



RIORDAN

AIP is honoring Riordan for “skillfully conveying the excitement and drama of science and for clarifying important scientific ideas through his many books, articles, and television programs.”

According to the citation, his work

has “enhanced the public’s appreciation of physics as a source of beneficial applications and as an integral part of our intellectual life.”

ASA Bestows Medals and Awards

The Acoustical Society of America presented a number of awards and medals at the 143rd meeting of the society, held last month in Pittsburgh, Pennsylvania.

Two individuals each were awarded the Gold Medal, the highest honor of ASA. **Robert E. Apfel** received a gold medal for his “fundamental contributions to physical acoustics and biomedical ultrasound, and innovative leadership in electronic publishing.” Apfel is the Robert Higgin Professor of Mechanical Engineering at Yale University and a visiting professor of architecture at Harvard University. The other Gold Medal recipient was **Tony F. W. Embleton**, who was recognized for his “fundamental contributions to understanding outdoor

sound propagation and noise control and for leadership in the Society.” Embleton is retired from the National Research Council of Canada.

The R. Bruce Lindsay Award was also presented to two individuals this year. **James J. Finneran**, an engineer in the biosciences division of the US Navy’s Space and Naval Warfare Systems Center in San Diego, California, was honored for “contributions to the

understanding of auditory mechanics and transduction to teleost fish and of hearing by dolphins.” **Thomas J. Royston** garnered the award for his “contributions to the nonlinear characterization and control of vibration and acoustical outreach to inner city youth.” Royston is an associate professor and associate head of the mechanical and industrial engineering department at the University of Illinois in Chicago.

The Silver Medal in Psychological and Physiological Acoustics went to **Neal F. Viemeister**, a professor of psychology at the University of Minnesota, Twin Cities, for his “contributions to the understanding of temporal and intensive aspects of hearing.”

ASA presented its Silver Medal in Engineering Acoustics to **Ilene J. Busch-Vishniac** at the society’s 142nd meeting, which was held in Ft. Lauderdale, Florida, last January. Busch-Vishniac, a professor of mechanical engineering at the University of Texas at Austin, was recognized for her “development of novel electret microphones and of precision microelectromechanical sensors and positioners.”

Scientists Recognized for Geophysics Work

In April, at its 27th general assembly in Nice, France, the European Geophysical Society (EGS) presented several awards.

Bengt Hultqvist, director emeritus of the Swedish Institute of Space Physics, received the Hannes Alfvén Medal for his “important contributions to auroral and magnetospheric physics and his leading role in initiating and supporting space research projects both nationally and internationally.” He currently is the secretary general of the International Association of Geomagnetism and Aeronomy.

The David Robert Bates Medal was given to **Dominique Bockelée-Morvan** for her “exceptional observations and interpretations of the composition of comets.” She is a director of research with the National Center for Scientific Research (CNRS) and is an astronomer with the Paris Observatory’s laboratory of spatial studies and instrumentation in astrophysics (LESIA).

Klaus Hasselmann received the Vilhelm Bjerknes Medal for his “pioneering contributions to the theory and modeling of ocean–atmosphere interaction and climate variability, which have improved our ability to predict ocean waves and detect cli-

mate change.” He retired in 2000 as a director of the Max Planck Institute for Meteorology in Hamburg, Germany, and as a professor of geophysics at the University of Hamburg.

The John Dalton Medal was presented to **Efi Foufoula-Georgiou**, professor of engineering and director of the St. Anthony Falls Laboratory of the University of Minnesota, Twin Cities. She was acknowledged for her “outstanding contributions to the understanding of space-time precipitation variability.”

Wolfgang Kinzelbach received the Henry Darcy Medal for his “outstanding contributions to the sustainable management of groundwater systems.” He directs the Institute of Hydromechanics and Water Resources Management at ETH Zürich.

The EGS presented its Beno Gutenberg Medal to **Tatiana B. Yanovskaya**, professor of geophysics at St. Petersburg State University’s V. A. Fock Institute of Physics in Russia. She was recognized for her “major theoretical achievement in the modeling of surface waves and tsunami propagation in laterally inhomogeneous media.”

The joint winners of the Vening Meinesz Medal were **Georges Balmino** and **Christoph Reiger**, who were cited for their “outstanding contributions in the field of satellite geodesy and the study of the Earth’s gravity field.” Balmino is the director of the research group in satellite geodesy (GRGS), a federation of several groups in France that work in this domain, and head of the division of satellite geodesy at the Centre National d’Etudes Spatiales in Toulouse, France. Reiger is the director of the kinematics and dynamics of the Earth division at the Geo-Research Center in Potsdam (GFZ Potsdam) and a professor of geophysics at Potsdam University.

The EGS bestowed its Milutin Milankovic Medal on **I. Colin Prentice** in honor of his “outstanding contributions in modeling the terrestrial biosphere as an interactive component of our Earth system.” He is a director of the Max Planck Institute for Biogeochemistry in Jena, Germany.

Peter D. Killworth received the Fridtjof Nansen Medal in recognition of his “many far-reaching contributions to theoretical oceanography which have significantly enlarged our understanding of the processes determining ocean circulation.” Killworth is an Individual Merit Scientist and a professor of oceanography at the Southampton Oceanography Centre in the UK.



APFEL



EMBLETON

J. Michael Brown, chair of the earth and space sciences department at the University of Washington, received the Louis Néel Medal. He was cited for his "distinguished work in devising sophisticated experiments to infer the physical properties of iron and deep Earth materials and for his outstanding contributions to mineral physics of the Earth's core."

