

## Annual Reports of Technical Committees (See November issue for additional reports)

### Acoustical Oceanography

I first want to thank my predecessor, Ross Chapman. Ross served as Chair of the Acoustical Oceanography Technical Committee for three years and AO is healthy and vibrant due in no small part to Ross's efforts. *Fall 2007 Meeting (New Orleans, Louisiana)*. The Technical Committee on Acoustical Oceanography (AO) sponsored two special sessions: "Storms and Intense Air-Sea Interactions" organized by Jeffrey Nystuen and "Deep and Shallow Seismic Sensing of Geological Structure organized by Altan Turgut which was also sponsored by Underwater Acoustics. AO also had two regular sessions entitled "Marine Sediment Properties and Inversions" and "Acoustic Effects of Internal Waves and Other Finescale Oceanography." AO also was a co-sponsor of three special sessions: "Acoustic Applications for Hurricane and Storm Preparedness in the Ocean Bottom" with Physical Acoustics, "Design of Distributed Surveillance and Oceanographic Monitoring Systems" with Underwater Acoustics and Signal Processing, and a named session for Leon Sibul with Signal Processing in Acoustics and Underwater Acoustics. Special thanks go to Jim Lynch who served as the AO representative to the Technical Program Organizing Meeting for New Orleans. The Best Student Paper Awards in Acoustical Oceanography went to David Barclay (first prize) of the University of California, San Diego for his paper "The effect of grain shape on the porosity of marine sediments" and to Megan Ballard (second prize) of Pennsylvania State University for her paper "Improved perturbative inversion schemes for obtaining bottom geoacoustic properties in shallow water." *Spring 2008 Meeting (Paris, France)*. The 2007 Medwin Prize in Acoustical Oceanography was awarded to Mark Trevorror of Defence R&D Canada Atlantic for his contributions to acoustic measurement of bubbles, plankton and fish. Dr. Trevorror presented the AO Prize Lecture entitled "The use of moored inverted echosounders for monitoring near-surface processes." In conjunction with the European Conference on Underwater Acoustics (ECUA), AO sponsored six special sessions in Paris: "Acoustical Oceanography of Polar Environments" organized by Peter Mikhalevsky and Hanne Sagen, "Marine Ecosystem Acoustics" organized by Kenneth Foote and Olav Godoe, "Geoacoustic Characterization of the Ocean Bottom and Geoacoustic Inversion" organized by Peter Gerstoft and Dag Tollefsen, "Passive Acoustic Tomography" organized by Karim Sabra and Sergio Jesus, "Acoustic Characterization of Sea Floor Habitats" organized by Christian de Moustier, Dick Simons and Xavier Lurton, and "Rapid Environmental Assessment" organized by John Osler and Yann Stephan. In addition, two regular sessions were organized: "General Topics in Acoustical Oceanography" and "Acoustical Tomography and Long Range Propagation." AO also was a co-sponsor of eight special sessions: "Animal Sonar Systems" with Animal Bioacoustics, Underwater Acoustics, and Signal Processing in Acoustics, "Seabed and Sea Surface Interaction Measurements and Modeling" with Underwater Acoustics and ECUA, "Impact of Environmental Variability on Mid-Frequency Sonar Performance" with Underwater Acoustics and ECUA, "Bayesian Signal Processing" with Signal Processing in Acoustics and ECUA, "Model-Based Signal Processing" with Signal Processing in Acoustics and ECUA, "Acoustics in Marine Archeology," with Engineering Acoustics, Underwater Acoustics, and ECUA, "Ultrasonic Acoustic MEMS" with Engineering Acoustics, and "Acoustically Activated Bubble Dynamics and Applications" with Physical Acoustics, and Biomedical Ultrasound/Bioresponse to Vibration. Special thanks go to Andone Lavery who served as the AO representative to the Technical Program Organizing Meeting for Paris. Congratulations to the following students for Best Paper awards in AO: First Prize (Poster) Paul Roberts, UCSD, "Application of multiple angle acoustic scatter to remote fish classification," First Prize (Presentation) Meghan Ballard, PSU, "Three dimensional geoacoustic inversion on the New Jersey Shelf," Second Prize (Poster) Aleksandra Kruss, IOPAN, Poland, "Estimation of macrophytes using single-beam and multibeam echosounding for environmental monitoring of arctic fjords (Kongsfjord, West Svalbard Island), and Second Prize (Presentation) David Barclay, UCSD, "Doppler Geo-Spectroscopy in the Makai Experiment." Information on these and related matters is available on the new Acoustical Oceanography Technical Committee website. It can be reached through the ASA web page by clicking on "Committees."

JAMES H. MILLER  
Chair

### Architectural Acoustics

TCAA had a very successful year in 2007-08. At the Fall 2007 meeting in New Orleans, TCAA special sessions and their organizers included "Architectural Acoustics: Sound Systems in Large Rooms and Stadia" David S. Woolworth and Timothy W. Leishman, "Better Than the Real Thing—Rock, Pop, and All That Jazz" Alex Case and Tony Hoover, "Impact and Footfall Noise I" and "Impact and Footfall Noise II" David Braslau, "Acoustics of Rehearsal Facilities" Damian Doria, "Computational Room Acoustics and Room Acoustics Measurements" David S. Woolworth, and "Acoustics of Modular Construction" Edward Duncan. David S. Woolworth and Angelo Campanella served as the TCAA representatives to the Technical Program Organizing Meeting for this meeting.

The Spring 2008 meeting was actually a global conference on acoustics entitled Acoustics 08, held in Paris, France. TCAA chaired a record 18 special sessions with chairs from our technical committee joined by their European colleagues as co-chairs. Special session titles and chairs included: "Acoustics of Open-Plan Spaces I" Kenneth Roy, "Acoustics of Concert Halls I" Takayuki Hidaka, "Speech Segregation in Rooms I" Barbara Shinn-Cunningham, "Surround Sound Acoustics I" Alex Case and Tony Hoover, "Low Frequency Absorption: Mechanisms, Measurement Methods, and Application I" Peter D'Antonio, "Acoustics of Concert Halls II" Takayuki Hidaka, "Low Frequency Absorption: Mechanisms, Measurement Methods and Application II" Peter D'Antonio, "Acoustics and Electroacoustics of Small Rooms" Jiri Tichy and Mendel Kleiner, "Acoustics and Privacy in Healthcare Facilities I: Emerging Policy Around the World" David Sykes, "Acoustics of Opera Houses I" Robin Glosemeyer Petrone, "Comparison of US and European Standards in Building/Room Acoustics I" Kenneth Roy, "Acoustics of Opera Houses II" Robin Glosemeyer Petrone, "Acoustics and Privacy in Healthcare Facilities II: Emerging Research Around the World I" Bill Cavanaugh, "Acoustics of Open-Plan Spaces II" Kenneth Roy, "Acoustics of Opera Houses III" Robin Glosemeyer Petrone, "Acoustics of Concert Halls II" Takayuki Hidaka, "Low Frequency Absorption: Mechanisms, Measurement Methods and Application III" Peter D'Antonio, "Comparison of US and European Standards in Buildings" Room Acoustics II" Kenneth Roy, "Surround Sound Acoustics II" Alex Case and Tony Hoover, "Case Studies and Design Approaches" Byron Harrison, "Prediction Methods in Building Acoustics I" Berndt Zeitler, "Architectural Acoustics Potpourri I" David Bradley, "Prediction Methods in Building Acoustics II" Berndt Zeitler, "Measuring Methods and Uncertainty in Building Acoustics I" Brandon Tinianov, "Archeological Acoustics I" David Lubman, "Archeological Acoustics II" David Lubman, "Speech Segregation in Rooms II" Barbara Shinn-Cunningham, "Architectural Acoustics Potpourri III" Byron Harrison, "Acoustics and Privacy in Healthcare Facilities II: Emerging Research Around the World II" Bill Cavanaugh, "Case Studies and Design Approaches II" Byron Harrison, "Prediction Methods in Building Acoustics III" Berndt Zeitler, "Measuring Methods and Uncertainty in Building Acoustics II" Brandon Tinianov, "New Frontiers in Room Acoustical Modeling I" Murray Hodgson, "Airborne and Impact Sound Insulation I" Berndt Zeitler, "Airborne and Impact Sound Insulation II" Berndt Zeitler, "Coupled Volume Acoustics I" Jason Summers, "New Frontiers in Room Acoustical Modeling II" Murray Hodgson, "New Measurement Parameters in Performing Arts Spaces I" Lily Wang, "New Measurement Parameters in Performing Arts Spaces II" Lily Wang, "Coupled Volume Acoustics II" Jason Summers. David Adams crossed the ocean in February to serve as the TCAA representative to the Technical Program Organizing Meeting for this conference. 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 classroom acoustics continues to be an important topic that TCAA members are strongly advocating. In addition to permanent construction, the standard is being expanded to address the large number of modular or 'portable' classrooms in use today. Resolution of the topic is expected next year. Also the US Green Building Council has finalized the standard for LEED (Leadership in Energy and Environmental Design) encompassing school projects. Many of our TCAA members have provided input on the original document and the followup public comment period. Minimum acoustical performance is a required prerequisite plus two additional credits may be awarded for exemplary acoustical performance.

