Spring 2001 Prizes and Awards

APS Announces Spring 2001 Prize and Award Recipients

Thirty-seven APS prizes and awards will be presented during special sessions at three spring meetings of the Society: the 2001 March Meeting, 12-16 March, in Seattle, WA; the 2001 April Meeting, April 28 - May 1, in Washington, DC; and the 2001 meeting of the APS Division of Atomic, Molecular and Optical Physics, May 15-19, in London, Ontario, Canada. Citations and biographical information for each recipient follow. Additional biographical information and appropriate Web links can be found at the APS Web site (http:/www.aps.org). Nominations for most of next year's prizes and awards are now being accepted. For details, see pages 7 and 8 of this insert.

PRIZES

2001 HANS A. BETHE PRIZE

Gerald E. Brown
State University of New York, Stonybrook

Citation: "For his insightful analyses of the effects of various nuclear constituents on nucleon interactions and nucleon structure, and his contributions to new viewpoints on supernovae, neutron stars, and black hole formation."

Brown received his PhD in physics from Yale University in 1950 and DSc from the University of Birmingham, England in 1957. He was on the faculty of Birmingham University from 1950-1960, professor at NORDITA, Denmark, 1960-85, at Princeton University 1964-68, and at Stony Brook 1968-present. Brown did fundamental work in atomic physics. In twenty-some papers with Hans Bethe he worked out the collapse of large stars, evolution of compact binaries and, most recently, the evolution of black holes in the Galaxy. Brown has also been awarded the APS Tom W. Bonner Prize.

2001 TOM W. BONNER PRIZE

Richard Geller
Institut de Science Nucleaire, Grenoble

Claude Lyneis
Lawrence Berkeley Laboratory

Citation: "For their critical leadership in conceiving and developing the electron cyclotron resonance (ECR) ion source and advanced ECR source, which have opened a new era in heavy ion studies of nuclear phenomena"

Geller received his Doctorat en Sciences from Sorbonne University, Paris, in 1954. He was hired in 1948 by F. Joliot Curie at Commisariat l'Energie Atomique (CEA) where he built several plasma devices based on ECR. Throughout the 1970's and 1980's he elaborated with his grenoble group the prototypes of ECR Ion Sources (ECRIS) for highly charge gaseous and metallic ions, and advocated their utilization for new accelerator projects as well as for the existing cyclotrons, linacs and synchotrons. After retiring from CEA in 1992, he joined the Institut des Sciences Nucliaires, Grenoble.

Lyneis received his PhD in physics from Stanford University in 1974 and went on to work in the High Energy Physics Laboratory at Stanford to work on the Superconducting Accelerator (SCA). In 1981 he moved to Lawrence Berkeley National Laboratory to become Director of Operations and Development at the 88-Inch Cyclotron. He also leads the development of Electron Cyclotron Resonance (ECR) ion sources for use with heavy-ion accelerators. Lyneis is currently working on a next generation superconducting ECR source for the 88-Inch Cyclotron.

2001 HERBERT P. BROIDA PRIZE

David W. Chandler
Sandia National Laboratory

Paul Houston
Cornell University

Citation: "For their critical contributions to the investigation of vibrationally- and rotationally-resolved molecular photodissociation and reaction dynamics, in particular for the invention and development of the photofragment ion imaging method."

Chandler received his PhD from Indiana University in 1980 and held a postdoctoral position at Stanford University before joining Combustion Research Facility at Sandia National Laboratories in 1982. His research interests include vibrational and rotational energy transfer, unimolecular dissociation dynamics and bimolecular reaction dynamics. Recent work involves the study of unimolecular and bimolecular chemistry using position sensitive ion detectors to obtain three-dimensional velocity, alignment and orientation information about reaction products.

Houston received his PhD from MIT in 1973. Following postdoctoral work at the University of California at Berkeley, he joined the faculty at Cornell University. He is also a member of the Cornell Center for Materials Research and the Field of Applied Physics. He has served as Chair of the APS Division of Laser Physics (1997-98), and has authored or co-authored approximately 130 publications in the field of physical chemistry and a textbook on chemical kinetics.

2001 OLIVER E. BUCKLEY PRIZE

Alan Harold Luther
NORDITA

Victor John Emery
Brookhaven National Laboratory

Citation: "For their fundamental contribution to the theory of interacting electrons in one dimension."

Alan Harold Luther received his PhD (Physics), in 1967 from the University of Maryland. Employment includes stints at the Technical University of Munich, Brookhaven National Laboratory, Harvard University, and Nordic Institute for Theoretical Physics (Nordita) Copenhagen, Denmark. His research has focused on interacting electrons in one dimension, and techniques which enable calculation of correlation functions and other observables as well as extension of these techniques to higher dimensions using "Tomographic" quantization and applications to strongly correlated electrons in two dimensions, and high Tc superconductivity.

Emery received his PhD in theoretical physics from the University of Manchester, England, in 1957, and held stints as a research associate at Cambridge University's Cavendish Laboratory and A.E.R.E. in Harwell, England. In 1960 he joined the faculty of the University of Birmingham, leaving three years later to take on a one-year visiting professorship at the University of California, Berkeley. He joined the technical staff at Brookhaven National Laboratory in 1964, where he presently leads the Solid State Theory Group.

2001 DAVISSON-GERMER PRIZE IN ATOMIC OR SURFACE PHYSICS

Donald M. Eigler
IBM Almaden Research Center

Citation: "For his seminal contribution to nanotechnology and for pioneering a new methodology for probing matter at the atomic scale."

Eigler attended the University of California San Diego where he received a PhD in Physics in 1984. He was a Postdoctoral Member of the Technical Staff at AT&T Bell Laboratories in 1984-86. He joined IBM as a Research Staff Member in Physical Sciences in 1986 and was appointed an IBM Fellow in 1993. He was awarded the 1995 Dannie-Heineman Prize by the Goetingen Academy of Sciences for his work on the quantum mechanical behavior of atomic scale devices. His area of research is experimental condensed matter physics, specializing in the physics of surfaces at low temperatures and the physics of nano-scale structures.

2001 DANNIE HEINEMAN PRIZE

Vladimir Igorevich Arnol'd
Steklov Institute of Mathematics (Russia)

Citation: "For his fundamental contributions to our understanding of dynamics and of singularities of maps with profound consequences for mechanics, astrophysics, statistical mechanics, hydrodynamics and optics."

Arnold received his PhD from the Keldysh Institute of Applied Mathematics (Moscow) in 1963. He taught at the Moscow State University until 1986, and then at the Steklov Mathematical Institute of the Russian Academy of Sciences (Moscow). Since 1993 he has also been a professor at CEREMADE, Universite Paris-IX. Among his main scientific results are the solution of the Hilbert's problem 13 (on representation of functions), the solution of the Birkhoff problem of stability of fixed points of symplectic mappings, and the discovery of the instability of Hamiltonian systems. Arnold is the President of the Moscow Mathematical Society.

2001 POLYMER PHYSICS PRIZE

Masao Doi
Nagoya University

Citation:"For pioneering contributions to the theory of dynamics and rheology of entangled polymers and complex fluids."

Doi graduated from the Department of Applied Physics of University of Tokyo in 1970. In 1976 he received his Doctoral Degree in Engineering at the University of Tokyo and began his academic career as an Assistant Professor of physics at the Tokyo Metropolitan University. He moved to Nagoya University in 1989 where he is currently Professor of Computational Science and Engineering. His early research was concerned with the dynamics and rheology of flexible polymers. More recently, his research has focused on the dynamics of soft materials, and its computational modeling.

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2001 IRVING LANGMUIR PRIZE IN CHEMICAL PHYSICS

Louis E. Brus
Columbia University

Citation: "For establishing the field of semiconductor nanocrystals through innovative synthesis, spectroscopy and theory."

Brus earned a PhD in chemical physics from Columbia University in 1969. As a lieutenant in the US Navy, he worked in the solid state and chemistry divisions of the Naval Research Laboratory until 1973, when he joined Bell Laboratories. He worked at first in the internal dynamics of small molecules in rare gas solids. After 1987 he increasingly focused on nanocrystals made by chemical synthesis and novel materials incorporating nanocrytals. He joined the Columbia University faculty as a professor of chemistry in 1996.

2001 LILIENFELD PRIZE

Lawrence M. Krauss
Case Western Reserve University

Citation: "For outstanding contributions to the understanding of the early universe, and extraordinary achievement in communicating the essence of physical science to the general public."

Krauss is Ambrose Swasey Professor of Physics, Professor of Astronomy, and Chair of the Physics Department at Case Western Reserve University. His research has focused primarily on the interface between elementary particle physics and cosmology, where his studies include the early universe, dark matter, general relativity and quantum gravity, stellar evolution, and neutrino astrophysics. He received his PhD in physics from the Massachusetts Institute of Technology in 1982, then joined the Harvard Society of Fellows. In 1985 he joined the physics faculty of at Yale University. Krauss is the author of six books — including bestsellers *The Physics of Star Trek* and *Beyond Star Trek* — as well as over 180 scientific publications and numerous popular articles. He appears frequently on radio and television discussing issues related to physics, science, and society.

2001 JAMES C. MCGRODDY PRIZE

Arthur Charles Gossard
University of California, SantaBarbara

Citation: "For more than twenty-five years of major and continuing contributions to the science and technology of molecular beam epitaxy, and for the growth of heterogeneous compound semiconductor structures that have furthered both device applications and physical understanding of low dimensional structures. "

Gossard received his PhD in physics from University of California, Berkeley, in 1960. He was Distinguished Member of the Technical Staff of AT&T Bell Laboratories between 1960 to 1987 and has been professor of materials and electrical and computer engineering at the University of California, Santa Barbara since 1987. His research involves the growth of artificially structured materials by molecular beam epitaxy. His special interests are molecular beam epitaxy, the growth of quantum wells and superlattices and their applications to high performance electrical and optical devices, and the physics of low-dimensional structures. He was co-recipient (with Horst Stormer and Daniel Tsui) of the 1983 APS Oliver Buckley Condensed Matter Physics prize.

2001 LARS ONSAGER PRIZE

Bertrand I. Halperin
Harvard University

Citation: "For his wide-ranging contributions to statistical physics and quantum fluids, especially the elucidation of the quantum Hall effect and other low-dimensional electronic phenomena; and for his exemplary leadership in bringing theory to bear on the understanding of experiments."

Halperin received his PhD in physics from the University of California, Berkeley, in 1965. Following a postdoctoral fellowship at the Ecole Normale Superieure in Paris, he was a member of the technical staff at Bell Laboratories from 1966 to 1976. He has been a member of faculty of the physics department of Harvard University since 1976. He is also Scientific Director of the Harvard Center for Imaging and Mesoscale Structures. Halperin's research interests include various aspects of the theory of condensed matter systems and statistical physics especially quantum Hall systems and electronic properties of mesoscopic systems. He also received the APS Oliver E. Buckley Prize in 1982.

2001 GEORGE E. PAKE PRIZE

Lewis S. Edelheit
General Electric

Citation: "For outstanding technical contributions to fluoroscopic X-ray systems and fast scan, 'fan-beam' computed X-ray tomography systems, and for leadership in managing the development, engineering, and marketing of world-leading commercial medical imaging systems."

