

Plenary Session and Awards Ceremony

Michael Vorländer
President, Acoustical Society of America

Annual Membership Meeting Presentation of Certificates to New Fellows

Geoffrey Edelmann – For contributions to underwater communications and compressive sensing
Kenneth W. Good, Jr. – For service to the Society and contributions to improving speech privacy
Tatiana D. Khokhlova – For pioneering shock-based boiling histotripsy
Kang Kim – For contributions to elasticity imaging, ultrasound thermal strain imaging, and photoacoustic imaging
Brian B. Monson – For contributions to extended high frequency hearing in humans
Matthew B. Winn – For contributions to the understanding of speech perception and listening effort
Likun Zhang – For contributions to the understanding of acoustic radiation forces in complex wave fields and vortex beams

Presentation of Science Communication Awards

A Cathedral of Sound by Madeleine Schwartz, Malika Khurana, Mika Gröndahl and Yuliya Parshina-Kottas
(New York Times Magazine online, 3 March 2023)

The Science of Sound, a two-part episode in the “*Where What if Becomes What’s Next*” Podcast Laurie Heller,
Podcast Presenter (Carnegie Mellon University, 17 and 31 July, 2025)

Pistols in St Paul’s: Science, Music, and Architecture in the Twentieth Century by Fiona Smyth
(Manchester University Press, September 2024)

The Sonic Soul of Notre Dame by David Levin (Brandeis Magazine, Summer 2025)

Introduction of Prize Recipients

2025 Rossing Prize in Acoustics Education to Daniel A. Russell

2026 Hartmann Prize in Auditory Neuroscience to John C. Middlebrooks

2026 Medwin Prize in Acoustical Oceanography to Shima Abadi

The Prize was presented at the Monday Medwin Prize in Acoustical Oceanography Lecture

Presentation of Awards

R. Bruce Lindsay Award to Whitney L. Coyle

Trent-Crede Medal to Andrew N. Norris

Helmholtz-Rayleigh Interdisciplinary Silver Medal in Physical Acoustics and Biomedical Acoustics to Oleg Sapozhnikov

Honorary Fellowship to Judy R. Dubno

Gold Medal to Anthony A. Atchley

R. BRUCE LINDSAY AWARD



Whitney L. Coyle

2026

The R. Bruce Lindsay Award (formerly the Biennial Award) is presented in the Spring to a member of the Society who is no more than 10 years post terminal degree on 1 July at the time of Award acceptance and who, during a period of two or more years immediately preceding the award, has been active in the affairs of the Society and has contributed substantially, through published papers, to the advancement of theoretical or applied acoustics, or both. The award was presented biennially until 1986. It is now an annual award.

PREVIOUS RECIPIENTS

| | | | |
|-------------------------|------|------------------------|------|
| Richard H. Bolt | 1942 | Beverly A. Wright | 1995 |
| Leo L. Beranek | 1944 | Victor W. Sparrow | 1996 |
| Vincent Salmon | 1946 | D. Keith Wilson | 1997 |
| Isadore Rudnick | 1948 | Robert L. Clark | 1998 |
| J. C. R. Licklider | 1950 | Paul E. Barbone | 1999 |
| Osman K. Mawardi | 1952 | Robin O. Cleveland | 2000 |
| Uno Ingard | 1954 | Andrew J. Oxenham | 2001 |
| Ernest Yeager | 1956 | James J. Finneran | 2002 |
| Ira J. Hirsh | 1956 | Thomas J. Royston | 2002 |
| Bruce P. Bogert | 1958 | Dani Byrd | 2003 |
| Ira Dyer | 1960 | Michael R. Bailey | 2004 |
| Alan Powell | 1962 | Lily M. Wang | 2005 |
| Tony F. W. Embleton | 1964 | Purnima Ratilal | 2006 |
| David M. Green | 1966 | Dorian S. Houser | 2007 |
| Emmanuel P. Papadakis | 1968 | Tyrone M. Porter | 2008 |
| Logan E. Hargrove | 1970 | Kelly J. Benoit-Bird | 2009 |
| Robert D. Finch | 1972 | Kent L. Gee | 2010 |
| Lawrence R. Rabiner | 1974 | Karim G. Sabra | 2011 |
| Robert E. Apfel | 1976 | Constantin-C. Coussios | 2012 |
| Henry E. Bass | 1978 | Eleanor P. J. Stride | 2013 |
| Peter H. Rogers | 1980 | Matthew J. Goupell | 2014 |
| Ralph N. Baer | 1982 | Matthew W. Urban | 2015 |
| Peter N. Mikhalevsky | 1984 | Megan S. Ballard | 2016 |
| William E. Cooper | 1986 | Bradley E. Treeby | 2017 |
| Ilene J. Busch-Vishniac | 1987 | Yun Jing | 2018 |
| Gilles A. Daigle | 1988 | Adam Maxwell | 2019 |
| Mark F. Hamilton | 1989 | Julien Bonnel | 2020 |
| Thomas J. Hofler | 1990 | Likun Zhang | 2021 |
| Yves H. Berthelot | 1991 | Meaghan A. O'Reilly | 2022 |
| Joseph M. Cuschieri | 1991 | Julianna C. Simon | 2023 |
| Anthony A. Atchley | 1992 | Christopher Kube | 2024 |
| Michael D. Collins | 1993 | Andrea P. Arguelles | 2025 |
| Robert P. Carlyon | 1994 | | |