For almost three years, the joint subcommittee with the Technical Committee on Noise concerning *Speech Privacy*, chaired by Greg Tocci and

David Sykes, has been very active. The document "Draft Interim Sound and Vibration Design Guidelines for Hospitals and Healthcare Facilities" for the American Institute of Architects (AIA) and the American Hospital Association (AHA), is complete and in distribution. Likewise with the "Green Guide for Health Care," a joint project of the Center for Maximum Potential Building Systems and Health Care Without Harm. The subcommittee has convened well attended special sessions at every ASA meeting since their formation, including two in Paris. More information about this subcommittee's activities may be found on the website: [www.speechprivacy.org](http://www.speechprivacy.org).

Our newest subcommittee on *Green Building Acoustics* continues to influence green building standards and the acoustical issues they sometimes create. Special sessions are planned for both the Miami and Portland meetings. This group can be found at the webpage: <http://groups.google.com/group/asa-gba>.

This year the TCAA again offered Best Student Paper Awards. Two awards were presented for papers given at the New Orleans meeting; First prize went to John Magee from the University of Hartford, while a commendation award was given to Gordon Rubin of RPI. Two winners were selected for papers given at the Paris meeting: Anne Guthrie of Rensselaer Polytechnic Institute for first prize, and Yun Jing from Rensselaer Polytechnic Institute second prize.

Congratulations to TCAA members who became ASA Fellows this year. New Fellows include Elizabeth Cohen, Masayuki Morimoto, Tony Nash and Lily Wang.

Many thanks to the following individuals for their hard work this past year in ASA on behalf of TCAA. Red Wetherill 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 will serve as our newly elected Student Council representative. The Associate Editors in Architectural Acoustics are Lily Wang and Ning Xiang for *JASA*, Ning Xiang for *JASA Express Letters*. Tony Hoover serves on the Editorial Board for *Acoustics Today*. Finally, thanks to Alex Case for his service as TCAA Secretary.

BRANDON TINIANOV

Chair

## Engineering Acoustics

The Fall 2007 meeting of the ASA was a small but tight and well-structured meeting. Engineering Acoustics (EA) sponsored one full-day special session entitled "Infrasonic Instrumentation," organized and chaired by Allan Zuckerwar and Qamar Shams. This session was exceptional in its breadth of interdisciplinary interest and participation. This special session can serve as a model for future special sessions in Engineering Acoustics in that it successfully leveraged the role of EA as a common thread across all disciplines within the society.

It is fitting, then, that Allan Zuckerwar was honored with the Silver Medal in Engineering Acoustics for "contributions to the theory and practical development of transducers and their use in fundamental measurements." Congratulations to Allan for recognition well deserved.

The winner of the student paper competition was Tim Marston for "Comparison of measurement and theory for the acoustic pressure field in an infrasonic calibrator through the isentropic to isothermal transition."

For the Spring 2008 ASA joint meeting (Acoustics '08) members of the EA committee organized eight special sessions with the help of colleagues from our sister committees in the SFA and the EAA. The chair sends his personal gratitude to all the members who volunteered their time and effort to organize such an unusually large number of special sessions. Steve Thompson substituted for Kim Benjamin on the Medals and Awards Committee, and Ilene Busch-Vishniac for Tom Howard on the Membership Committee.

Gunner Rasmusen received a Lifetime Achievement award from the EAA for "his outstanding contribution in the field of acoustic measurements and instrumentation" in the development and commercialization of measurement microphones at B&K and G.R.A.S.

In the spirit of the joint meeting, the student paper competition was opened up to members of all attending societies. The winners were Thierry Le Van Suu for "Thin film thermo-viscous damping in miniature condenser microphones," and Cyril Meynier for "Reproducibility and life duration assessment of cMUT transducers."

As was previously reported in the *ECHOES* newsletter, Gerhard Sessler received the Technology Award of the Eduard Rhein Foundation for his work on electret microphones with Jim West, who was awarded a US National Medal of Technology in 2006 for the collaboration.

Daniel Warren

Chair

## Musical Acoustics

During 2007-2008 the Technical Committee on Musical Acoustics (TCMU) was chaired by James Beauchamp. Representatives to ASA committees were: James P. Cottingham, Membership; Uwe J. Hansen, Medals and Awards; Ian Lindevald, ASACOS; Eric A. Dieckman, Student Council, and James W. Beauchamp, Technical Council. Associate Editors were Diana Deutsch (JASA, Express Letters), Neville H. Fletcher (JASA), Thomas D. Rossing (JASA), and James W. Beauchamp (POMA). Technical Program Organization Committee (TPOM) representatives were Scott McDermott (New Orleans) and Antoine Chaigne (Paris). Those appointed or reappointed as TCMU members for 2008-2011 were James W. Beauchamp, George A. Bissinger, Annabel J. Cohen, James P. Cottingham, Evan B. Davis, Diana Deutsch, Uwe J. Hansen, Peter L. Hoekje, James H. Irwin, Ian M. Lindevald, Robert Pyle, Gary P. Scavone, Brad Story, George Tzanetakis, and Chris E. Waltham. Recently Paul Wheeler, a professor of electrical and computer engineering at Utah State University, was elected the new Chair of the TCMU for 2008-2011.

At the 154th Meeting in New Orleans in November-December, 2007, TCMU presented three special sessions: 2aMU/2pMU, "Musical Pitch Tracking and Sound Source Separation Leading to Automatic Music Transcription I & II," organized and chaired by James W. Beauchamp; 3eMU, "Science and Performance," organized and cochaired by Uwe J. Hansen and Tyrone M. Porter; and 4pMU, "Session in Honor of Max Mathews with Electronic and Computer Music Concert," organized and cochaired by Thomas D. Rossing and Julius O. Smith III. In addition, TCMU cosponsored the Architectural Acoustics sponsored special session "Even Better Than the Real Thing—Rock, Pop, and All That Jazz." Moreover, there was a session of contributed papers at this meeting: "Musical Acoustics and Instrumental Acoustics" chaired by Scott McDermott. Special musical performances in conjunction with the sessions were given by the Marlon Jordan Jazz Quartet on 3eMU; Rohan Krishnamurthy (South Indian drum) on 4aMU; and Maureen Chowning (soprano), Jon Appleton (radio baton), and Max V. Mathews (electronic violin) on 4pMU.

Like the other groups, TCMU was extremely well represented at the 155th meeting at Paris in terms of special sessions. There were so many sessions that this may be have been the first time that Music sessions had to be scheduled in parallel. (Fortunately, most Music sessions were held in the same conveniently located room just opposite the escalators on Level 2 of the Palais des Congrès.) The following special sessions were presented: 1pMUa/2pMUC, "Acoustic Measurements on Wind Instruments I & II," organized and cochaired by Noam Amir and David B. Sharp; 1pMUa/2pMUC, "Acoustic measurements on wind instruments," organized and cochaired by Shigeru Yoshikawa and Judit Angster; 1pMUC, "Acoustics and Psychoacoustics of Pipe Organs," organized and cochaired by Jonas Braasch and David M. Howard; 2aMUa/2pMUa, "Brass Instrument Acoustics I & II," organized and cochaired by Thomas Moore and Joël Gilbert; 2aMUB/2pMUD, "Interaction Between Instrument and Instrumentalist I & II," organized and cochaired by Gary Scavone and Xavier Boutillon; 2pMUE, Singing Voice and Source-Filter Interaction," organized and cochaired by Brad Story and Nathalie Henrich; 3aMUa, "Interdisciplinary Research on the Science of Singing: A Tribute to Johan Sundberg," organized and cochaired by Annabel Cohen and Sten Ternstrom; 4aMU/4pMUF, "Virtual Musical Instruments," organized and cochaired by Julius O. Smith and Antoine Chaigne; 4pMUa/4pMUE/5aMUa, "Control of natural and synthetic musical sounds," organized and cochaired by Marcelo Wanderley and Jean Kergomard; 5aMUD/5aMUE, "Signal representations and models of musical sounds," organized and cochaired by Bertrand David and James W. Beauchamp. In addition, TCMU cosponsored the Architectural Acoustics sponsored special sessions 1pAAAd/2pAAj, "Surround Sound Acoustics I & II" and 2aAAe/2pAAb/2pAAf," "Acoustics of Opera Houses I, II & III." Moreover, there were several sessions of contributed papers at this meeting: 3aMUa/4pMUC, "Plucked Stringed Instruments I & II," cochaired by François Gautier and Chris Waltham; 3pMUa/4pMUB, "Bowed and Keyboard Stringed Instru-

ments I & II,” cochaired by Knut Guettler and Claudia Fritz; 3pMUB/4pMUD, “Wind Instruments I & II,” chaired by Seiji Adachi & Simon Félix; 5aMUc/5aMUf, “Plucked and Struck Idiophones I & II,” chaired by Tom Rossing and Charles Besainou. Music was also prevalent as an extracurricular activity at the Paris meeting. The first night an organ concert was presented at the Saint Sulpice Cathedral in Paris. On Tuesday and Wednesday there were tours of the Lutheries Acoustique Musique (LAM) musical acoustics lab in Paris’s 15th arrondissement. On Thursday and Friday there were tours of the Institut de Recherche et Coordination Acoustique/Musique (IRCAM). Also, on Thursday there was a guided tour of “Pipe Organs of Paris” with organs ranging in age from 400 years to the present.

