

APS Hands Out Awards at March Meeting

At its annual March Meeting, which is being held this year in Los Angeles (see the meeting preview on page 55), the American Physical Society is giving out numerous awards, medals, and prizes.

The David Adler Lectureship Award is being presented to **Ramamoorthy Ramesh**, professor in the physics department and the materials science and engineering department at the University of California, Berkeley. The society cites his “contributions to materials physics that have enabled a deeper understanding of ferroelectric materials, the discovery of colossal magnetoresistance, and leadership in communicating the excitement of materials physics to a broad audience.”

Nathan Hodas, currently a PhD student at Caltech, is receiving the LeRoy Apker Award for undergraduate research done at a non-PhD-granting institution for his thesis entitled “Oligo-RNA Optimal Binding Calculation,” which he wrote under the supervision of Daniel P. Aalberts at Williams College in Williamstown, Massachusetts.

The Edward A. Bouchet Award is going to **Godfrey Gumbs** for his “pioneering contributions to our understanding of low-dimensional heterostructures, and for leadership in recruitment, retention, and mentoring of under-represented minority students.” Gumbs is the Maria A. Chianta and Alice M. Stoll Professor in the physics department at Hunter College of the City University of New York (CUNY).

Hanna Reisler is receiving the Herbert P. Broida Prize for her “theoretical insights and carefully executed experiments on the detailed dynamics of small molecules.” She holds the Gabilan Chair in the College of Letters, Arts and Sciences and is a professor of chemistry at the University of Southern California in Los Angeles.

Gabriel Aeppli, **David Awschalom**, and **Myriam Sarachik** are sharing the Oliver E. Buckley Condensed Matter Physics Prize for their “fundamental contributions to experimental studies of quantum spin dynamics and spin coherence in condensed matter systems.” Aeppli is the Quain Professor of Physics at Univer-

sity College London and director of the London Centre for Nanotechnology at Imperial and University Colleges London. Awschalom is a professor of physics at the University of California, Santa Barbara. Sarachik is a distinguished professor of physics at City College, CUNY.

Ernst Bauer, distinguished research professor in the department of physics and astronomy at Arizona State University in Tempe, is being honored with the Davisson-Germer Prize in Atomic or Surface Physics. He is being recognized for his “contributions to the science of thin-film nucleation and growth, and for the invention of the low-energy electron microscope.”

Jan Genzer has won the John H. Dillon Medal for his “highly creative manipulation of surface properties via monolayer and macromolecular films.” He is an associate professor in the department of chemical and biomolecular engineering at North Carolina State University in Raleigh.

The society is bestowing the Dannie Heineman Prize for Mathematical Physics on **Giorgio Parisi** for his “fundamental theoretical discoveries in broad areas of elementary particle physics, quantum field theory, and statistical mechanics; especially for work on spin glasses and disordered systems.” He is the professor of quantum theories at the University of Rome I (“La Sapienza”).

The Joseph F. Keithley Award is going to **E. Dwight Adams**, professor emeritus in the department of physics at the University of Florida in Gainesville. The award honors his “pioneering development of the capacitive pressure transducer, its application to the [helium-3] melting pressure thermometry, and other scientific uses.”

The Irving Langmuir Prize in Chemical Physics is being given to **David Chandler** for his “creation of widely used analytical methods and simulation techniques in statistical mechanics, with applications to theories of liquids, chemical kinetics, quantum processes, and reaction paths in complex systems.” He is a professor of chemistry at UC Berkeley.

Yuri Suzuki, associate professor in the department of materials science and engineering at UC Berkeley, garners the Maria Goeppert Mayer Award for her “research in epitaxial oxide thin films, nanostructures, and devices with tailored magnetic, elec-

tronic, and optical properties.”

Yoshinori Tokura is receiving the James C. McGroddy Prize for New Materials for “pioneering work in the synthesis and characterization of transition metal oxides having unusual charge and spin order.” Tokura is a professor in the department of applied physics at the University of Tokyo.

This year, **Harald Pfeiffer** is the recipient of the Nicholas Metropolis Award for Outstanding Doctoral Thesis Work in Computational Physics for his thesis “Initial Data for Black Hole Evolutions,” written under the supervision of Saul Teukolsky at Cornell University. APS is acknowledging Pfeiffer, Sherman Fairchild Postdoctoral Scholar in Physics at Caltech, for his “outstanding research on determining initial data for the dynamics of black holes.”

Joel Lebowitz is being honored with the Nicholson Medal for Human Outreach for his “tireless personal activism, throughout his superb career as a theoretical physicist, to help scientists and defend their human rights in countries around the globe.” He is a professor of mathematics and physics at Rutgers University.

The Lars Onsager Prize goes to **Valery Pokrovsky**, distinguished professor in the department of physics at Texas A&M University, for “fundamental and original contributions to statistical physics, including development of the scaling theory for correlation functions near critical points and of theories for commensurate-incommensurate phase transitions.”

