WE HEAR THAT

Fermi Award Given for Work in Nuclear Energy

In a ceremony in Washington, DC, on 16 April, **Maurice Goldhaber** and **Michael E. Phelps** are to be honored as the recipients of the Enrico Fermi Award. The award, given for a lifetime of achievement in the field of nuclear energy, carries a $100 000 honorarium and a gold medal.

Goldhaber is a distinguished scientist emeritus at Brookhaven National Laboratory and an adjunct professor of physics at the State University of New York at Stony Brook. He is being cited "for his lifetime of distinguished research in nuclear and particle physics, including his experiments providing key support for the standard model, and for his superb contribution to science by his leadership and vision as a manager of research." Goldhaber was the first to measure accurately the mass of the neutron, and was part of the Super Kamiokande collaboration that in 1998 found evidence that neutrinos have mass.

Phelps is being honored "for his invention of Positron Emission Tomography (PET), and his seminal contributions in its use in research and patient care in neurological disorders, cardiovascular disease and cancer; and for the breadth of his accomplishments that combine physics, mathematics, chemistry, biology and medical applications." He is chairman of the department of molecular and medical pharmacology at UCLA's School of Medicine.

McDonnell Foundation Awards $1 Million Fellowships

In January, the James S. McDonnell Foundation named ten early-career researchers as "Centennial Fellows" to mark the 100th anniversary of the birth of aerospace pioneer James S. McDonnell Jr, one of the founders of what became the McDonnell Douglas Corp. The $1 million research fellowships targeted "scientist–scholars whose work will contribute substantially to the development of knowledge and its responsible application in the next century." They were awarded to two scientists in each of five categories: astrophysics and cosmology, human genetics, global and complex systems, human cognition, and the history and philosophy of science. Among the fellows are three pursuing physics-related research.

John Carlstrom, a professor of astronomy and astrophysics at the University of Chicago and associate director of the university's Center for Astrophysical Research in Antarctica, received one of the awards in the astrophysics and cosmology category. According to the foundation, he "has contributed heavily to our understanding of young stars, protoplanetary systems and rich clusters of galaxies." Carlstrom proposes to build a telescope dedicated to measuring the interaction between the cosmic microwave background radiation and the hot gas associated with distant, rich clusters of galaxies. He was recently named a MacArthur fellow as well (PHYSICS TODAY, August 1998, page 75).

The other recipient in the astrophysics and cosmology category was **Christopher Stubbs**, a professor of astronomy at the University of Washington. The foundation recognized Stubbs for having designed and built the camera for the search for gravitational microlensing due to massive halo compact objects, or MACHOs, in the Galactic halo. Stubbs proposes to build a much larger camera and to deploy it at a telescope in Chile to further efforts to map the mass composition of the Galaxy and, perhaps, to detect extrasolar planets as well.

Stefan Rahmstorf received one of the awards in the global and complex systems category. An oceanographer and climatologist at the Potsdam Institute for Climate Impact Research in Germany, Rahmstorf will combine atmospheric and ocean models to create a sophisticated coupled climate model. The foundation anticipates that "his new model will enable us to understand climatic cycles much better than is now possible, and open up a vast range of important research questions that cannot be tackled satisfactorily with traditional models."

Clinton Honors Outstanding Young US Scientists

In February, President Clinton named 60 young researchers as recipients of the third annual Presidential Early Career Awards for Scientists and Engineers. At the award ceremony, Presidential science adviser Neal Lane cited the honorees "for their research contributions, for their promise, and for their commitment to broader societal goals." The awardees, who will each receive five-year research grants, were nominated by eight Federal agencies: the Departments of Agriculture, Commerce, Defense, Energy, Health and Human Services, and Veterans' Affairs, the Environmental Protection Agency, NASA and the National Science Foundation.