TCMU continues to promote student involvement in musical acoustics by continuing to sponsor the ASA Best Student Paper Awards in Musical Acoustics. Intense interest in this competition is demonstrated by an increasing number of entries: There were 10 entries for the New Orleans meeting and 32 for the Paris meeting. The winners for New Orleans were Rohan Krishnamurthy (Kalamazoo College), who received First Place for “Acoustics of the mridangam: Study of a new design of a South Indian drum,” and Edward L. Toussaint (Lawrence Univ.), who won Second Place for “Reed vibration, pressure, and airflow in Western free-reed instruments.” At Paris the winners were Jer-Ming Chen (Univ. New South Wales, Sydney), who received First Place for “How to play the first bar of *Rhapsody in Blue*,” and Edgar Berdahl (Stanford Univ.), who won Second Place for “Applications to passivity theory to the active control of acoustic musical instruments.”

TCMU continues to maintain a very useful website (<http://www.public.coe.edu/~jcotting/tcmu/>). It currently contains links to 12 musical acoustics laboratories and associations and numerous websites on acoustics education, as well as close to 200 links to musical acousticians, giving their names and specific interest topics. A new feature added in 2007-2008 is a list of musical acoustics papers published in *JASA* with links to the abstracts for these papers. A number of papers on musical acoustics topics were published in *JASA* during 2007-2008. There were papers on such topics as the acoustics of winds, strings, organ, piano, African mbira, and musical pitch perception.

JAMES BEAUCHAMP

*Chair 2005–2008*

## Noise

TC Noise was well represented at the 154th meeting of ASA in Spring 2007 in New Orleans with 7 Special Sessions again showing the widespread aspects of noise: Architectural Acoustics, Musical Acoustics, Signal Processing in Acoustics, and Noise: Even Better than the Real Thing-Rock, Pop, and all that Jazz—Alexander U. Case and K. Anthony Hoover; Lawn, Yard, and Portable Noise and Noise Generation, Modeling, and Measurement—Richard D. Godfrey and Karl B. Washburn; Rain Noise—Robert C. Coffein. Soundscape Developments: Case Studies and Best Practices—Brigitte Schulte-Fortkamp and Bennett Brooks; Noise and Animal Bioacoustics: Advances in Measurement of Noise and Noise Effects on Animals and Humans in the Environment I+II—Ann E. Bowles and Brigitte Schulte-Fortkamp; Architectural Acoustics, Noise, and ASA Committee on Standards; Acoustics of Modular Construction—Edward C. Duncan.

TC Noise was proud to announce that James E. West, Research Professor, Department of Electrical and Computer Engineering, The Johns Hopkins University Whiting School of Engineering, received the 2006 National Medal of Technology “for co-inventing the electret microphone while working with Gerhard Sessler at Bell Labs in 1962.” Jan Achenbach, Walter P. Murphy and Distinguished McCormick School Professor in the Department of Civil and Environmental Engineering at Northwestern University, received the 2005 National Medal of Science for seminal contributions to engineering research and education in the area of wave propagation in solids and for pioneering the field of quantitative non-destructive evaluation. U. S. President George W. Bush presented the 2005 and 2006 National Medals of Science and Technology at a White House ceremony on Friday, July 27, at 1:50 p.m. The ceremony was carried live by satellite feed and Web cast on the White House Web site.

Rich Peppin was the Noise representative at the Technical Program Organizing Meeting for New Orleans. The Noise Young Presenter Award went to Yun Jing for his paper “Sound field modeling in urban squares using

a diffusion model” and to Cole V. Duke for his paper “Measurement and evaluation of blade passage frequency fluctuations.” Brandon Tinianov and Vladimir Ostashev were announced as new Fellows.

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 planned and understood as a first step in collaboration with respect to measures and methodologies in research in both areas of Animal Bioacoustics and Noise. The Soundscape approach got much attention and the session will be continued at the ASA meeting in Miami November 2008. There is also a report on this session in *Acoustics Today* Volume 4, Issue 2, April 2008.

The efforts of several volunteers should be recognized: Nancy Timmerman is the Noise representative on the Medals and Awards Committee, John Erdreich was the representative on the Membership Committee until this meeting 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 secretary for the TC-Noise meetings.

The Noise web page [<http://www.nonoise.org/quietnet/tcn/>] is maintained by Les Blomberg. Joe Posey is the new coordinator for the Noise Young Presenter Awards. For the meeting in New Orleans the TC Noise Chair took over this responsibility. Serving as Associate Editor for *JASA Express Letters* is Mike Stinson and *JASA* Associate Editors are: Keith Attenborough, Kenneth Cunefare, Vladimir Ostashev, and Brigitte Schulte-Fortkamp.

The 155th ASA meeting in Paris joint with EAA, SFA, ECUA, was an overwhelming meeting. TC Noise collaborated with EuroNoise and was responsible for 30 sessions covering Classroom acoustics-Louis Sutherland, Luigi Maffei and David Lubman; Cultural variations in sound/noise assessment-Catherine Guastavino and Danièle Dubois; Measurement of occupational noise exposure-William Murphy and Beat Hohmann; Noise from wind power projects-Eddi Duncan and Kerstin Persson Waye; Soundscape and community noise-Brigitte Schulte-Fortkamp and Bennett Brooks; Aeroacoustics-Philip Morris and Christophe Bailly; Tire-road noise from the road perspective-Paul Donovan and Fabienne Anfosso-Lédée; Prominent discrete tones-Robert Hellweg and Lothar Schmidt; Sound quality tools and applications-Wade Bray, Klaus Genuit and Etienne Parizet; Airframe noise measurement, prediction, and control-Joe Posey and Denis Gely; Sound and vibration from explosions in air-Roger Waxler and Keith Attenborough; Environmental noise mapping-Kenneth Cunefare and Gaetano Licitra; Session in honor of Henning von Gierke-Paul Schomer and Brigitte Schulte-Fortkamp; Noise, vibration and acoustics for medical and research facilities and their occupants-James West, Jack Evans and Marc Asselineau; Sleep disturbances and other health effects-Lily Wang, Barbara Griefahn and Jacques Lambert; Vibration perception-Patricia Davies and Michael Griffin; Physical and psychophysical evaluation of vehicle exterior noise-Paul Donovan and Hugo Fastl; Fan noise and low-Mach number rotating blade noise-Scott Morris and Michel Roger; Car acoustics-Luc Mongeau and Virginie Maillard; Action planning and global solutions for urban noise-Klaus Genuit and Itziar Aspuru; Acoustic performance of energy efficient building products-Anthony Hoover and Jacques Roland; Soundscape in the heritage of urban and natural areas-Giovanni Brambilla and Bennett Brooks; Potential to reduce tire/road noise-Stuart Bolton and Ernst-Ulrich Saemann; Noise mapping techniques and uncertainties-Richard Peppin and Wolfgang Probst; Noise, structure borne noise from building technical equipment, and ground borne noise from railways-James Nelson and Michel Villot; EU projects for aircraft noise reduction-Dominique Collin; Source identification in radiation and scattering-Stuart Bolton and Peter Møller Juhl; Time-domain modeling methods in acoustics-Paul Calamia and Maarten Hornikx.

Keith Attenborough and Brigitte Schulte-Fortkamp were our representatives at the Technical Program Organizing Meeting for Paris. Noise had 53 applications for the Young Presenter Award! Our new fellow is Dick Botteldooren. TC Noise collaborated also successfully with TC Noise EAA; for the Technical committee meeting 51 participants were counted, 37 from ASA and 14 from EAA.

Let me close my report citing Elaine Moran: “Acoustics’08 Paris will be talked about for decades to come. The contacts made at that meeting will undoubtedly result in collaborations across oceans and countries which can only be good for acoustics.”

BRIGITTE SCHULTE-FORTKAMP

*Chair*

## Psychological and Physiological Acoustics

Reflecting P&P's policy of emphasizing spring meetings, the fall meeting in New Orleans was a small one. P&P sponsored two sessions. We thank Bob Turner for stepping in on short notice to be the representative to the Technical Program Organizing Meeting.