Edelheit is Senior Research and Technology Advisor, working closely with GE's diverse global businesses to advance their technology and product plans. He assumed this position on August 1, 2000, following eight years as Senior Vice President, Corporate R&D. Under his leadership, GE introduced many new products, including digital x-ray medical imagers, high-efficiency turbines for power generation, advanced electronics-based lighting systems and appliances, and weatherable plastics, to name a few, and made significant advances in high-technology services and Internet applications. His organization also vastly expanded, opening new technology centers in India, Mexico, and China. Edelheit holds a PhD in physics from the University of Illinois.

2001 W. K. H. PANOFSKY PRIZE

Paul Grannis
State University of New York at Stony Brook

Citation: "For his distinguished leadership and vision in the conception, design, construction, and execution of the D0 experiment at the Fermilab Tevatron proton-antiproton collider. His many contributions have been decisive in all aspects of the experiment."

Grannis received his PhD from the University of California at Berkeley in 1965. Since 1966, he has been on the faculty at the State University of New York at Stony Brook, with guest appointments at Fermilab, CERN, the Rutherford Laboratory, and University College London. His primary past research was conducted at the Brookhaven AGS and the CERN ISR and LEP colliders. In 1983, he was asked to form a collaboration to design and build a collider detector at the D0 intersection region of the Fermilab proton-antiproton collider, complementary to the planned CDF detector. Grannis led the D0 experiment from its inception through the end of Tevatron Run I.

2001 EARL K. PLYLER PRIZE

W. E. Moerner
Stanford University

Citation: "For the development of single molecule optical detection methods that remove ensemble averaging from spectroscopic measurements, thereby revealing the behavior of individual molecules; for the application of these methods to the study of spectral diffusion, photon antibunching, photon hole burning and intermittent fluorescence in solids, proteins and liquids."

Moerner received his PhD in Physics in 1982 from Cornell University, and then spent thirteen years at the IBM Almaden Research Center. He became Distinguished Chair in Physical Chemistry in the Department of Chemistry and Biochemistry at the University of California, San Diego in 1995, and Professor of Chemistry at Stanford University in 1998. Moerner's early research at IBM focused on spectral hole-burning optical storage, and in 1989 he was the first to perform optical detection and spectroscopy of a single molecule in a condensed phase system. In addition, he led the IBM team which invented the first photorefractive polymer.

2001 I. I. RABI PRIZE IN ATOMIC, MOLECULAR, AND OPTICAL PHYSICS

Christopher Monroe
University of Michigan

Citation: "For his pivotal experiments that implemented quantum logic using trapped atomic ions, and for his fundamental studies of coherence and decoherence in entangled quantum systems. "

Monroe received his PhD from the University of Colorado in 1992. His doctoral research under Carl Wieman was on trapping and cooling of neutral atoms, using an approach that eventually led to the first observation of Bose-Einstein condensation in a vapor. He switched to ions in 1992, as a postdoctoral fellow at the NIST-Boulder Ion Storage Group, and in 1995 became a staff scientist in the same group. He is currently an Associate Professor at the University of Michigan, Ann Arbor. Monroe's current research centers on experiments in quantum information science and quantum computing involving trapped atomic ions.

2001 ANEESUR RAHMAN PRIZE

Alex Zunger
National Renewable Energy Laboratory

Citation: "For his pioneering work on the computational basis for first-principles electronic structure theory of solids. "

Zunger received his PhD from Tel-Aviv University, Israel, in 1976, where he worked on quantum theory of molecular solids. He did his postdoctoral research at Northwestern University, and then spent an IBM Fellowship at the University of California, Berkeley. When the Federal Government established a National Laboratory in Colorado in 1978, Zunger was asked to head the Solid State Theory effort there, a position he still holds today. At the National Renewable Energy Laboratory (NREL), he was appointed in 1984 as Principal Scientist, and in 1991 as an Institute Research Fellow. Zunger developed in 1977 the first-principles density functional pseudopotentials. Recently, he developed methods for calculating the electronic properties of semiconductor quantum nanostructures.

2001 PRIZE FOR RESEARCH IN AN UNDERGRADUATE INSTITUTION

Paul DeYoung
Hope College

Citation: "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. "

DeYoung earned his PhD in nuclear physics in 1982 from the University of Notre Dame and spent the next three years as a postdoctoral researcher at the Nuclear Structure Laboratory at the State University of New York at Stony Brook. Since 1985 he has been a member of the faculty at Hope College, where he has chaired the Department of Physics and Engineering since 1995. The initial focus of the research he has conducted with undergraduates was to study the space-time size of excited nuclei with small-angle correlation techniques at Argonne, Notre Dame, and the National Superconducting Cyclotron. More recent research topics deal with the structure of radioactive nuclei.

2001 J. J. SAKURAI PRIZE

Nathan Isgur
Jefferson Laboratory

Mikhail Voloshin
University of Minnesota

Mark Wise
California Institute of Technology

Citation: "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. "

Isgur, Jefferson Lab's Chief Scientist, received his PhD in Physics from the University of Toronto. He served as a Professor of Physics at Toronto from 1974 until 1990 when he joined the faculty of the College of William and Mary and became Head of the Theory Group at Jefferson Lab. He has published over 100 papers on the quark structure of matter and is best known for his work on the excited states of the proton and for his role in the discovery of a new symmetry of nature which describes the behavior of heavy quarks.

Voloshin received his PhD in 1977 at the Institute of Theoretical and Experimental Physics (ITEP) in Moscow. He has been a researcher at ITEP since 1976, he has been a

professor of physics and a member of the Theoretical Physics Institute at the University of Minnesota since 1990, while continuing his affiliation with ITEP as a leading science researcher. His research topics over the years included quantum properties of semiclassical field configurations. His most recent work is a continuation of the studies of the properties of hadrons containing heavy quarks.

Wise received his PhD from Stanford University in 1980. He was a Junior Fellow in the Harvard Society of Fellows from 1980 to 1983, after which he joined the faculty of the California Institute of Technology. Wise's research interests include particle physics, nuclear physics and cosmology. He has written numerous scientific publications and coauthored a book entitled *Heavy Quark Physics*. Much of his research has focused on the nature and implications of the symmetries of the strong and weak interactions.

2001 ROBERT R. WILSON PRIZE

Claudio Pellegrini
University of California, Los Angeles

Citation: "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."

Pellegrini received the "Libera Docenza" in 1965 from the University of Rome. In 1958-1978 he was at the Frascati National Laboratory. In 1978 he joined Brookhaven, where he was Associate Chairman of the Light Source and Co-chairman of the Center for Accelerator Physics. He moved to UCLA in 1989 as a professor of physics, and has chaired the APS Division of Physics of Beams. His work on electron-positron colliders led to the discovery and explanations of a new collective instability in electron beams, called the Head-Tail Effect, which can strongly limit the beam intensity and the collider luminosity. His later studies of FELs in the high gain regime led to the development of IV generation light sources.

AWARDS

2001 EDWARD A. BOUCHET AWARD

Jorge Pullin
Pennsylvania State University

Citation: "For his contributions to the study of gravitational wave propagation and quantum theory of gravity and for his effort to increase diversity in the field of physics as a founding member of the National Society of Hispanic Physicists."

Pullin, professor of physics and associate director of Penn State's Center for Gravitational Physics and Geometry, obtained his PhD from the Instituto Balseiro in 1989. He joined Syracuse University and the University of Utah as a postdoctoral researcher and the faculty at Penn State in 1993. He is a member of the executive board of the LIGO research community. His research has covered many aspects of gravitational physics, concentrating recently on two main problems: the quantization of general relativity using canonical methods and the study of the gravitational waves produced in the collision of two black holes.

2001 JOSEPH A. BURTON FORUM AWARD

Lisbeth D. Gronlund
Union of Concerned Scientists/MIT

George Lewis
MIT

David C. Wright
Union of Concerned Scientists/MIT

Citation: "For creative and sustained leadership in building an international arms-control-physics community and for their own excellence in arms-control physics."

Gronlund received her PhD in theoretical physics from Cornell University in 1989. She was a postdoctoral fellow at the MIT Defense and Arms Control Studies Program and then spent two years at the University of Maryland Center for International Security Studies. Since 1992, she has been a Senior Staff Scientist at the Union of Concerned Scientists and a Research Fellow in the MIT Security Studies Program. Her recent research has focused on the vulnerability of ballistic missile defenses to countermeasures, and the potential security costs of deployment of a US national missile defense. Along with George Lewis and David Wright, she helped establish and is a primary organizer of the International Summer Symposiums on Science and World Affairs, which bring together some 40 young scientists working on international security issues from different countries.

Lewis is Associate Director of the Security Studies Program at the Massachusetts Institute of Technology. He received a BA in physics and mathematics from the University of Virginia in 1977, a PhD in experimental solid state physics from Cornell University in 1983, and was then a research associate in Cornell's Department of Applied Physics, working on ion beam technology, for five years. For the last 12 years, his research has focused on technical analyses of arms control and international security issues.

Wright received his PhD in theoretical condensed matter physics from Cornell University in 1983 and held physics post-docs at Ohio State University and the University of Pennsylvania. He worked full-time on technical aspects of international security issues, first at the Center for Science and International Affairs at Harvard University and then the Federation of American Scientists. Since 1992, he has held joint positions as a Senior Staff Scientist with the Union of Concerned Scientists and a Research Fellow in the Security Studies Program at MIT. His current research includes technical analysis of ballistic missile proliferation and ballistic missile defenses.

2001 JOSEPH KEITHLEY AWARD

James E. Faller
National Institute of Standards and Technology

Citation: "For the development of sensitive gravitational detectors and their successful application to the study of physics and geophysics."

Faller is chief of NIST's Quantum Physics Division, and a fellow of JILA. He received his PhD in 1963 from Princeton University and has also been a faculty member at Wesleyan University. His research interests include geophysics, experimental relativity, fundamental constants, and precision measurement and null experiments designed to look for possible invalidations of accepted physical laws at some extreme of magnitude.

2001 MARIA GOEPPERT-MAYER AWARD

Janet M. Conrad
Columbia University

Citation: "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 received her PhD from Harvard in 1993. Since that time, she has pursued research in neutrino physics. As a postdoc, she joined the NuTeV (E815) deep inelastic neutrino scattering experiment at Fermilab. She became an assistant professor at Columbia University in 1996 and an associate professor in 1999. She is presently the co-spokeperson of the MiniBooNE (E898) neutrino oscillation experiment at Fermilab.

2001 FRANCIS M. PIPKIN AWARD

Jens H Gundlach
University of Washington

Citation: "For identifying, and providing a solution to, an unrecognized weakness in the Cavendish technique for measuring the gravitational constant G; improving the accuracy of G by an order of magnitude, representing one of the largest incremental increases in accuracy ever obtained in the history of such measurements. "

Gundlach received his BS in physics from the University of Washington, Seattle, in 1983, and his Diplom in Physik from Johannes Gutenberg Universitat, Mainz, in West Germany in 1986. He went on to earn his PhD in Physics from the University of Washington in, Seattle, 1990, where he has been a faculty member ever, currently as a research associate professor. His recent scientific endeavors include equivalence principle tests and searches for fundamentally new interactions; precision measurement of Newton's constant; and a test of the inverse square law of gravity below 1mm.