Among the recipients are 29 who are pursuing physics-related research: **Mario Affatigato** of Coe College, **Mitchell Albert** of the Longwood Medical Research Center, **Eric Altman** of Yale University, **Mari Lou Balmer** of Pacific Northwest National Laboratory, **Michael Bergin** of the National Oceanic and Atmospheric Administration, **Daniel Blumenthal** of the University of California, Santa Barbara, **Janet Conrad** of Columbia University, **Elizabeth Dickey** of the University of Kentucky, **Rhonda Drayton** of the University of Minnesota, **Shirley Dyke** of Washington University, **Cassandra Fraser** of the University of Virginia, **Sharon Glotzer** of the National Institute of Standards and Technology (Gaithersburg, Maryland), **Miroslav Krstic** of the University of California, San Diego, **Tonya Kuhl** of the University of California, Santa Barbara, **James Lee** of Oak Ridge National Laboratory, **Roya Maboudian** of the University of California, Berkeley, **Scot Martin** of the University of North Carolina at Chapel Hill, **Anthony Mezzacappa** of Oak Ridge National Laboratory, **John O'Brien** of the University of Southern California, **Christopher Palmer** of the New Mexico Institute of Mining and Technology, **Robert Parker** of Ohio State University, **Howard Pearlman** of the University of Southern California, **Guillermo Sapiro** of the University of Minnesota, **Shobita Satyapal** of NASA's Goddard Space Flight Center, **Joseph Shaw** of the National Oceanic and Atmospheric Administration, **Azadeh Tabazadeh** of NASA's Ames Research Center, **Paul Wennberg** of Caltech, **Andrew Westphal** of the University of California, Berkeley, and **Gary Wiederrecht** of Argonne National Laboratory.

Engineering Academy Announces New Members

The National Academy of Engineers has elected 80 new members, bringing the academy's total US membership to 1984. It also has designated

8 others as foreign associates, increasing the number of foreign associates to 154.

Among the new members are the following who work in physics-related fields:

Mark G. Benz, a metallurgist at General Electric Corp's Corporate Research and Development Center in Niskayuna, New York.

Leon E. Borgman, a professor of geology and statistics at the University of Wyoming.

Robert W. Bower, a professor in the department of electrical and computer engineering at the University of California, Davis.

John F. Brady, a professor of chemical engineering and executive officer for chemical engineering at Caltech.

Melvin W. Carter, an international radiation protection consultant in Atlanta, Georgia.

John T. Christian, a consulting engineer in Waban, Massachusetts.

David R. Clarke, a professor of materials engineering at the University of California, Santa Barbara.

Alan H. Epstein, the R. C. Maclaurin Professor of Aeronautics and Astronautics at MIT.

Louis V. Gerstner Jr, chairman and chief executive officer of IBM Corp in Armonk, New York.

Don P. Giddens, holder of the Lawrence L. Gellerstedt Jr Chair in Bioengineering at the Georgia Institute of Technology.

Andrew R. Hileman, a consultant in Monroeville, Pennsylvania.

Salim M. Ibrahim, a consultant in Geneva, Switzerland.

Wilfred D. Iwan, a professor of engineering and applied mechanics at Caltech and director of the institute's Earthquake Engineering Research Laboratory.

Sungho Jin, supervisor of the applied materials and metallurgy group at Bell Laboratories, Lucent Technologies in Murray Hill, New Jersey.

William L. Johnson, the Ruben and Donna Mettler Professor of Materials Science, Engineering, and Applied Sciences at Caltech.

Howard S. Stone Jr, retired chief of microwave research at the US Army's Harry Diamond Laboratories in Adelphi, Maryland.

Stanley Kaplan, chairman of Bayesian Systems Inc in Rockville, Maryland.

Glenn F. Knoll, a professor of nuclear engineering and radiological science at the University of Michigan.

U. Fred Kocks, a retired fellow at Los Alamos National Laboratory.

Paul A. Libby, a professor of fluid mechanics at the University of California, San Diego.

Kuo-Nan Liou, a professor of atmospheric science at UCLA and director of the university's Institute of Radiation and Remote Sensing.