The Paris meeting was quite an experience. Although impossibly busy, the science was at a high level. There were 16 sessions sponsored by P&P, 13 of them special sessions. We thank the organizers of the special sessions: Christian Lorenzi and Brian Moore (Role of Temporal Fine Structure in Speech and Non-Speech Perception for Normal and Hearing-Impaired People), Blas Espinoza-Varas and Alain de Cheveigne (Cross-Spectral Auditory Integration), Huanping Dai and Birger Kollmeier (Auditory Perception and Signal Processing by Prostheses), Steve Colburn, Bernhard Seeber, and Bernhard Laback (Cochlear Implants: Going Beyond the Envelope), Patricia Davies and Hugo Fastl (Applications of Psychoacoustics), Sridhar Kalluri and Michael Akeroyd (Binaural Perception by Hearing Aid Wearers), Jont Allen and Sarah Watkins (Acoustic Features and Speech Perception), Mounya Elhilali and Daniel Pressnitzer (Integrated Approaches to Auditory Scene Analysis), Erv Hafter and Armin Kohlrausch (Jens Blauert and His Contributions), John Neuhoff and Anna Preiss (Auditory Perception of Sound Source Properties), Jeremy Marozeau and Sabine Meunier (Loudness, From Controlled Stimuli to Environmental Sounds), Chris Shera and Arturo Moleti (Otoacoustic Emissions, From Cochlear Modeling to Experimental Techniques, and Back), and Durand Begault and Lauri Savioja (Computational Auralization). Co-sponsors of P&P sessions included ASA-COS, Architectural Acoustics Noise, Signal Processing in Acoustics, Computational Acoustics, and Speech Communication. P&P was a co-sponsor of 4 other sessions. We thank Armin Kohlrausch and Alain de Cheveigne and the TC Chair for their work in organizing the P&P sessions, Bill Yost as meeting organizing committee co-chair, and Bill Hartmann as technical organizing committee co-chair.

The P&P open meeting was well-attended, and was jointly run by the ASA TC chair and Armin Kohlrausch, representing EAA. There was discussion of the need for nomination of more fellows to the ASA. Incoming chair Andrew Oxenham will be organizing a committee to determine likely candidates for fellowship. Peggy Nelson announced that the executive council was very likely to pass a proposal to have JASA papers go directly to PubMed, in fulfillment of requirements from many granting agencies that publications from funded research be available to the general public. Rich Freyman informed the group that when submitting papers to JASA, they should send a cover letter requesting the associate editor, as the AEs do not see the computer requests submitted by authors. The P&P Associate Editors provided an overview of their efforts. We thank the continuing P&P Associate Editors, Rich Freyman, Ruth Litovsky, John Middlebrooks, Brenda Lonsbury-Martin, Brian Moore, Bill Shofner, and Magda Wojtczak for their efforts on our behalf. We also thank Erick Gallun, our AE for POMA.

We express our thanks to Mike Heinz for helping to organize the TC ballot and for counting the ballots, and, thanks to members of the P&P community who so willingly added their names to the ballot. The newly elected members of the Technical Committee are Jose Alcantara, Emily Buss, Erick Gallun, Sridhar Kalluri, Gerald Kidd, Bernhard Seeber, and Dan Tollin. We thank our outgoing members, Michael Akeroyd, Alain de Cheveigne, Brent Edwards, Mike Heinz, and Lynne Werner.

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. We also appreciate the efforts of our member of the executive council, Peggy Nelson. Also congratulations to the new fellows, Michael Akeroyd, Brian Glasberg, and Christophe Micheyl.

As I pass the torch to the incoming chair, Andrew Oxenham, the P&P Technical Initiatives continue unchanged. The initiatives include 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 (oxenham@umn.edu).

ELIZABETH A. STRICKLAND  
*Chair, 2005-2008*

## Signal Processing in Acoustics

The Signal Processing Technical Committee (SPTC) has been very active during the period of this report. We organized 2 sessions for the 154th

ASA meeting in New Orleans, November 27 to December 1, 2007. We also organized 5 sessions and cosponsored another 5 for the 155th ASA meeting in Paris, June 29 to July 4, 2008. The Paris meeting was held jointly with the European Acoustics Association and the Société Française d'Acoustique. We sponsored a competition for best paper by a young presenter for both meetings, the Gallery of Acoustics competition in Paris, and a student challenge problem.

At the New Orleans meeting, a special session in honor of Leon Sibul was organized by Lee Culver. Leon was one of the original organizers of the SPTC and a mentor to many signal processors in ASA. The Best Paper by a Young Presenter Award was given to Joris Vanherzeele from the Vrije Universiteit Brussel in Brussels, Belgium, for his presentation "Acoustic source identification using a generalized regressive discrete Fourier series for tomographic reconstruction." We wish to thank Joe Posey for representing SPTC during the Technical Program Organizing Meeting (TPOM).

The meeting in Paris was the largest recorded gathering of acousticians in history. The SPTC organized 5 special sessions and co-sponsored 11 sessions. Three special sessions were organized on time-reversal methods in acoustics: "Overview of time reversal in acoustics," "Time reversal methods for array imaging and signal processing," both organized by David Chambers and Claire Prada, and "Biomedical applications of time-reversal" organized by Oleg Sapozhnikov and Mickael Tanter. Eliza Michalopoulou and Simon Godsill organized a special session entitled "Bayesian signal processing," and Sean Lehman and Christian Pichot organized a session entitled "Model-based signal processing." In addition there were five regular sessions, including a session on "Advances in acoustic sensors and networks for defense applications" organized and chaired by Brian Ferguson and Pierre Naz. A competition for best student paper was held, with the entries currently being scored. We wish to thank Jean-Pierre Hermand for representing SPTC at the TPOM.

This year, the Gallery of Acoustics, organized by Sean Lehman, was held at the Paris meeting. This is a competition for the best audiovisual presentation of acoustical phenomena, with entries judged by both technical and aesthetic criteria. We had five entries: "Sound generated by impact on thin ice" by Mikhail Mironov, A. P. Pyatakov, and P. A. Pyatkov, "Outstanding sound pressure distribution on the outlet of spiral ducts" by Wojciech Lapka and Czeslaw Cempel, "Time reversal in solids (or how to focus wave energy)" by Pierre-Yves Le Bas, and Brian E. Anderson, "Acoustic imaging to increase noise awareness" by Stephan Paul and William D. Fonseca, and "Speech...Rhythm" by Volker Dellwo. These entries showed a great variety of creativity, artistic flair, and ingenuity in presenting a broad range of acoustic phenomena. Attendees of the meeting were asked to vote on each entry. The winners of first prize were Wojciech Lapka and Czeslaw Cempel for their video presentation on pressure distributions in spiral ducts.

Each year Signal Processing sponsors a Student Challenge problem that can be found in the SP section of the ASA web site. This year's problem asked the student to extract a sinusoidal communication signal from a moving vehicle out of noise in the presence of a jamming signal. Paul Gendron organized the contest and judging. The First prize of \$1000 was awarded to Berke Gur from the University of Massachusetts Lowell.

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

DAVID H. CHAMBERS  
*Chair*

## 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 New Orleans, Louisiana and the Acoustics'08 meeting in Paris, France. The current members of the TC are Augustine Agwuele, Jean Andruski, Norma Barroso, Fredericka Bell-Berti, Patrice Beddor, Tessa Bent, Lynne Bernstein, Ocke-Schwen Bohn, Norma Antonanzas Barroso, Suzanne E. Boyce, Ann Bradlow, Dani Byrd, Kate Bunton, Roger Chan, Rebeka Campos-Astorkiza, Alexander Francis, Bruce Gerratt, Kenneth Grant, Susan Guion, Helen Hanson, Racheael Holt, Markus Iseli,

Paul Iverson, Diane Kewley-Port, Jody E. Kreiman, Jelena Krivokapic, Anders Lofqvist, Andrew Lotto, Benjamin Munson, Shrikanth Narayanan, Terrence Nearey, Peggy Nelson, Dwayne Paschall, Douglas, O'Shaughnessy, Joseph Perkell, Astrid Schmidt-Nielsen, Christine, Shadle, Rahul Shrivastav, Mitchell Sommers, Rajka Smiljanic, Brad Story, Joan Sussman, Scott Thomson, Gary G. Weismer 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 Lofqvist—Medals and Awards Committee, Corine Bickley and Ann Syrdal—Standards Committee on TTS Systems, Carol Espy-Wilson—Rossing Prize Committee, Jennell Vick and 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.

