

Elaine Moran

Acoustical Society of America  
Melville, New York 11747



During the 2006 Walter Munk Award Ceremony at the Ocean Sciences meeting in Honolulu, Dr. Peter Worcester (center) stands between two past recipients of the award — Dr. David Farmer (left) and Dr. Tom Rossby (right). Photo credit: Gail Scowcroft, URI.

## Peter F. Worcester receives the 2006 Walter Munk Award

Peter F. Worcester was awarded the Walter Munk Award for Distinguished Research in Oceanography Related to Sound and the Sea at a ceremony held on February 24th during the 2006 Ocean Sciences Meeting in Honolulu, HI. Since 1978, Dr. Worcester has been a Research Oceanographer at the Scripps Institution of Oceanography, where his research interests center on the application of acoustic remote sensing techniques to the study of ocean structure and circulation.

The Walter Munk Award is granted jointly by The Oceanography Society, the Office of Naval Research and the Office of the Oceanographer of the Navy. The award consists of a medal, a commemorative lapel pin, and a certificate bearing the signatures of the Chief of Naval Research and the President of The Oceanography Society. Recipients are selected based on their significant original contributions to the understanding of physical ocean processes related to sound in the sea; significant original contributions to the application of acoustic methods to that understanding; and/or outstanding service that fosters research in

ocean science and instrumentation contributing to the above.

Dr. Worcester received the award in recognition of “his early and continuing contributions to the development of acoustical oceanography and tomographic inverse methods for acoustic measurement of ocean processes, for tireless service aimed at developing a

responsible permitting structure for the use of sound in the sea for scientific purposes, and for leadership in the U.S. ocean acoustics community.”

Peter Worcester is a Fellow of the Acoustical Society of America. He served as Chair of the ASA's Technical Committee on Acoustical Oceanography (2001-2004) and as co-editor, with Robert C. Spindel, of the special issue of JASA on The North Pacific Acoustical Laboratory published in March 2005 [J. Acoust. Soc. Am. 117 (3, Pt. 2) March 2005]. His article “Acoustic Remote Sensing of Ocean Gyres,” coauthored with Walter Munk and Robert Spindel, appeared in the premier issue of *Acoustics Today* (Vol. 1, Issue 1, October 2005, pp. 11-17).

Previous award recipients have been Walter Munk (1993), David M. Farmer (1994), Leonid M. Brekhovskikh (1996), Stephen A. Thorpe (1997), Robert Pinkel (1999), Robert C. Spindel (2001), and H. Thomas Rossby (2003).

## Lisa Zurk receives Faculty Early Career Development Award

Portland State University Professor Lisa M. Zurk has received a five-year, \$400,000 grant from the

National Science Foundation's (NSF) CAREER Award program for her proposal, “Electromagnetic Scattering and Propagation in Random Media at Terahertz Frequencies.” The National Science Foundation's Faculty Early Career Development (CAREER) program is the NSF's most prestigious award, offering early career development support of “those teacher-scholars who most effectively integrate research and education within the context of the mission of their organization.” The NSF review panel rated Zurk's proposal very highly, describing it as “an excellent proposal that clearly articulates innovative concepts...the broader impact of the project is extremely significant.”

Lisa Zurk will use the grant funding to explore properties of the terahertz (THz) spectrum with a specific application of THz spectroscopy to detection of explosives and to biomedical imaging. She plans to develop models for THz propagation and scattering through different and complex materials; the resulting models will be tested in conjunction with the University of Washington's THz measurement facility.

Lisa Zurk founded and runs the Northwest Electromagnetics and Acoustics Research Lab (NEAR-Lab), which conducts research in the area of



Lisa Zurk

wave propagation and scattering applied to physics-based techniques for sensing applications such as radar, sonar and biomedical processing. She joined the Maseeh College's Department of Electrical and Computer Engineering in January 2005. Zurk's research interests are primarily in the area of sensing phenomenon and have such relevant applications as remote sensing of the Earth's surface, detection of explosives or bio-agents, and acoustic detection of underwater sources (such as salmon populations). She is the author of over 50 technical publications and serves on numerous professional committees.

Prior to Portland State, Zurk spent nine years at Massachusetts Institute of Technology's Lincoln Laboratory, was a visiting Fulbright Professor in the University of Helsinki Math Department and spent four years in industry in the area of biomedical instrumentation. Zurk received a bachelor's degree in computer science at the University of Massachusetts Amherst, a master's in electrical and computer engineering at Northeastern University, and a Ph.D. in electrical engineering at the University of Washington.

