ann Bowles and Sean K. Lehman) was chaired by Ann E. Bowles and drew 13 papers, 11 of which were invited. TCAB also cosponsored the following sessions. (12) Bioacoustic Metrics and the Impact of Noise on the Natural Environment (Noise the primary sponsor with ASACOS) was chaired by Michael Stocker (Ocean Conservation Research) with 12 papers, 3 of which were invited. (13) Acoustic Backscattering from Marine Life in the Ocean (Acoustical Oceanography the primary sponsor) was chaired by Christopher D. Jones (Univ. of Washington) with 11 contributed papers, (14) Source/Filter Interaction in Biological Sound Production, with Speech Communication and Musical Acoustics) chaired by Ingo R. Titze with 13 papers, 5 of which were invited. Holger Klinck was representative to the Technical Program Organizing Meeting. Best Student

Paper Awards were presented to: First prize: Mary Bates, Brown University, for the paper "Is rejection of clutter achieved by disrupting perception of delay in bat sonar?" and Second Prize: Asila Ghoul, University of California, Santa Cruz for the paper "Auditory temporal summation in pinnipeds."

Animal Bioacoustics topics were very well represented in the journal publications of the Society. There were over 50 papers published in the *Journal of the Acoustical Society of America* and 7 in *JASA Express Letters*-the ASA's open access, rapid-publication journal during the period covered by this report.

Associate Editors serving in the area of Animal Bioacoustics are Whitlow W.L. Au, Mardi C. Hastings, Michael J. Owren, James M. Simmons for *JASA*; Cynthia Moss for *JASA Express Letters*, and Richard R. Fay for *Proceedings of Meetings on Acoustics*. TCAB extends its thanks and congratulations to Floyd Dunn who announced his retirement as Associate Editor of JASA. Floyd handled the review process for many papers in Animal Bioacoustics during his 33-years of service as Associate Editor.

In 2008, the ASA added a new title to its collection of e-books, *Hearing in Vertebrates: A Psychophysics Databook* by Richard R. Fay. This book presents psychophysical data on vertebrate hearing obtained from the published literature. In addition to data on hearing sensitivity, discrimination, and directional hearing, data are included on hearing development and infant hearing, aspects of echolocation, and the psychophysics of electrical stimulation of the auditory system. It is available for purchase and immediate download in pdf format at the ASA Store <a href="http://asastore.aip.org/">http://asastore.aip.org/</a>.

TCAB is represented by its members on various ASA committees that help in conducting the business of the Society. They include the Associate Editors mentioned above who serve on the Editorial Board, James M. Simmons on the Medals and Awards Committee, Richard R. Fay who replaced Andrea Simmons in 2008 on the Membership Committee, Alison Stimpert and Mary E. Bates on the Student Council, and Anne E. Bowles on the ASA Committee on Standards. Although technical committees are not individually represented on the Public Relations Committee, over 15 authors of Miami and Portland meeting papers prepared lay-language versions of their papers to be used for outreach by ASA to science writers and the general public. These can be viewed at the ASA World Wide Press Room at <a href="http://www.acoustics.org/press/index.html">http://www.acoustics.org/press/index.html</a>.

The Animal Bioacoustics webpage has been and is available at <a href="www.animalbioacoustics.org/">www.animalbioacoustics.org/</a>. Thanks to David Mellinger and Holger Klinck for the redesign and maintenance of the site where visitors can find information about animal bioacoustics topics such as new books, conferences, and hardware and software used in recording.

TCAB members also participate in the Standards activities of the Society through its representative on ASACOS and through a new Standards Committee: Accredited Standards Committee S3, Subcommittee 1, Animal Bioacoustics. David K. Delaney of USA CERL serves as Chair and Mardi C. Hastings, serves as Vice Chair. This committee's scope covers standards, specifications, methods of measurement and test, instrumentation and terminology in the field of psychological and physiological acoustics, including aspects of general acoustics, which pertain to biological safety, tolerance and comfort of non-human animals, including both risk to individual animals and to the long-term viability of populations. Animals to be covered may potentially include commercially-grown food animals; animals harvested for food in the wild; pets; laboratory animals; exotic species in zoos, oceanaria or aquariums; or free-ranging wild animals. There are current two active standards writing groups functioning under the auspices of the Committee including S3/SC 1/WG1 Animal Bioacoustics Terminology Active and S3/SC 1/WG2 Effects of Sound on Fish and Turtles. For additional details about Standards activities of this group, please visit <a href="http://www.acosoc.org/standards/S3-SC1/S3-SC1.htm">http://www.acosoc.org/standards/S3-SC1/S3-SC1.htm</a>

Several members of the ASA animal bioacoustics community have been recognized for their accomplishments during the past year. They include Kelly J. Benoit-Bird who was named recipient of the 2009 R. Bruce Lindsay Award "For contributions in marine ecological acoustics"; Patrick Moore and Aaron Thode who were elected Fellows of the Society; Alison Stimpert who was named recipient of the 2009-10 Frederick V. Hunt Postdoctoral Research Fellow in Acoustics; and Kathleen Vigness-Raposa, Gail Scowcroft, Christopher Knowlton, and Peter Worcester who received ASA's 2008 Science Writing Award for Media Other than Articles for the "Discovery of Sound in the Sea" website. ASA's 2009 Robert W. Young Grant for Undergraduate Research was awarded for a project involving the study of animals, namely, Cody Brack, an undergraduate student at St. Mary's College of Maryland, for his project titled "A

Macro-Level Assessment of Zebrafish." Congratulations are also extended to Whitlow W.L. Au, former chair of the TCAB, who was elected President-Elect and who assumed the office of President in May 2009 for a one-year term.

Further evidence of the TCAB's outreach and influence on the animal bioacoustics committee, both in the U.S. and abroad, is the sponsorship and cosponsorship of symposia and other meetings. The ASA, along with Oregon State University (OSU) organized and presented the Second International Conference on Acoustic Communication by Animals which was held August 12-15, 2008 in Corvallis, Oregon. The organizers of the symposium were David K. Mellinger and Sarah Heimlich, This conference followed the successful First International Conference on Acoustic Communication by Animals, held at the University of Maryland in July 2003. Over 200 people attended the symposium which was cosponsored by Office of Naval Research, International Commission for Acoustics, National Park Service, National Oceanographic and Atmospheric Administration, Marine Mammal Commission, Engineer Research and Development Center, Dept. of the Interior Minerals Management Service.