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 Emily Tobey for the New Orleans meeting and Paul Iverson for the Paris meeting. Second, we greatly appreciate the effort of the coordinators for student judging at the meetings: Peter Assmann in New Orleans and Suzanne Boyce, Ocke-Schwen Bohn and Helen Hanson in Paris (over 70 papers were judged at the Paris meeting). We applaud Ingo Titze for receiving the Silver Medal in Speech Communication at the New Orleans meeting, and Pat Kuhl for receiving the Gold Medal Award of the ASA at the Paris meeting. We also are very happy to welcome Sarah Hawkins, Brad Story and Dani Byrd 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 New Orleans and a student luncheon in Paris. 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. At the Salt Lake City meeting, the first place winner was Yolanda Holt, Ohio State University for "Are vowels in African American English affected by Southern vowel shift?" The second place winner was Wendy Herd, University of Kansas for "Incomplete neutralization of /t/ and /d/ in flapping environments: An analysis of the North Midland dialect of American English."

At the New Orleans meeting, the first place winner was Youngsok Jung, Harvard-MIT division of Health Science and Technology, for "Acoustic articulatory evidence for quantal vowel categories: The feature [low]." The second place winner was Melissa Baese, Northeastern University, for "Enhancing learning on foreign-accent adaptation with a combination of active training and passive stimulus exposure." A special thanks to all of the reviewers of the student papers.

#### Special Session and Special Talks

To create stimulating and focused sessions we sponsor special sessions every year, which focus on themes of interest to the speech community. In New Orleans, special sessions addressed "Role of Attention in Speech Perception" chaired by Alexander L. Francis, "Auditory and Somatosensory Feedback in Speech Production I" and "Auditory and Somatosensory Feedback in Speech Production II," chaired by Anders Lofqvist. There was a Hot Topics presentation given by Ann Bradlow and Carol Espy-Wilson on "Speech-in-Noise Perception and Recognition: What humans *do* and what computers *should do* to handle speech in noise." In Paris, there were twelve special sessions: "Articulatory modeling and control of speech and singing organs" cochaired by Maureen Stone and Phil Hoole, "Multi-modal speech technology" cochaired by Gerasimos Potamianos and Gerard Bailly, "How

do physical and motor knowledge matter to speech?" cochaired by Carol Fowler and Mikko Sams, "Acoustics of speech production: aeroacoustics and phonation" cochaired by David Berry and Xavier Pelorson, "Speech recognition in noisy environments" cochaired by Oliveir Siohan and Georges Linares, "Measurement of sociophonetic variation in speech" cochaired by Jonathan Harrington and Ewa Jacewicz, "Neurobiology of speech perception" cochaired by Paul Iverson and Christophe Pallier, "Speaker identification by machine" chaired by Louis-Jean Boe, "Cross-language speech perception and production" cochaired by Yue Wang and Dawn Behne, "Speech prosody and how it relates to segmental aspects of speech," cochaired by Hansjorg and Mixdorff.

I would like to thank the Technical Council for all of their support and for being such an agreeable group with which to work.

CAROL ESPY-WILSON

Chair

## USA Meetings Calendar

Listed below is a summary of meetings related to acoustics to be held in the U.S. in the near future. The month/year notation refers to the issue in which a complete meeting announcement appeared.

### 2008

10-14 Nov 156th Meeting of the Acoustical Society of America, Miami, FL [Acoustical Society of America, Suite 1NO1, 2 Huntington Quadrangle, Melville, NY 11747-4502; Tel.: 516-576-2360; Fax: 516-576-2377; Email: asa@aip.org; WWW: <http://asa.aip.org>].

### 2009

18-22 May 157th Meeting of the Acoustical Society of America, Portland, OR [Acoustical Society of America, Suite 1NO1, 2 Huntington Quadrangle, Melville, NY 11747-4502; Tel.: 516-576-2360; Fax: 516-576-2377; Email: asa@aip.org; WWW: <http://asa.aip.org>].

26-30 October 158th Meeting of the Acoustical Society of America, San Antonio, TX [Acoustical Society of America, Suite 1NO1, 2 Huntington Quadrangle, Melville, NY 11747-4502; Tel.: 516-576-2360; Fax: 516-576-2377; Email: asa@aip.org; WWW: <http://asa.aip.org>].

### 2010

19-23 May 158th Meeting of the Acoustical Society of America, Baltimore, MD [Acoustical Society of America, Suite 1NO1, 2 Huntington Quadrangle, Melville, NY 11747-4502; Tel.: 516-576-2360; Fax: 516-576-2377; Email: asa@aip.org; WWW: <http://asa.aip.org>].

15-19 November 2nd Iberoamerican Conference on Acoustics (Joint Meeting of the Acoustical Society of America, Mexican Institute of Acoustics, and Iberoamerican Federation on Acoustics), Cancun, Mexico [Acoustical Society of America, Suite 1NO1, 2 Huntington Quadrangle, Melville, NY 11747-4502; Tel.: 516-576-2360; Fax: 516-576-2377; Email: asa@aip.org; WWW: <http://asa.aip.org>].

## Cumulative Indexes to the Journal of the Acoustical Society of America

Ordering information: Orders must be paid by check or money order in U.S. funds drawn on a U.S. bank or by Mastercard, Visa, or American Express credit cards. Send orders to Circulation and Fulfillment Division, American Institute of Physics, Suite 1NO1, 2 Huntington Quadrangle, Melville, NY 11747-4502; Tel.: 516-576-2270. Non-U.S. orders add \$11 per index.

# ACOUSTICAL NEWS—USA

**Elaine Moran**

Acoustical Society of America, Suite 1N01, 2 Huntington Quadrangle, Melville, NY 11747-4502

*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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## New Fellows of the Acoustical Society of America



**Ann R. Bradlow**—For contributions to variation in speech intelligibility



**John Fawcett**—For contributions to three dimensional scattering from objects in the seabed



**Keith R. Kluender**—For contributions in audition and perceptual learning

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## Annual Reports of Technical Committees

(See October issue for additional reports)

### Animal Bioacoustics

Animal Bioacoustics had a good year, with meetings and special sessions in New Orleans, LA in the fall, and in Paris, France in the spring. In addition, AB is sponsoring a special meeting on Animal Sound Communication, to take place in Corvallis, Oregon on August 12-15, 2008. Many thanks to David Mellinger and Sara Heimlich of Oregon State University who organized and are coordinating the meeting. This is the second in a series of Animal Sound Communication meetings that have been sponsored by Animal Bioacoustics and The Acoustical Society of America, and promises to be very exciting and packed with interesting papers.

In New Orleans, the AB Chair was unable to attend, but was temporarily replaced by past-Chair Mardi Hastings. Many thanks to Mardi. Animal Bioacoustics sponsored one special session on mechanisms of sound source localization in a wide range of animals, from fishes to humans that was organized by Michael Dent and Eduardo Mercado.

The Paris meeting was very well attended as were the Animal Bioacoustics sessions. Our committee is very grateful to the European co-Chair Michel André (Laboratori d'Aplicacions Bioacústiques, Universitat Politècnica de Catalunya (UPC)) for his work as co-Chair, as the AB TPOM rep in Paris, as co-chair of several structured sessions in Paris, and as one of the judges for best student paper awards. The winning paper was by Yossi Yovel of Eberhard-Karls-Universität Tübingen, Germany with a paper on "The statistics of plant echoes perceived by echolocating bats." AB decided to award students presenting paper separately from those presenting posters. The winning poster was by Joseph Jackson, University of Bristol, UK. Many students participated in the Paris meeting, and judging was a task shared by many AB members. The Paris meeting included many special/structured sessions as well as general sessions. The opening ceremony in-

cluded a talk by AB member Peter Tyack on "How sound from human activities affects marine mammals." The special sessions were: Anthropogenic Noise Effects on Animals (co-sponsored by ECUA and the Noise TC, and chaired by Michael Stocker and Jonathan Gordon), Animal Sonar Systems (co-sponsored with AB by Underwater, Acoustical Oceanography, Signal Processing, and ECUA, and co-chaired by James Simmons and Michel André), Animal Bioacoustic Censusing (co-sponsored by ECUA and co-chaired by Marie Roch and Cedric Gervaise), Auditory Brainstem Response and Behavior Correlations co-sponsored by ECUA and Psychological and Physiological Acoustics, and Co-chaired by Elizabeth Britten-Powell and Alexander Supin), Odontocete Acoustics (co-sponsored with ECUA and co-chaired by David Mellinger and Michel André), and Sound Production and Reception in Amphibious Marine Mammals (co-chaired by Jason Muslow, Ronald Schusterman, and Ian Boyd).

Plans for the Miami meeting in the fall include a special session honoring Sam Ridgway (co-chaired by Whitlow Au and Dorian Houser) and a session on the acoustics of manatees and alligators co-chaired by Ann Bowles and Jennifer Miksis-Olds. The TPOM rep will be Dorian Houser. For the Portland meeting, special sessions were suggested on noise effects on terrestrial animals (Kurt Fristrup), Marine mammal population assessment using acoustics (David Mellinger), Autonomous remote monitoring systems (Marc Lammers), and Acoustical monitoring to track biotic changes (Kurt Fristrup and Ann Bowles).