In addition to the NSF award, she also received an ONR Entry Level Faculty Award (from ONR 321, Ocean Acoustics) for her proposal "Mid-Frequency Bottom Scattering Model Development and Validation" and the award is for \$300k over a three year period starting January 2006.

Lisa Zurk is a member of the Acoustical Society of America and has served on the Committee on Women in Acoustics and the Committee on Underwater Acoustics.

### **ASTM Committee E33 elects new chairman**

ASTM Committee E33 on Environmental Acoustics recently elected R. Kring Herbert, a principal of Ostergaard Acoustical Associates in West Orange, NJ, as its new chairman. Herbert joined ASTM International in 1977 and had chaired Subcommittee E33.02 on the



R. Kring Herbert

acoustics of open plan spaces since its inception on a number of E33 groups. Steven M. Brown, of The Soundcoat Company, Deer Park, NY, will become the chair of Subcommittee E33.04 on Application of Acoustical Materials and Systems.

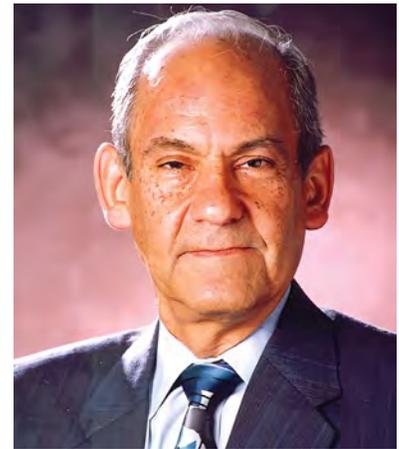
Committee E33 is responsible for a wide-range of standards used to evaluate the acoustical performance of buildings and building components, including laboratory and field tests of sound absorption, sound transmission loss, and impact noise resistance.

Kring Herbert is a Fellow of the Acoustical Society of America, an associate of the American Institute of Architects, a member of the Newark and Suburban Chapter of AIA New Jersey and a Board Certified Noise Control Engineer.

ASTM International Committee E33 is one of 138 technical standards writing committees. Established in 1898, ASTM International is one of the largest standards development and delivery systems in the world.

### **Jerry Ginsberg honored by Georgia Tech**

Jerry H. Ginsberg, ASA Fellow and recipient of the Society's Trent-Crede Medal in 2005, was awarded a Georgia Tech 25-Year Service Award at their annual Faculty/Staff Luncheon. Jerry Ginsberg's served as Chair of the ASA Technical Committee on Structural Acoustics and Vibration (1997-2000), Books+ Committee (1993-1997), Technical Program Chair of the Spring 2000



Jerry H. Ginsberg

meeting, and Associate Editor of JASA (2001-present).

### **New National Academy of Engineering member**

Martin Klein, president of Martin Klein Consultants of Andover, Massachusetts and a member of the Acoustical Society of America, was elected a member of the National Academy of Engineering in 2006 "for development of underwater imaging systems that have contributed to ocean exploration and the recovery of high-value objects."

### **Threshold Acoustics LLC founded in February 2006**

After more than a decade with Kirkegaard Associates in Chicago, Carl Giegold and Scott Pfeiffer have founded Threshold Acoustics LLC.

Scott Pfeiffer is a member of the Acoustical Society of America and served as Chair of the ASA Spring 2001 meeting held in Chicago, IL. He was trained both as a musician and a physicist, culminating in the study of building acoustics in Denmark in 1992-93. Carl Giegold is a licensed architect with background in both design and technical architecture as well as historic preservation. They have been invited speakers at conferences and universities including the Acoustical Society of America, the Institute of Acoustics, the Audio Engineering Society, the American Institute of Architects, the United States Institute for Theatre Technology, Rensselaer Polytechnic Institute, the University of Illinois

Urbana-Champaign School of Architecture, and Columbia College Chicago, among others.

Threshold offers a range of services and applied expertise in natural acoustics and audio and video systems with emphasis on places of worship, the performing arts, education. Further information may be found at [www.thresholdacoustics.com](http://www.thresholdacoustics.com).



*Ben T. Zinn*  
**Ben Zinn honored by ASME and Georgia Tech**

Ben Zinn, Regents' Professor and David S. Lewis Jr. Chair, received the 2006 George Westinghouse Gold Medal from the American Society of Mechanical Engineers for outstanding contributions to low-emissions combustor development and improved understanding of unsteady combustion phenomena in power generating combustion devices for collaborative approach to fundamental research that has led to practical solutions.