2001 JOHN WHEATLEY AWARD

Henry R. Glyde
University of Deleware

Citation: "For his enduring commitment and multifaceted contributions to the development of physics in Thailand, which include innovative creation of scientific links between North American research universities and Chulalongkorn University, inspiring collaboration with leading Thai physicists, and the marshaling of financial and intellectual resources to establish new regional research centers."

Glyde received his DPhil in Physics at Oxford, England as a Rhodes Scholar in 1964. After five years of post doctoral research in Europe, he joined Atomic Energy of Canada Ltd. He served as a project officer with the International Development Research Centre of Canada in Thailand in 1971-72, where his connections with Thailand, Chulalongkorn University began. In 1975, he moved to the University of Ottawa where a formal link with Chulalongkorn University was established in 1979. He became Chair and Professor of Physics at the University of Delaware in 1982, where he has been at Delaware ever since.

LECTURESHIPS

2001 DAVID ADLER LECTURESHIP AWARD

Ellen D. Williams
University of Maryland

Citation: "For her elegant experimental exploration of the structures and phase transitions of surfaces and for her effective communication on this subject in lectures and publications."

Williams received her PhD in Chemistry from Caltech in 1981. She began as a postdoctoral fellow in Physics at the University of Maryland in 1981, and has risen through the ranks to become Distinguished University Professor of Physics. She is the Director of the Materials Science and Engineering Center at the University of Maryland. Williams's research is in surface physics. The objective of her research group is to develop practical capabilities for characterizing and predicting the evolution of materials structures on nanometer to micron length scales. She was the recipient of the Maria Goeppert-Mayer Award of the APS in 1990.

2001 LEO SZILARD LECTURESHIP AWARDS

John Harte
University of California, Berkeley

Citation: "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 the Class of 1935 Distinguished Professor of Energy and Resources at the University of California, Berkeley. He received a PhD in theoretical physics from the University of Wisconsin in 1965, and spent the following year as an NSF Postdoctoral Fellow at CERN, Geneva, followed by a second postdoc at the University of California, Lawrence Berkeley Laboratory. He then became an assistant professor of physics at Yale University, joining the faculty at UC-Berkeley in 1973. He has authored over 150 scientific publications on topics including particle physics, causes and consequences of climate change, biodiversity and conservation biology, biogeochemistry, and energy and water resources.

MEDALS

2001 JOHN H. DILLON MEDAL

Klaus Schmidt-Rohr
Iowa State University

Citation: "For his creative development of new NMR methods and their insightful use to elucidate polymer structure and dynamics."

Schmidt-Rohr received a PhD in 1991 from the University of Mainz, Germany. He became a staff scientist at the Max Planck Institute for Polymer Research in

1992. He then spent two years at UC Berkeley. He joined the faculty of the Department of Polymer Science & Engineering at the University of Massachusetts at Amherst in 1995 and was promoted to Associate Professor in 1997. In 2000, he moved to the Department of Chemistry at Iowa State University. His research is focussed on characterizing the dynamics and structure of semicrystalline and glassy polymers by nuclear magnetic resonance (NMR), and the development of new solid-state NMR techniques for this purpose.

2000 NICHOLSON MEDAL

Marshall N. Rosenbluth
University of California, San Diego

Citation: "For inspirational leadership and personal caring in the development of the skills and commitment of the succeeding generation of scientific leaders in plasma physics and for many years of continual successful promotion and participation in international scientific collaborations."

Rosenbluth received his PhD from the University of Chicago in 1949 and spent a year as an instructor at Stanford. In 1950, moved to Los Alamos, where he was heavily involved in the early work on the physics of thermonuclear explosions. In 1953, he decided on controlled fusion as a field replete with fascinating physics. His work of the last 45 years at UCSD, General Atomics, ITER, the Institute for Advanced Study in Princeton and at IFS at UT Austin, has focused on understanding how and to what extent the complexities of the microscopic physics of magnetized plasmas can be incorporated into descriptions macroscopic enough for eventual fusion reactor designs. A highlight in his life was participation in the early days of the International Center at Trieste, where he became familiar with the seminal thinking of the Soviet scientists and had the opportunity to see the early stages of the European and Japanese fusion programs.

DISSERTATIONS

2001 DISSERTATION IN BEAM PHYSICS AWARD

Shyam Prabhakar
Stanford University

Citation: For his development of beam instability formalisms and diagnostics based on transient-domain beam measurements.

Prabhakar received his BTech in Electronics and Communications Engineering from the Indian Institute of Technology, Madras, India in 1992. Following this, he joined the Applied Physics program at Stanford University. In 1993, he joined the research group of Dr. John Fox at the Stanford Linear Accelerator Center to work on coupled-bunch instabilities and feedback control. He received his PhD in 2000 for his dissertation on "New Diagnostics and Cures for Coupled-Bunch Instabilities." The thesis work demonstrated a new cure for coupled-bunch instabilities, based on uneven-fill effects. Shyam is currently a postdoctoral researcher in Prof. Samuel Karlin's group at Stanford, working in the field of computational molecular biology.

2001 DISSERTATION IN NUCLEAR PHYSICS

Daniel Bardayan
Yale University

Citation: "For his innovative experimental development and measurement of the p(17F,p)17F 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 17F(p,gamma)18Ne reaction. His measurements of the properties of this resonance greatly reduce the uncertainties in the 17F(p,gamma)18Ne rate, which is crucial to an understanding of nucleosynthesis and gamma-ray production in novae as well as in the break-out to the rp-process in X-ray bursts."

Bardayan graduated from Tennessee Technological University in May, 1993 with a BS in physics and a minor in mathematics. He attended graduate school at Yale University. After working on experiments at the A.W. Wright Nuclear Structure Laboratory at Yale University, he joined the Nuclear Astrophysics Group at the Holifield Radioactive Ion Beam Facility (HRIBF) at Oak Ridge National Laboratory. After receiving his PhD from Yale in 1999, he continued his stay at the HRIBF as a postdoctoral associate. His current research focuses on the use of radioactive ion beams to measure reaction cross sections of importance to understanding nucleosynthesis yields in stellar explosions such as novae and x-ray bursts.

2001 TANAKA DISSERTATION AWARD

Sunil Golwala
California Institute of Technology

Citation: "For his versatile and extensive contributions to the detectors, hardware, electronics, software, and analysis of the results of the Cryogenic Dark Matter Search (CDMS) experiment, which provided the most sensitive upper limits for elastic scattering of Weakly Interacting Massive Particles (WIMP) on nucleons. The result rules out a significant region of parameter space for one of the major candidates for dark matter in the universe."

Golwala performed doctoral work at the University of California, Berkeley, on the Cryogenic Dark Matter Search (CDMS), receiving a PhD in Physics in December 2000. This experiment searches for direct interactions of Weakly Interacting Massive Particle (WIMP) dark matter using cryogenic particle detectors capable of discriminating WIMP-induced nuclear recoils from electron recoils via measurement of phonon and electron-hole pair production. In July 2000, Golwala joined Caltech as a Millikan Postdoctoral Scholar to work on BOLOCAM, a 144-pixel millimeter-wave bolometer camera. This instrument will be used to observe the Sunyaev-Zeldovich effect in distant galaxy clusters, and search for secondary anisotropy of the cosmic microwave background radiation on arcminute scales.

Editor's Note: *The 2001 Apker Award winners were announced in the December 2000 issue of APS News.*

APS Council Announces 2000 APS Fellows

The APS Council elected 193 Members as Fellows of the Society at its November 2000 meeting. The names and citations of the new APS fellows are listed below. Nominations for fellowship are received by the APS headquarters throughout the year, and are forwarded for review to the appropriate division or topical group fellowship committees. These, in turn, forward their recommendations to the APS Fellowship Committee, chaired in 2000 by APS Vice President William Brinkman (Lucent Technologies / Bell Laboratories).

Fellowship nomination forms may be obtained by writing to the APS Fellowship Office, One Physics Ellipse, College Park, MD, 20740-3844, by accessing the APS URL (http: / / www.aps.org), or by sending an email message to honors@aps.org. Deadlines for fellowship nominations in 2001 can be found on page 8 of this insert.

Ahrenkiel, Richard K.
National Renewable Energy Laboratory
Forum on Industrial and Applied Physics
For pioneering and innovative work in the techniques and analysis of recombination/minority-carrier lifetime and transport in semiconductors and for outstanding contributions to numerous areas of condensed matter physics.

Anastasiadia, Spiros H.
F.O.R.T.H. Inst. For Elec. Struct & Lase
Polymer Physics
For important contributions to the dynamics of block copolymers in the melt and in solution and on the structure an dynamics of polymer interfaces and thin films.

Anderson, Dana Zachery
University of Colorado
DAMOP (Atomic, Molecular, Optical)
For his theoretical and experimental contributions to nonlinear optics and atom optics and for creating a number of remarkable optical devices for information processing and pattern recognition.

Aprile, Elena
Columbia University
Astrophysics
For her pioneering contributions to gamma-ray instrumentation for astrophysics, particularly her successful development of a liquid xenon time projection chamber as an innovative Compton Telescope.

Aronson, Samuel Harry
Brookhaven National Laboratory
Nuclear Physics
For contributions to nuclear and particle physics, including the physics of neutral Kaons, and the leadership, design and construction of the major experiments, D0 at Fermilab and PHENIX at RHIC.

Aronson, Meigan Charlotte
University of Michigan
DCMP (Condensed Matter)
For investigation of collective phenomena in strongly correlated electron systems using neutron scattering and high pressure techniques.

Astumian, Raymond Dean
University of Chicago
Biological Physics
For fundamental contributions to understanding the thermodynamics and mechanism of transduction of energy from a non-equilibrium chemical reaction to drive directed transport by molecular motors and pumps.

Aubrecht II, Gordon J.
The Ohio State University
Forum on Education
For his many contributions to physics education over the years, including his work with high school teachers in PTRA, his work with the Contemporary Physics Education Project (CPEC), and his book on Energy.

Baldridge, Kim K.
University of Calfornia, San Diego
Computational Physics
For her development and application of methods for quantum calculations of molecular structure and reactivity, including her studies of aromaticity which continue the tradition of Maria Goeppert-Mayer.

Balsara, Nitash P.
Polytechnic University
Polymer Physics
For elegant experiments and definitive analysis clarifying the creation and development of structure in multicomponent polymer liquids.

Bateman, Glenn
Lehigh University
Computational Physics
For his theoretical and computational research on MHD instabilities and predictive transport modeling of tokamak plasmas, emphasizing detailed comparisons between theory-based simulations and experimental data.

Beason, James Douglas
Air Force Research Laboratory (DE)
APS
For his leadership advancing, advocating and formulating national science policy, in particular, for his impact throughout the government in basic research, and for his fundamental contributions solving the relativistic Compton scattering kernel, and inventing innovative techniques for simulating lasers and plasmas.