ENCOMIUM FOR WHITNEY L. COYLE

... for contributions to understanding the acoustics of the clarinet and for service to the Society

13 MAY 2026 • PHILADELPHIA, PENNSYLVANIA

A native of Kentucky with an undergraduate degree from Murray State University, Whitney Coyle is currently chair of the physics department and an associate professor of physics at Rollins College in Winter Park, Florida. She was introduced to the field of acoustics during a National Research Foundation Research Experience for Undergraduates with James Cottingham at Coe College while she was undergraduate studying music and mathematics. These complementary interests led her naturally into the field of musical acoustics. After completing her undergraduate degree Whitney pursued a Ph.D. at Penn State, originally working with Victor Sparrow on outdoor sound propagation before beginning her research in musical acoustics.

Dr. Coyle's doctoral research was funded by the NSF Graduate Research Fellowship Program and concentrated on the physics of the clarinet. While in graduate school she was also named a Graduate Research Opportunities Worldwide Fellow by the NSF, as well as a Chateaubriand Fellow by the French embassy. These two fellowships enabled her to spend the majority of the last three years of her graduate studies with Jean Kergomard at the Laboratoire de Mécanique et d'Acoustique in Marseille, France. Her work in Marseille on predicting the playing frequencies of clarinets is frequently cited and was an important contribution to understanding the physics involved in the unique sound of the instrument.

After her graduate work Dr. Coyle joined the faculty at Rollins College, an undergraduate liberal arts college that emphasizes teaching above all other priorities. Although she was required to teach six undergraduate courses each academic year, with no teaching assistants or graders to ease the workload, Dr. Coyle still managed to establish a student-centered research effort involving undergraduate students in both experimental and computational acoustics. Her students have made more than 20 presentations at ASA meetings in the last decade and are coauthors on several peer-reviewed articles. Her research on the acoustics of musical instruments continues, with her undergraduate students playing key roles in published work on the analysis of clarinet tonguing techniques, mouthpiece analysis, and flow dynamics. Recently she and her students have also collaborated with Kent Gee at Brigham Young University to study the acoustics of rocket launch vehicles from the Kennedy Space Center.

In addition to her research and teaching Whitney is a long-time member and active supporter of the Acoustical Society of America (ASA). She has been a member of the ASA for almost two decades, beginning when she was still an undergraduate student. During her graduate studies she maintained her membership in ASA and was an active member of the Student Council, serving as the student representative from the Technical Committee on Musical Acoustics, and chairing the Student Council from 2012 to 2014. Since receiving her Ph.D. Dr. Coyle has continued to support the ASA, serving on numerous committees including Publication Policy, Women in Acoustics, Education in Acoustics, Public Relations, the Technical Committee on Musical Acoustics, and chairing the Web Advisory Committee. She has also regularly presented her work at ASA meetings where she was awarded two Best Student Paper Awards in 2009 and 2014 and Best Young Presenter in Noise in 2013.

Dr. Coyle continues to teach, mentor undergraduate students, maintain a vibrant research program and actively support the ASA while also raising two beautiful daughters and running the occasional marathon.

THOMAS MOORE

ACOUSTICAL SOCIETY OF AMERICA

TRENT-CREDE MEDAL



Andrew N. Norris 2025

The Trent-Crede Medal is presented to an individual, irrespective of nationality, age, or society affiliation, who has made an outstanding contribution to the science of mechanical vibration and shock, as evidenced by publication of research results in professional journals or by other accomplishments in the field.

PREVIOUS RECIPIENTS

| | | | |
|---------------------|------|-----------------------|------|
| Carl Irwin Vigness | 1969 | Gideon Maidanik | 1991 |
| Raymond D. Mindlin | 1971 | Preston W. Smith, Jr. | 1996 |
| Elias Klein | 1973 | David Feit | 1999 |
| J. P. Den Hartog | 1975 | Sabih I. Hayek | 2003 |
| Stephen H. Crandall | 1978 | Jerry H. Ginsberg | 2005 |
| John C. Snowdon | 1980 | Peter R. Stepanishen | 2011 |
| Eric E. Ungar | 1983 | Earl G. Williams | 2016 |
| Miguel C. Junger | 1987 | | |



ANDREW N. NORRIS

...for foundational contributions to the theory of acoustic and elastic metamaterials and to wave propagation in complex media and structures