The Keynote Speakers were Peter Marler who spoke on acoustic communication and learning and Peter Slater whose presentation was on a Tropical Perspective on Bird Song. Invited Speakers were Whitlow Au, Andrew Bass, Eliot Brenowitz, Robert Dooling, Gunter Ehret, Richard Fay, Albert Feng, Tecumseh Fitch, Kurt Fristrup, Peter Narins, Kazuo Okanoya, Arthur Popper, Denise Risch, Caitlin O'Connell-Rodwell, Ron Schusterman, Andrea Megela Simmons, James Simmons, Joseph Sisneros, AnnMarie Surlykke, Terry Takahashi, Peter Tyack, and Sophie Van Parijs who covered the vast array of animal communication topics including marine mammals, birds, fish, land mammals, frogs, pinnipeds, and bats. ASA also cosponsored the 5th Animal Sonar Symposium held in Kyoto, Japan, September 14-18, 2009. Several ASA members served on the organizing committee for this symposium including Whitlow W. L. Au, Lee A. Miller, Cynthia F. Moss, Paul E. Nachtigall, Hiroshi Riquimaroux, James A. Simmons, Jeanette A. Thomas, and Tomonari Akamatsu. Details of the conference were not available at press time and will be reported in a future TCAB report.

The Committee expresses its heartfelt thanks to all the volunteer members mentioned above who have participated in ASA activities on behalf of the Committee.

David K. Mellinger of Oregon State University, was elected Chair of the Technical Committee on Animal Bioacoustics for a three-year term to Spring 2012. We hope that many readers of this report will join him and other colleagues in the ASA animal bioacoustics community at upcoming meetings of the ASA.

Richard R. Fay, *Chair 2006-2009*<u>Animal Bioacoustics website</u>

<u>List of committee members</u>

Current Chair: David K. Mellinger

## **Architectural Acoustics**

TCAA continued to enjoy strong member numbers and levels of participation in 2007-08. At the Fall 2008 meeting in Miami, TCAA special sessions and their organizers included Dick Godfrey - "Acoustics of single family residences"; Lou Sutherland, David Lubman - "Special session in honor of Mike Nixon"; Brandon Tinianov -"Green building standards and acoustics"; Angelo Campanella - "Multifamily structures - advances and legal issues"; Jessica Clements - "What went wrong: facilities you designed"; Michael Yantis and Bill Dohn - "Acoustics of small, multipurpose performance spaces"; Dana Hougland and Dave Woolworth - "Acoustics of retrofitted performance spaces"; Bill Cavanaugh - "Knudsen Memorial Lecture - Barry Blesser"; Damian Doria - "Celebrating The Works Of Russell Johnson"; Molly Norris and Scott Pfeiffer - "Use of Innovative Materials". Gary Siebien served as the TCAA representative to the Technical Program Organizing Meeting for this meeting.

At the Spring 2009 meeting in Portland, TCAA special sessions and their organizers included Dave Bradley - "Measurements and modeling of scattering effects"; Bob Coffeen - "Computer auralization"; Ken Roy - "Acoustics of health and healing environments"; James Phillips - "Mechanical equipment in multifamily dwellings"; Steve Pettyjohn

- "Acoustics of mixed use buildings"; Bob Coffeen - "Outdoor performance spaces"; Dave Woolworth - "SPL, Loudness and room acoustics"; Lily Wang - "Indoor noise criteria"; Brandon Tinianov and David Sykes - "Acoustics of green guildings: A 360° panel discussion"; Brigitte Schulte-Fortkamp - "Soundscapes"; Ning Xiang and Allan Pierce - "Preparing JASA and JASA-EL Articles"; Boaz Rafaely and Ning Xiang - "Multi-channel systems in room acoustics". David Bradley served as the TCAA representative to the Technical Program Organizing Meeting for this meeting.

There was an enormous effort on the part of these chairs and the high quality papers presented within the sessions. Thanks to each of them for the dedication in support of the TC. Achieving good acoustics in healthcare facilities continues to be an important topic that TCAA members are strongly advocating. For almost four years, the joint subcommittee with the Technical Committee on Noise concerning Speech Privacy, chaired by Greg Tocci and David Sykes, has been very active with special sessions at both of the this year's meetings. More information about this subcommittee's activities may be found on the website: <a href="https://www.speechprivacy.org">www.speechprivacy.org</a>.

Also continuing to draw ongoing activity is the topic of classroom acoustics. We are nearing completion of an addition to the ANSI standard S12.60, with expansion to address the large number of modular or 'portable' classrooms in use today. Resolution of the topic is expected next year.

Our newest subcommittee on Green Building Acoustics continues to influence green building standards and the acoustical issues they sometimes create. Well attended special sessions took place at both the Miami and Portland meetings.

This year the TCAA again offered Best Student Paper Awards. Two awards were presented for papers given at the Miami meeting. Congratulations to first place co-recipients Robert M. Tanen and Jonathan C. Silver of the University of Hartford and second place recipient Linda Gedemer of Rensselaer Polytechnic Institute. The Portland meeting also featured the student design competition. First honors went to Karl Eriksson, Rikard Olsson, and Victor Gunnarsson of Chalmers University of Technology. Commendations, in no particular order were awarded to: Shane Kanter, Jon Birney, John Hodgson - University of Kansas; Alic Vedad, Hanna Mangs, Daniel Johansson - Chalmers University of Technology; Anna Sandberg, Caroline Werner, Elis Johansson - Chalmers University of Technology; Sebastian Fors, Lisa Kinnerrud, Fredrik Hagman - Chalmers University of Technology.

Congratulations to TCAA members who became ASA Fellows this year. New Fellows include Marshall Long, Russell E. Berger and Trevor R. T. Nightingale. We are also delighted to announce the awarding of the ASA Silver medal to John Bradley.

Many thanks to the following individuals for their hard work this past year in ASA on behalf of TCAA: Dana Hougland is our representative on the Medals and Awards Committee. Ron Freiheit serves on the Membership Committee, and George Winzer is TCAA representative to the ASA Committee on Standards. Lauren Ronsse from the University of Nebraska has served as our Student Council representative and will next serve as the Student Council Chair. The Associate Editors in Architectural Acoustics are Lily Wang and Ning Xiang for JASA, Ning Xiang for JASA Express Letters. Ralph Muehleisen is the editor of POMA. Tony Hoover serves on the Editorial Board for Acoustics Today. Finally, thanks to Alex Case for his service as TCAA Secretary.

Brandon Tinianov, *Chair*Architectural Acoustics Website
List of committee members

## Biomedical Ultrasound/Bioresponse to Vibration

I would first like to acknowledge my predecessor, Michael Bailey, for his hard work the past three years. The Biomedical Ultrasound/Bioresponse to Vibration Technical Committee (BB) is one of the smaller Technical Committees, but we are very active in the society and Mike did an outstanding job keeping things organized during his

tenure.

As is normally the case for Fall meetings, the 156th ASA meeting in Miami was fairly calm. There were no BB special sessions, but co-sponsored special sessions included "High precision acoustical measurements" and "Recent developments in coded signals in acoustics." There were two BB contributed sessions, "Ultrasound interaction with tissues" and "Microbubble response and modeling" chaired by Michael Oelze and Tyrone Porter, respectively. Saurabh Datta was the TPOM representative. One of our members, Arman Sarvazyan, was awarded fellowship at the Plenary Session.