Berg, Mark Alan
University of South Carolina
Chemical Physics
For the use of ultrafast nonlinear spectroscopy in exploring the molecular dynamics of liquids and other disordered materials.

Blatt, Rainer
University of Innsbruck
DAMOP (Atomic, Molecular, Optical)
For outstanding work in quantum optics and precision spectroscopy with laser cooled trapped ions.

Bodwin, Geoffrey Thomas
Argonne National Laboratory
Particles & Fields
For definitive contributions to the systematic understanding of heavy quarkonia in terms of QCD, to the proof of factorization in QCD, and to the understanding of chirality in lattice gauge theory.

Boghosian, Bruce Michael
Boston University
Computational Physics
For contributions to mathematical and computational fluid dynamics, lattice models of fluids and soft condensed matter, and leadership and service in the field of computational physics.

Braaten, Eric Alan
The Ohio State University
Particles & Fields
For his contributions to our understanding of finite temperature and heavy quark quantum chromodynamics, and in particular, for the development of hard thermal loop resummation techniques and NRQCD.

Brau, James Edward
University of Oregon
Particles & Fields
For contributions to the development of particle detectors, particularly calorimeters and vertex detectors, and for studies of the properties of the Z boson with the SLD detector.

Brown, Stanley G.
American Physical Society Editorial Off.
APS
For his role as Editor in the success of Physical Review D and Physical Review Letters, and for his contributions as Administrative Editor and Editorial Director to policy and management of the APS journal operation.

Bulaevskii, Lev Naumovich
Los Alamos National Laboratory
DCMP (Condensed Matter)
For numerous significant contributions to condensed matter theory, in particular in the area of layered superconductors.

Caldwell, Allen C.
Columbia University
Particles & Fields
In recognition of his contributions to elementary particles, including the discovery of unanticipated properties of the proton from measurements made under his leadership in the ZEUS collaboration.

Cauble, Robert Craig
Lawrence Livermore National Laboratory
Plasma Physics
For important contributions to the understanding of the equation of state of dense, strongly coupled plasmas.

Cavagnero, Michael John
University of Kentucky
DAMOP (Atomic, Molecular, Optical)
For creative analyses of atomic collisions, fragmentation and electron correlation, which incorporate keen insight into innovative mathematical formulations; and for energizing many successful collaborations with experimental and theoretical colleagues.

Cecil, Francis Edward
Colorado School of Mines
Nuclear Physics
For measurements of nuclear reactions among light ions at low energies and for the application of some of these reactions to the diagnostics of high temperature fusion plasmas.

Cederberg, James
St. Olaf College
Forum on Education
For his strong commitment to teaching, for his advocacy and national promotion of undergraduate research, and for his highly productive program of faculty/student research in molecular beam spectroscopy at St. Olaf.

Chang, Yia-Chung
University of Illinois
Materials Physics
For calculations elucidating the transport, electronic, and optical, and vibrational properties of semiconductors, in the bulk and at surfaces, in heterostructures and in nanostructures.

Chang, Albert M.
Purdue University
DCMP (Condensed Matter)
For experimental studies of quantum Hall edge states and Luttinger liquids.

Cheong, Sang-Wook
Rutgers University
DCMP (Condensed Matter)
For the synthesis and characterization of new oxide materials with unusual charge or spin order.

Chhabildas, Lalit Chandra
Sandia National Laboratories
Shock Compression Topical Group
For pioneering contributions to the development and use of advanced diagnostic tools for studying shock compressed materials and for sustained service in advancing the objectives of the American Physical Society.

Cho, Yanglai
Argonne National Laboratory
Physics of Beams
For continuing excellent contributions to high energy physics experiments and technology, and to the design and commissioning of large accelerator facilities.

Choi, Kwong Kit
US Army Research Laboratory
Forum on Industrial and Applied Physics
For contributions to the foundation and development of quantum well infrared technology, the discovery of new quantum noise properties, and the pioneering application of excitation hot-electron spectroscopies in quantum well studies.

Coey, Michael
Trinity College
Magnetism & Its Application
For contributions to magnetism including discovery of rare-earth iron nitrogen permanent magnets, classification of magnetic order in amorphous solids and innovative applications of permanent magnets.

Coleman, Piers
Rutgers University
DCMP (Condensed Matter)
For innovative approaches to the theory of strongly correlated electron systems.

Coleman, James J.
University of Illinois
Laser Science
For outstanding contributions to the functionality, performance and reliability of semiconductor lasers through innovative epitaxial growth techniques and device designs.

Continetti, Robert E.
University of California, San Diego
Chemical Physics
For fundamental contributions to the study of photodetachment and photodissociation processes in neutral and ionic molecules and clusters.

Coriell, Sam R.
NIST
Fluid Dynamics
For fundamental contributions to the theory of the interaction between hydrodynamics and morphological instabilities during solidification.

Craxton, R. Stephen
Laboratory for Laser Energetics
Plasma Physics
For numerous original contributions to laser-driven inertial confinement fusion including two-dimensional hydrodynamic simulations, uniformity modeling in tetrahedral hohlraums, and the ubiquitously used third harmonic conversion of ICF glass laser systems.

Dalal, Nar S.
Florida State University
Chemical Physics
For his development of electron and nuclear multiple resonance methods with much enhanced time scales and spectral resolution, and especially for their application to measure molecular dynamics and to elucidate mechanisms of ferroelectric phase transitions.

Daw, Murray S.
Motorola
Materials Physics
For his original contributions to the atomic scale modeling of the properties of solids, surface, interfaces and defects.

de Ruyter van Steven, Robert Raimond
NEC Research Institute
Biological Physics
For contributions to understanding the physical principles of neural computation and coding through his elegant quantitative measurement and analysis of signals, noise, and information flow in the fly visual system.

Deans, Stanley Roderick
University of South Florida
Computational Physics
For helping reveal the beauty and power of the Radon transform.

DeVore, Carl Richard
Naval Research Laboratory
Computational Physics
For his development of a new class of numerical algorithms for magnetohydrodynamic simulations, their wide dissemination in software, and their applications to physics.

Doyle, Barney L.
Sandia National Laboratories
Forum on Industrial and Applied Physics
For the invention of numerous Micro-Ion Bean Analysis techniques and their innovative application to solid state physics, fusion energy, materials science and radiation effects of semiconductors.

Draayer, Jerry Paul
Louisiana State University
Nuclear Physics
For enhancing our understanding of collective phenomena in atomic nuclei through algebraic shell-model analyses, statistical spectroscopy studies of strength distributions, explorations involving pseudo-spin symmetry, and the application of nonlinear methods.

Drummond, Peter David
University of Queenland
Forum on International Physics
For pioneering theoretical studies of quantum noise in nonlinear optical processes, including superfluorescence, optical bistability, parametric amplification and oscillation, fiber-optical solitons, proposed tests of quantum correlations, and the positive-P representation.

Duggan, Jerome Lewis
University of North Texas
Forum on Industrial and Applied Physics
For outstanding contributions in the application of low energy nuclear technology for analysis in the semiconductor, metals, and geophysics industries, and for initiating an international conference as a forum for the interaction of industrial and academic physicists.

Edwards, Mark Andrew
NIST
DAMOP (Atomic, Molecular, Optical)
For application of first-principles theory to the understanding of Bose-Einstein condensation in dilute atomic gases.

Efimov, Vitaly
University of Washington
Few Body Systems Topical Group
For the investigation of the Quantum three-body problem, and especially for his discovery of weakly bound states (called Efimov states) of three quantum particles.

Egami, Takeshi
University of Pennsylvania
Materials Physics
For pioneering work on local disorder in solids and its effect on properties, in particular the observation of charge inhomogeneity in magnetostrictive manganities and superconducting cuprates using neutron scattering.

El-Sayed, Mostafa A.
Georgia Tech
Chemical Physics
In recognition of extra-ordinary contribution to the many spectroscopies of complex molecular systems.

Eremenko, Victor Valentine
Inst. For Low Temperature Physics
Forum on International Physics
For pioneering works in magneto-optics of antiferromagnets, discovery of the "mixed" and "intermediate" states of antiferromagnets near magnetic phase transitions, photoinduced persistent phenomena in magnetic insulators & high-Tc superconductors; and his international activities as the editor of "Low Temperature" journal of AIP, an affiliated scholar of ISU, and co-director of IITAP program.

Feldman, Uri
Naval Research Laboratory
Plasma Physics
For original contributions to the study of the atomic structure of highly excited elements, both the development of advanced tools to conduct observations and the analysis and interpretation of the resulting data; and for the application of the physics of highly excited elements to the study of energetic processes in the sun's atmosphere.

Foiles, Stephen M.
Sandia National Laboratories
Computational Physics
For significant advances in the computational simulation of materials including pioneering work on the embedded atom method and demonstrating the power of simulations to determine important properties.

Gad-el-Hak, Mohamed
University of Notre Dame
Fluid Dynamics
For his original contributions to reactive controls of turbulent flows, pioneering work in developing laser-induced fluorescence techniques, and definitive experiments detailing fluid-compliant surface interactions.

Ginsparg, Paul
Los Alamos National Laboratory
APS
For his work relating to chiral symmetry on the lattice, for fundamental contributions to string theory, and for establishment and development of the revolutionary "Los Alamos E-Print Archive."

Gluskin, Efim
Argonne National Laboratory
Physics of Beams
For his contributions to the development, construction and characterization of insertion devices for 3rd generation synchrotron radiation sources and free-electron lasers.

Gordon, Mark S.
Iowa State University
Chemical Physics
For the development of methods that extend the size of chemical systems that can be treated using ab initio electronic structure theory and methods that interface quantum chemistry with dynamics.

Gordon, II, Joseph Grover
IBM Almaden Research Center
Forum on Industrial and Applied Physics
For his pioneering contributions to the study of electrified interfaces through the development and application of techniques for in-situ vibrational spectroscopy and structural characterization.

Gösele, Ulrich Michael
Max Planck Institute of Microstructure P
Materials Physics
For important contributions to our understanding of phase formation in thin films, diffusion processes in semiconductors, quantum effects in porous silicon formation, semiconductor wafer bonding and materials integration.

Greenwald, Martin J.
Massachusetts Institute of Technology
Plasma Physics
For his insightful experimental contributions and scientific leadership in plasma transport research, and his formulation of the empirical tokamak density limit as a consequence of underlying transport processes.

Haase, David Glen
North Carolina State University
Forum on Education
For his vision in creating Science House and in defining a model for how research universities and public schools can interact to provide quality science education for all children.

Hammer, James Henry
Lawrence Livermore National Laboratory
Plasma Physics
For his development of novel approaches to fusion and high-energy-density plasma applications, and for his extensive insights into the magnetohydrodynamic behavior of compact toroidal and z-pinch plasmas.

Hartline, Beverly Karplus
Los Alamos National Laboratory
Forum on Education
For creative leadership and drive to advance physics and other science education at all levels from kindergarten to graduate school, including outreach to teachers and the general public.

Hertzog, David William
University of Illinois
Nuclear Physics
For the development of novel and creative instrumentation and for its use in pbar p-induced searches for exotic mesons and in high-precision measurements of the muon anomalous magnetic moment.