J. David Lowell, principal of Lowell Mineral Exploration in Rio Rico, Arizona.

Marshall I. Nathan, a professor of electrical engineering at the University of Minnesota.

William T. Plummer, director of optical engineering at Polaroid Corp in Cambridge, Massachusetts.

Gary A. Pope, holder of the Texaco Centennial Chair in Petroleum Engineering at the University of Texas, Austin and director of the university's Center for Petroleum and Geosystems Engineering.

Eugene M. Rasmusson, a senior research scientist in the department of meteorology at the University of Maryland at College Park.

Jerald L. Schnoor, a University of Iowa Foundation Distinguished Professor of Environmental Engineering at the University of Iowa.

Freeman D. Shepherd, a retired senior scientist for infrared arrays and sensors at the Rome Laboratory, at Hanscom Air Force Base in Massachusetts.

Peter G. Simpkins, a distinguished member of the technical staff at Bell Laboratories, Lucent Technologies in Murray Hill, New Jersey.

Katepalli R Sreenivasan, the Harold W. Cheel Professor of Mechanical Engineering at Yale University.

Rangaswamy Srinivasan, president of UV Tech Associates in Ossining, New York.

Frank E. Talke, an endowed-chair professor at the Center for Magnetic Recording Research at the University of California, San Diego.

The new foreign associates include

Ghislain de Marsily, a professor of geology at Pierre and Marie Curie University (University of Paris VI) and director of the university's Laboratoire de Géologie Appliquée.

Julia S. Higgins, a professor of polymer science at the University of London's Imperial College of Science, Technology and Medicine.

Timothy J. Pedley, the G. I. Taylor Professor of Fluid Mechanics at the University of Cambridge.

IOP Presents 1999 Awards, Names Honorary Fellows

At its awards dinner in January, ten physicists were honored by the UK's Institute of Physics with its 1999 awards. The institute also named five honorary fellows.

The Guthrie Medal and Prize went to **George Bacon**, an emeritus professor of physics at the University of Sheffield. He was recognized for "his distinguished contributions as the founding father of neutron scattering in Britain" and for his studies of hydrogen bonding and of atomic and magnetic order in alloys.

Jeffrey Forshaw received the Maxwell Medal and Prize for "demonstrating, in the early stages of his career, a nationally and internationally respected gift for deepening our understanding of particle physics by combining a deep insight with an exceptional mathematical ability and a realistic awareness of experimental practicability." He is a lecturer in the University of Manchester's department of physics and astronomy.

John Harries, a professor of physics at the University of London's Imperial College of Science, Technology and Medicine, was awarded the Charles Chree Medal and Prize. The citation praised him for over 30 years of distinguished contributions to infrared spectroscopic studies of Earth's atmosphere and climate change, and for having developed "novel experimental techniques and sensitive detectors allowing global measurements to be made by satellites."

The Paterson Medal and Prize went to **Thomas Harvey** for "his significant scientific and managerial contributions at the interface of physics and chemistry in the study of polymer optical devices and for the subsequent exploitation of the new technologies developed." Harvey is a senior physicist and new business development manager at Epigem Ltd in Wilton, England.

Peter Knight, a professor of quantum optics and director of the laser consortium at the University of London's Imperial College, won the Thomas Young Medal and Prize. He was recognized for "a career dedicated to the furtherance of quantum optics in all of its aspects."

Christopher Llewellyn Smith was honored with the Glazebrook Medal and Prize for "his outstanding and distinguished contributions over many years as a particle physicist, leader, tactician, politician and diplomat." The director general of CERN from 1994 to 1998, Llewellyn Smith is now provost of the University of London's University College London.

Averil Macdonald received the Bragg Medal and Prize "in recognition of her committed, inspirational and highly-valued communication of the fascination of physics to students of all ages and abilities." A part-time physics lecturer at the University of Reading, she also handles the organization of events for the public and recruiting for