Georgia Tech's Guggenheim School of Aerospace Engineering honored him on May 18 by naming its combustion laboratory the Ben T. Zinn Combustion Laboratory. Zinn is an expert in the dynamics of flow, combustion, propulsion and energy conversion systems. Zinn is also director of the NASA University Research Education Technology Institute (URETI) Center for Aeropropulsion and Power based at Georgia Tech. The center's research is aimed at improving aircraft engines technologies.

Zinn started his career at Georgia Tech in 1965 as an assistant professor. He received his Ph.D. and M.A. in

aerospace and mechanical engineering from Princeton and his M.S. in mechanical engineering from Stanford.

Zinn is a fellow of the Acoustical Society of America, a member of the National Academy of Engineering and a fellow of the American Society of Mechanical Engineering and the American Institute of Aeronautics and Astronautics

**Stanley Flatté honored at colloquium**

Stanley Flatté, professor emeritus of physics, was honored at a colloquium organized by the Department of Physics of the University of California at Santa Cruz (UCSC) held on May 11, 2006.

The colloquium provided a retrospective of Flatté's career, with speakers from fields in which he has made significant contributions—particle physics, seismology, and ocean acoustics. Speakers included Jeff Simmen, director of the Applied Physics Laboratory at the University of Washington, and John Colosi, an oceanographer at the Naval Postgraduate School.

Flatté is a fellow of the Acoustical Society of America, the American Physical Society, the Optical Society of America, and the American Association for the Advancement of Science. He earned his B.S. in physics from the California Institute of Technology and his Ph.D. in physics from UC Berkeley. He joined the UCSC faculty in 1971.

**Yves H. Berthelot appointed**



*Stanley Flatté*



*Yves H. Berthelot*

**Director of Georgia Tech Lorraine**

Yves H. Berthelot was appointed Director of Georgia Tech Lorraine (GTL) effective 1 January 2006. Georgia Tech Lorraine, the Georgia Institute of Technology's platform into Europe, conducts activities including graduate level education, with degree programs offered in several engineering disciplines, an undergraduate summer program in engineering, management and international affairs, sponsored research, with programs directed toward specific opportunities in the European community, continuing education targeted at practicing engineers and managers, and local economic development targeted at hosting high-tech companies.

Dr. Berthelot is actively involved in the Acoustical Society of America (ASA) where he serves on several committees. He was elected a Fellow of the ASA in 1995 and was recipient of the Society's R. Bruce Lindsay Award in 1991. He is currently an Associate Editor of the *Journal of the Acoustical Society of America* for Physical Acoustics and Ultrasonics. Dr. Berthelot has served as the general chairman of the 139th ASA meeting held in Atlanta in the spring of 2000 and as President (1986-87) and Secretary (1988-90) of the Georgia Chapter of the ASA.

**Kelly Benoit-Bird is the recipient of a Young Investigator Award from the Office of Naval Research**

Kelly Benoit-Bird, an assistant professor of biological oceanography in the College of Oceanic and

Atmospheric Sciences at Oregon State University and a member of the ASA, was one of 28 scientists to receive the Office of Naval Research 2005 Young Investigator Award.

Young Investigator awards are designed “to attract to naval research outstanding new faculty members at institutions of higher education, support their research and encourage their teaching and research careers.” The awards are for as much as \$100,000 a year for three years, with the possibility of additional support for capital equipment or collaborative research with a Navy laboratory.

Benoit-Bird’s award includes purchase of two scientific echo sounders with acoustic frequencies that extend to smaller organisms and larger animals—from zooplankton to sperm whales—that cannot be reached by other acoustic equipment.

### Douglas L. Miller receives AIUM



Kelly Benoit-Bird

### Award

Douglas L. Miller was awarded the American Institute of Ultrasound Joseph H. Holmes Basic Science Pioneer Award on March 24, 2006. The citation reads: “Dr Miller has contributed to the field of ultrasound through his extensive research on bio-effects of ultrasound and participation in the safety assurance process for diagnostic ultrasound.” The award was introduced by Professor Paul Carson of the University of Michigan, and presented by Dr. Lennard Greenbaum, president of the American Institute of



Douglas L. Miller

Ultrasound in Medicine (AIUM). The award is named in honor of Joseph H. Holmes, MD, who was an important figure to both the field of diagnostic ultrasound and the AIUM.