Hough, James
University of Glasgow
Gravitational Topical Group
For his pivotal role in devising and developing the necessary implementing technologies for gravitational wave detection.

Hsieh, Ke-Chiang
University of Arizona
Astrophysics
For pioneering the measurement of energetic neutral particles in space plasma, thereby opening the door to a new frontier of space research.

Hsiung, Yee Bob
Fermilab
Particles & Fields
For his key role in the Fermilab neutral kaon decay program, particularly his leadership that resulted in the recent evidence for direct CP-violation.

Hynes, James (Casey) T.
University of Colorado
Chemical Physics
For his original contributions to the theory of reactions in solutions and on ice surfaces.

Iijima, Sumio
NEC Corporation (Japan)
Materials Physics
For the discovery of carbon nanotube and promotion of its research and development.

Isaacs, Eric D.
Bell Laboratories, Lucent Technologies
DCMP (Condensed Matter)
For pioneering work in the application of synchrotron-based magnetic X-ray scattering to condensed matter physics.

Isenberg, James Allen
University of Oregon
Gravitational Topical Group
For his pioneering work on global issues in general relativity and for his contributions to the field.

Jackson, Howard E.
University of Cincinnati
DCMP (Condensed Matter)
For innovative light scattering studies combining high spectral and spatial resolution.

James, Ralph Boyd
Sandia National Laboratories
Materials Physics
For outstanding contributions and leadership in materials science leading to the development of wide bandgap compound semiconductor devices for detecting and imaging X- and gamma-ray radiation.

Jensen, Roderick V.
Wesleyan University
DAMOP (Atomic, Molecular, Optical)
For pioneering contributions to the understanding of strongly perturbed quantum systems that are classically chaotic, like Rydberg atoms in strong fields, and for the extension of the methods of nonlinear dynamics across many disciplines, from atomic physics and mesoscopic solid-state physics to biophysics and neuroscience.

Ji, Xiangdon
University of Maryland
Nuclear Physics
For fundamental contributions to the understanding of the structure of the nucleon and the process of deeply virtual Compton scattering.

Jolivette, Peter Lauson
Hope College
Forum on Education
In recognition of leadership and development of undergraduate research in nuclear physics.

Jones, Jr., Robert Rivers
University of Virginia
DAMOP (Atomic, Molecular, Optical)
For the development of experimental probes of Rydberg atoms and for providing new insighes about their behavior.

Kay, Bruce David
Pacific Northwest National Laboratory
Chemical Physics
For his innovative use of molecular beams and laser spectroscopy to elucidate chemical kinetics and dynamics of sorption, diffusion, phase transformation, and solvation at environmentally-relevant aqueous and oxide interfaces.

Keto, John W.
The University of Texas - Austin
DAMOP (Atomic, Molecular, Optical)
For studies of the energy transport phenomena in dense gases and clusters excited by resonant photon

Khakoo, Murtadha A.
California State University - Fullerton
DAMOP (Atomic, Molecular, Optical)
For contributions to experimental electron scattering from fundamental targets and for involvement of undergraduate and high school students in front-line research.

Kinoshita, Kay
University of Cincinnati
Particles & Fields
For innovative contributions to the study of b-quarks and for leadership in accelerator searches for magnetic monopoles.

Kotliar, B. Gabriel
Rutgers University
DCMP (Condensed Matter)
For development of the dynamical mean field method and its application to strongly correlated electron systems.

Kox, Anne Jacob
University of Amsterdam
Forum on History of Physics
For his original contributions to the history of physics, especially in the Netherlands, and for his extraordinary contributions to the edition of Albert Einstein's papers.

Krebs, Martha
Institute for Defense Analysis
APS
For her contributions to the vitality and quality of the science research and development programs supported by the Department of Energy for the benefit of the nation.

Kumar, Prem
Northwestern University
DAMOP (Atomic, Molecular, Optical)
For pioneering experimental contributions to the generation, detection, and application of the twin-beam quantum state produced by means of pulsed parametric amplification.

Kurokawa, Shin-ichi
High Energy Accelerator Resch Org.
Physics of Beams
For major contributions to accelerator development, including synchrotrons and colliders; for his leadership of the Japanese B-Factory; for fostering accelerator education; and for promotion of international collaboration in accelerator science.

Lankford, Andrew J.
University of California, Irvine
Particles & Fields
For the development of electronics, triggering and data acquisition systems used at major collider facilities, as the SDC at the SSC, ATLAS at CERN, and BABAR at SLAC.

Lasheras, Juan C.
University of California, San Diego
Fluid Dynamics
For landmark contributions to the fundamental understanding of combustion, free shear flows, particle/fluid interaction, and turbulence induced atomization of imiscible fluids.

Lattimer, James Michael
SUNY, Stony Brook
Astrophysics
For construction of models of neutron stars, in quantitative detail, for prediction of how they are formed in the collapse of large stars and for quantitative theory of the mergers of black holes and neutron stars.

Leitch, Michael J.
Los Alamos National Laboratory
Nuclear Physics
For his contributions to experimental medium-energy and high-energy nuclear physics, in particular for his lead role in measurements of pion double-charge exchange at low energies, and his leadership in the measurement of nuclear dependencies of J/psi production and of open charm production.

Lesko, Kevin Thomas
Lawrence Berkeley National Laboratory
Nuclear Physics
For outstanding experimental contributions to the study of neutrino properties - searches for neutrino oscillations - and their application to the solar neutrino problem.

Lockyer, Nigel Stuart
University of Pennsylvania
Particles & Fields
For fundamental contributions to the understanding of B mesons, including measurements of lifetimes and decay modes and studies of CP violation in the B system.

Lohse, David John
Exxon Research & Engineering Company
Polymer Physics
For important contributions to the fundamental science underlying phase behavior and compatibility in polymeric mixture.

Loss, Daniel
University of Basel
DCMP (Condensed Matter)
For theoretical studies of quantum effects in mesoscopic magnets.

Lubin, Philip I.
Univ. of Calif., Santa Barbara
Astrophysics
For pioneering studies of the cosmic background radiation in various experiments both from the ground and in space that have given us new understanding of the earliest moments of the universe and the origin of its large scale structure that we see today.

Lundstrom, Mark Steven
Purdue University
Forum on Industrial and Applied Physics
For insights into the physics of carrier transport in small semiconductor devices and the development of simple, conceptual models for nanoscale transistors.

Luthey-Schulten, Zaida Ann
University of Illinois
Biological Physics
For her contributions to the field of protein folding including elucidating its basic mechanism and developing optimized energy functions for protein structure prediction.

Machleidt, Ruprecht
University of Idaho
Nuclear Physics
For making significant contributions to the meson-exchange description of the nuclear force through development of the Bonn potential and the theory of nuclear matter using relativistic versions of Brueckner theory.

Mahdavi, Mohamad Ali
General Atomics
Plasma Physics
For original and longstanding contributions to the development and understanding of poloidal divertor for particle and impurity control, heat flux dissipation, and confinement enhancement in toroidal plasma confinement devices.

Marchetti, M. Cristina
Syracuse University
DCMP (Condensed Matter)
For contributions to the theory of the dynamics of vortex matter and charge-density waves.

Meger, Robert Alfred
Naval Research Laboratory
Plasma Physics
For important contributions to the physics and technology of plasmas, pulsed power, and electron beams, their interaction and their applications.

Mezei, Ferenc
Los Alamos National Laboratory
DCMP (Condensed Matter)
For his leadership in developing new techniques for neutron scattering studies of condensed matter, including the invention of the neutron spin echo method.

Mintmire, John Wallace
Naval Research Laboratory
Materials Physics
For development and application of theoretical and computational techniques for the study of the electronic and structural properties of materials with reduced dimensionality including carbon nanotubes, surfaces, and polymeric materials.

Moodera, Jagadeesh Subbaiah
Massachusetts Institute of Technology
Magnetism & Its Application
For pioneering and sustained contributions to the understanding of spin-polarized transport in solids, and for inspiring mentorship of students at all levels.

Mountain, Raymond D.
National Institute of Standards and Tech
Chemical Physics
For his outstanding theoretical contributions towards an improved understanding of structural and dynamic properties of simple and complex liquids.

Nagler, Stephen Eric
Oak Ridge National Laboratory
DCMP (Condensed Matter)
For neutron scattering studies of excitations in low dimensional quantum magnets.

Ng, Tai-Kai
Hong Kong University of Sci. & Tech.
Forum on International Physics
For his work on the Coulomb effects in a quantum dot, leading to the prediction of conductance enhancement due to the Kondo resonance.

Nilsen, Joseph
Lawrence Livermore National Laboratory
Plasma Physics
For his outstanding contributions to the understanding and development of x-ray lasers.

Nordstrom, Dennis L
American Physical Society Editorial Off.
APS
For his professionalism, diplomacy, high standards, and dedicated service as Editor of Physical Review D.

Novotny, Mark Alan
Florida State University
Computational Physics
For original algorithm development and applications of computational statistical mechanics to equilibrium and nonequilibrium problems in condensed-matter physics and materials science.

Nusinovich, Gregory Semeon
University of Maryland
Plasma Physics
For fundamental contributions to the theory of gyrotron oscillators and amplifiers and cyclotron autoresonance masers.

O'Shea, Patrick G.
University of Maryland
Physics of Beams
For pioneering experiments in the development of the physics, technology, and applications of high-brightness ion and electron beams, and free-electron lasers.

Orel, Ann E.
University of California, Davis
DAMOP (Atomic, Molecular, Optical)
For pioneering the understanding and development of theoretical methods for studying excitation, ionization and dissociation of polyatomic molecules.

Ovrut, Burt
University of Pennsylvania
Particles & Fields
For his contributions to all aspects of mathematical and theoretical physics including supersymmetry, supergravity, and superstrings, and for his professorial expertise in educating his colleagues in these areas.

Perlmutter, Saul
Lawrence Berkeley National Laboratory
Astrophysics
For pioneering contributions to cosmology, including development of new search techniques that led to discovery of numerous distant supernovae and strong evidence for the accelerated expansion of the universe.

Pichler, Goran
University of Zagreb
Forum on International Physics
For pioneering studies of atomic line broadening and intermetallic molecules while fostering international ties through an extensive collaborative network.

Pisarski, Robert D.
Brookhaven National Laboratory
Particles & Fields
For important contributions to the study of QCD at high temperatures.

Piston, David William
Vanderbilt University
Biological Physics
For outstanding contributions to the development, application, and dissemination of quantitative spectroscopic methods to the imaging of proteins and small molecules, their environment, and their interactions within single living cells.

Prieto, Pedro Antonio
Universidad del Valle
Forum on International Physics
For forefront research in the Josephson effect in high temperature superconductors and outstanding contributions to the development of physics in Latin America.

Protopopescu, Serban
Brookhaven National Laboratory
Particles & Fields
For his individual contributions and leadership in the discovery of the top quark at the D0 Experiment and for software simulation and algorithm development.

Rainer, Dierk
Bayreuth University
DCMP (Condensed Matter)
For contributions to the theory of strong-coupling effects in superconductors and in superfluid 3He.

