

Elaine Moran

Acoustical Society of America  
Melville, New York 11747



D. Vance Holliday (r) accepts the Prix d'Excellence Award from Ed Houde (l), Chair of the ICES Awards Committee

## D. Vance Holliday receives ICES Prix d'Excellence Award

D. Vance Holliday was awarded the Prix d'Excellence Award by the International Council for the Exploration of the Sea (ICES) in recognition of extraordinary contributions, fulfilling the ICES vision of scientific discovery, leadership, and applications that have had major influence on policy for sustained use and conservation of marine ecosystems.

The Prix d'Excellence Award recognizes the highest level of contribution to the ICES vision of "An international scientific community that is relevant, responsive, sound, and credible, concerning marine ecosystems and their relation to humanity." They will have contributed through their research, scientific leadership, and/or leadership in the objective application of science to policy for sustained use and conservation of marine ecosystems. Innovation, teamwork, mentoring, and objective communication with the public exemplify the career of the recipient of this award. The award is generally made every third year.

Van Holliday received his BS and

MA degrees in Physics from the University of Texas at Austin and his Ph.D. from the University of California, San Diego. He joined Tracor, now a part of BAE Systems in 1962, where he retired as the Director of Analysis and Applied Research in its Electronic Systems Division in 2007. Dr. Holliday is now a Senior Marine Research Scientist at the Graduate School of Oceanography, University of Rhode Island and an Adjunct Professor of Fisheries Oceanography at the School for Marine Science and Technology, University of Massachusetts, Dartmouth.

He is a Fellow of the Acoustical Society of America and received the ASA Silver Medal in Acoustical Oceanography in 2004. In recognition of his help in solving many naval problems, he was awarded the Department of the Navy's Meritorius Public Service award in 2002.



## Richard M. Stern named ISCA Distinguished Lecturer

Richard M. Stern has been named a 2008 ISCA Distinguished Lecturer by the International Speech Communication Association (ISCA). The ISCA Distinguished Lecturers Program was established in 2006 to send Distinguished Lecturers to travel to different parts of the

world to give lectures to help promote research activities on speech science.

Dr. Stern has been a member of the faculty of Carnegie Mellon University (CMU) since 1977, where he is currently a Professor in the Electrical and Computer Engineering, Computer Science, and Biomedical Engineering Departments, and in the Language Technologies Institute. He received an S.B. degree from the Massachusetts Institute of Technology in 1970, an M.S. from the University of California, Berkeley, in 1972, and a Ph.D. from MIT in 1977, all in electrical engineering.

For more than 20 years, Richard Stern's research has focused on spoken language systems, where he is particularly concerned with the development of techniques with which automatic speech recognition can be made more robust with respect to changes in environment, acoustical ambience, variations in speech production, etc. In addition to his work in speech recognition, Dr. Stern also remains actively involved in auditory perception, where he is best known for theoretical work in binaural hearing. He was a Co-Recipient of Carnegie Mellon University Allen Newell Award for Research Excellence in 1992 for his work in robust speech recognition.

Richard Stern has always been actively involved in committee work to facilitate scientific and technical interchange in the speech and language communities, and within ISCA he is perhaps best known for serving as General Chair of Interspeech 2006. He has also served as Technical Program Chair of the 141st meeting of the Acoustical Society of America in Pittsburgh in 2002, and he was General Chair for several major DARPA-sponsored workshops in speech and natural language. He has also served on numerous technical and standards committees for the Signal Processing Society of the Institute of Electrical and

Electronics Engineers and for Defense Advanced Projects Agency. He is presently Chair of the Nominating Committee for the IEEE James L. Flanagan Technical Field Award in Speech and Audio Processing.

Richard Stern has also lectured extensively on advanced technical topics and on science and engineering topics of general interest throughout the United States, Europe, Asia, and Latin America (in Spanish and English). He has taught a broad range of courses at Carnegie Mellon, and he was named the CMU Electrical Engineering Professor of the Year in 1979 by the students in his Department in recognition of his classroom teaching activities. In addition to his professional activities, Richard Stern has maintained longstanding interests in international development and in the role that science and technology can play in improving people's lives in developing countries.



### Leon Keer receives ASME award

Leon M. Keer has been named recipient of the Mayo D. Hersey Award of the American Society of Mechanical Engineers (ASME). The award will be presented at the International Joint Tribology Conference held October 2008 in Miami, Florida.