Special sessions (and organizers) at the 157th ASA meeting in Portland included 1) "Image Enhancement and Targeted Drug and Gene Delivery" (Azzdine Ammi and Saurabh Datta), 2) "Biomedical Applications of Standing Waves" (Armen Sarvazyan), 3) "Medical Ultrasound Imaging with High Frequency and/or Contrast Agents" (John Allen and Jonathan Lindner), 4) "Shock Wave Therapy" (Michael Bailey and Thomas Matula), 5) "Metrology and Calibration of High intensity Focused Ultrasound" (Peter Kaczkowski), and 6) "Biomedical Applications of Acoustic Radiation Force" (Mostafa Fatemi). Azzdine Ammi and Peter Kaczkowski were the TPOM representatives for the Portland meeting. The Student Paper Award was given to Kelley Garving for her paper "Ultrasound standing wave fields control the spatial distribution of cells and protein in three-dimensional engineered tissue."

A few items of business arose in Portland concerning BB. First, Tyrone Porter is Chair of a joint Ad Hoc Committee to revise the format of the student paper competition for BB and Physical Acoustics. There has been concern about feedback to students and uniformity of judging and Tyrone will propose a revised format that will address these issues. Mark Wochner, Kim Lefkowitz, and Matt Poese will also be serving on the committee. The plan is to implement the new format at the 159th ASA Meeting in Baltimore. Second, the official "scope" or description of BB is very much out of date and needs to be revised. Christy Holland, Charlie Church, Doug Mast and Ron Roy will serve on an Ad Hoc Committee to revise the scope and bring it into line with current research activity within BB. A draft will be discussed at the BB Technical Meeting at the 158th ASA Meeting in San Antonio and the draft will be submitted for final approval, after discussion, in Baltimore.

In addition to everyone who has volunteered to help this past year, we would like to acknowledge the contribution of some specific individuals. The associate editors for BB are Charles Church, Floyd Dunn, and Douglas Miller. Shira Broschat maintains the BB website <a href="http://www.eecs.wsu.edu/~shira/asa/bubv.html">http://www.eecs.wsu.edu/~shira/asa/bubv.html</a>. Lawrence Crum is the representative to the Medals and Awards Committee. Christy Holland is the representative to the Membership Committee. Peter Kaczkowski and Vera Khokhlova are the representatives to ASACOS. Michael Canney is the Chair of the Student Council and Lucie Somaglino is the BB representative to the Student Council.

Jeffrey Ketterling, *Chair*<u>Biomedical Ultrasound/Bioresponse to Vibration website</u>
List of committee members

## **Engineering Acoustics**

At the Fall, 2007 meeting in Miami, Engineering Acoustics organized two special sessions. Victor Nedzelnitsky organized "High precision acoustical measurements" and Michael Scanlon organized "Acoustics for battlefield operations and homeland security." Both sessions were well attended and generated an interesting set papers across diverse viewpoints. Dave Brown presented a Hot Topics presentation "Single crystal piezoelectric materials and acoustic devices."

At every meeting, the EATC sponsors a student paper competition. At the Fall meeting, the winners of this competition were George Lewis for "Development of a portable therapeutic ultrasound system for military, medical, and research use" and Scott Porter for "Verification of a method for measuring magnetostrictive parameters for use in transducer design modeling." At the Spring, 2008 meeting in Portland, our TC organized three special sessions. Tom Howarth organized "Acoustic engineering of wind turbines", Ken Walsh organized "Lasers in underwater acoustics", and Tom

Howarth organized "Piezoelectric energy harvesting." Once again, these sessions demonstrated the strength of Engineering Acoustics to draw interest and authors across several other Technical Committees and encourage interdisciplinary discussion.

The winners of the student paper competition were Timothy Marston for "Infrasonic Microphones" and Scott Porter for "Rapid identification of candidate materials for tonpilz head-mass design." The student contributions have been excellent; however, we have noticed that many student presenters who are qualified to compete are not involved in the contest simply because they have not requested participation when they submit their abstracts. I would like to encourage all students and their advisors to make sure that they submit their abstracts for the student competition. There is very little additional work on the part of the student, and the prize money and resume material is easily worthwhile. I have seen several excellent papers go un-recognized by our committee; I strongly encourage all students to participate.

The EATC is represented on the Student Council by Scott Porter, on Metals and Awards by Kim Benjamin, on Membership by Steve Thompson, on the Journal by Allan Zuckerwar, and on ASACOS by Robert Drake.

All TC's have been asked to rewrite their scope statement. We have created a Subcommittee for EATC Scope Revision, with the members Steve Thompson, Daniel Warren, Beth McLaughlin, Victor Nedzelnitsky, Mark Sheplak, and Hasson Tavossi. Please forward and suggestions or comments for the revised scope statement to <a href="mailto:daniel.warren@knowles.com">daniel.warren@knowles.com</a>. Finally, the committee held elections for a new chairman this year. Mike Scanlon has begun his three year term as of the end of the Portland meeting. The outgoing chair would like to thank the Acoustical Society and the Engineering Acoustics Technical Committee for a rewarding and productive term.

Daniel M. Warren, *Chair 2006-2009*Engineering Acoustics website

List of committee members

Current Chair: Michael V. Scanlon

### **Musical Acoustics**

During 2008-2009 the Technical Committee on Musical Acoustics (TCMU) was chaired by Paul Wheeler. Representatives to the committee were: James P. Cottingham, membership; Uwe J. Hansen, Medals and Awards; Diana Deutsch, ASACOS; Eric A. Dieckman, Student Council; and Paul A. Wheeler, Technical Council. Associate Editors were Diana Deutsch and Neville H. Fletcher (JASA), Thomas D. Rossing (Express Letters), and James W. Beauchamp (POMA). Technical Program Organizing Committee (TPOM) representatives were Edward Large (Miami) and Paul Wheeler (Portland). Those appointed or reappointed as TCMU members for 2009-2012 were Rolf Bader, Xavier Boutillon, Jonas Braasch, Murray D. Campbell, Andrey R. DaSilva, Nicholas J. Giordano, William M. Hartmann, William L. Martens, Andrew C. H. Morrison, James M. Pyne, Sten O. Ternstrom, and Shigeru Yoshikawa.

At the 156th Meeting in Miami, held November 10-14, 2008, TCMU presented four special sessions: 1aMU/1pMU/2aMU "Dynamical Approaches in the Study of Music Perception and Performance I-III" organized and chaired by Edward W. Large; 2pMU "Telematic Music Technology" organized and chaired by Jonas Braasch; 3aMU "Structural Vibration in Musical Instruments" organized and chaired by Uwe J. Hansen; and 4pMU "Statistical Approaches for Analysis of Music and Speech Audio Signals" organized and chaired by Paris Smaragdis and George Tzanetakis. At the Miami meeting Gabriel Weinreich received the Silver Metal award and Murray D. Campbell received the Rossing Prize in Acoustics Education. The winners of the Best Student Papers were: Summer Rankin "Tempo fluctuation and perceptive synchrony in music" and Hiroko Terasawa "A hybrid model of timbre perception".