Ramsey-Musolf, Michael Jeffrey
University of Connecticut
Nuclear Physics
For his theoretical work on semileptonic weak interactions, including weak radiative corrections, strangeness contributions, and parity violation, that have helped interpret experiments ranging from atomic scales, through CEBAF energies, to the Z pole.

Raubenheimer, Tor O.
Stanford Linear Accelerator Center
Physics of Beams
For significant contributions to understanding the physics of electron storage rings and linear accelerators and leadership in the design and development of electron-positron linear colliders.

Reichl, Linda Elizabeth
The University of Texas - Austin
Statistical & Nonlinear Physics
For her original contributions to the field of quantum chaos.

Reynolds, Stephen P.
North Carolina State University
Astrophysics
For contributions to high-energy astrophysics, including modeling relativistic jets in quasars, pulsar-driven supernova remnants, and electron acceleration to synchrotron X-ray emitting energies in young shell supernova remnants, and supporting observations.

Riley, Mark Anthony
Florida State University
Nuclear Physics
For his many pioneering contributions to the exploration of atomic nuclei at high angular momentum values.

Ritter, Hans Georg
Lawrence Berkeley National Laboratory
Nuclear Physics
For his leading role in the discovery of the collective flow of nuclear matter.

Rosenberg, Marlene
University of California, San Diego
Plasma Physics
For pioneering contributions to the theory of dusty plasmas, especially related to strong coupling effects and the role of instabilities.

Rossing, Thomas D.
Northern Illinois University
Forum on Education
For four decades of energetic contributions to education in physics throughout the world by developing and promoting the rational approach to sound and light.

Roy, Rajarshi
University of Maryland
Statistical & Nonlinear Physics
For pioneering studies of nonlinear dynamics and noise in optical devices.

Rozmus, Wojciech
University of Alberta
Forum on International Physics
For his outstanding research in the theory and modeling of laser-plasma ICF relevant interactions, in particular in non-local transport, strongly-coupled plasmas, and nonlinear interactions between laser-plasma instabilities.

Rubinstein, Michael
University of North Carolina
Polymer Physics
For outstanding contributions to polymer theory, especially in understanding entangled polymer dynamics, charged macromolecules, and permanent and reversible polymer networks.

Sakaki, Hiroyuki
University of Tokyo
DCMP (Condensed Matter)
For invention, fabrication, and analysis of important low-dimensional semiconductor materials and devices.

Salin, Dominique
Laboratoire FAST
Forum on International Physics
For significant contributions in the development of experimental methods and lattice gas simulations that led to improved understanding of flows in Hele-Shaw cells and porous media and of suspensions.

Sanford, Thomas W. L.
Sandia National Laboratories
Plasma Physics
For fundamental advances in understanding of wire array z-pinches, which led to improved load symmetry and greatly increased radiative power, and opened up the possibility of using wire arrays as drivers for inertial confinement fusion.

Sanford, James R.
Retired
Particles & Fields
For outstanding service and leadership to the physics community in the design, construction and implementation of major US high energy physics facilities, especially the RHIC.

Sankey, Otto F.
Arizona State University
Materials Physics
For developing real-space first-principles electronic structure methods with broad applications to materials problems.

Sarantites, Demetrios G.
Washington University
Nuclear Physics
For his development of many innovative and powerful detector systems for nuclear physics that have led to major discoveries in nuclear structure and reaction physics.

Satija, Sushil K.
NIST
Polymer Physics
For significant contributions to the advancement of the understanding of the physics of polymers at surfaces and interfaces through the development and innovative application of neutron reflectometry.

Satpathy, Sashi Sekhar
University of Missouri
DCMP (Condensed Matter)
For contributions to the understanding of complex materials using first-principles electron structure calculations.

Savas, Omer
University of California, Berkeley
Fluid Dynamics
For contributions to the understanding of fluid flows through innovative experimentation in boundary layers, rotating flows, combustion, and vortex dynamics.

Schilling, James Stanford
Washington University
DCMP (Condensed Matter)
For contributions to condensed matter physics through the use of high pressure studies of magnetism and superconductivity.

Schultz, David R.
Oak Ridge National Laboratory
DAMOP (Atomic, Molecular, Optical)
For development of novel lattice methods for solving the time-dependent Schrödinger equation, providing fundamental new insights in atomic collisions, and disseminating AMO data to other research communities.

Scranton, Robert A.
IBM Almaden Research Center
Forum on Industrial and Applied Physics
For leadership in the development and commercialization of the magnetoresistive effect and the giant magnetoresistive effect in hard disk drives, enabling unprecedented advances in the density of magnetic data storage.

Seaman, Lynn
SRI International
Shock Compression Topical Group
In recognition of his fundamental contributions to the understanding of the microstructural processes that underlie failure in solids and the general relations between microstructure and failure and shock wave physics.

Segev, Mordechai
Princeton University
Laser Science
For his contributions to the physics of spatial solitons and the discovery of the photorefractive soliton.

Shaqfeh, Eric Stefan G.
Stanford University
Fluid Dynamics
For applying statistical theories and numerical simulations to determine the averaged equations for fiber suspensions and polymeric fluids and elucidating the physical mechanism leading to hydrodynamic instabilities of complex fluids.

Shigemitsu, Junko
The Ohio State University
Particles & Fields
For her contributions to determining properties of the Standard Model using the methods of Lattice Gauge Theory.

Sirignano, William A.
University of California, Irvine
Fluid Dynamics
For his pioneering efforts in combining modeling and simulation of complex multiphase flows, and for the understanding these models have provided for pool fires and capillary instabilities.

Skwarnicki, Tomasz
Syracuse University
Particles & Fields
For original work in the areas of rare b decays and Upsilon spectroscopy and outstanding achievements in detector reconstruction software and detector construction.

Smith, Darryl Lyle
Los Alamos National Laboratory
Materials Physics
For his contribution to materials physics including to the understanding of the electronic and optical properties of semiconductor heterostructures and organic electronic materials and of devices fabricated from these materials.

Spano, Mark L.
Naval Surface Warfare Center
Biological Physics
For achievements in experimental nonlinear dynamics, especially as applied to biological systems such as the heart and the brain.

Spry, Robert James
Air Force Research Laboratory
Forum on Industrial and Applied Physics
For important contributions to semiconductor defect spectroscopy, analysis of nonlinear optical devices, and polymer conductivity and optical properties.

Synakowski, Edmund J.
Princeton Plasma Physics Laboratory
Plasma Physics
For innovative experimental studies of local particle and heat transport in tokamaks, which discriminate between alternative theories and approaches to suppression of turbulent transport.

Szalewicz, Krzysztof
University of Deleware
DAMOP (Atomic, Molecular, Optical)
For definitive contributions to the theory and calculation of intermolecular forces, electron correlation, exotic molecular phenomena, and neutrino mass experiments, using explicitly correlated basis functions.

Takabe, Hideaki
Osake University
Plasma Astrophysics
For his theoretical and numerical investigations leading to the universally used ablation-front Rayleigh-Taylor despersion curve, and his visionary role in shepherding the emerging field of laser-astrophysics.

Takami, Michio
University of Electrocommunications
Forum on International Physics
For the first demonstration of optically detected MW-IR double resonance and his beautiful and innovative uses of lasers in the spectroscopy of atoms, molecules, and van der Waals molecules in free jets and in bulk liquid helium.

Tamargo, Maria C.
City College of CUNY
Materials Physics
For significant original contributions to the development and understanding of the growth and properties of novel semiconductor materials and heterostructures, in particular, in the field of wide bandgap II-VI compounds.

Tamor, Michael Alan
Ford Motor Company
Forum on Industrial and Applied Physics
For the application of physics in the automotive industry, in particular development of diamond-like hard coatings and hybrid electric vehicle energy management simulation tools.

Teitel, Stephen Lewis
University of Rochester
DCMP (Condensed Matter)
For contributions towards the understanding and numerical modeling of critical phenomena in Josephson junction arrays and high-temperature superconductors.

Tejada, Javier
Universidad de Barcelona
Forum on International Physics
For original experimental contributions to the studies of macroscopic quantum tunneling in magnetic

Thomas, John H.
University of Rochester
Astrophysics
For major contributions to solar magnetohydrodynamics.

Ting, Chin-Sen
University of Houston
DCMP (Condensed Matter)
For contributions to transport theory in solid state systems including hot electrons in semiconductors, mixed states of superconductors, and tunneling junctions.

Tom, Harry W. K.
University of California, Riverside
Laser Science
For pioneering contributions to our understanding of the ultrafast dynamics of surface chemical and physical reactions, particularly femtosecond laser-induced nonequilibrium phase transitions and chemical reactions.

Tong, David S. Y.
University of Wisconsin - Milwaukee
DCMP (Condensed Matter)
For development of multiple scattering theories for surface diffraction and spectroscopy.

Totsuka, Yoji
University of Tokyo
Particles & Fields
For his leadership in the Super-Kamiokande experiment and his many contributions to particle physics including decisive measurements on solar neutrinos and the recent strong evidence for neutrino oscillations.

Tryggvason, Gretar
The University of Michigan
Fluid Dynamics
For pioneering the use of direct numerical simulations for the study of finite Reynolds number multiphase flows, including the development of computational methods and studies of bubbly flows.

Tsai, Jaw-Shen
NEC Fundamental Research Lab.
DCMP (Condensed Matter)
For his demonstration of quantum coherence of charge states in a superconducting mesoscopic system.

Turbiner, Alexander V.
Nuclear Science Institute (ICE)
Forum on International Physics
For the discovery and analysis of quasi-exact solvable Schrödinger equations.

Turner, Raymond Clyde
Clemson University
Forum on Education
For his leadership and national contributions in the popularization of physics through lecture-demonstrations and teacher workshops on the physics of toys, and his demonstrated excellence in physics education.

Unruh, William G.
University of British Columbia
Gravitational Topical Group
For his contributions to the understanding of black holes, their evaporation and other quantum effects associated with strong gravitational fields.

Van Zytveld, John Bos
M. J. Murdock Charitable Trust
Forum on Education
For leadership in involving undergraduates in research, for advancing our understanding of electronic properties of liquid alloys, and for serving the science community as program officer for funding agencies.

Viggiano, Albert Anthony
Air Force Research Laboratory/VSBP
DAMOP (Atomic, Molecular, Optical)
For studies of the kinetics of ion interactions with neutral molecules, especially for the elucidation of internal energy effects and the influence of high temperatures and pressures, and atmospheric implications.

Violini, Galileo
UNESCO - Iran Office
Forum on International Physics
For his extensive contributions to physics especially through developing new international programs, capacity building and vigorously promoting international cooperation between developed and developing countries.

Walmsley, Ian A.
University of Rochester
Laser Science
For contributions to methods for quantum state measurement in matter and the characterization of wave fields in general.

Washburn, Sean
University of North Carolina
DCMP (Condensed Matter)
For experimental studies of quantum transport.

Weihs, Daniel
Technion-Israel Institute of Technology
Fluid Dynamics
For outstanding contributions to aircraft performance, animal locomotion and behavior, optimization of energetics, fishing industry, and ecoenvironmental quality.