13 MAY 2026 • PHILADELPHIA, PENNSYLVANIA

Andrew (Andy) N. Norris was born and raised in Dublin, Ireland. The youngest of seven children, he attended Christian Brothers schools from elementary through high school. Andy excelled at mathematics and physics in high school, making the Mathematical Physics program at University College Dublin (UCD) a natural fit for his undergraduate studies. He finished his bachelor's degree in 1977, receiving First Class Honors, and continued at UCD to complete a Master of Science (MS) degree one year later. It was during that time that he was first formerly introduced to wave mechanics by Michael Hayes. These formative studies clearly had a significant influence on Andy's career, which has spanned numerous topics germane to the field of acoustics, including ultrasonic non-destructive testing (NDT), waves in porous, granular, and composite materials, nonlinear acoustics, acoustic wave scattering from structures, and acoustic metamaterials.

After finishing his MS, he chose to pursue his Ph.D. in the United States at Northwestern University under the supervision of Jan D. Achenbach who had just recently published his classic textbook *Wave Propagation in Elastic Solids*. Those were the early days of ultrasonic NDT and Andy made key contributions to the field soon after his arrival, authoring his first paper on ultrasonic wave scattering from cracks in the first volume of the journal *Wave Motion* in 1979. Thirty-two years later, Andy became the editor-in-chief of that journal. Andy's doctoral research focused primarily on the topic of scattering from cracks and scattered field inversion, interacting with many that laid the foundations of ultrasonic NDT, including Bruce and David Thompson and Lazlo Adler. Andy truly had a hand in putting the "Q" (for "Quantitative") in QNDT, as Achenbach was known to say.

After graduate school, Andy took a postdoctoral position at Exxon where his work focused on seismic waves in poroelastic media and Gaussian beam summation to calculate ray propagation and complex point sources. This included research with Nobel laureate John Robert Schrieffer on the topic of Gaussian wave packet propagation which likely informed Andy's numerous contributions to high frequency asymptotics for scattering problems. His research on acoustic scattering included collaborations with Gregory Kriegsmann and Edward Reiss to describe scattering by membranes and later extensive contributions on scattering and diffraction of waterborne acoustic waves and flexural waves in beams and plates. An example of Andy's unique ability to adapt mathematical tools developed for one physical domain to address more general problems was his use of Gaussian beam summation to find an exact representation of complex point sources for waves propagating in arbitrary inhomogeneous media [J. Opt. Soc. Am. 3(2), 2005–2010, (1986)].

Andy took a faculty position at Rutgers University in 1985 where he quickly expanded his research interests to include effective medium theory, borehole acoustics, nonlinear acoustics, and structural acoustics. Early in his career at Rutgers, he focused on topics relevant to seismic waves in collaboration with Robert Burridge, David Johnson, Bikash Sinha, and Sergio Kostek. A representative example was his derivation of integro-differential delay equations for waves in finely layered media that described the non-intuitive behavior of weak scattering by the numerous interfaces of finely layered media yielding a leading order scattering effect [J. Acoust. Soc. Am. 94(5), 2884–2894 (1993)]. He also re-cast the model equations of poroelasticity in a form that is easier to interpret and studied wave propagation in anisotropic and nonlinear media. A notable contribution to the field of nonlinear acoustics was his concise yet authoritative chapter on *Finite-Amplitude Waves in Solids* in Blackstock and Hamilton's textbook on *Nonlinear Acoustics*.

Andy also studied numerous structural acoustics problems throughout the 1990's, work that was influenced by David Feit and Preston Smith, Jr. in the US and Gerry Wickham and David Crighton in the UK. He explored the use of ray theory to study underwater scattering, diffraction, and radiation problems for fluid-loaded structures and developed numerous analytical models describing flexural wave propagation and scattering in beams and plates. Taken together, Andy's papers on these topics are must-reads for anyone wishing to understand the intricacies of sound scattering from elastic structures.

The extensive research summarized above provided the foundation and insights that made Andy uniquely suited to make foundational contributions to the field of acoustic metamaterials, for which he is now well known. Arguably his most prominent contribution to this field is *Acoustic Cloaking Theory* [Proc. R. Soc. A, 464, 2411-2434, (2008)]. That work provided an authoritative description of the spatially varying elastic properties required to achieve acoustic cloaking. Prior to this paper, researchers had concluded that the acoustic analogue to electromagnetic cloaking was impossible using conventional elastic materials without requiring infinite mass, which Andy aptly described as “a massive problem.” His work paved the way for the design of exotic acoustic materials for acoustic cloaks and lenses using transformation acoustics and provided the impetus to create pentamode metamaterials with tailorable anisotropic sound speeds. He later fabricated these materials and experimentally validated their behavior in an underwater environment [J. Acoust. Soc. Am., 151(1), 168-179, (2022)]. Additional contributions include dynamic homogenization models of metamaterials with subwavelength asymmetry that lead to direction-dependent characteristic acoustic impedance and novel wave scattering behavior [Proc. R. Soc. A, 468(2142), 1629–1651 (2012)]. He has also made numerous recent contributions to the topic of engineered materials and dynamic structures which enable non-reciprocal acoustic and elastic wave propagation [J. Mech. Phys. Sol. 101, 10-29, (2017)].