At the 157th Meeting in Portland, held May 18-22, 2009, TCMU presented four special sessions: 1pMU, "Microphone Array Techniques in Musical Acoustics" organized and chaired by Rolf Bader; 2aMU/2pMU "Wind Instruments I & II" organized and chaired by Thomas D. Rossing and Dean R. Ayers; 3pMU "Acoustics of Bagpipes" organized and chaired by Murray D. Campbell; and 4aMU "Musical Perception and Modeling" organized and chaired by Diana

Deutsch. In addition, TCMU presented two lectures/mini concerts: Members of the Edinburgh Renaissance Band and friends organized by Murray D. Campbell and a bagpipe demonstration presented by Kevin Carr which was arranged by Thomas D. Rossing. During the Portland meeting Thomas D. Rossing received the Gold Medal Award. The Best Student Papers were: Nicholas Goodweiler "Acoustics of single reed duck calls" and David Krueger "Acoustic and vibrometry analysis of beating in a large Balinese gamelan gong".

James Cottingham continues to maintain a very useful website for TCMU (<a href="http://www.public.coe.edu/~jcotting/tcmu/">http://www.public.coe.edu/~jcotting/tcmu/</a>). It includes links to future meetings, minutes to previous TCMU meetings, annual reports, student paper award winners, as well as useful links to teaching websites and musical acousticians.

Paul Wheeler, *Chair*Musical Acoustics Website
List of committee members

### **Noise**

TC Noise was represented at the 156th meeting of ASA in fall 2008 in Miami with a Tutorial Lecture, 2 workshops and 4 special sessions. The Tutorial was on Aircraft Noise Prediction by Joe Posey. For the workshops: It was the joint workshop with Animal Bioacoustics on Advances in measurement and noise and noise effects on humans and nonhuman animals in the environment I and II by Ann Bowles and Brigitte Schulte-Fortkamp as a follow up to the workshop in New Orleans. Another follow will be held at the joint meeting with Noise-Con 2010 in Baltimore in April 2010. The second workshop joint with Architectural Acoustics and ASA Committee on Standards was on Standardization for Soundscape Techniques: Soundscape and sound quality-- Measurement and Lexicon by Brigitte Schulte-Fortkamp, Bennett Brooks, and Bob Kull. Noise and Architectural Acoustics had 3 joint special sessions: Fire codes and acoustics by Matthew V. Golden and Ralph T. Muehleisen, and the Acoustical issues of Green Buildings by Brandon D. Tinianow; Sound levels and acoustical characteristics of modular classrooms by Paul Schomer. A further session was on Topics in Noise-Active noise, product noise, and community noise by Erica Ryherd. Noise was proud to announce Joe W. Posey as a new Fellow and the Young presenters who received awards at the Paris meeting: Sarah Gourlie, The University of Texas, USA, Brice Lafon (Renault, France, and Sarah R. Payne, The University of Manchester, UK. Erica Ryherd and Rich W Peppin were the Noise representatives at the Technical Program Organizing Meeting for Miami.

For final conclusions on this meeting it should be highlighted that the joint session "Noise and Noise Effects on Animals and Humans in the Environment I+II" was again a success and understood as a next step in collaboration with respect to measures and methodologies in research in both areas of Animal Bioacoustics and Noise. The Soundscape workshop brought new results needed for the application in city planning and was continued at the ASA meeting in Portland May 2009. Moreover, the workshops over the last few years on Soundscapes were the basis for the successful application for the innovative project competition being conducted by the Acoustical Society of America.

The efforts of several volunteers should be recognized: Nancy Timmerman is the Noise representative on the Medals and Awards Committee, Bennett Brooks is the representative on the Membership Committee and Richard Peppin is the representative on the ASA Committee on Standards. Cole Duke is the Student Council representative and, following the practice initiated a few meetings ago, the scribe for the TC-Noise meetings. The Noise web page <a href="http://www.nonoise.org/quietnet/tcn/">http://www.nonoise.org/quietnet/tcn/</a> is maintained by Les Blomberg. Joe Posey coordinating the judging of the Noise Young Presenter Awards. Serving as Associate Editor for JASA Express Letters is Mike Stinson and JASA Associate Editors are: Kenneth A. Cunefare, Kirill V. Horoshenkov and Brigitte Schulte-Fortkamp.

At the 157th ASA meeting in Portland Noise was represented with the Short Course on Outdoor noise estimation and mapping by Bob Putnam, Ken Kalinski, Brigitte Schulte-Fortkamp, and Klaus Genuit. Also, a one day symposium took place together with the City of Portland "Urban design with soundscape in mind. A symposium on urban planning with the consideration of noise impacts and the people concerned" is an outcome of the application for the innovative project competition being conducted by the Acoustical Society of America- organized by Kerrie Standlee. More than

80 people from the City of Portland and ASA attended this event.

As "Urban Design with Soundscape in Mind" is an innovative way to connect ASA with the community at large and will pull together urban noise impact information discussed on a regular basis at ASA conferences and place it in the hands of those that can immediately use it to improve the lives of citizens across the nation, it will have a follow up in Baltimore.

Furthermore, Noise had 2 joint special sessions with Architectural Acoustics: Prediction and control of noise related to buildings by James E. Phillips; Acoustics of green buildings. A 360 degree perspective by David M. Sykes and Brandon Tinianow; 3 special sessions joint with Architecture and ASA Committee on Standards: Hospital noise and health care facilities by Erica Ryherd; Soundscape techniques and applications-Community and urban environments by Brigitte Schulte-Fortkamp and Bennett Brooks: Soundscape techniques and applications-Wilderness and park soundscapes by Nancy Timmerman and Paul Schomer. Furthermore, one special session with Animal Bioacoustics and ASA Committee on Standards: Bioacoustic metrics and the impact of noise on the natural environment by Michael Stocker. Additionally: Noise litigation by John Erdreich; Road vehicle and construction noise-Measurement, modelling and control by Kerrie Standlee.

Congratulations to Clinton Francis, Dept. of Ecology and Evolutionary Biology, University of Colorado who received the Young presenter award at the Miami meeting and thanks to Kerrie Standlee who was the Noise representative at the Technical Program Organizing Meeting for Portland.

Also, the efforts of several volunteers should be recognized: Nancy Timmerman served a last time as the Noise representative on the Medals and Awards Committee, Bennett Brooks is the representative on the Membership Committee and Richard Peppin is the representative on the ASA Committee on Standards. Serving as Associate Editor for JASA Express Letters is Mike Stinson and JASA Associate Editors are: Kenneth A. Cunefare, Kirill V. Horoshenkov and Brigitte Schulte-Fortkamp. The Noise web page is maintained by Les Blomberg. Cole Duke is the Student Council representative and the scribe at the TC-Noise meetings.