Weinberg, David Hal
The Ohio State University
Astrophysics
For outstanding research in studying the gravitational instability theory of structure formation in the Universe and its confrontation with experimental data.

Weisshaar, James C.
University of Wisconsin - Madison
Chemical Physics
For ground breaking applications of photoionization and photoelectron spectroscopy to molecules and radicals and for incisive spectroscopic and dynamics studies of complex chemical reactions.

Weller, Dieter
IBM Almaden Research Center
Magnetism & Its Application
For contributions to the basic understanding of magnetic anisotropy, stability, and switching phenomena in high density magnetic recording materials, including both magneto-optical and longitudinal magnetic media.

Wells, Gene L.
American Physical Society Editorial Off.
APS
For leadership, excellent judgement and dedication in his role as Editor of Physical Review Letters for the broad area of condensed matter physics.

Welp, Ulrich
Argonne National Laboratory
DCMP (Condensed Matter)
For pioneering magnetic measurements of phase transitions in superconducting and magnetic systems.

Whelan, Colm Thomas
University of Cambridge
Few Body Systems Topical Group
For many significant contributions to atomic collision theory and most especially for original work on (e, 2e) and related processes.

Wiesenfeld, Kurt Arn
Georgia Institute of Technology
Statistical & Nonlinear Physics
For seminal theoretical contributions to nonlinear dynamics and complex systems theory, including co-discovery of self-organized criticality and for theories of stochastic resonance and Josephson-junction phase locking.

Williams, Gwyn Philip
Brookhaven National Laboratory
DCMP (Condensed Matter)
For development of synchrotron radiation as a bright infrared source; for its application to studies of surface dynamics.

Windle, Alan H.
University of Cambridge
Polymer Physics
For fundamental studies elucidating structural order in liquid crystalline and noncrystalline polymers using x-ray scattering and molecular modeling techniques.

Winokur, Peter Stanley
Sandia National Laboratories
Forum on Industrial and Applied Physics
For contributions to the understanding of physical mechanisms governing the response of CMOS devices to ionizing radiation and to the development of radiation-hardened Si gate CMOS technology.

Wiss, James E.
University of Illinois
Particles & Fields
For his initial measurements of charmed particles and his continuing leadership in the study of heavy

Wong, Po-Zen
University of Massachusetts
DCMP (Condensed Matter)
For studies of disordered magnetic systems, porous media, and random interfaces.

Yarkony, David Roy
The Johns Hopkins University
Chemical Physics
For the development of algorithms to locate and characterize conical intersections and the demonstration of the essential role these intersections play in non adiabatic phenomena.

Zigler, Arie
Hebrew University
Forum on International Physics
In recognition of his fundamental experimental contributions to the field of ultra high intensity laser matter interactions.

Zisman, Michael S.
Lawrence Berkeley National Laboratory
Physics of Beams
For his key role in storage ring designs of synchrotron radiation sources and electron-positron factories, authoring the ZAP design code and in the design, construction and commissioning of the PEP-II/LER.

Zwier, Timothy Scott
Purdue University
Laser Science
For significant contributions to the understanding of intramolecular and intermolecular interactions, particularly of hydrogen bonded species, by application of double resonance laser spectroscopy to isolated molecules and molecular clusters.

Nomination Announcements

Call for Nominations for 2002 APS Prizes and Award

The following prizes and awards will be bestowed by the Society in 2001. Members are invited to nominate candidates to the respective committees charged with recommending the recipients. A brief description of each prize and award is given below, along with the addresses of the selection committee chairs to whom nominations should be sent. For complete information regarding rules and eligibility requirements for individual prizes and awards, please refer to the Prize and Awards page on the APS Web site at http://www.aps.org.

NOMINATION DEADLINE IS JULY 2, 2001, UNLESS OTHERWISE INDICATED.

PRIZES

HANS A. BETHE PRIZE

Endowed by contributions from the Division of Astrophysics, the Division of Nuclear Physics and friends of Hans Bethe.

Purpose: To recognize outstanding work in theory, experiment or observation in the areas of astrophysics, nuclear physics, nuclear astrophysics, or closely related fields.

Send name of proposed candidate and supporting information to: Gerald Garvey; MS H846; Los Alamos National Lab; Los Alamos, NM 87545; Phone (505) 667-9884; Fax (505) 665-7920; Email garvey@lanl.gov

TOM W. BONNER PRIZE IN NUCLEAR PHYSICS

Endowed by friends of Tom W. Bonner.

Purpose: To recognize and encourage outstanding experimental research in nuclear physics, including the development of a method, technique, or device that significantly contributes in a general way to nuclear physics research.

Send name of proposed candidate and supporting information to: Peter Bond; Bldg 460; Brookhaven Natl Lab; Upton, NY 11973; Phone (631) 344-4063; Fax (631) 344-5568; Email bond@bnl.gov

OLIVER E. BUCKLEY CONDENSED MATTER PHYSICS PRIZE

Endowed by AT&T Bell Laboratories.

Purpose: To recognize and encourage outstanding theoretical or experimental contributions to condensed matter physics.

Send name of proposed candidate and supporting information to: Steve Girvin; Dept of Phys 117 Swain Hall W.; Indiana Univ; Bloomington IN 47405; Phone (812) 855-3735; Fax (812) 855-5533; Email girvin@indiana.edu

DAVISSON-GERMER PRIZE IN ATOMIC OR SURFACE PHYSICS

Established by AT&T Bell Laboratories (now Lucent Technologies).

Purpose: To recognize and encourage outstanding work in atomic physics or surface physics.

Send name of proposed candidate and supporting information to: John E. Thomas; Dept of Phys; Duke Univ; Box 90305; Durham, NC 27708; Phone (919) 660-2508; Email jet@physics.phy.duke.edu

THE WILL ALLIS PRIZE FOR STUDY OF IONIZED GASES

Sponsored by American Telephone and Telegraph, General Electric, General Telephone and Electronics, International Business Machines, and Xerox Corporations

Purpose: To recognize and encourage outstanding research into the microscopic or macroscopic behavior of ionized gases.

Send name of proposed candidate and supporting information to: Tom Rescigno; LLNL; UCL; PO Box 808; Livermore CA 94551; Phone (925) 422-6210; Fax (925) 424-4320; Email tnr@llnl.gov

BIOLOGICAL PHYSICS PRIZE

Sponsors include Abbott Labs, Bio-Rad Microscience Division, Candela Laser Corp., Coherent Laser Products Group, Eastman Kodak Co., Furumoto Research Foundation, Newport Corporation-Bio-Instruments Division, and Siemens AG, Medical Engineering Group.

Purpose: To recognize and encourage outstanding achievement in biological physics research.

Send name of proposed candidate and supporting information to: James J. Collins; Dept of Biomed Engineering; Boston Univ; 44 Cummington St; Boston MA 02215; Phone (617) 353-0390; Fax (617) 353-5462; Email jcollins@bu.edu

THE FLUID DYNAMICS PRIZE

Supported by friends of the Division of Fluid Dynamics and the American Institute of Physics journal Physics of Fluids.

Purpose: To recognize and encourage outstanding achievement in fluid dynamics research.

Send name of proposed candidate and supporting information to: Wei Shyy; Univ of Florida; 231 Aero Bldg; Gainesville FL 32611; Phone (352) 392-6416; Fax (352) 392-7303; Email wss@tiger.aero.ufl.edu

FRANK ISAKSON PRIZE FOR OPTICAL EFFECTS IN SOLIDS

Supported by Solid State Communications (Elsevier Science Ltd).

Purpose: To recognize and encourage outstanding contributions to the field of optical effects in solids.

Send name of proposed candidate and supporting information to: Duncan Steel; Dept of Phys; Univ of Michigan; Randall Lab; Ann Arbor MI 48109; Phone (313) 764-4469; Fax (313) 763-9694; Email dst@umich.edu

JAMES CLERK MAXWELL PRIZE

Supported by the Maxwell Technologies, Inc.

Purpose: To recognize outstanding contributions to the field of plasma physics.

Send name of proposed candidate and supporting information to: Patrick Diamond; Dept of Phys 0319; UCSD; 9500 Gilman Dr; La Jolla, CA 92093; Phone (858) 534-4025; Fax (858) 534-7697; Email pdiamond@physics.ucsd.edu

DANNIE HEINEMAN PRIZE FOR MATHEMATICAL PHYSICS

Sponsored by the Heineman Foundation for Research, Educational, Charitable and Scientific Puruposes, Inc.

Purpose: To recognize outstanding publications in the field of mathematical physics.

Send name of proposed candidate and supporting information to: Jonathan Bagger; Dept of Phys & Astron; Johns Hopkins Univ; 3400 N Charles St; Baltimore MD 21218; Phone (410) 516-5419; Fax (410) 516-7239; Email bagger@jhu.edu

POLYMER PHYSICS PRIZE

Sponsored by the Ford Motor Company.

Purpose: To recognize outstanding accomplishment and excellence of contributions in high polymer physics research.

Send name of proposed candidate and supporting information to: Scott Milner; Exxon Res & Engr Co; Rte 22E Clinton Twnshp; Annandale NJ 08801; Phone (908) 730-2309; Fax (908) 730-2536; Email stmilne@erenj.com

JAMES C. MCGRODDY PRIZE FOR NEW MATERIALS

Endowed by IBM.

Purpose: To recognize and encourage outstanding achievement in the science and application of new materials.

Send name of proposed candidate and supporting information to: Paul S Peercy; 2610 Engineering Hall; Univ of Wisconsin; 1415 Engineering Dr; Madison, WI 53706; Phone (608) 262-3480; Fax (608) 262-6400; Email peercy@engr.wisc.edu

LARS ONSAGER PRIZE

Endowed by Russell and Marion Donnelly.

Purpose: To recognize outstanding research in theoretical statistical physics including the quantum fluids.

Send name of proposed candidate and supporting information to: Alexander Fetter; Stanford Univ Phys Dept; Stanford CA 94305; Phone (650) 723-4230; email fetter@leland.stanford.edu

GEORGE E. PAKE PRIZE

Deadline: April 2, 2001

Endowed by the Xerox Corporation.

Purpose: To recognize and encourage outstanding work by physicists combining original research accomplishments with leadership in the management of research or development in industry.

Send name of proposed candidate and supporting information to: James McCambridge; DuPont Superconductivity; Experimental Station E304 / C129; Wilmington, DE 19880; Phone (302) 695-2372; Fax (302) 695-2721; Email james.d.mccambridge@usa.dupont.com

W.K.H. PANOFSKY PRIZE IN EXPERIMENTAL PARTICLE PHYSICS

Endowed by the friends of W.K.H. Panofsky and the Division of Particles and Fields.

Purpose: To recognize and encourage outstanding achievements in Experimental Particle Physics.

Send name of proposed candidate and supporting information to: Marjorie Shapiro; Lawrence Berkeley National Laboratory; 1 Cyclotron Road; Berkeley, CA 94720; Phone (510) 486-4683; Email mdshaprio@lbl.gov

EARLE K. PLYLER PRIZE FOR MOLECULAR SPECTROSCOPY

Sponsored by the George E. Crouch Foundation.