Andy’s substantial contributions to acoustics, spanning over four decades are a result of his deep and seemingly effortless understanding of mathematical physics. His unique ability to bring knowledge from multiple topics together using clear and incisive writing has led him to make foundational and long-lasting contributions across acoustics, most recently in acoustic metamaterials as recognized by this medal. However, simply focusing on his professional contributions misses his most notable attributes, which are his demeanor and character. Andy is a wonderful colleague who is a pleasure to work with and who makes everyone around him better. He routinely works with a wide range of collaborators and elevates junior colleagues, ensuring a legacy that will last for many decades to come.

MICHAEL HABERMAN
CHRISTOPHER KUBE

Helmholtz-Rayleigh Interdisciplinary Silver Medal in Physical Acoustics and Biomedical Acoustics



Oleg Sapozhnikov 2026

The Silver Medal is presented to individuals, without age limitation, for contributions to the advancement of science, engineering, or human welfare through the application of acoustic principles, or through research accomplishment in acoustics.

PREVIOUS RECIPIENTS

Helmholtz-Rayleigh Interdisciplinary Silver Medal

| | | | |
|---------------------|------|-----------------------------|------|
| Gerhard M. Sessler | 1997 | Timothy J. Leighton | 2013 |
| David E. Weston | 1998 | Mark F. Hamilton | 2014 |
| Jens P. Blauert | 1999 | Henry Cox | 2015 |
| Lawrence A. Crum | 2000 | Armen Sarvazyan | 2016 |
| William M. Hartmann | 2001 | Blake S. Wilson | 2017 |
| Arthur B. Baggeroer | 2002 | Kenneth S. Suslick | 2018 |
| David Lubman | 2004 | Barbara G. Shinn-Cunningham | 2019 |
| Gilles A. Daigle | 2005 | Michael R. Moldover | 2021 |
| Mathias Fink | 2006 | George L. Augspurger | 2022 |
| Edwin L. Carstensen | 2007 | Vera A. Khokhlova | 2023 |
| James V. Candy | 2008 | D. Keith Wilson | 2024 |
| Ronald A. Roy | 2010 | N. Ross Chapman | 2025 |
| James E. Barger | 2011 | | |

Interdisciplinary Silver Medal

| | |
|--------------------|------|
| Eugen J. Skudrzyk | 1983 |
| Wesley L. Nyborg | 1990 |
| W. Dixon Ward | 1991 |
| Victor C. Anderson | 1992 |
| Steven L. Garrett | 1993 |



ENCOMIUM FOR OLEG A. SAPOZHNIKOV

...for contributions to nonlinear acoustics and its applications to medical ultrasound

13 MAY 2026 • PHILADELPHIA, PENNSYLVANIA

Oleg Anatolievich Sapozhnikov was born in Batyrevo, a village with several thousand people in the Chuvash Republic of the USSR (now Russia), approximately 500 miles east of Moscow. His father was a veterinarian and his mother taught history at a local high school.

After being awarded a Gold Medal when he graduated from the high school in Batyrevo in 1979, Oleg entered the Physics Faculty of Lomonosov Moscow State University (MSU). He studied mathematics and physics at a high level and soon became one of the best students in his class, and the go-to student to answer questions raised by his classmates.

While a student at MSU Oleg joined a research group that specialized in nonlinear acoustics, in 1982. Leading this group were Professors Oleg Rudenko, an accomplished theoretician, and Alexander Karabutov, a talented experimentalist. Nonlinear acoustics became the primary focus of Oleg's scientific activities ever since. The research group was in the department specializing in laser physics and nonlinear optics, and this exposed Oleg to advanced research and education in acoustics, optics, and photoacoustics. Vera Khokhlova started at MSU the same year as Oleg Sapozhnikov, and they joined Oleg Rudenko's group simultaneously. This was the beginning of their lifelong collaboration that included their formation of the Laboratory for Industrial and Medical Ultrasound (LIMU) at MSU in 2014.

Oleg received his MSc degree from MSU in 1985 and defended his PhD thesis in 1988. Since then he has served as a faculty member in the Department of Acoustics within the Physics Faculty of MSU. He defended his Doctor of Science thesis in 2008, which described his research on characterization of ultrasound sources, nonlinear self-action phenomena, and physical mechanisms associated with the use of high-power ultrasound and shock waves in lithotripsy. Shortly thereafter he became a full professor in the Physics Faculty of MSU.