Let me close my report with my best wishes for Nancy Timmerman who is now in charge to chair TC Noise. As past chair I would like to take this opportunity to thank all the members of Noise and ASA who have been so supportive during my three years as Chair. It has been an interesting and rewarding experience.

Brigitte Schulte-Fortkamp, Chair 2006-2009

Noise website

List of committee members

Current Chair: Nancy Timmerman

## **Physical Acoustics**

Meeting Minutes - Tuesday, 19 May 2009, Portland, Oregon

#### 1. Meeting Attendance List

Those who wish to be added to the PA mailing list were asked to add their contact information to a sheet being passed around. Those who wish to have their name removed from the PATC mailing list should notify Ron Roy via email at <a href="mailto:ronroy@bu.edu">ronroy@bu.edu</a>. Carr Everbach commented on the excellent attendance and the Chair was very pleased to note that there were 12-15 new students in attendance.

#### 2. ASA Mail List

Jeff Kettering has suggested that the ASA might adopt a TC-wide mail list serve to transmitting communications to interested members. If you want to receive email announcements related to, say, the PATC, then you sign up for the PATC list serve.

### 3. Events Hot Topics Presentation on Student Outreach (3pID2)

Presentation on new NIH Peer Review System, Wed. 5:15-6:15, Pavilion West; Interdisciplinary Session n Submitting JASA articles (4aID); Jam Session Tonight from 9:00-midnight at Bistro 921; Logan Hargrove is called a Physical Acoustics Summer School planning meeting tonight at 9:00. There was some discussion on the state of affairs with the summer school. Funding was raised as an issue.

#### 4. Student Council (Jon R. La Follet)

Informed the Committee of the grant writing workshop scheduled in Portland; the Wed. evening reception for new students; that the mentoring award nominations are due in Baltimore; that we now have a twitter group: "ASASTUDENTS"

#### 5. Portland -- May 18-22, 2009

**Special Sessions:** 

Numerical Methods for Weak Shock Propagation (2pPA) Joint with BB Andrew Piacsek; Influence of Temperature on Sound in Condensed Matter (3pPA) Albert Migliori; A Half Century with the Parametric Acoustic Array I & II (4aPA; 4pPA) Joint with UW and EA Ken Foote & Murray Korman; PA contributed session Chairs: Keith Wilson (3aPA) Tom Matula (2aPAa) Martin Verweij (2aPAb) Jim Sabatier (1pPA); Congratulations to:

Lindsay Award: Kelly Benoit-Bird (AO and AB); Medwin Prize: Martin Siderius; Silver Medal (Speech): Winifred Strange; Gold Medal: Tom Rossing (Musical)

Thanks to: PA Outgoing Chair: Murray Korman; PA TPOM Rep: Tom Matula; PA Membership Committee: Steve Garrett; PA Student Council Rep: Jon R. La Follet (Ken Bader alternate); PA ASACOS: Richard Raspet; PA Medals and Awards: Outgoing: Tom Matula Newly Minted: Carr Everbach; PA Books Committee: Phil Marston; PA Fellow's Lunch "Mentor": Mike Bailey; New PA Fellows: NONE!

Comments: The meeting venue is better than Miami. Not enough place to sit and chat in the hotel meeting areas. Not enough seating at the social. The HVAC airflow noise was substantial.

#### 6. San Antonio - October 26-30, 2009

Special Sessions:

A man for all seasons: Tribute to Robert T. Beyer Joint with EA Murray Korman & Carr Everbach; Light and sound in science, engineering and medicine Joint with BB/EA Joel Mobley & Ron Roy; 40th anniversary of the KZK equation Joint with BB Vera Khokhlova & Mark Hamilton; TPOM REP: Preston Wilson (July, 2009)

#### 7. Baltimore -- April 19-23, 2010 (joint with NOISE-CON)

Special Sessions (can be finalized as late as July):

Things that go BANG! Joint with EA Glynn Holt & Stan Cheyne (Note: this session has been canceled); Sonic Boom Vic Sparrow & Natalia Sizov; Shock Waves and High Strain Rate Probes of Materials Albert Migliori; Ultrasound induced cellular bioeffects Primary Sponsor: BB Carr Everbach and Stu Mitchell; Schedule "special meetings" for Tuesday and Thursday; TPOM REPS: Murray Korman & Jim Sabatier (December 11-12, 2009) December 12th is the 1st day of Hanukkah

#### 8. Cancun, Mexico -- Nov 15-19, 2010

**Special Sessions:** 

Sonic Crystals Suggested by Keith Attenborough (Organizer TBD); 20 Years of Resonance Ultrasound Albert Migliori TPOM REP: I NEED A VOLUNTEER

#### 9. Moving Forward....

Spring 2011 Seattle -- Chair: Tom Matula

Fall 2011 Open

Spring 2012 Providence

Fall 2012 Open

Spring 2013 Montreal - Chair: Mike Stinson

#### 10. Technical Initiatives

Speaker Travel Support \$1500\*; Web Page Maintenance \$300\*; Student Paper Award \$500\*

New Initiative: We requested \$2500 in partial support of the Physical Acoustics Summer School to be held May or June of 2010.

\*automatic pre-approved

11. Student paper award every spring/summer meeting. No PA Student Paper Award in Portland. Need to rectify this for Baltimore.

Need a volunteer to organize: Tyrone Porter is putting together an ad hoc committee to discuss the proposed plan (below) and present an alternate at the San Antonio Meeting.

New Rules (discussed in Paris):

- (1) Must give an oral presentation AND defend a poster AND submit a POMA proceedings paper.
- (2) The poster on POMA proceeding will be the basis for judging the Award but an oral presentation MUST also be given to qualify for consideration.
- (3) The POMA proceedings must be submitted before the meeting in order to assist the judging of the posters. Propose we piggback with BB in a single room on Monday or Tuesday PM. There was pushback regarding this plan. Many felt that organizing a separate poster session is unnecessary and served to isolate the students. Some felt that it was also an added burden to the students, who would have to prepare both a poster and a lecture presentation.

#### 12. Web site

PA has the only ASA site on aip.org. Jim Sabatier has set up an URL at NCPA for the site. Matt Poese will author the initial manifestation of the new site.

### 13. JASA Page Charges

Paying these makes the difference between profit and loss ASA NIH-funded authors should take particular note, for the ASA shoulders the burden of posting JASA articles on PubMed Central. Only \$80/page versus \$250/pg for some profit Journals. It was suggested that the Journal might save money by not running off reprints of each article. The counter was the added cost of adding reprints to an existing production run is "in the noise".