Richard Fay  
*Chair*

### Biomedical Ultrasound/Bioresponse to Vibration

Special sessions (and organizers) at the New Orleans meeting included: Topical Meeting on Tissue-response to acoustics and vibrations (Tyronne Porter), Acoustic Tomography in Tissue (Jeffrey Ketterling, Iwaki Akiyama), Stable Cavitation (Saurabh Datta and Glynn Holt), and Biomedical

Applications of Acoustic Radiation Force (Mostafa Fatemi). Charles Church was the TPOM representative.

Special sessions (and organizers) at the Paris meeting included: High-intensity focused ultrasound (Lawrence Crum and Jean-Yves Chapelon), High-intensity focused ultrasound metrology and standards (Peter Kaczowski and Gail ter Haar), Shock waves in medicine (Robin Cleveland and Oleg Sapozhnikov), Theoretical and computational models of ultrasonic propagation in bone (James Miller and Pascal Laugier), Ultrasonic characterization of bone (Keith Wear and Frédéric Padilla), Quantitative ultrasound methods for diagnosis and therapy (Jonathan Mamou and Geneviève Berger), Light and sound in medical imaging and therapy (Ronald Roy and Emmanuel Bossy), Transducers for medical imaging and therapy (Jeffrey Ketterling and Marc Lethiecq), Ultrasound contrast agents for therapy (Tyronne Porter and Eleanor Stride), and Biomedical Applications of Acoustic Radiation Force (Mostafa Fatemi and Mathias Fink). There was a special session Biomedical Applications of Time Reversal (Oleg Sapozhnikov and Mickael Tanter) that was part of a Topical Meeting on Time Reversal, a special session co-sponsored with PA Acoustically Activated Bubble Dynamics and Applications (Carr Everbach and Joachim Holzfuss), and a contributed session (Michael Bailey and Oleg Sapozhnikov). Neil Owen and Emmanuel Bossy were the TPOM representative who were able to fit all these sessions into the busy week.

Several members of the BBTC received awards and recognition. Tyronne Porter received the R. Bruce Lindsay Award “for contributions to ultrasound-guided drug delivery.” Vera A. Khokhlova and Glynn Holt were named Fellows of the ASA. David Blackstock was awarded the Rossing Prize in Acoustics Education. Student Paper Award winners were Moire Smith of Cambridge University for “Effect of HIFU on pH responsive PE-Gylated Micelles,” Todd Hay of The University of Texas for “Ultrasound Frequency response of bubble pulsations in tubes with arbitrary wall impedance,” and Dorothee Bossis of Université Pierre et Marie Curie for “1 kHz sound stimulates nitric oxide and prostaglandin E2 production by rat mesenchymal stem cells.”

A number of people should be acknowledged for their work for the BBTC and new volunteers are introduced. The associate editors for BB are Charles Church, Floyd Dunn, and Douglas Miller. Shira Broschat continues to maintain the BBTC website (<http://moab.eecs.wsu.edu/~shira/asa/bubv.html>). Lawrence Crum is the representative to the Medals and Awards Committee. Christy Holland replaces Carr Everbach as BB representative on the Membership Committee and Peter Kaczowski replaces Carr Everbach on ASACOS. Paul Barbone has served as the ASA representative to the Biomedical Imaging Research Opportunities Workshop (BIROW) and will be replaced by Subha Maruvada. Michael Canney of the University of Washington became the Chair of the Student Council. Lucie Somaglino of INSERM U556 and University Claude Bernard, Lyon, France is the BBTC representative to the Student Council. Jeffrey Ketterling has been elected Chair of the BBTC.

*Michael Bailey*  
Chair (2006-2008)

## Physical Acoustics

It has been an honor for me to be your Chair and a pleasure to have the opportunity to reflect back on the past year's activities in which Physical Acoustics has been involved. It is the talent, dedication and professionalism of PA committee members (working together with ASA members across the board) on the long range planning that goes into forming the ASA activities and special sessions that blossom at future ASA meetings.

It was an exciting and productive year for the Physical Acoustics Technical Committee of the ASA. The tremendous success of the 154<sup>th</sup> Meeting (held in New Orleans from 27 Nov.–1 Dec. 2007) and the 155<sup>th</sup> Meeting, Acoustics' 08, Paris (held at the Palais des Congrès from 29 June–4 July 2008) speak volumes for your commitment to the Society.

The planning for New Orleans developed during the Hawaii and Salt Lake City Meetings. Two special sessions were organized for New Orleans: (a) Acoustic applications for hurricane and storm preparedness was organized by Jim Sabatier, Ken Gilbert and Roger Waxler. (Preston Wilson chaired the session); (b) Ultrasonic measurements and methods for condensed matter was organized by Albert Migliori and Veerle Keppens (who also served as chair).

Jim Chambers and Jim Sabatier volunteered to be the PA TPOM representatives (10–11 Aug. 2007). Contributed papers were organized into five sessions (with the chairs mentioned in parentheses): (c) General physical acoustics (Joel Mobley), (d) Bubbles and cavitation (Ron Roy), (e) Thermoacoustics (William Slaton), (f) Acoustics of soil and porous media (Wheeler Howard and Alexander Ekimov), and (g) Atmospheric acoustics (D. Keith Wilson). Thanks to Jim Chambers and Jim Sabatier for all their help.

A special thanks goes to Alfred J. Bedard, who gave an excellent Tutorial Lecture entitled, “Tutorial lecture on weather and acoustics.” (Jim Chambers chaired this session along with Hot Topics in Acoustics.) One of our PATC members, William M. Carey, received the 2007 ASA Pioneers of Underwater Acoustics Medal. Congratulations Bill! David Blackstock received the Rossing Prize in Acoustics Education and gave a very insightful lecture, “Songs my students sang to me,” which was a wonderful tribute to his students. Congratulations David! (Mark Hamilton as chair introduced his lecture.) Here we mention that Dimitri M. Donskoy and R. Glynn Holt became our newest Fellows in the Society. Congratulations to Dimitri and Glynn!

All said, the New Orleans Meeting was a big success for PA.

It is important to mention the launching of POMA, the Society's new online open access journal, “Proceedings of Meetings on Acoustics,” which began to receive submissions on Nov. 2, 2007. Vol. 1 starts with Salt Lake City and Vol. 2 goes with the New Orleans Meeting, etc. (The general idea was conceived by the Executive Director, Charles Schmid. Anthony Atchley (the current ASA President at the time) and Allan Pierce (Editor-in-Chief) announced the details of POMA to the PATC at the Salt Lake City Meeting. Tom Matula and Murray Korman were appointed by committee to be the first PA and ED Associate Editors of POMA, respectively.

The brainstorming of special sessions in PA for the Acoustics' 08, Paris Meeting originated around the time of the Hawaii meeting. By the end of the Salt Lake Meeting the original eight special sessions had expanded to eighteen. Organizers had a narrow window until 30 June 2007 to submit various detailed information (including the European co-organizer) prior to the call for papers. Acoustics' 08 combined the 155<sup>th</sup> Meeting of the ASA, 5<sup>th</sup> Forum Acusticum of the EAA, 9<sup>e</sup> Congrès Française D'acoustique of the SFA and the 2<sup>nd</sup> ASA-EAA Joint Conference; integrating the 7<sup>th</sup> European Conference on Noise Control (eurnoise), the 9<sup>th</sup> European Conference on Underwater Acoustics (ecua) and the 60<sup>th</sup> Anniversary of the SFA.

Key organizers from France who worked very closely with the PA Chair in planning special PA sessions (and who were present at the Hawaii, Salt Lake City and New Orleans meetings) were Manell Zakharia (SFA) co-chair of the Meeting Organizing Committee and Philippe Blanc-Benon (SFA) co-chair of the Technical Organizing Committee. Your Chair also worked closely with Didier Cassereau (SFA), the Information Systems Manager who helped design the web software from which the meeting was planned electronically. The PATC Chair and Walter Lauriks (EAA) were the PA Technical Program co-chairs. The Chair wishes to recognize the help he received from William Hartmann, co-chair of the Technical Organizing Committee, Elaine Moran and Charles Schmid during planning Acoustics' 08 at the Technical Council Meetings. PA also had representation from Kenneth Foote (ECUA Committee), Michael Stinson and Keith Attenborough (Eurnoise Committee) and Yves Berthelot (Technical Program Organizing Committee). Peter Rogers volunteered to be our PA TPOM rep. (14–16 Feb. 2008) and worked with Walter Lauriks (EAA) to help organize the meeting in Paris. Prior to the TPOM, Jim Sabatier helped the PATC Chair read and sort all the contributed paper abstracts and grouped them into sessions with titles (a two day effort.) Walter Lauriks also played a key role in supplementing this effort.