In 1994 Oleg spent a year as a visiting researcher in Lyon, France at the National Institute of Health and Medical Research (INSERM) working with Dominique Cathignol and Jean-Yves Chapelon. Oleg's first trip to the United States was in spring 1996 to visit the University of Texas at Austin, a leading center for nonlinear acoustics. He returned to the U.S. in summer 1996 to begin collaborating with the Center for Industrial and Medical Ultrasound (CIMU) that Larry Crum created in the Applied Physics Laboratory (APL) at the University of Washington (UW) in Seattle, a partnership that continues to this day. Both Oleg and Vera became essential participants in the CIMU group, performing joint experiments, supervising graduate students, and arranging mutual research projects and visits between Moscow and Seattle.

Oleg is a leading and highly cited international expert on physical acoustics, and in particular, on nonlinear acoustics used in biomedical applications. He combined advanced fundamental research performed throughout his academic career as a Professor of Acoustics at MSU with his studies at APL-UW, renowned for its strong translational research in biomedical ultrasound. This combination, together with Oleg's engaging personality and mentorship abilities, led to the transition of his fundamental ideas into patented technologies and ultimately new medical devices.

Oleg is well known for bringing thoughtful analogies from different fields of physics to ultrasound, which often lead to simple explanations of sometimes very complicated phenomena. While he is an exceptional theoretician, he has also conceived and led many experimental projects in physical acoustics, often in nonlinear and biomedical acoustics. His most notable research contributions range from purely theoretical work on group analysis of nonlinear equations in acoustics, to modeling acoustic radiation force, performing experimental studies on acoustical holography, identifying the physical mechanisms of kidney stone breakage in shock-wave and burst-wave lithotripsy, tissue liquefaction in

boiling histotripsy, and interpreting the twinkling artifact in ultrasound Doppler imaging of kidney stones. The acoustical holography method that Oleg developed and introduced in early 2000s to the medical community is now considered to be a critical step in the characterization of ultrasound medical transducers and their fields. The idea of using pulsed shear waves propagating transverse to the push beam that he demonstrated experimentally in 1996 has evolved to become a powerful tool in diagnostic shear wave elasticity imaging, for nondestructive evaluation, and other applications.

Oleg has been an active member of the ASA for many years. He is an ASA Fellow, served as an Associate Editor for *the Journal of the Acoustical Society of America* (JASA), was a member of the ASA Committee on International Research and Education, and has organized special sessions at ASA meetings. Oleg is also a Member of the Governing Board of the International Congress on Ultrasonics (ICU), a Board Member of the Russian Acoustical Society, and a Member of the Scientific Council on Acoustics in the Russian Academy of Sciences, heading the Physical Ultrasound section. In 2004 he was one of the first two recipients of the Early Career Award from the International Commission for Acoustics (ICA), and in spring 2025 he gave a plenary lecture at the joint ICA/ASA meeting in New Orleans.

In conclusion, Oleg Sapozhnikov is an outstanding physicist and acoustician with very broad international recognition. He has contributed significantly to building a foundation for modern physical acoustics and its biomedical diagnostic and therapeutic applications. He is therefore a highly deserving recipient of the Helmholtz-Rayleigh Interdisciplinary Silver Medal in Physical Acoustics and Biomedical Acoustics of the Acoustical Society of America.

MARK F. HAMILTON
MATHIAS FINK
VERA A. KHOKHLOVA
LAWRENCE A. CRUM

HONORARY FELLOWSHIP
in the
ACOUSTICAL SOCIETY OF AMERICA



Judy R. Dubno

2026

An individual who has attained eminence in acoustics or who has rendered outstanding service to acoustics may be elected to Honorary Fellowship in the Acoustical Society of America.

HONORARY FELLOWS

| | | | |
|-----------------------|------|-------------------------|------|
| Thomas A. Edison | 1929 | Henrik A. S. Nødtvedt | 1988 |
| Harvey Fletcher | 1949 | Leo L. Beranek | 1994 |
| Vern O. Knudsen | 1954 | Robert W. Young | 1997 |
| Paul E. Sabine | 1954 | Carleen M. Hutchins | 1998 |
| Frederick A. Saunders | 1954 | Leonid M. Brekhovskikh | 1999 |
| Floyd R. Watson | 1954 | Michael Longuet-Higgins | 2002 |
| Harvey C. Hayes | 1960 | Walter Munk | 2004 |
| Walter G. Cady | 1971 | Amar G. Bose | 2011 |
| Elfyn J. Richards | 1980 | Dah You Maa | 2012 |
| Maurice A. Biot | 1983 | | |



ENCOMIUM FOR JUDY R. DUBNO

... for outstanding contributions to understanding auditory perception, hearing loss, and speech recognition, and for exceptional leadership in the acoustics community

13 MAY 2026 • PHILADELPHIA, PENNSYLVANIA

Judy R. Dubno is an outstanding researcher, mentor, and leader who has made truly extraordinary contributions to acoustics within the Acoustical Society of America (ASA) and beyond, and who is richly deserving of recognition as ASA Honorary Fellow.