#### 14. PACS Numbers

System is out of date and a major overhaul is being considered. First Step: Review and Revise the Scope of the PA Technical Committee Will assign a subcommittee to develop a straw man revision of our Scope for review and discussion in San Antonio. In the Portland meeting minutes I will include the Scope as it currently reads. Keith Wilson has volunteered to form the Committee. Chair's Observation: The PATC was remarkably mute and noncommittal regarding this matter, particularly considering how this overall process might impact that way the publish and reference papers.

#### 15. ASA-AIP Congressional Fellowship

Looking for Applicants. Fellowship Starts at the beginning of the Academic Year. Information on how to apply is provided on the AIP web site: <a href="http://www.physicist.org/press\_release/fellowships.html">http://www.physicist.org/press\_release/fellowships.html</a>. You can apply on-line via this site.

#### 16. The Economy

1300 Meeting attendees (expected about 900). ASA is healthy compared with some other Societies. Economy hitting some TC's more than others

- Grant Writing Workshop (at this meeting)
- Career Workshop (job fair) planned for Baltimore

#### 17. Other business?

Members encouraged to submit meeting presentation to POMA Various other sundry exchanges - no action items

#### 18. Adjourn

Minutes will also be available online at <a href="http://asa.aip.org/physical/default.html">http://asa.aip.org/physical/default.html</a>

Respectfully Submitted: Ronald A. Roy, Chair July 10, 2009

Physical Acoustics website

List of committee members

## **Psychological and Physiological Acoustics**

Reflecting P&P's policy of emphasizing spring meetings, the fall meeting in Miami, Florida was a small one. The P&P section sponsored two sessions. We thank Gail Donaldson for being our representative at the Technical Program Organizing Meeting.

The spring meeting in Portland, Oregon was a great success, with many exciting sessions. P&P's own Marjorie Leek held it all together as the Technical Chair for the whole meeting, and Erick Gallun was P&P's representative at the Technical Program Organizing Meeting. Erick Gallun, along with Nat Durlach, also organized P&P's special session on Theory Construction in the Domain of Auditory Perception, the stellar speaker line-up which included no fewer than five ASA silver medal winners, and Barbara Shinn-Cunningham was invited to give one of the interdisciplinary "Hot Topics" talks. The technical committee meeting was well attended, and the current Associate Editors (AEs) presented their annual reports to the membership. Rich Freyman is stepping down after three years of outstanding service as AE, and Ruth Litovsky has very kindly agreed to serve a second three-year term. We thank our other current AEs, Brenda Lonsbury-Martin, John Middlebrooks, Brian Moore, Bill Shofner, and Magdalena Wojtczak for their continuing service, and we are pleased to welcome two new AEs, Chris Plack and Michael Akeroyd. Erick Gallun, whose name is beginning to appear suspiciously often in this column, remains AE for POMA, and Qian-Je Fu continues to be AE for JASA-EL. The technical committee meeting was used as the venue to elect new members to the P&P technical committee. The terms of Amy Horwitz, Bert Schlauch, Kathy Arehart, Glenis Long, Enrique Lopez-Poveda and Stan Sheft came to an end, the terms of Bernhard Seeber, Dan Tollin, Emily Buss, Erick Gallun (again), Jose Alcantara, and Sridhar Kalluri began, and the following members were newly elected to begin their terms in 2010: John Grose, Ervin Hafter, Walt Jesteadt, Lori Leibold, Nicole Marrone, and Pamela Souza. Thanks to Kathy Arehart and Bert Schlauch for recruiting the candidates and organizing the election.

We thank Bill Hartmann, our representative to the Medals and Awards Committee, Lynne Werner, our representative to the Membership Committee, and Brent Edwards, our representative to ASACOS. The P&P Technical Initiatives continue unchanged. The initiatives include limited travel support for invited speakers, student receptions, and homepage maintenance. Suggestions for uses of funds, including innovations such as workshops, satellite meetings, etc., are welcome and should be sent to oxenham@umn.edu.

Andrew J. Oxenham, *Chair*<u>Psychological and Physiological Acoustics website</u>

<u>List of committee members</u>

## **Signal Processing in Acoustics**

The Signal Processing Technical Committee (SPTC) has been quite active during the period of this report. We organized 3 sessions for the 156th ASA meeting in Miami, November 10-14, 2007; and 3 sessions for the 157th ASA meeting in Portland, May 18-2, 2009. We wish to thank our Technical Program Organizing Meeting (TPOM) representatives, David Chambers for Miami and Paul Hursky for Portland, for their work in organizing the SP sessions for the meetings.

The special sessions for Miami were "Recent developments in coded signals in acoustics" organized by David Waddington, "Signal processing for high clutter environments" organized by Ron Wagstaff and Joal Newcomb, and "Autonomous system acoustic sensors and processors" organized by Juan Arvelo. There were a total of 21 invited papers and 18 contributed papers presented at the meeting.

In Portland the special sessions were "Detection and classification of underwater targets" organized by Patrick Loughlin, Maya Gupta, and Jack McLaughlin, "Poroelastic materials: models, bounds, and parameter estimation" organized by Max Deffenbaugh, and "Pattern recognition in acoustic signal processing" organized by Grace Clark.

There were 22 invited papers and 38 contributed papers presented at the meeting. In addition, David Chambers and Ning Xiang gave an invited talk on "Hot topics in signal processing". The Best Paper by a Young Presenter Award was given to Hui Ou from the University of Hawaii at Manoa for the paper "Automatic classification of underwater targets using fuzzy-cluster-based wavelet signatures".

We are proud that Jim Candy was selected for the Helmholtz-Rayleigh Interdisciplinary Silver Medal in Signal Processing in Acoustics and Underwater Acoustics.

This year an election was held for the next Chair of the Signal Processing Technical Committee, term beginning after the Portland meeting. This was won by Lee Culver from the Applied Research Laboratory at Pennsylvania State University.

We wish to thank Edmund J. Sullivan and William Carey, our signal processing Associate Editors of the Journal of the Acoustical Society of America, and Jim Candy, our signal processing Associate Editor for JASA Express Letters for the selfless service to the Society and SPTC.

We appreciate David Havelock's efforts to maintain the SP web site, and Sean Lehman's work organizing the Gallery of Acoustics. Colin Jemmott has been our representative to the Student Council.

David H. Chambers, **Chair 2006-2009** Lee Culver, *Chair 2009-2012* Signal Processing in Acoustics website List of committee members Current Chair: Lee Culver

# **Speech Communication**

The Speech Technical Committee (TC) supports the activities, meetings, publications, etc., for the largest technical area in the Society. This report covers the ASA meeting in Miami, Florida and Portland, Oregon.. The current members of the TC are Augustine Agwuele, Jean E. Andruski, Patrice S. Beddor, Fredericka Bell-Berti, Tessa C. Bent, Suzanne E. Boyce, Ann R. Bradlow, Kate E. Bunton, Dani M. Byrd, Rebeka Campos-Astorkiza, Bruce R. Gerratt, Helen M. Hanson, Rachel Frush Holt, Susan G. Guion, Diane Kewley-Port, Jody E. Kreiman, Jelena Krivokapic, Andrew J. Lotto, Conor T. McLennan, Shrikanth S. Narayanan, Dwayne Paschall, Christine H. Shadle, Rahul Shrivastav, Rajka Smiljanic, Mitchell S. Sommers, Brad H. Story, Joan E. Sussman, Scott L. Thomson, Jennel C. Vick and Zhaoyan Zhang. Many of these members are new to the TC. I want to welcome them and thank them for their support.