PA had planned eighteen special (“structured”) sessions in Paris. They are listed below with the ASA and European co-organizers/co-chairs in parenthesis: (1) Acoustic landmine detection—joint with SP, (James Sabatier & Keith Attenborough), (2) Acoustic probes of planetary environments, (Andi Petculescu & Martin Towner), (3) Acoustically activated bubble dynamics and applications—joint with AO, BB, (Carr Everbach & Joachim Holzfuss), (4) Ultrasonics under extreme conditions, (Albert Migliori & Frederic Decremps) (5) Infrasound, (Henry Bass & Alexis Le Pichon), (6) Sonic, ultrasonic, and megasonic cleaning, (Ralph Muehleisen & Claus-Dieter Ohl), (7) Nonlinear acoustics of unconsolidated granular media, (Paul Johnson & Vitaliy Gusev), (8) Nonlinear acoustics of consolidated materials and non destructive testing, (James TenCate & Koen Van Den Abele), (9)

Time reversal acoustics for nonlinear imaging, (Alexander Sutin & Serge Dos Santos), (10) Nonlinear acoustics in earthquake processes and other earth processes, (Paul Johnson & Fabrice Cotton), (11) Outdoor sound propagation and uncertainties, (Keith Wilson & Michel Bérengier), (12) Phononic crystals, (Pierre Deymier & Jérôme Vasseur), (13) Photoacoustics, (Gerald Diebold & Christ Glorieux), (14) Acoustics of porous media, (Walter Lauriks & Keith Attenborough), (15) Thermoacoustics, (Steven Garrett & Philippe Blanc-Benon), (16) Ultrafast acoustics, (David Hurley & Clément Rossignol), (17) Diffraction of waves on periodical structures: Acoustic, ultrasonic and acousto-optical diffraction phenomena, (Nico Declercq & Nataliya Polikarpova), and (18) Combustion noise and thermoacoustics, (Tim Lieuwen, Maria Heckl & Rafael Piscoya).

The response to the call for papers (in PA) for Acoustics' 08 was very strong in regard to contributed ("unstructured") sessions. These papers were placed in the sessions that are listed below along with the co-chairs which volunteered their services: (The symbol p in brackets means poster session.)

(1) Diffraction of waves on periodic structures: Acoustical, ultrasonic, and acousto-optic diffraction phenomenon I, II [p], (Nico Declercq and Nataliya Polikarpova), (2) Ducts and waveguides I [p], II, (Marc Deschamps and Oliver Dazel), (3) General topics in physical acoustics I [p], II, (Walter Lauriks and Andi Petculescu), (4) General topics in nonlinear acoustics I, II [p], (Thomas Matula and Murray Korman), (5) Mathematical and numerical methods I, II [p], (Andrew Piasek and B.D. Zaitsev), (6) Quantum Acoustics I, II [p], (Michel De Billy and Walter Lauriks), (7) Scattering and diffraction I [p], II, (Michael L. Oelze and Jean-Marc Conoir), (8) Ultrasonics: Industrial NDT I, II [p], (Bertrand Nongaillard and Christophe Aristegui), (9) Ultrasonics: Material Characterization I, (Bart Lipkens and Nicolas Wilkie-Chancellor), II [p], (Jim A. Tencate and Koen Van Den Abeele), (10) Ultrasonics: NDT and layered systems I, II [p], (Vincent Pagrieux and Claire Prada), (11) Ultrasonics: Transducers and Instruments I [p], II, (Albert Migliori and Claude Boutin), and (12) Vibration in plates I, II [p], (Daniel Royer and Oliver Poncelet).

Noise, Physical Acoustics and EURONOISE co-sponsored Aeroacoustics I, II, and III and PA co-sponsored SP sessions (a) Overview of time reversal in acoustics and (b) Biomedical applications of time-reversal.

One of the highlights of the Paris Meeting was that my European PA co-organizer, Walter Lauriks (EAA) received the Foreign Medal 2007 of the French Acoustical Society. This medal is annually presented to a renowned scientist having strong relationships with French acousticians. Congratulations Walter and thank you for all your help. Tyrone M. Porter received the ASA, R. Bruce Lindsay Award 2008 for contributions to ultrasound-guided drug delivery, and Charles E. Schmid received the ASA, Distinguished Service Citation 2008. Congratulations Tyrone and Charles!

In Paris, 25 year service awards were given to Anthony A. Atchley, Kerry Commander, Nicholas P. Chotiros, Peter H. Dahl, Robert Keolian, Timothy K. Stanton and Junru Wu. Also, 50 year service awards were given to William J. Cavanaugh, Clarence S. Clay, Jr., Walter M. Madigosky, Alan Powell and Wayne M. Wright.

All said, the Paris meeting was a huge success.

It is time to acknowledge members of PA who volunteer their services on various committees: Tom Matula currently serves on the Medals and Awards Committee. Anthony Atchley, Robert Keolian and James Sabatier, all predecessors of this position remain active in helping on this Committee. Steve Garrett serves on the Membership Committee; Phil Marston serves on the Books Committee, and Richard Raspet serves on ASACOS. Todd Hay has done an outstanding job as our Student Council Rep. His term has come to an end and a subcommittee headed by David Blackstock, Anthony Atchley, Kent Gee and Todd Hay headed a selection process for the new rep. Jon R. La Follet has been selected as the next Student Council Rep. and Kenneth B. Bader will serve as the alternate. Congratulations Jon and Ken!

Your Chair has had the good fortune to serve during the presidencies of Anthony Atchley, Gilles Daigle and most recently Mark Hamilton. PA is well represented in other areas as, Vic Sparrow is our Vice President, Gilles Daigle and Wayne Wright serve on the Executive Council, and Ron Roy serves on the Technical Council. Keith Wilson is our editor of JASA-EL.

The 2008 Physical Acoustics Summer School, PASS 2008, took place from May 25–June 01, 2008, at Sunrise Springs, La Cienega, New Mexico. The program is jointly run by NCPA (George Atkins PASS 2008 Coordinator) and Penn State (Anthony Atchley), with strong ASA ties. Meetings take place every two years.

It is important to note that the ASA is a sponsor of the 18<sup>th</sup> International Symposium on Nonlinear Acoustics (ISNA) which was held in Stockholm, July 7–10, 2008. PA members lend support as Anthony. Atchley, Mack Breazeale, Larry Crum, Mark Hamilton and Paul Johnson served both on the Program Committee and the International Organizing Committee. Larry Crum and Vera Khokhlova organized a special session entitled, "Nonlinear Acoustics in Medicine." for this ISNA.

Finally, I wish to thank the Physical Acoustics community from the bottom of my heart for giving me the opportunity to serve as Chair over the past three years. It has been an honor and a privilege to serve you. It has been a humbling experience for me for you to entrust me with this duty. You are a group knitted in great friendships and I would like to thank many people for your advice and encouragement over the years. Now, I pass the crown to our new Chair, Ron Roy. Have a great time, Ron; it was a great experience for me!

Thank you, PATC members, for all your help.

MURRAY S. KORMAN  
*Chair 2005-2008*

### Structural Acoustics and Vibration

At the 153<sup>rd</sup> ASA Meeting in Salt Lake City, Utah, the Structural Acoustics and Vibration Technical Committee (SAVTC) sponsored two special sessions: 1) Launch Vehicles and Space Vehicles, organized by James Phillips; and 2) Sound Source Localization, organized by Sean Wu. The Best Student Paper Competition was conducted by James Phillips and the winners were Samuel D. M. Adams (1<sup>st</sup> Place), Richard E. Dziklinski III (2<sup>nd</sup> Place). At the SAVTC meeting, two major issues were discussed: 1) Proposed online publication of conference papers; and 2) Intra-Society Activities Committee. Allan D. Pierce gave a brief summary of the characteristics of the online publication of conference papers. Courtney Burroughs proposed the formation of the Intra-Society Activities Committee to provide a forum to exchange information on the technical and administrative activities in other professional societies involved in acoustics that may be useful to ASA. Courtney Burroughs reported that there were four nominations for Fellow from SAVTC. Student Council reported that there will be a new student chapter at the University of Hartford and a student mentoring award will be presented by the Student Council in New Orleans. Finally, revision of PACS SAVTC numbers was completed by the subcommittee chaired by Earl G. Williams and submitted to Allan D. Pierce, Editor-in-Chief of JASA.

