

tion and quantum theory of gravity” and also for his “effort to increase diversity in the field of physics as a founding member of the National Society of Hispanic Physicists.”

Lisbeth D. Gronlund, **George N. Lewis**, and **David C. Wright** will share the Joseph A. Burton Forum Award for their “creative and sustained leadership in building an international arms control physics community and for their own excellence in arms control physics.” Gronlund and Wright are both senior staff scientists at the Union of Concerned Scientists and research scientists with MIT’s security studies program. Lewis is a principal research scientist and associate director of MIT’s security studies program.

The Julius Edgar Lilienfeld Prize will go to **Lawrence M. Krauss**, Ambrose Swasey Professor of Physics, chairman of the department of physics, and professor of astronomy at Case Western Reserve University. Krauss is being honored for his “outstanding contributions to the understanding of the early universe” and his “extraordinary achievement in communicating the essence of physical science to the general public.”

Janet M. Conrad will receive the Maria Goeppert-Mayer Award for her “leadership in experimental neutrino physics, particularly for initiating and leading the NuTeV decay channel experiment and the Mini-BooNE neutrino oscillations experiment,” which are noted for their “timeliness and significance in resolving frontier issues in neutrino physics.” Conrad is an associate professor of physics at Columbia University.

The 2001 Dissertation in Nuclear Physics Award goes to **Daniel Bardayan** for his “innovative experimental development and measurement of the $p(^{17}\text{F}, p)^{17}\text{F}$ elastic scattering reaction at the Oak Ridge Holifield Radioactive Ion Beam Facility in order to find the key low-energy s-wave resonance for the $^{17}\text{F}(p, \gamma)^{18}\text{Ne}$ reaction.” Bardayan’s doctoral work was performed at Yale University under the supervision of Peter Parker. He is currently a Wigner Fellow at Oak Ridge National Laboratory.

Paul D. Grannis will receive the W. K. H. Panofsky Prize in Experimental Particle Physics for his “distinguished leadership and vision in the conception, design, construction, and execution of the D0 experiment at the Fermilab Tevatron proton-antiproton collider.” Grannis is a Distinguished Professor of Physics at SUNY Stony Brook.

The Francis M. Pipkin Award will go to **Jens H. Gundlach** for “identifying, and providing a solution to an unrecognized weakness in the Cavendish technique for measuring the gravitational constant G ; [and] improving the accuracy of G by an order of magnitude.” Gundlach is a research associate professor of physics at the University of Washington.

The recipient of the Prize to a Faculty Member for Research in an Undergraduate Institute is **Paul DeYoung**, chairman of the department of physics and engineering at Hope College in Holland, Michigan. DeYoung is being honored for “his research on reaction processes using short-lived nuclear beams and for his outstanding leadership, both in his research group and his institution, in creating an undergraduate research community.”

The winners of the J. J. Sakurai Prize for Theoretical Particle Physics are **Nathan Isgur**, chief scientist at the Thomas Jefferson National Accelerator Facility, **Mikhail Voloshin**, a professor of physics at the Theoretical Physics Institute at the University of Minnesota and a researcher at the Institute of Theoretical and Experimental Physics in Moscow, and **Mark Wise**, John A. McCone Professor of High Energy Physics at Caltech. They are being recognized for “the construction of the heavy quark mass expansion and the discovery of the heavy quark symmetry in quantum chromodynamics, which led to a quantitative theory of the decays of c and b flavored hadrons.”

The Mitsuyoshi Tanaka Dissertation Award in Experimental Particle Physics will go to **Sunil Golwala** for his “versatile and extensive contributions to the detectors, hardware, electronics, software, and analysis of the results of the Cryogenic Dark Matter Search experiment, which provided the most sensitive upper limits for elastic scattering of weakly interacting massive particles on nucleons.” Golwala, who performed his doctoral work at the University of California, Berkeley, under the supervision of Bernard Sadoulet, is currently a Millikan Postdoctoral Scholar at Caltech.