The Hans Oeschger Medal went to **Philip D. Jones** for his "outstanding contribution and tireless effort in reconstructing the climate of the last 250 years at global and regional scales." He is the director of external affairs at the University of East Anglia's climatic research unit in Norwich, UK.

The EGS presented its Plinius Medal to **Emmanouil N. Anagnostou**, assistant professor with the University of Connecticut's department of civil and environmental engineering. He was honored for his "outstanding achievements in combining meteorology and hydrology to improve our knowledge and understanding of natural hazards."

This year's Lewis Fry Richardson medalist was **Friedrich H. Busse**, professor of theoretical physics at the University of Bayreuth in Germany. He was acknowledged for his "imaginative contributions to the understanding of nonlinear thermal convection and his models for the geodynamo."

William K. Hartmann and **Gerhard Neukum** jointly received the Runcorn-Florensky Medal for their "outstanding contributions to the determination of the age of planetary surfaces from the frequency distribution of impact craters." Hartmann is a senior scientist at the Planetary Science Institute in Tucson, Arizona. Neukum is a professor of planetary science at the Free University of Berlin and the director of the DLR Institute of Space Sensor Technology and Planetary Exploration in Berlin.

Franco Siccaldi, professor of civil engineering at the University of Genoa in Italy, received the Sergey Soloviev Medal. He was cited for his "distinguished and pioneering work in the understanding, prediction, and mitigation of natural hazards, and his efforts to promote their interdisciplinary approach."

The EGS handed out its Young Scientists' Publication Award to **Emma J. Bunce** for her paper with Stan Cowley entitled "Divergence of the Equatorial Current in the Dawn Sector of Jupiter's Magnetosphere: Analysis of Pioneer and Voyager Magnetic Field Data," which appeared in

Planetary and Space Science in 2001. Bunce is a planetary science research associate in the radio and space plasma physics group at the University of Leicester, UK.

TMS Presents Its Awards for 2002

During its annual meeting in Seattle, Washington, this past February, the Minerals, Metals, and Materials Society presented this year's awards.

John M. Poate, vice president and chief technology officer of Axcelis Technologies in Beverly, Massachusetts, received the John Bardeen Award. He was cited for "the development of ion beam techniques for the analysis and modification of new surface properties of several classes of electronic materials."

The Bruce Chalmers Award went to **Michel Rappaz**, professor at the Ecole Polytechnique Fédérale de Lausanne in Switzerland. Rappaz was recognized for his "outstanding contribution to the numerical modeling of microstructures coupled with macroscopic models of heat and mass transport in modern solidification processing."

Frans Spaepen, Gordon McKay Professor of Applied Physics at Harvard University, received the Institute of Metals Lecture & Robert Franklin Mehl Award. The award recognizes an "outstanding scientific leader who is selected to present a lecture at the annual meeting." His talk was entitled "The Structure of Liquids and Solid-Liquid Interfaces."

The recipients of the Champion H. Mathewson Award were **Man H. Yoo** and **C. L. Fu** for their paper entitled "Physical Constants, Deformation Twinning, and Microcracking in Titanium Aluminides" in *Metallurgical and Materials Transactions*. The award is given to "the author(s) of a paper considered the most notable contribution to metallurgical science." Both are research staff members at Oak Ridge National Laboratory.

NAS Elects New Members

At the 139th annual meeting of the National Academy of Sciences in April, 72 new members were elected, bringing the total number of active members to 1907. Also elected were 15 foreign associates from 12 countries; the election raised the number of for-

eign associates to 330. Among the newly elected members are

Boris L. Altshuler, professor of physics at Princeton University and physics research fellow at the NEC Research Institute in Princeton, New Jersey

Barry C. Barish, Ronald and Maxine Linde Professor of Physics and director of the Laser Interferometer Gravitational Wave Observatory (LIGO) at Caltech

Jacqueline K. Barton, Arthur and Marian Hanisch Memorial Professor of Chemistry at Caltech

Adriaan Bax, biophysical nuclear magnetic resonance spectroscopy section chief at the National Institutes of Health in Bethesda, Maryland

Carlos Bustamante, Howard Hughes Investigator, professor of molecular and cell biology, and professor of physics at the University of California, Berkeley

John E. Carlstrom, Subramanyan Chandrasekhar Distinguished Service Professor in the astronomy and astrophysics department and in the physics department at the University of Chicago

George H. Denton, Libra Professor of Geological Sciences and member of the Institute for Quaternary and Climate Studies at the University of Maine in Orono

Jennifer A. Doudna, Howard Hughes Investigator and Henry Ford II Professor of Molecular Biophysics and Biochemistry at Yale University

John P. Grotzinger, Shrock Professor of Earth Sciences and director of the Earth Resources Laboratory at MIT

Willy Haeberli, R. G. Herb Distinguished Professor of Physics and Harry Steenbock Professor of Physical Sciences at the University of Wisconsin-Madison

Charles B. Harris, professor of chemistry at the University of California, Berkeley

H. Jeff Kimble, William L. Valentine Professor and professor of physics at Caltech

Eric I. Knudsen, chair of the neurobiology department and Edward C. and Amy H. Sewall Professor in the medical school at Stanford University

Michael Levitt, chair of the structural biology department at Stanford University

Tom C. Lubensky, Mary Amanda Wood Professor of Physics and chair of the physics and astronomy department at the University of Pennsylvania

Alan G. MacDiarmid, Blanchard Professor of Chemistry at the University of Pennsylvania