Judy Dubno was born and raised in New York City where she attended the city's public schools. She received her bachelor's degree from City College of New York and her PhD degree in Speech and Hearing Science from the City University of New York (CUNY) Graduate School and University Center. Her doctoral research involved fundamental work in predicting consonant confusions by individuals with normal and impaired hearing. She was heavily involved in the development, recording, and analysis of the CUNY Nonsense Syllable Test, among the first tests to quantitatively assess speech recognition in varied listening situations, and still in use today. Judy went on to complete a post-doctoral fellowship at the UCLA School of Medicine, where she remained as a faculty member for several years. It was in Los Angeles that Judy met her husband, John, in 1985. In 1991, she moved to the Medical University of South Carolina (MUSC) in Charleston, where she currently serves as Distinguished University Professor and Vice Chair of Research in the Department of Otolaryngology–Head and Neck Surgery.

Over her career, Judy has been one of the most outstanding scientists in the field of audiology. Her multi-faceted research on human auditory systems has made many seminal contributions to the field, ranging from understanding the encoding of auditory information in simple sounds and speech to how these abilities change in adverse listening conditions, with age, and with hearing loss. In each of these areas, Judy has had a significant impact on our fundamental knowledge of auditory perceptual abilities, and on clinical audiology methods of assessment and rehabilitation. A particular focus of her research has been to improve our understanding of presbycusis—the gradual and irreversible decline in hearing ability that affects most people as they age—and its consequences for the perception of speech and other sounds. Judy led a series of foundational studies examining the specific types of acoustic cues and listening situations that lead to problems for hearing-impaired and older people. An important contribution has been her leadership of a 35+ year longitudinal cohort study of age-related hearing loss. This work has been highly influential and greatly increased our understanding of the changes in auditory perception and processing that occur as a consequence of aging and hearing loss. Judy has also been active in research and public service to support improved accessibility and affordability of hearing health care, especially hearing aids, and to enact the necessary federal policies and legislation. She has served on a National Academies of Sciences, Engineering, and Medicine committee on the topic and as a member of the Lancet Commission to Address the Global Burden of Hearing Loss.

Judy's contributions to auditory science have been recognized by many prestigious awards. A partial list of Judy's honors includes the Life Achievement Award and the Jerger Career Award for Research in Audiology of the American Auditory Society, Honors of the Association and the Alfred K. Kawana Award for Lifetime Achievement in Publications of the American Speech-Language-Hearing Association (ASHA), the Award of Merit of the Association for Research in Otolaryngology (ARO), the South Carolina Governor's Award for Excellence in Science, and the ASA Gold Medal. In addition, Judy is a Fellow of the ASA, ASHA, American Academy of Otolaryngology–Head and Neck Surgery (AAO-HNS), International Collegium of Rehabilitative Audiology, and Collegium Oto-Rhino-Laryngologicum Amicitiae Sacrum.

Judy has also been an exceptional mentor and advisor to more than 100 graduate and medical students, postdoctoral fellows, otolaryngology residents, and junior faculty, many of whom have gone on to excel in careers in audiology research, practice, and teaching. In recognition of Judy's remarkable contributions to training the next

generation of audiologists and medical professionals, she was awarded MUSC's Peggy Schachte Research Mentor Award in its inaugural year of 2012.

Judy's service and leadership contributions to organizations related to acoustics have been extraordinary in their breadth and significance. Judy has served on or led an incredible 43 ASA councils, committees, task forces, and working groups. To mention just a few, she served as ASA President (2014-15), Vice President (2010-11), and Executive Council member (2004-07), and co-chaired two ASA strategic leadership initiatives (2011-12 and 2014-15). Of particular importance, as ASA's first elected Treasurer (2019-25), Judy was instrumental in stabilizing the Society's financial operations at a critical time, overseeing a systematic transition from large annual deficits to essentially the break-even point over the extent of her term.

As one of her personal favorite ASA roles, Judy, together with her friend and colleague Brigitte Schulte-Fortkamp, instigated and organized the ASA School in acoustics for graduate students and early-career professionals. Their plan was to hold ASA Schools biennially, over the weekend preceding the spring ASA meeting in even-numbered years, a schedule that has been followed since 2012. In addition to providing lectures, demonstrations, and mentorship, ASA School was intended to enhance the long-term participation and engagement of students and early-career professionals in the field of acoustics and in the ASA, helping to keep the Society strong.

Judy has also made tremendous contributions to national/international organizations outside of ASA, including about 50 boards, councils, foundations, and committees. Of particular note are President, Secretary-Treasurer, and Chair of the Long-range Planning Committee of ARO; Board of Directors of the American Institute of Physics and of the Hearing Health Foundation; Research Advisory Board for AAO-HNS; National Academies of Sciences Board on Behavioral, Cognitive, and Sensory Systems; and National Institutes of Health Advisory Councils. Judy has also served as Associate Editor of the *Journal of Speech and Hearing Disorders* and *Audiology and Neurology*, and on the Editorial Board of the *Journal of the American Academy of Audiology*.