The Leo Szilard Lectureship Award goes to **John Harte** who is being cited for his “diverse and incisive efforts utilizing physical reasoning and analytical tools for understanding environmental processes and for his teaching and writing to encourage this approach among students and colleagues.” Harte is Class of 1935 Distinguished Professorship Chair

and a joint professor in the energy and resources group and the environmental science, policy, and management department at the University of California, Berkeley.

Claudio Pellegrini, a professor of physics at UCLA, will receive the Robert R. Wilson Prize for his “pioneering work in the analysis of instabilities in electron storage rings, and his seminal and comprehensive development of the theory of free electron lasers.”

The Outstanding Doctoral Thesis Research in Beam Physics award will go to **Shyam Prabhakar** for his “development of beam instability formalisms and diagnostics based on transient-domain beam measurements.” His doctoral research was performed at Stanford University and his dissertation adviser was John D. Fox. Prabhakar is currently a post-doctoral research scientist in the Stanford mathematics department.

IOP Selects 2001 Award Winners

At a January ceremony in London, the UK’s Institute of Physics presented its awards for 2001 to 16 physicists. IOP also named 3 honorary fellows.

Jeremy J. Baumberg, a professor of physics and astronomy and of electronics and computer science at Southampton University in the UK, was honored with the Charles Vernon Boys Medal and Prize for “his outstanding contributions to the application of ultrafast laser spectroscopy to a wide variety of problems in solid-state physics,” according to the citation.

The Mott Medal and Prize went to **Manuel Cardona** in recognition of “his broad and important contributions to the detailed understanding of the optical and electronic properties of solids.” He is an emeritus professor of physics at the Max Planck Institute of Solid State Research in Stuttgart, Germany.

Paul Davies won the Kelvin Medal and Prize for “his outstanding contribution to the popularization of physics through his books, articles, and public lectures.” Davies is a visiting professor at Imperial College, London, and an honorary professor of physics at the University of Queensland in Australia. He also runs a science, media, and publishing consultancy called Orion Productions in South Australia.

Laurence Eaves, Lancashire-Spencer Professor of Physics at the

University of Nottingham in the UK, received the Guthrie Medal and Prize. He was recognized for "his outstanding contributions to the field of semiconductor physics, especially on the quantum transport properties of semiconductors."

Three winners shared the Charles Chree Medal and Prize for "their part in the discovery of the 'ozone hole' over the Antarctic and for linking this to the growth of 'CFCs' [chlorofluorocarbons] in the atmosphere." **Joseph Charles Farman** is a consultant with the European ozone research coordinating unit in Cambridge, UK; **Brian Gerard Gardiner** is the head of the meteorological and ozone monitoring unit at the British Antarctic Survey; and **Jonathan David Shanklin** is a senior scientist also with that unit at the Survey.

James K. Gimzewski received the Duddell Medal and Prize for "his contribution to nanoscale science in the use of scanning probe microscopy for the understanding and development of nanomechanics and tunnelling phenomena in atoms and molecules." He is a professor of chemistry and biochemistry at UCLA.

Volker Heine was awarded the Max Born Medal and Prize for "his pioneering theoretical and computational studies of the electronic structure of solids and their application to physical properties." Heine is a retired professor of theoretical physics at Cambridge University in the UK.

The recipient of the Paterson Medal and Prize was **Joseph Keddie**, a lecturer in the department of physics and an experimental physicist at the UK's University of Surrey. He was acknowledged for "his major contributions of industrial importance to the understanding of the dynamics of polymers at surfaces, in thin films, and in colloidal dispersions."

George Marx was honored with the Bragg Medal and Prize in recognition of "a lifetime of achievement in physics education." He is a professor emeritus of atomic physics at Roland Eötvös University in Budapest.