Douglas Miller is a Senior Research Scientist in the Department of Radiology at the University of Michigan. He is a Fellow of the Acoustical Society of America and is currently a member of the Technical Committee on Biomedical Ultrasound/Bioresponse to Vibration.

### ASA member named Vice President at Tymphany Corporation

Christopher J. Struck has been named Vice President of Engineering–North American Operations for Tymphany Corporation of Cupertino, California. In his new position, he is responsible for leading the engineering effort for the Tymphany Linear Array Transducer™, managing the R&D team, and contributing to corporate technology strategy. Prior to joining



Christopher J. Struck

Tymphany, Struck was Director of Engineering in the Consumer Licensing Division at Dolby Laboratories. He holds a degree in Electrical Engineering from the University of Wisconsin and is the author of numerous technical papers, application notes and articles. He is a Member of the Acoustical Society of America, a Senior Member of the Institute of Electrical and Electronics Engineers and a Fellow of the Audio Engineering Society.

### ASA Awards Presented at the 2006 International Science and Engineering Fair (ISEF)

The Acoustical Society of America (ASA) was proud to participate in judging the 2006 International Science and Engineering Fair in Indianapolis, IN. This fair, begun in the 1950’s, is the world’s largest pre-college science fair. This year students from over 40 countries participated. The focus is on research projects, although engineering inventions are also presented. The competition recently has been sponsored by Intel which provides three top prizes of \$50,000 in scholarships. Many Grand Awards are made in 14 different categories. In addition, over 70 professional organizations (including ASA) sent Special Awards Judges to evaluate the projects and confer awards from \$5000 to \$50. Altogether \$4,000,000 was awarded to almost 25% of the 1500 student projects entered. This year ASA gave a first place award of \$1000 and three Honorable Mention certificates. All four awardees receive free, one-year subscription to JASA on CD ROM.

The ASA first place award went to Caroline Elizabeth Pietsch, 17, Senior, Ossining High School, Ossining, NY for her project entitled, “A Novel Approach to the Automatic Recognition of Emotions in Natural Speech.” The project examined prosodic acoustic cues to identify naturally recorded speech from Holocaust survivors as belonging to one of four emotion categories, anger, happiness, sadness or neutral. Weka, a machine learning algorithm to train decision trees was used to select the best subset of prosodic measures from about 15 properties related to intensity, fundamental frequency, and pause duration,



Winners of the ASA awards granted at the 2006 International Science and Engineering Fair with ASA judge Elliott H. Berger (l to r) Elliott, Jonathan Blake Snellon, Courtney Anne Rafes, Caroline Elizabeth Pietsch, and Joseph Anthony Crivello.

for example. In her final training and testing of the 240 utterances, an accuracy rate of 45% was achieved. Ms. Pietsch compared this performance to human listeners who were only about 10% more accurate than her algorithmic approach. This research was both innovative and thorough in its approach to the very difficult problem of recognizing emotions. Ms. Pietsch's research was also recognized by a second place Grand Award from Intel that awarded her \$1,500 in the Computer Science category, by the American Association for Artificial Intelligence that awarded her \$500, and the American Psychological Association that selected the project for Honorable Mention. Hopefully we will see Ms. Pietsch at an ASA meeting in the near future.

Three Honorable Mention awards were presented by ASA. They were all of the highest quality and interestingly from very different areas. One award was made to Jonathan Blake Sellon from Staples High School, Westport, CT whose research was entitled, "Modeling Auditory Attention by Implementing IHC Movement into Frequency Selectivity of the Inner Ear: A Novel Approach to Stimuli Separation." This

was an ambitious project that began with the Meddis cochlear auditory nerve model and was extended by Mr. Sellon's own research involving movement of the inner hair cell cilia. His research was also selected for a Grand Award of \$1500 by Merck Research Laboratories, by the American-Speech-Language-Hearing Association for their \$500 second place, by the American Physiological Society for their \$1000 first place, and by the Ashtavadhani Vidwan Ambati Subbaraya Chetty (AVASC) Foundation for their \$500 second place.

Two Honorable Mention Awards were given in the engineering category. One was to Joseph Anthony Crivello from University School of Milwaukee, Milwaukee, WI for his project entitled, "Acoustic Localization, Detection, and Identification: A System for More Effectively Utilizing Sound as a Tool." This was an interesting project that used small, inexpensive wireless sensors dropped over an area to localize sound sources and identify them from a library of pre-analyzed sounds. The sensors incorporated global positioning system nodes for accurate location. Other awards given Mr. Crivello include a third place Grand Award from Intel of \$1000 and \$500

from the American Association for Artificial Intelligence.