The scope and impact of Judy Dubno's research, mentoring, and leadership in acoustics are truly extraordinary. However, just as impressive are the expertise, insight, diligence, and integrity that she continues to bring to every undertaking, scientific or organizational, motivated by the ASA's mission "to generate, disseminate, and promote the knowledge and practical applications of acoustics." We congratulate her most warmly on this prestigious recognition as Honorary Fellow of the Acoustical Society America.

STAN DOSSO
MICHAEL VORLÄNDER
BARBARA SHINN-CUNNINGHAM

Gold Medal



Anthony A. Atchley 2026

The Gold Medal is presented in the spring to a member of the Society, without age limitation, for contributions to acoustics. The first Gold Medal was presented in 1954 on the occasion of the Society's Twenty-Fifth Anniversary Celebration and biennially until 1981. It is now an annual award.

PREVIOUS RECIPIENTS

| | | | |
|------------------------|------|-----------------------|------|
| Wallace Waterfall | 1954 | K. Uno Ingard | 1997 |
| Floyd A. Firestone | 1955 | Floyd Dunn | 1998 |
| Harvey Fletcher | 1957 | Henning E. von Gierke | 1999 |
| Edward C. Wentz | 1959 | Murray Strasberg | 2000 |
| Georg von Békésy | 1961 | Herman Medwin | 2001 |
| R. Bruce Lindsay | 1963 | Robert E. Apfel | 2002 |
| Hallowell Davis | 1965 | Tony F. W. Embleton | 2002 |
| Vern O. Knudsen | 1967 | Richard H. Lyon | 2003 |
| Frederick V. Hunt | 1969 | Chester M. McKinney | 2004 |
| Warren P. Mason | 1971 | Allan D. Pierce | 2005 |
| Philip M. Morse | 1973 | James E. West | 2006 |
| Leo L. Beranek | 1975 | Katherine S. Harris | 2007 |
| Raymond W. B. Stephens | 1977 | Patricia K. Kuhl | 2008 |
| Richard H. Bolt | 1979 | Thomas D. Rossing | 2009 |
| Harry F. Olson | 1981 | Jiri Tichy | 2010 |
| Isadore Rudnick | 1982 | Eric E. Ungar | 2011 |
| Martin Greenspan | 1983 | William A. Kuperman | 2012 |
| Robert T. Beyer | 1984 | Lawrence A. Crum | 2013 |
| Laurence Batchelder | 1985 | Brian C. J. Moore | 2014 |
| James L. Flanagan | 1986 | Gerhard M. Sessler | 2015 |
| Cyril M. Harris | 1987 | Whitlow W. L. Au | 2016 |
| Arthur H. Benade | 1988 | William M. Hartmann | 2017 |
| Richard K. Cook | 1988 | William A. Yost | 2018 |
| Lothar W. Cremer | 1989 | William J. Cavanaugh | 2019 |
| Eugen J. Skudrzyk | 1990 | Judy R. Dubno | 2020 |
| Manfred R. Schroeder | 1991 | James F. Lynch | 2021 |
| Ira J. Hirsh | 1992 | Michael J. Buckingham | 2022 |
| David T. Blackstock | 1993 | Mark F. Hamilton | 2023 |
| David M. Green | 1994 | Ingo R. Titze | 2024 |
| Kenneth N. Stevens | 1995 | Arthur N. Popper | 2025 |
| Ira Dyer | 1996 | | |



ENCOMIUM FOR ANTHONY A. ATCHLEY

...for his contributions to the science of physical acoustics and his dedicated service to the Acoustical Society of America

13 MAY 2026 • PHILADELPHIA, PENNSYLVANIA

Three months before Sputnik was launched, Anthony was born in Lebanon, Tennessee, where the tempo of life was marked by the long, soulful wail of the woolen mill's steam whistle three times each workday. Growing up during the space race sparked Anthony's life-long fascination with space exploration, astronomy, and physics.

Young Anthony spent many happy days roaming the fields, woods, and creeks on his maternal grandparents' ranch. Holidays usually meant a family gathering, incidentally producing enough people to undertake the seasonal move of the cattle herd from one pasture to another, along a route including a section of major highway and narrow country roads. Anthony learned that the cattle mostly knew where they wanted to go, and only needed people to remove barriers, and not let them make wrong turns or get injured along the way. He is silent on whether this early experience influenced his future leadership style.

After graduating from the University of the South (Sewanee, Tennessee), Anthony attended graduate school at New Mexico Tech, studying thunderstorms which formed in the summer months over a laboratory atop an 11,000 ft mountain. He had the great fortune to learn electromagnetic theory from Rossi Lomanitz, who had started his graduate studies with J. Robert Oppenheimer and finished with Richard Feynman.