Stephen J. Pennycook, leader of the electron microscopy group in the Oak Ridge National Laboratory's solid-state division, received the Thomas Young Medal and Prize for "his pioneering work in the development of atomic-resolution scanning transmission electron microscopy (STEM)."

The Paul Dirac Medal and Prize went to **Brian Kidd Ridley** in recog-

nition of "his profound influence on semiconductor theory stretching over four decades." He is a research professor of physics at the UK's University of Essex in Colchester.

Benjamin Simons was awarded the Maxwell Medal and Prize for "his major contribution of profound insight into mesoscopic physics over the past 10 years, particularly in the area of 'quantum chaos.'" He is a reader at Cambridge University's Cavendish Laboratory.

The Harrie Massey Medal went to **Anthony W. Thomas** for "his outstanding contributions to a broad variety of problems in nuclear and particle physics." He is Elder Professor of Physics and director of the Special Research Centre for Subatomic Structure of Matter at the University of Adelaide in Australia.

Colin Webb won the Glazebrook Medal and Prize for "his leading role in the organization and promotion of laser physics in the UK and internationally." He is the ad hominem professor of laser physics at Oxford University; a senior research fellow of Jesus College in Oxford; chair of Oxford Lasers Ltd in Abingdon, UK; and president of the UK Consortium for Photonics and Optics.

IOP's new honorary fellows are **Georges Charpak**, **Cyril Hilsun**, and **Joseph Rotblat**. Charpak, who won the 1992 Nobel Prize in Physics for his invention of particle detectors, retired from CERN as a physicist in 1989. He continues to work on the development of the Micromegas detector at Saclay near Paris; the detector will be used at CERN in the n-TOF experiment and in the instrumentation industry. Charpak also is involved in the reform of primary school science programs, called "Main à la Pâte" (Hands On), with the help of the French Academy of Sciences and the French Ministry of Education.

Hilsun is a visiting professor in physics with University College London. He also is a corporate research adviser for the European Commission in Brussels, Belgium; Unilever PLC in London; and Cambridge Display Technology in Cambridge, UK.

Rotblat, who, with the Pugwash Conferences on Science and World Affairs, won the Nobel Peace Prize in 1995 for efforts to diminish the role played by nuclear arms in international politics and to eliminate nuclear arms in the longer term, is the president emeritus of Pugwash. He also is an emeritus professor of physics at the University of London at

St. Bartholomew's Hospital Medical College.

AAAS Hands Out Awards to Scientists

The American Association for the Advancement of Science presented several awards for 2000 at its annual meeting in San Francisco in February. Each prizewinner received a \$2500 cash award and a commemorative plaque.

Among the recipients was **Leon M. Lederman**, who was honored with the AAAS Philip Hauge Abelson Prize for "his scientific scholarship, leadership, and advocacy of international collaborations in science, and a strong commitment to the improvement of math and science education at the local, state, and national levels," according to the citation. Lederman is Pritzker Professor of Science at the Illinois Institute of Technology in Chicago. He shared the 1988 Nobel Prize in Physics with Melvin Schwartz and Jack Steinberger for the discovery of the muon neutrino.

Howard Schachman won the AAAS Scientific Freedom and Responsibility Award for being "at the forefront of efforts to eliminate research misconduct in federally funded research while ensuring that such efforts do not impinge on the freedoms that allow scientists to be creative in their pursuit of knowledge. . . . [He] has had a distinguished career as a biochemist and biophysicist." He is Professor of The Graduate School in the Department of Molecular and Cell Biology at the University of California, Berkeley.

The AAAS Award for Public Understanding of Science and Technology went to **Vaclav Smil**, a Distinguished Professor at the University of Manitoba's department of geography. He was recognized for "his unique integration of information concerning energy, environment, and hunger in a manner that is accessible to the general public and policy makers who must address these difficult global issues."

IN BRIEF

This month, the Science and Technology Foundation of Japan, which is based in Tokyo, awarded the Japan Prizes to two scientists, one of whom works in a physics-related