

WE HEAR THAT

AAPT Honors Physics Educators

The American Association of Physics Teachers presented the following awards at its joint meeting held with the American Astronomical Society in San Diego, California, in January.

The Oersted Medal, AAPT's highest honor, was presented to **Lillian C. McDermott**, a physics professor and the director of the physics education group at the University of Washington, Seattle. She was recognized by the society for her "pioneering work in establishing research on the learning and teaching of physics as a



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valuable field for scholarly inquiry by physicists, her influential curriculum development at the university level, and her efforts to improve teacher education."

Shirley Ann Jackson, president of Rensselaer Polytechnic Institute in Troy, New York, was this year's Richtmyer Award Lecturer. The award went to Jackson for her "stellar accomplishments in research, teaching, and administration and for demonstrating that minority women can rise to exemplary leadership positions in American society." Jackson's talk was entitled "Probabilistic Risk Assessment and Its Use in Nuclear Reactor Regulation."

Distinguished Service Citations were presented to the following society members: **Clarence Bakken** (Gunn High School, Palo Alto, California); **Richard Berg** (University of Maryland, College Park); **Jack Hehn** (American Institute of Physics); **Evelyn Patterson** (US Air Force Academy); and **Richard Reimann** (Boise State University).

AGU Recognizes Contributions to Geophysics

A highlight of the American Geophysical Society's annual fall

meeting held in San Francisco last December was the presentation of awards and medals. The following individuals were recognized for research in their particular areas of expertise.

The 2000 Walter Bucher Medal went to **James H. Dieterich** for his work that, according to the citation, has "revolutionized the understanding of frictional processes in rocks, their description by constitutive relations, and implications for earthquake nucleation and seismicity rate changes." Dieterich is a research geophysicist on the earthquake hazards team at the US Geological Survey in Menlo Park, California.

Joseph L. Reid, a professor emeritus of oceanography at the Scripps Institution of Oceanography in San Diego, California, was given the Maurice Ewing Medal for 2000. AGU cited him for, among other things, his "outstanding original contributions to observational physical oceanography."

James R. Holton received the 2000 Roger Revelle Medal for the "combination of intellectual depth in his work in dynamic meteorology and the powerful links that he has forged joining dynamics, chemistry, radiation, and climate." Holton is chairman of the atmospheric sciences department at the University of Washington, Seattle.

The 2000 Inge Lehmann Medal went to **Richard J. O'Connell**, a professor of geophysics at Harvard University. O'Connell was honored "for determining that the whole mantle was subject to flow; for his model of the mantle flow associated with plate motions and subduction; for creating a model that globally predicted plate motions in which plate tectonics stir the upper mantle; and for the way he has connected geophysics with geochemistry."

Juan G. Roederer received the Edward A. Flinn III Award for 2000. The prize is given to those individuals who personify AGU's motto, "unselfish cooperation in research." This motto has been a "motivating principle for Juan Roederer in his organization of national and international programs over three decades," according to the citation. Roederer is a professor emeritus of physics at the Geophysical Institute at the University of Alaska, Fairbanks, and senior adviser of the Abdus Salam International

Centre for Theoretical Physics in Trieste, Italy.

The first David Perlman Award for Excellence in Science Journalism—News went to **Richard L. Hill**, a science writer at the *Oregonian*, for his report on new research indicating that a huge earthquake could occur directly beneath western Oregon. The story entitled "Quake Forecast Shifts to Land" appeared in that newspaper on 4 May 1999; it is available online at <http://www.oregonlive.com/news/99/05/st050408.html>.

Quentin C. Williams, a professor of Earth sciences at the University of California, Santa Cruz, received one of two Macelwane Medals. Williams was recognized for his "creative and prolific contributions on the behavior of Earth and planetary materials under a vast range of physical conditions," according to the medal citation. The other Macelwane Medal went to **Scott C. Doney**, a chemical oceanographer with the National Center for Atmospheric Research in Boulder, Colorado. In addition to his many scientific endeavors, he was recognized for his research to "better understand and model the response of the marine biogeochemical system to climate variability and to predict potential climatic feedbacks via the exchange of [carbon dioxide] and other radiatively or chemically important gases between the atmosphere and ocean."

Pilachowski Is AAS President-Elect

Catherine Pilachowski, a scientific staff member at the National Optical Astronomy Observatory (NOAO) in Tucson, Arizona, takes office as president-elect of the American Astronomical Society next month. In 2002, Pilachowski will succeed **Anneila Sargent**, a professor of astronomy at Caltech, for a two-year term as AAS president.

The biggest challenge facing AAS in the next few years, according to Pilachowski, is



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combining budget constraints with the opportunities presented by the recent decadal survey of astronomy and astrophysics (see PHYSICS TODAY, July 2000, page 45). "Our scientific frontiers are expanding at a breathtaking pace. It's an exciting time for astronomy," she says.

Pilachowski earned her MS and PhD degrees in astronomy from the University of Hawaii, Manoa, and then worked for four years as a post-doctoral fellow at the University of Washington, Seattle. Since 1979, she has worked for Kitt Peak National Observatory, in Tucson, and NOAO. Her research focuses on the chemical composition of stars and star clusters in the Milky Way, using high-resolution spectroscopy to better understand the evolution of stars.