At the 154<sup>th</sup> ASA Meeting in New Orleans, SAVTC sponsored two special sessions on: 1) Modeling of Vibration and Radiation in Complex Structures, organized by Courtney Burroughs; and 2) Ground Vibration Impact in Buildings, organized by James Phillips. James Phillips also conducted the Best Student Paper Competition and the winners were Kyungmin Baik (1<sup>st</sup> Place) and R. Benjamin Davis (2<sup>nd</sup> Place). At the SAVTC meeting, some Technical Initiatives were discussed. One of them was collection of success stories in acoustics. James Phillips has submitted a story on "A Floating Opera House for Toronto." The second issue was on POMA (Proceedings of Meetings on Acoustics). Steve Shepard reported that POMA papers should be written versions of presentations made at ASA meetings. There will be \$100 publication fees for each POMA paper. The window for submission of POMA papers is typically six months before the next ASA meeting. Allan D. Pierce discussed the opportunity to get funding from NAH to create special lectures and short courses for the Institute of Acoustics, which is mainly targeting post-doctoral fellows and young researchers in other American countries, excluding U.S. and Canada, to get them involved in research activities in acoustics.

At the 155<sup>th</sup> ASA/EAA Joint Meeting in Paris, SAVTC co-sponsored one general session and eight special sessions on: 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. Wolfgang Kropp and Sean F. Wu conducted the Best Student Paper Competitions and the winners were: Christensen Rene (1<sup>st</sup> Place), Moreau Danielle (Tie 2<sup>nd</sup> Place) and Ege Kerem (Tie 2<sup>nd</sup> Place). 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 101 Careers in Acoustics. Those who have stories or helpful information in this regard should contact Rona Ginsberg.

Sean Wu  
Chair

## Underwater Acoustics

The New Orleans meeting in November 2007 was a very successful one for the Underwater Acoustics Technical Committee (UWTC), with 10 sessions spread over five days, including special sessions organized by Eric Thorsos and John Perkins on Underwater Reverberation Measurements and Modeling, and a session on the Design of Distributed Surveillance and Oceanographic Monitoring Systems, chaired by Art Baggeroer and Juan Arvelo. Many thanks to our New Orleans TPOM representatives Guy Norton, William Sanders and Richard Keiffer (along with Technical Program Chairs George and Juliette Ioup) for organizing all the sessions together with the special session organizers. The best student papers in underwater acoustics were "Scattering analysis accelerated by a 3-D multilevel non-uniform grid field evaluation algorithm" by Yaniv Brick of Tel Aviv University and "Effect of resolution on synthetic aperture sonar image statistics" by Shawn Johnson of Penn State University. New fellows named at the New Orleans meeting included Ron Wagstaff, Steve Finette and Tony Lyons. Congratulations to all.

The New Orleans meeting was followed with the 155<sup>th</sup> meeting of the Acoustical Society of America, joint with the 9<sup>th</sup> European Conference on Underwater Acoustics, the 5<sup>th</sup> Forum Acusticum of the European Acoustics Association, the 9<sup>th</sup> Congres Francais d'Acoustique of the Societe Francaise Acoustique, and the 7<sup>th</sup> Euronoise, in Paris, France. It was an exciting meeting with an exhausting schedule. There were 23 sessions directly sponsored by the UWTC alone, plus another seven in Acoustical Oceanography. The UW technical committee would like to extend its warmest thanks for a very successful meeting to the co-organizers Bertrand Dubus of the SFA, Michael Vorlander of the EAA, Bill Yost of the ASA and Manell Zakharia of the SFA, as well as to Technical program Organizing Committee of Philippe Blanc-Benon of the SFA, Dick Botteldooren of the EAA, Bill Hartmann of the ASA and Pascal Laugier of the SFA. We would also like to thank the organizers of the ECUA section of the program David Bradley of the ASA and Yann Stephan of the SFA. Your TC chair had the pleasure of working closely with Yann during the frenetic but highly efficient TPOM, which went off without a hitch thanks to the tremendous advance work by Manell, Philippe and Didier Cassereau, the designer of the conference organization software, and many others.

The TC would like to thank the 23 "pairs" of special session organizers for the Paris meeting, whose work went a very long way towards making the meeting especially memorable and productive. Since this report is part of an archival document I will list them here: 1) Peter Dahl and Mike Ainslie for Seabed and Sea Surface Interaction Measurements and Modeling, 2) Henrik Schmidt and Finn Jensen who organized Fifty Years of Progress in Sonar Acoustic Research: the Role of NURC/SACLANTCEN, 3) Paul Hines and Paul White who organized Auralization of Sonar Signals, 4-5) Ken Foote and Stephen Robinson who organized Sonar System and Transducer Calibration Methodology as well as Determination of Acoustic Properties of Materials for Sonar Applications, 6) Kevin Smith and Jean-Pierre Hermand for Acoustic Vector Fields and Sensor Processing, 7) Dajun Tang, Paul Hines and Peter Nielsen for Impact of Environmental Variability on Mid-Frequency Sonar Performance, 8) Nick Chotiros and Jean-Pierre Sessarego who organized Geoacoustic Sediment Modeling, 9) Jim Lynch and Thomas Folegot who organized Impact of Internal Waves on Shallow Water Propagation, 10) Ray Soukup and J. P. Sessarego for Tank Experi-

ments, 11) Marcia Isakson and Thomas Folegot who organized High Frequency Variability, 12) Benjamin Dzikowicz and Eugeniusz Kozaczka who chaired Nonlinear Acoustic Methods in Searching for Buried Objects, 13) Andrew Seybert, Martin Ochmann, and Bodo Nolte for Numerical Methods in Underwater Scattering, 14) Heechun Song and Sergio Jesus who organized Broadband Underwater Communications, 15) Tony Lyons, Philippe Blondel and Nick Pace who organized High Frequency Scattering, 16) Peter Gough and Roy Hansen for Low-Frequency and High-Frequency Synthetic Aperture Sonar, 17) Henrik Schmidt and Stephane Jespers who organized Sensor Coalition, 18) Jim Candy, Hugh Griffiths, and Rene Garello who co-chaired Synthetic Aperture Sonar and Radar Convergences, 19) David Calvo and Michael Taroudakis who co-chaired Sound Propagation in 3D environments, 20) Eric Thorsos and Mario Zampolli who organized Scattering from Objects Near Boundaries, 21) Gerald Dobeck, Marc Pinto and Yvan Petillot for Automatic Target Recognition, Sensors and Algorithms, 22) Eric Maillard and Benoit Zerr who organized Acoustic Data Fusion, and 23) Georges Bienvenu and Ron Wagstaff who co-chaired Noise Suppression, Robust Direction of Arrival, and Target Strength Estimation. One can see by the breadth and depth of the special sessions that underwater acoustics continues to be the home to a wide variety of cutting edge research areas and that the field has attracted and kept a large number of top researchers in both Europe and in North America.

New fellows named at the Paris meeting included Subramaniam Rajan and John Osler. Results are also in on the student paper award winners. I would like to announce that the winner is Zachary J. Waters of Boston University with his talk "Laboratory investigations of the detection and characterization of buried targets by iterative, single channel time reversal," co-authored with Benjamin Dzikowicz, R. Glynn Holt, and Ronald Roy, and Jon La Follett of Washington State University with his talk "Elastic and interfacial contributions to SAS images of tilted metal cylinders: Laboratory experiments," co-authored with Kyungmin Baik and Philip Marston. We had a tremendous student paper competition at Paris, with 32 contestants and 12 judges working overtime to evaluate them. Congratulations to the winners and a heart felt thanks to the judges!

It is with great sadness that I must conclude by reporting the passing of two of UW's most active members, Ralph Goodman, former Director of SACLANTEN, NORDA, and the National Center for Physical Acoustics at the University of Southern Mississippi, and Stanley Flatté, Professor Emeritus of Physics at the University of California, Santa Cruz. Their absence will be keenly felt by their many collaborators, friends and colleagues in the Underwater Acoustics Technical Committee.

Kevn LePage  
Chair

## USA Meetings Calendar

Listed below is a summary of meetings related to acoustics to be held in the U.S. in the near future. The month/year notation refers to the issue in which a complete meeting announcement appeared.

	<b>2008</b>
10-14 Nov	156th Meeting of the Acoustical Society of America, Miami, FL [Acoustical Society of America, Suite 1N01, 2 Huntington Quadrangle, Melville, NY 11747-4502; Tel.: 516-576-2360; Fax: 516-576-2377; Email: asa@aip.org; WWW: http://asa.aip.org].
12-15 Aug	2nd Symposium on Acoustic Communication by Animals, Corvallis, OR [http://oregonstate.edu/conferences/animalcommunication2008/index.html]
8-9 Sep	1st International Symposium on Audible Acoustics in Medicine and Physiology, West Lafayette, IN [https://engineering.purdue.edu/Acoustics/]
	<b>2009</b>
18-22 May	157th Meeting of the Acoustical Society of America, Portland, OR [Acoustical Society of America, Suite 1N01, 2 Huntington Quadrangle, Melville, NY 11747-4502; Tel.: 516-576-2360; Fax: 516-576-2377; Email: asa@aip.org; WWW: http://asa.aip.org].