The Mayo D. Hersey Award, established in 1965, is bestowed for distinguished and continued contributions over a substantial period of time to the advancement of the science and engineering of tribology. Distinguished contributions may result from significant original research in one or more of the many scientific disciplines related

to lubrication. The award citation for Dr. Keer reads: "for pioneering research and distinguished contributions in contact mechanics, particularly the modeling of surface interaction, friction, adhesion, wear and fraction of bodies under concentrated contacts, as well as crack initiation and rolling-contact fatigue."

Leon Keer has been a member of the faculty at Northwestern University in Evanston, Illinois since 1964. He is currently the Walter P. Murphy professor of mechanical and civil engineering, and director of the Center for Surface Engineering and Tribology. He has made outstanding contributions to tribological and lubrication technology as well as fundamental contributions in the design of gears and bearings through research on engineering problems associated with concentrated contacts. Keer has over 300 journal publications on engineering and applied mechanics.

Dr. Keer is a Fellow of the ASME and was awarded the Tribology Division's Innovative Research Award in 2001 and the Society's Daniel C. Drucker Medal in 2003. He is a member of the National Academy of Engineering. He is also a Fellow of the American Academy of Mechanics, where he served as president; the American Society of Civil Engineers, where he served as chair of the Engineering Mechanics Division; the Acoustical Society of America; and the Japan Society for the Promotion of Science.

Other honors include a Guggenheim fellowship (1972-73) and a NATO postdoctoral fellowship (1962-63); and he was selected to present Hong Kong Polytechnic University's First Chau Wai-yin Memorial Lecture (2000) and the University of Illinois at Urbana-Champaign's 2008 Talbot Distinguished Lecture.

Keer received his bachelor's degree in engineering and his master's degree in mechanical engineering at the California Institute of Technology, Pasadena, in 1956 and 1958, respectively. In 1962 he earned his Ph.D. in engineering mechanics at the University of Minnesota, Minneapolis. He is a registered professional engineer in California.



### Hugh McDermott awarded the Callier Prize

Hugh J. McDermott has been selected as the first recipient of the Callier Prize in Communication Disorders, a biennial award from The University of Texas at Dallas' Callier Center for Communication Disorders. McDermott is a professor in the University of Melbourne's Department of Otolaryngology, as well as a leading researcher and designer of cochlear implant systems and digital hearing aids.

The newly established Callier Prize recognizes individuals for their leadership in fostering scientific advances and significant developments in the diagnosis and treatment of communication disorders. The award, which will rotate among the fields of audiology and speech and language pathology, includes a \$10,000 prize.

Dr. McDermott's selection was based on his research, which has often led to the development of new or improved sound processing schemes for cochlear implants or hearing aids. He has published extensively in refereed journals, and he has received numerous patents in the United States and internationally that have improved the ability of cochlear implant users to understand speech. He will receive the award at a special one-day conference in his honor sponsored by the Foundation for the Callier Center at its

Dallas location on March 7, 2009.

The Callier Center is one of the nation's preeminent educational, research and treatment centers focusing on communication and communication disorders. The center is part of the university's School of Behavioral and Brain Sciences.



### **Floyd Toole recognized with CEDIA Lifetime Achievement Award**

The Custom Electronic Design & Installation Association (CEDIA) has named Floyd E. Toole the recipient of its 2008 Lifetime Achievement Award. Toole, a pioneer in acoustics research with more than 40 years' experience in the industry, received the award in September at CEDIA's annual Electronic Lifestyles® Awards Banquet.

CEDIA's Lifetime Achievement Award annually honors an individual whose visionary leadership has contributed to the growth and advancement of the electronic systems industry. Past winners have ranged from technology trailblazers to iconic business leaders to influential CEDIA leaders and volunteers. Nominations are submitted by industry professionals and evaluated on the basis of achievement and service within the industry.

Dr. Toole launched his career when the industry was in its infancy and moved on to become an authority on the measurement and understanding of sound quality. After earning his Ph.D. in electrical engineering, Toole joined the National Research Council of Canada in 1965, ultimately reaching the position of Senior Research Officer in the Acoustics and Signal Processing

Group. In 1991, Toole moved on to Harman Research Industries, Inc., as Corporate Vice President – Acoustical Engineering, where he led the Harman Research and Development Group.

Dr. Toole's research has focused on small-room acoustics and evaluating the relationship between technical measurements of audio equipment and listeners' perceptions. His findings have been applied to loudspeaker design and manufacturing and have influenced his work as a CEDIA University subject matter expert and course developer.