Also taking office next month for a three-year term as vice president is **Joseph A. Burns**, a professor of astronomy at Cornell University. **Arlo U. Landolt**, a professor of physics and astronomy at Louisiana State University, was reelected for three years as AAS secretary. And elected for three-year terms as AAS councilors were **Thomas R. Ayres**, a research professor at the Center for Astrophysics and Space Astronomy at the University of Colorado, Boulder; **Dana E. Backman**, an associate professor of astronomy at Franklin and Marshall College in Lancaster, Pennsylvania; and **Susana Lizano**, a researcher at the National Autonomous University of Mexico's Institute for Astronomy in Morelia.

NAE Elects New Members

The National Academy of Engineering has elected 74 engineers and 8 foreign associates to its membership. Among the new members and foreign associates are the following who work in physics or closely related fields:

Eric Ash, treasurer and vice president of the Royal Society in London.

Frank S. Barnes, Distinguished Professor of Electrical and Computer Engineering at the University of Colorado, Boulder.

Rafael L. Bras, Bacardi and Stockholm Water Foundations Professor; head of the civil and environmental engineering department; and a professor of Earth, atmospheric, and planetary sciences at MIT.

George H. Brimhall, director of the Earth Resources Center and a professor of geology at the University of California, Berkeley.

Joost A. Businger, an independent consultant in Anacortes, Washington.

William C. Cavanaugh III, chairman, president, and CEO of Progress Energy in Raleigh, North Carolina.

John M. Cioffi, a professor of electrical engineering at Stanford University.

Robert F. Davis, Kobe Steel Ltd Distinguished University Professor of Materials Science and Engineering at North Carolina State University in Raleigh.

Antonio L. Elias, senior vice president and general manager of the advanced programs group at Orbital Sciences Corp in Dulles, Virginia.

Liang-Shih Fan, Distinguished University Professor and chair of the chemical engineering department at the Ohio State University.

James G. Fujimoto, a professor of electrical engineering and computer science at MIT.

Alice P. Gast, a professor of chemical engineering at Stanford University and a professor of the Stanford Synchrotron Radiation Laboratory.

Karl Hess, Swanlund Endowed Chair and professor of electrical and computer engineering, professor of physics, and full-time faculty in the Beckman Institute at the University of Illinois at Urbana-Champaign.

Peter Bernhard Hirsch, a professor emeritus of metallurgy at Oxford University.

Fazle Hussain, Cullen Distinguished Professor of mechanical engineering at the University of Houston.

Shirley A. Jackson, president of Rensselaer Polytechnic Institute in Troy, New York.

Barry C. Johnson, senior vice president and chief technology officer with Honeywell International Inc in Morristown, New Jersey.

Marshall G. Jones, a senior mechanical engineer with GE Corporate Research and Development in Niskayuna, New York.

Kristina B. Katsaros, director of the National Oceanographic and Atmospheric Administration's Atlantic Oceanographic and Meteorological Laboratory in Miami, Florida.

Sangtae Kim, vice president and information officer for Lilly Research Laboratories of Eli Lilly and Co in Indianapolis, Indiana.

Stephanie L. Kwolek, a consultant with E. I. DuPont de Nemours & Co in Wilmington, Delaware.

Max G. Lagally, Erwin W. Mueller Professor and Bascom Professor of Surface Science in materials

science and engineering and in physics at the University of Wisconsin-Madison.

Douglas A. Lauffenburger, J. R. Mares Professor, codirector of the bio-engineering and environmental health division, and director of the Biotechnology Process Engineering Center at MIT.

Brian R. Lawn, NIST fellow at the Materials Science and Engineering Laboratory, NIST, Gaithersburg, Maryland.

Christopher W. Macosko, a professor of chemical engineering and materials science at the University of Minnesota, Twin Cities.

Frederick J. Moody, a consulting engineer in Murphys, California.

Norman R. Morrow, a professor of chemical and petroleum engineering at the University of Wyoming in Laramie.

Sia Nemat-Nasser, John Dove Isaacs Professor of Natural Philosophy, director of the Center of Excellence for Advanced Materials, and a professor of mechanical and aerospace engineering at the University of California, San Diego.

Amos M. Nur, Wayne Loel Professor of Earth Sciences and a professor of geophysics at Stanford University.

Paul S. Peercy, dean of the University of Wisconsin-Madison's college of engineering.

Kurt E. Petersen, president, chief operating officer, and cofounder of Cepheid in Sunnyvale, California.

Albert P. Pisano, FANUC Chair of Mechanical Systems and director of the Electronics Research Laboratory at the University of California, Berkeley.

H. Vincent Poor, a professor of electrical engineering at Princeton University.

Lloyd M. Robeson, principal research associate with Air Products and Chemicals Inc in Allentown, Pennsylvania.

Theodore Rockwell, a founding officer of MPR Associates Inc in Alexandria, Virginia.

Sosale Shankar Sastry, chairman of the electrical engineering and computer sciences department at the University of California, Berkeley.

Wolfgang Schmidt, director of the aeronautics, defense, and space research program at DaimlerChrysler's corporate headquarters in Stuttgart, Germany.

Peter C. Schulz, president of Heraeus Amersil Inc in Duluth, Georgia.

Dwight C. Streit, vice president for advanced semiconductors at TRW in Redondo Beach, California.

Gerald B. Stringfellow, dean of