Other STC members who assisted us by serving on committees were Freddie Bell-Berti and Diane Kewley-Port-Executive Council, Jody Kreiman-Membership Committee, Shrikanth Narayanan -ASACOS, Anders Loqvist -Medals and Awards Committee, Corine Bickley and Ann Syrdal-Standards Committee on TTS Systems, Chritian Stilp-Student Representative, and Brad Story who maintains our web page. The continuing Associate Editors are: Speech Production-David Berry, Anders Lofqvist and Christine Shadle; Speech Perception-Kenneth Grant, Paul Iverson, Mitchell Sommers, Joan Sussman, Rochelle Newman and Allard Jongman; and Speech Processing-Douglas O'Shaughnessy. I am happy to welcome two new associate editors, Mark Hasegawa-Johnson and Shrikanth Narayanan, in the area of Speech processing.

The two ASA meetings went very smoothly this year because of the particular efforts of several members. First, we are grateful to our Technical Program Organizing Meeting (TPOM) representatives, who sorted papers, arranged the technical programs, and determined presentation rooms. They were Catherine Rogers and Stefan Frisch for the Miami meeting and Susan Guion and Melissa Redford for the Portland meeting. Second, we greatly appreciate the effort of the coordinators for student judging at the meetings: Terry Gottfried and Corine Bickley in Miami and Terry Gottfried in Portland.

We applaud Winifred Strange for receiving the Silver Medal in Speech Communication at the Portland meeting. We also are very happy to welcome Dave Berry, Suzanne Boyce, Ann Bradlow, Bruce Gerratt, Frank Guenther, Keith Kluender, Rich McGowan, Luc Mongeau, D. Lloyd Rice, Christine Shadle, Ann Syrdal, and Doug Whalen as new fellows of the ASA in the Speech Communication TC.

#### Student Activities

In our continuing effort to promote student participation in ASA meetings, the Speech Technical Committee sponsored two student activities at each meeting, a competition with a cash award for best student presentation and an evening reception in Miami and Portland. The student reception, which is joint with other technical committees, is intended to allow students to meet more senior ASA members informally. The receptions were well attended. The student papers were judged by STC members and the winners were awarded \$300 for first prize and \$200 for second prize. I was not able to announce the winners for the Acoustics '08 in last years reports, so I will include them here. The first place winner was Carol Mettigan, University of London, for "Investigating the Perception of Noise Vocoded Speech and Individual Difference Approach." The second place winner was Thomas Hueber, ESPCI Telecom Paris, for "Ultrasound-based Silent Speech Interface." At the Miami meeting, the first place winner was Elizabeth Hunt, MIT, for "Acoustic characteristics of glides /j/ and /w/: Interactions with phonation. The second place winner was Joseph Toscano, University of Iowa, for "Online processing of acoustic cues used in speech perception: Comparing statistical and neural network models". At the Portland meeting, the first place winner was first place: Matias Zanartu, Purdue University, for "An impedance-based inverse filtering scheme for glottal coupling". The second place winner was Rachel Miller, University of California at Riverside, for "Investigating perceptual measures of speech alignment: Do AXB matching tasks make the grade?"

A special thanks to all of the reviewers of the student papers.

#### Special Sessions, Special Reception and Special Workshop

To create stimulating and focused sessions, we sponsor special sessions every year, which focus on themes of interest to the speech community. In Miami, there were two special sessions: "A quantal transition: Ken Stevens in "retirement" chaired by Helen Hanson and "James J. Jenkins: Teacher, mentor, researcher" chaired by Winifred Strange. There was a special joint reception held for Ken Stevens and James Jenkins. In Portland, there were three special sessions: "Vowel inherent spectral change" co-chaired by Geoffrey Morrison and Peter Assmann, "Source/filter interaction in biological sound production" chaired by Ingo Titze, "Cognitive and psychological processes in speech perception" chaired by Amee Shah.

The Second ASA Special Workshop on Speech: Speech Cross-language Speech Perception and Variations in Linguistic Experience was held in honor of Winifred Strange at the end of the Portland meeting. The organizers for this workshop were Catherine Best, Ann Bradlow, Susan Guion and Linda Polka. The keynote address was given by Winifred Strange and the closing remarks were given by James Jenkins. Invited speakers were Catherine Best, Louis Goldstein, Michael Tyler & Hosung Nam; Ocke Bohn and Linda Polka; Laura Bosch and Marta Ramon-Casas; Susanne Curtin, Janet Werker & Krista Byers-Heinlein; Patricia Kuhl; Murray Munro; Valerie Shafer; Megha Sundara and Adrienne Scutellaro; Andrea Weber; and Reiko Akahane-Yamada (unable to attend due to flu epidemic in Japan). Additionally, there were posters, many of them given by students. The workshop was a great success.

I would like to thank the Technical Council for all of their support, for getting up early for our breakfast meeting held at each conference and for being such an agreeable group with which to work.

Carol Espy-Wilson, *Chair*Speech Communication website
List of committee members

### Structural Acoustics and Vibration

The Structural Acoustics and Vibration Technical Committee (SAVTC) saw significant improvement in activities in the past year. At the 155th ASA/EAA Joint Meeting in Paris, France, the SAVTC sponsored nine special sessions: 1) General Topics in Structural Acoustics and Vibrations organized by Wolfgang Kropp and Sean F. Wu; 2) Vibration and Radiation from Complex Structural Systems organized by David Feit and Jean-Louis Guyader; 3) Source Characterization in Structure Borne Noise Problems organized by Evan Davis and Charles Pezerat; 4) Acoustic Imaging in Confined Space organized by Earl G. Williams and Alexandre Garcia; 5) Efficient Boundary Element Methods organized by Ramani Duraiswami and Lothar Gaul; 6) Fluid-Structure Interaction organized by Noureddine Atalla, Vicente Cutanda Henriquez, and Stefan Schneider; 7) Distributed Active Noise and Vibration Control organized by Kenneth Cunefare and Manuel Collet; 8) Ground Vehicle Noise and Vibration organized by Donald B. Bliss and Paul De Vos; and 9) Active Noise Control: New Strategies and Innovative Concepts organized by Alain Berry and Marie-Annick Galland. The TPOM representative was Yves Berthelot. The attendees were exceptionally large, most of which were from European countries however. The Best Students Papers Competition was conducted by James Phillips and the winners were René Christensen (1st Place, from Denmark), Danielle Moreau (tie 2nd Place, from Australia) and Kerem Ege (tie 2nd Place, from France). Mauro Pierucci gave a summary of the guidelines of the ASA Medals and Awards Committee. Allan D. Pierce reported that the revision of PACS SVATC numbers submitted by the subcommittee chaired by Earl Williams looked good, and wanted to go through all PACS and move all papers on solids and vibration, elastic waves, and porous media to SAV. Jerry Ginsberg reported that Rona Ginsberg is currently organizing the book 101 Careers in Acoustics. Those who have stories or helpful information in this regard should contact Rona Ginsberg.