As Anthony was finishing his master's degree, another student told him about physical acoustics research at the University of Mississippi. This was the first time Anthony ever heard of acoustics as a field of advanced study. Fortunately, the library at New Mexico Tech subscribed to the *Journal of the Acoustical Society of America* (JASA), and Anthony's journey in acoustics and the Acoustical Society of America (ASA) began.

Pursuing a PhD at the University of Mississippi, Anthony started with a group studying the underwater sound that lightning makes when it strikes the ocean's surface. Being the newest graduate student, Anthony was assigned to deploy a hydrophone from the research vessel that was chasing thunderstorms off the Mississippi coast. When conditions seemed right for lightning, his job was to jump into the ocean, swim away from the boat with the hydrophone and associated electronics in tow, and then swim back to the boat. The audio of one of the underwater recordings of a lightning strike is available on the Discovery of Sound in the Sea website.

Thankfully, Anthony's thunderstorm-chasing days ended when Larry Crum offered him a position studying acoustic cavitation. In 1984, diagnostic ultrasound was becoming widespread and Larry suggested to Anthony that he consider whether these scanners could induce acoustic cavitation, which might be dangerous to fetuses. Anthony collected a wide data set of the thresholds of cavitation in different aqueous media. Larry then suggested he do some theoretical calculations to try to create a valid model of cavitation inception. As this project became more complicated, Anthony consulted with Andrea Prosperetti, a globally renowned fluid-dynamics expert. Their classic paper "*The Crevice Model of Bubble Nucleation*" (JASA 1989) has received over 350 citations---31 citations in 2025 alone.

After graduating from the University of Mississippi, Anthony was offered a position at the Naval Postgraduate School (NPS) in Monterey, CA. But he had also received a Hunt Fellowship to work in Bob Apfel's group at Yale. Facing a major dilemma, he convinced NPS that he should go to Monterey for a quarter, and then to Yale for a year, promising that he would then return to Monterey. At Yale, he joined a coterie of rising stars, and Anthony and his colleagues published the first papers on passive and active cavitation detection, techniques used universally today.

Back in Monterey, Anthony met his future wife Mary, who also worked in the Physics Department, and shifted his research focus to thermoacoustics and related fundamental physical acoustics. He was awarded the ASA R. Bruce Lindsay Award in 1992 "For contributions to the understanding of acoustic cavitation and thermoacoustics." Two of his widely cited papers from that time show Anthony's attraction to unexpectedly tough challenges. Although promoted to Chair of the Physics Department at NPS, Anthony saw more

opportunities elsewhere, and in 1997 he became Chair, Graduate Program in Acoustics at Penn State University (PSU).

Anthony's style was to think big and be very welcoming, gaining tremendous respect throughout the university as well as the acoustics program. Anthony let the way in Distance Education, working with others, especially Dick Stern, who had started the distance program in 1987. At that time, most courses at PSU were either purely in-class or purely broadcast for distance students in the evenings. Under Anthony's leadership, exploiting new internet technology, all courses shifted in 2006 to live transmission *and* recording of daytime courses, so daytime distance students and evening, working-professional students could feel like they were part of the real classroom attended by resident students. PSU Acoustics follows the same model today, using Zoom. Anthony achieved other great things during his 12-year tenure as leader of the PSU Acoustics Program, including fundamental nonlinear acoustics and aircraft noise research, but it was clear that he was destined for bigger things.

Anthony became Associate Dean for Administration and Planning in the Penn State College of Engineering in 2008, transitioned to Associate Dean for Research and Administration in 2009, and then Senior Associate Dean in 2014. Anthony kept his number two position in the College under three externally hired Deans, who normally clean house when setting up a new administration. Anthony also co-chaired important Penn State committees that kept Penn State operating throughout the Covid-19 pandemic. In 2022, he delayed retirement to serve as Acting and then Interim Dean of the College of Engineering, doing a great job during a challenging budgetary period. Anthony retired from Penn State on June 30, 2023.

Anthony has a distinguished publication record, but perhaps his greatest contribution to the ASA has been his strong record of service. He served on the ASA Executive Council from 1998–2001, as Vice President from 2003–2004, and as President from 2006–2007. He also served as chair or member of the Technical Program Organizing Committee for seven national and international meetings. For 14 years, Anthony served on the Acoustical Society Foundation Board, and as Chair from 2012–2015. In 2012 he was asked to Chair the newly formed Finance Committee. He also served as a member of several additional ASA committees, chairing three, including Physical Acoustics, Education in Acoustics, Prizes and Special Fellowships, Medals and Awards, Investments, Publication Policy, Tutorials, and Long-Range Planning. As a former President, he served on the American Institute of Physics Governing Board for 9 years and was elected to their Executive Committee. He also served on the American Society of Engineering Education's Engineering Research Council Board of Directors.

Those of us for whom Anthony has quietly removed barriers and prevented wrong turns are grateful for his leadership.

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