Dr. Toole's work has been published in the journals of the Audio Engineering Society and the Acoustical Society of America, audio engineering books and consumer publications, and he recently completed a book titled Sound Reproduction. He is a Fellow and Past President of the Audio Engineering Society and a Fellow of the Acoustical Society of America and was named one of CEDIA University's Top Ten Instructors in 2007. Now retired, he is an acoustical consultant and continues to contribute to CEDIA University course development and instruction.

CEDIA is an international trade association of companies that specialize in designing and installing electronic systems for the home. The association was founded in September 1989 and has more than 3,500 member companies worldwide. CEDIA Members are established and insured businesses with bona fide qualifications and experience in this specialized field.

### **San Diego Chapter Selects two winners at the 2008 Greater San Diego Science and Engineering Fair**

From the many hundreds of student exhibits displayed at this year's 54th Greater San Diego Science and Engineering Fair (GSDSEF), the San Diego Chapter of the ASA has selected 2 students as winner projects. The mission of the GSDSEF activity is to maintain a continuous process that encourages and rewards professional excellence, promotes educational enrichment, and provides unique opportunities for independent achievement in science and technology for the thou-

sands of seventh through twelfth grade students of all private, parochial, and public schools of the Greater San Diego Region wishing to participate. It is independent of community service organizations, without funding or direction by state or local government, or by any of the school systems whose students are involved. One of the many activities of the organization include recruiting and organizing special award judging by professional, technical, institutional, and military organizations. Tax dollars are not spent and all staff support is on a volunteer basis. The local chapter of the ASA has participated in the Fair for a great many years supporting its organization and granted awards to students.



*Austin Taylor*

### **Discovering the Velocity of Seismic Earthquake P-Waves**

Austin Taylor  
Mt. Helix Academy, La Mesa, CA  
8th Grade

My project was to see if it was possible to calculate the speed of a seismic P-wave and relate it to the magnitude of an earthquake. Then, if that was the case, to discover whether speed would predict the magnitude of the earthquake. This could potentially affect the death rates of earthquakes across the globe. Data available at USGS.gov website was used to determine the distances, depths, time, origin times, dates, location, and of course magnitude of earthquake events in California in order to calculate the speed of the

seismic P-waves for all available earthquake events occurring between 2005–2007. The average velocity of P-waves for each earthquake event was determined by dividing the surface distance of the epicenter of the earthquake to the selected seismogram station by the time it took for the P-waves to arrive at that designated seismogram station. This process was then repeated for each earthquake event across three seismographic locations in California. A total of eight earthquakes in California were studied for this experiment. Each event was recorded from three different seismographic locations to make a total of 24 data points for this experiment. In this experiment, the formal hypothesis was that earthquakes with a larger magnitude would cause faster seismic P-waves. There was no pattern found in the magnitude compared to the velocity of P-waves for this data set, which shows that the velocity of a seismic P-wave can vary with the magnitude of an earthquake. An unexpected finding was that there was a relationship between the distance traveled by the P-wave and the velocity of

the wave. In all eight of the earthquakes studied, it was shown that as epicentral distance increased so did the velocity of P-waves. This increase in velocity could be due to a change in the medium the waves were traveling through.

Jennelle Allen  
 Santa Fe Christian Schools,  
 Solana Beach, CA  
 7th Grade

My hypothesis was that I could determine which instrument produced a particular sound by analyzing the sound using electronic measurement instruments. My procedure was that first I played the C-scale (8 notes from C4 through C5) on the violin and then on the harp. I recorded it and then used a spectrum analyzer and oscilloscope to look at the sound waves. The results were that they were significantly different. On the harp, the note is typically the fundamental while on the violin, there are usually many harmonics after the fundamental. Another thing I found is that the harp had a large attack and a slow decay, but the violin gradually got bigger and stayed at that point.



Jennelle Allen

When playing the note stopped, the violin decayed much faster than the harp. The conclusion was that I was correct because there was a noticeable contrast between the harp and the violin and these differences could be used to determine which instrument played the note.

—Robert J. Vent, ASA judge

### 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.

<p><b>2009</b>          18-22 May</p>	<p>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].</p>	<p><b>2010</b>          19-23 April</p>	<p>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].</p>
<p>26-30 October</p>	<p>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].</p>	<p>15-19 November</p>	<p>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].</p>