Purpose: To recognize and encourage notable contributions to the field of molecular spectroscopy.

Send name of proposed candidate and supporting information to: Daniel Neumark; Dept of Chem; University of California, Berkeley; Berkeley, CA 94720; Phone (510) 642-3502; Email dan@radon.cchem.berkeley.edu

ANEESUR RAHMAN PRIZE FOR COMPUTATIONAL PHYSICS

Sponsored by the IBM Corporation and Argonne National Laboratory.

Purpose: To recognize and encourage outstanding achievement in computational physics research.

Send name of proposed candidate and supporting information to: Tomas Diaz de la Rubia; L-353; Lawrence Livermore Natl Lab; Livermore, CA 94550; Phone (925) 422-5714; Fax (925) 422-7300; Email delarubia@llnl.gov

J. J. SAKURAI PRIZE FOR THEORETICAL PARTICLE PHYSICS

Endowed by the family and friends of J.J. Sakurai.

Purpose: To recognize and encourage outstanding achievement in particle theory.

Send name of proposed candidate and supporting information to: Elizabeth Simmons; Dept of Phys; Boston Univ; 590 Commonwealth Ave; Boston MA 02215; Phone (617) 353-4792; Fax (617) 353-6062; Email simmons@bu.edu

ARTHUR L. SCHAWLOW PRIZE IN LASER SCIENCE

Endowed by the NEC Corporation.

Purpose: To recognize outstanding contributions to basic research which uses lasers to advance our knowledge of the fundamental physical properties of materials and their interaction with light.

Send name of proposed candidate and supporting information to: Stephen Leone; JILA; Univ of Colorado; CB 440; Boulder CO 80309; Phone (303) 492-5128; Fax (303) 492-5504; Email srl@jila.colorado.edu

PRIZE TO A FACULTY MEMBER FOR RESEARCH IN AN UNDERGRADUATE INSTITUTION

Sponsored by the Research Corporation.

Purpose: To honor a physicist whose research in an undergraduate setting has achieved wide recognition and contributed significantly to physics and who has contributed substantially to the professional development of undergraduate physics students.

Send name of proposed candidate and supporting information to: Daniel Larson; Eberly College of Science; Penn State University; 517 Thomas Bldg; University Park, PA 16802; Phone (814) 865-9591; Fax (814) 863-0491; Email djlarson@psu.edu

ROBERT R. WILSON PRIZE

Sponsored by friends of Robert Wilson.

Purpose: To recognize and encourage outstanding achievement in the physics of particle accelerators.

Send name of proposed candidate and supporting information to: Pief Panofsky; Bin 76 SLAC; Stanford Univ; PO Box 4349; Stanford CA 94309; Phone (650) 926-3988; Fax (650) 926-2395; Email pief@slac.stanford.edu

AWARDS

AWARD FOR EXCELLENCE IN PLASMA PHYSICS RESEARCH

Deadline: April 2, 2001

Supported from friends of the Division of Plasma Physics.

Purpose: To recognize a particular recent outstanding achievement in plasma physics research.

Send name of proposed candidate and supporting information to: Steven Cowley; Dept of Phys; UCLA; 405 Hilgard Ave; Los Angeles CA 90024; Phone (310) 825-4770; Email cowley@physics.ucla.edu

LEROY APKER AWARD

Deadline: June 15, 2001

Endowed by Jean Dickey Apker in memory of LeRoy Apker.

Purpose: To recognize outstanding achievement in physics by undergraduate students, and thereby provide encouragement to young physicists who have demonstrated great potential for future scientific accomplishment.

Send name of proposed candidate and supporting information to: Dr. Alan Chodos; American Physical Society; One Physics Ellipse; College Park, MD 20740; Attn: Apker Award Committee; Phone (301) 209-3233; Fax (301) 209-0865; Email chodos@aps.org

THE OTTO LAPORTE AWARD

Endowed by the friends of Otto Laporte and the Division of Fluid Dynamics.

Purpose: To recognize outstanding research accomplishments pertaining to the physics of fluids.

Send name of proposed candidate and supporting information to: C. F. Chen; Aero & Mech Engr Dept; Univ of Arizona; Tucson AZ 85721; Phone (602) 621-8199; Fax (602) 621-8191; Email cfchen@abacus.ame.arizona.edu

JOSEPH A. BURTON FORUM AWARD

Endowed by Jean Dickey Apker.

Purpose: To recognize outstanding contributions to the public understanding or resolution of issues involving the interface of physics and society.

Send name of proposed candidate and supporting information to: Robert J. Lempert; RAND; 1700 Main Street; Santa Monica, CA 90407-2138; Phone (310) 393-0411, Ext. 6217; Fax (310) 393-4818; Email lampert@rand.org

MARIA GOEPPERT-MAYER AWARD

Sponsored by the GE Fund.

Purpose: To recognize and enhance outstanding achievement by a woman physicist in the early years of her career, and to provide opportunities for her to present these achievements to others through public lectures in the spirit of Maria Goeppert-Mayer.

Send name of proposed candidate and supporting information to: Ellen Zweibel; JILA CB 440; Univ of Colorado; Boulder CO 80309; Phone (303) 492-8439; Fax (303) 492-0642; Email zweibel@solarz.colorado.edu

JOSEPH F. KEITHLEY AWARD FOR ADVANCES IN MEASUREMENT SCIENCE

Endowed by Keithley Instruments, Inc., and the Instrument and Measurement Science Topical Group (IMSTG).

Purpose: To recognize physicists who have been instrumental in the development of measurement techniques or equipment that have impact on the physics community by providing better measurements.

Send name of proposed candidate and supporting information to: Marvin Cage; Div of Elec 220 / B258; NIST; Rte 270 & Quince Orchard Rd; Gaithersburg MD 20899; Phone (301) 975-4224; Fax (301) 926-3972; Email cage@eeel.nist.gov

MEDALS AND LECTURESHIPS

DAVID ADLER LECTURESHIP AWARD

Established by friends of David Adler.

Purpose: To recognize an outstanding contributor to the field of materials physics, who is noted for the quality of his / her research, review articles and lecturing.

Send name of proposed candidate and supporting information to: Dennis McWhan; 8 Gloucester St, Unit 14; Boston, MA 02115; Phone (617) 536-9610; Email mcwhan@bnl.gov

EDWARD A. BOUCHET AWARD

Sponsored by the Research Corporation.

Purpose: To promote the participation of underrepresented minorities in physics by identifying and recognizing a distinguished minority physicist who has made significant contributions to physics research.

Send name of proposed candidate and supporting information to: Luz Martenez-Miranda; Dept of Mater & Nucl Engr; Univ of Maryland; College Park MD 20742; Phone (301) 405-0253; Fax (301) 314-9467; Email martinez@eng.umd.edu

JOHN H. DILLON MEDAL

Sponsored by Elsevier Science, Oxford, U.K., publishers of the journal, Polymer.

Purpose: To recognize outstanding research accomplishments by young polymer physicists who have demonstrated exceptional research promise early in their careers.

Send name of proposed candidate and supporting information to: Scott Milner; Exxon Res & Engr Co; Rte 22E Clinton Twnshp; Annandale NJ 08801; Phone (908) 730-2309; Fax (908) 730-3232; Email stmilne@erenj.com

NICHOLSON MEDAL FOR HUMANITARIAN ASSISTANCE

Deadline: April 2, 2001

Sponsored by friends of Dwight Nicholson.

Purpose: To recognize the humanitarian aspect of physics and physicists.

Send name of proposed candidate and supporting information to: Harold Weitzner; Courant Inst Math Sci; NYU; 251 Mercer St; New York NY 10012; Phone (212) 998-3267; Fax (212) 995-4121; Email weitzner@cims.nyu.edu

LEO SZILARD LECTURESHIP AWARD

Endowed by members of the Forum on Physics and Society and the Packard, Mac Arthur, and Energy Foundations.

Purpose: To recognize outstanding accomplishments by physicists in promoting the use of physics for the benefit of society in such areas as the environment, arms control, and science policy.

Send name of proposed candidate and supporting information to: Robert J. Lempert; RAND; 1700 Main Street; Santa Monica, CA 90407; Phone (310) 393-0411, Ext. 6217; Fax (310) 393-4818; Email lampert@rand.org

DISSERTATION AWARDS

OUTSTANDING DOCTORAL THESIS IN PLASMA PHYSICS AWARD

Deadline: April 2, 2001

Endowed in by General Atomics Inc.

Purpose: To provide recognition to exceptional young scientists who have performed original thesis work of outstanding scientific quality and achievement in the area of plasma physics.

Send name of proposed candidate and supporting information to: Cary B Forest; Dept of Phys; Univ of Wisconsin; 1150 University Ave; Madison, WI 53706; Phone (608) 263-0486; Fax (608) 262-7205; Email cbforest@facstaff.wisc.edu

OUTSTANDING DOCTORAL THESIS RESEARCH IN BEAM PHYSICS AWARD

Supported by Brookhaven Science Associates, Southwest Universities Research Association, and Universities Research Association.

Purpose: To recognize doctoral thesis research of outstanding quality and achievement in beam physics and engineering.

Send name of proposed candidate and supporting information to: Robert Gluckstern; 3117 Physics Bldg; Univ of Maryland; College Park MD 20742; Phone (301) 405-6054; Fax (301) 314-9525; Email rlg@physics.umd.edu

TANAKA DISSERTATION AWARD IN EXPERIMENTAL PARTICLE PHYSICS

Established in 1999 in memory of Dr. Mitsuyoshi Tanaka provided by friends and family.

Purpose: To provide recognition to exceptional young scientists who have performed original doctoral thesis work of outstanding scientific quality and achievement in the area of experimental particle physics.

Send name of proposed candidate and supporting information to: Thomas Ferbel; Dept of Phys; Univ of Rochester; Rochester NY 14627; Phone (716) 275-4396; Fax (716) 275-8527; Email ferbel@pas.rochester.edu

2001 APS Fellowship Nomination Deadlines

For submittal information see: http://www.aps.org/fellowships

DIVISIONS	
Astrophysics	05/01/01
Atomic, Molecular, Optical	03/31/01
Biological Physics	04/02/01
Chemical Physics	PAST
Computational Physics	04/14/01
Condensed Matter	PAST
Fluid Dynamics	PAST
Polymer Physics	04/15/01
Laser Science	04/02/01
Materials Physics	PAST
Nuclear Physics	04/02/01
Particles & Fields	04/02/01
Physics of Beams	03/15/01
Plasma Physics	04/02/01
FORUMS	
Physics & Society	04/02/01
History of Physics	04/02/01
International Physics	04/02/01
Industrial and Applied Physics	PAST
Education	04/15/01
TOPICAL GROUPS	
Few Body Systems	04/10/01
Precision Measurement Fund. Const.	04/02/01
Instruments and Measurement	04/02/01
Shock Compression	04/02/01
Gravitation	04/02/01
Magnetism and Its Applications	04/02/01
Plasma Astrophysics	04/02/01
Statistical and Nonlinear Physics	04/02/01
APS GENERAL	06/01/01