At the 156th ASA Meeting in Miami, Florida, SAVTC sponsored five special sessions on: 1) Emerging Applications of Structural Acoustics in Energy and Power Generation sponsored by Sean Wu and K. M. Li; 2) Wind Turbine Vibration and Sound Radiation (Joint with Engineering Acoustics) sponsored by Sean Wu; 3) Concepts of new vibration sensors (Joint with Engineering Acoustics) sponsored by Steve Shepard; 4) Computational Structural Acoustics sponsored by Kuangchen Wu; and 5) Vibro-acoustic Diagnosis and Prognosis of Complex Structures sponsored by Wen Li. The TPOM representative was Joe Cuschieri. James Phillips also conducted the Best Student Papers Competition and the winners were Jon La Follett (1st Place, from Washington State University) and Micah Shepherd (2nd Place, from Brigham Young University). At this meeting, the Committee discussed Technical Initiatives and Sean Wu, Allan D. Pierce and Jerry H. Ginsberg volunteered to work on a proposal on "Develop computer and actual test demonstration apparatus for illustrating structural acoustics and vibration phenomena," that can be shown to high school students. Sabih Hayek volunteered to prepare a proposal on "Case studies of acoustic related catastrophes and damages." Jerry Rouse volunteered to update the SAV TC web page. On behalf of the Student Council, Jon La Follett reported that it is very important for student members to have senior members to talk to them. Courtney commented that Allan Pierce and other Editors talked to student members about paper submissions to refereed journals, and it was very well received.

At the 157th ASA Meeting in Portland, Oregon, SAVTC sponsored five special sessions: 1) Distinguished Lecture on Structural Acoustics and Vibrations organized by Sean Wu; 2) Emerging Applications of Structural Acoustics in Energy and Power Generation organized by Sean Wu; 3) Concepts of new vibration sensors organized by Daniel W. Warren; 4) Computational Structural Acoustics organized by Kuangchen Wu; and 5) Vibro-acoustic Diagnosis and Prognosis of Complex Structures organized by Wen Li. The TPOM representative was Philip Marston. James Phillips conducted the Best Students Papers Competition and the winners were Nicholas O'Donoghue (1st Place, from Carnegie Mellon University) and Na Zhu (2nd Place, from Wayne State University). At this meeting, a sub-committee was formed to review and amend the "scope" of the SAV TC and the results are to be reported at the next SAV TC to be held in San Antonio. The members of this sub-committee include Karl Grosh (Chair), Earl Williams, Dave Feit, Jerry Ginsberg. Brian Thornock reported that two students expressed interest in the position of student representative to the SAV TC and that the student council will select the representative. As of May 1, 2009, there are 58 members in the SAVTC. At the end of the meeting, Sean Wu nominated eight additional members for the SAVTC.

Sean Wu, *Chair 2006-2009*Structural Acoustics and Vibration website
List of committee members
Current Chair: Dean E. Capone

### **Underwater Acoustics**

The Fall 2008 meeting at Miami Doral Resort was a very good meeting for the UWTC. Our very own Harry DeFerrari of the University of Miami was the General Chair, with Altan Turgut of NRL-DC serving as the UWTC TPOM representative. Steve Finette of NRL-DC gave a well attended UW Hot Topics talk on "Uncertainty in Ocean Acoustics." Two UW special sessions were organized, one by Kyle Becker of ARL-PSU on "Acoustics of harbors, ports and shallow navigable waterways," and a second by Claire Debever of SIO on "Robust array processing." Both special sessions were very well organized and attended. In terms of society recognition for our members, the meeting was a good one, with the announcements of society fellowship for John Fawcett of DRDC and the award of the IOA A.B. Wood medal to Karim Sabra of Georgia Tech. Our student paper award winners from the meeting were Aubrey Espana from Washington State with her talk "Excitation of low-frequency modes of solid cylinders by evanescent and ordinary propagating waves" and Lin Wan from Georgia Tech with the talk "Three-dimensional spatial coherence measurements: Vertical, longitudinal/ transverse horizontal coherence"

The Spring 2009 meeting in Portland, OR, was also very good meeting for the TC. Many thanks to DJ Tang of APL-UW who served as our representative to the paper sorting meeting. We had a large number of successful special sessions, as well as a very well organized and attended named session for Ralph Goodman, organized by Jerry Caruthers and Ken Gilbert of the University of Mississippi and Steve Stanic of NRL Stennis. Our special sessions were "Waveguide invariant principles for active and passive sonars" organized by Altan Turgut and Lisa Zurk of Portland State, "Mid to high-frequency propagation and scattering with application to underwater communications" organized by Moshen Badiey of the University of Delaware and Dan Rouseff of APL-UW, "Physics-based undersea clutter model verification and validation" organized by Juan Arvelo of APL-JHU, and Tim Stanton and Ken Foote of WHOI, and "Monostatic and bistatic detection of elastic objects near boundaries: methodologies and tradeoffs" organized by Mario Zampolli of NURC and TNO and Karim Sabra. Three new fellows in our TC were named, Martin Siderius of Portland State, Aaron Thode of SIO, and Lisa Zurk of Portland State University. In addition Martin was named the winner of the Medwin Award in our sister TC, Acoustical Oceanography.

The Underwater Acoustics Technical Committee has the pleasure to announce Lisa Zurk's election as chair of the UWTC for the 2009-2012 term. We are confident that the TC is in excellent hands. We would also like to thank Lisa for her efforts as General Chair of the Portland meeting, which was an outstanding success with approximately 1200 papers submitted.

The UWTC would like to highlight the service of the following technical committee members serving on ASA committees and councils: Eric Thorsos of APL-UW who is serving a second term on the Medals and Awards committee, Henrik Schmidt of MIT who is likewise serving for a second term on the Membership committee, Peter Dahl of APL-UW who is serving on the Executive Council, Bob Drake of NUWC who is the UWTC representative on the ASACOS, and Megan Ballard of ARL-PSU who is our Student Council representative. We also congratulate former AOTC chair Jim Miller of URI on his election to the Executive Council. Finally we would like to congratulate George Frisk of FAU for his election to the post of President-Elect for the 2009-2010 term.

Kevin Le Page, Chair 2006--2009
Underwater Acoustics website
List of committee members
Current Chair: Lisa A. Zurk

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