The other Honorable Mention Award was given to Courtney Anne Rafes, from Northwest High School, Justin, TX, for a project entitled, "Tracking the Sound: A Second Year Study on an Ultrasonic Train Wreck Avoidance System." This innovative project has already had a patent filed and has raised interest by the railroad industry. She conceived of the idea to acoustically detect problems with track joints or oncoming trains using ultrasound at

163 kHz. She purchased much of her equipment online through eBay. Ms. Rafes project was also selected for a second place Grand Award by Intel of \$1,500. She was also the recipient of an ASA Honorable Mention Award at the 2005 ISEF.

The ASA judges were lead by Dr. Diane Kewley-Port, from the Indiana University Speech and Hearing Sciences Department, and team members Dr. Robert Port, from both the Linguistics and Cognitive Science Departments at Indiana University, and Mr. Elliott Berger, Senior Scientist in Auditory Research at E-A-R / Aearo Technologies in Indianapolis, IN. Initially 45 projects were selected that were related to acoustics and the judges found it challenging to narrow the field to only four projects for awards. The judging team was amazed by the understanding of acoustics and other scientific areas by these high school students. Moreover their enthusiasm for the projects and their presentation were extremely impressive. In our opinion the coming generation of scientists and engineers will be up to the challenges that lie before them.

*D. Kewley-Port, Ph.D.*

## USA Meetings Calendar

### 2006

17-21 Sept. INTERSPEECH 2006 (ICSLP 2006), Pittsburgh, PA [www.interspeech2006.org <http://www.interspeech2006.org/>]

28 Nov-2 Dec 152nd Meeting of the Acoustical Society of America joint with the Acoustical Society of Japan, Honolulu, Hawaii [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].

### 2007

4-8 June 153rd Meeting of the Acoustical Society of America, Salt Lake City, Utah [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].

27 Nov-2 Dec 154th Meeting of the Acoustical Society of America, New Orleans, Louisiana (note Tuesday through Saturday) [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].

### 2008

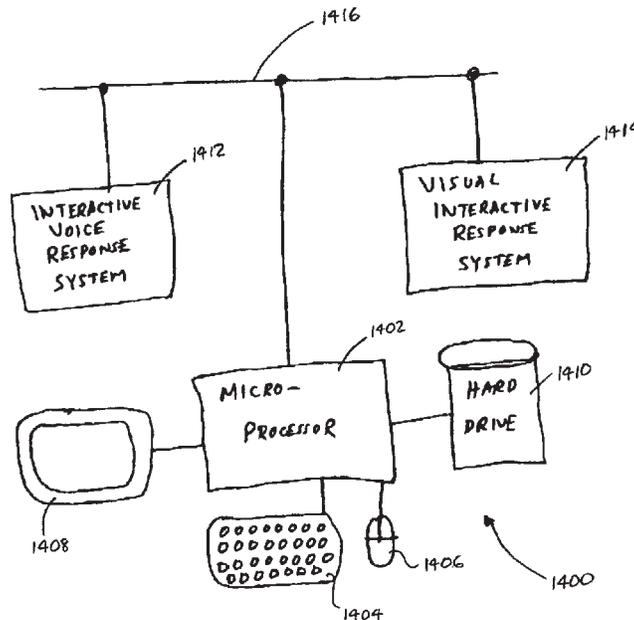
28 July - 1 Aug 9th International Congress on Noise as a Public Health Problem (Quintennial meeting of ICBEN, the International Commission on Biological Effects of Noise). Foxwoods Resort, Mashantucket, CT [Jerry V. Tobias, ICBEN 9, Post Office Box 1609, Groton CT 06340-1609, Tel. 860-572-0680; Web: www.icben.org. Email icben2008@att.net

6,920,425

### 43.72.Ne VISUAL INTERACTIVE RESPONSE SYSTEM AND METHOD TRANSLATED FROM INTERACTIVE VOICE RESPONSE FOR TELEPHONE UTILITY

**Craig A. Will and Wayne N. Shelley, assignors to Nortel Networks Limited**

19 July 2005 „Class 704Ö275...; filed 16 May 2000



The patent describes several modes of telephone/computer interactions using different languages, particularly the voice-enabled adaptations of XML. The server includes the ability to translate between voice-control scripts and visual scripts, allowing inputs in either modality to perform the mode switch. Command parsing is discussed, although not in great detail. The patent hits a new low in figure quality. Perhaps the assignee is having problems we don't know about.—DLR