Cherry Murray is receiving the George E. Pake Prize for her “fundamental studies in surface and scattering physics,” and, as physical sciences research senior vice president at Lucent Technologies’ Bell Labs, for “overseeing Bell Laboratories at an important time in its history.” She is now the deputy director for science and technology at Lawrence Livermore National Laboratory.

The Earle K. Plyler Prize for Molecular Spectroscopy is going to **Robert Tycko** for his “development of novel techniques in [nuclear magnetic resonance] spectroscopy and their application to a wide range of fundamental problems including work on Berry’s phase, fullerenes, quantum wells, and amyloid fibrils.” He is a senior investigator in the laboratory of chemical physics at the National Institutes of Health’s National Institute of Diabetes and Digestive

and Kidney Diseases in Bethesda, Maryland.

The Polymer Prize in Nuclear Physics is being awarded to **Thomas Russell**, distinguished professor of polymer science and engineering at the University of Massachusetts Amherst, for his “pioneering research and fundamental elucidation of the surface and interfacial behavior of polymers.”

Uzi Landman takes this year’s Aneesur Rahman Prize for his “pioneering computations that have generated unique insights into the physics of materials at the nanometer length scale, thereby fostering new theoretical and experimental research.” He is a Regents’ and Institute Professor and the F. E. Callaway Chair in the school of physics at the Georgia Institute of Technology.

The George E. Valley Prize goes to **Ivo Souza**, assistant professor in UC Berkeley’s physics department. Souza is cited for his “fundamental advances in the theory of polarization, localization, and electric fields in crystalline insulators.”

Steven Manson, Regents Professor in the department of physics and astronomy at Georgia State University in Atlanta, is the recipient of the John Wheatley Award. APS is honoring Manson for “building collaborations with scientists in Uzbekistan, India, and Turkey, and for promoting research groups and supporting students in these countries.”

AIP Honors Lederman with Compton Medal

Nobel laureate **Leon M. Lederman** will receive the Karl T. Compton Medal for Leadership in Physics from the American Institute of Physics at the April meeting of the American Physical Society in Tampa, Florida. Presented every four years, the medal is accompanied by a certificate and a cash award of \$10 000.

Lederman, an internationally known high-energy physicist, has been actively involved in the professional development of primary-school teachers in the Chicago area. He is being recognized for his “inspirational leadership in the teaching of physics.”

Director emeritus of Fermilab in Batavia, Illinois, Lederman holds an appointment as Pritzker Professor of Science at the Illinois Institute of Technology in Chicago. He is also the resident scholar at the Illinois Mathematics and Science Academy in Aurora. With colleagues and students, Lederman carried out many seminal experiments that provided advances

in the understanding of fundamental particles and their interactions. His major work included the observation



Lederman

first evidence for the existence of the bottom quark.

Macosko Honored Twice by SoR

For the first time, the Society of Rheology has bestowed two awards on the same person in the same year. At the SoR annual meeting in Lubbock, Texas, last month, **Christopher Macosko** received the Bingham Medal and shared the *Journal of Rheology* Publication Award with **Rui Zhao**.

The Bingham Medal, SoR’s highest honor, is given to a member of the society who has made an outstanding contribution to the science of rheology. Macosko was honored for his “outstanding contribution to the science of deformation and flow of matter.” He is a professor of chemical engineering and materials science at the University of Minnesota.

The Publication Award recognizes an outstanding paper published in the *Journal of Rheology* during the preceding two years. Macosko and Zhao’s article, “Slip at Polymer–Polymer Interfaces: Rheological Measurements on Coextruded Multilayers,” appeared in 2002 in volume 46, page 145, of the journal. Zhao is a senior research engineer at ExxonMobil Chemical Co in Baytown, Texas.

Marrian Is AVS President-Elect

The president-elect of the AVS Science and Technology Society for

of parity violation in decay of pi mesons and muons, the discovery of the long-lived neutral kaon, the discovery that neutrinos come in at least two varieties, and the discovery of the heavy upsilon meson, which was the

2005 is **Christie Marrian**. He succeeds **David Aspnes** (see PHYSICS TODAY, January 2004, page 65), who is now the society’s president. Marrian will become president in 2006.

Marrian studied electrical engineering at Cambridge University; there he received his BA in 1973 and his PhD in 1978. After spending three years at CERN, he joined the surface physics branch at the Naval Research Laboratory in Washington, DC, in 1980.

Five years later, Marrian started NRL’s first program in nanoelectronics; he became head of the nanoelectronics processing facility there in 1993.

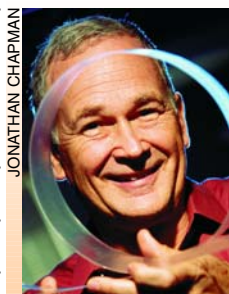
From 1998 to 2001, he worked in the microsystems technology office at the Defense Advanced Research Projects Agency. He subsequently moved to IBM, where he is the manager of device and systems innovation at the company’s Almaden Research Center in San Jose, California. His research interests are nanofabrication and the properties of nanometer-scale structures and devices, specifically nanoimprint technology and biologically inspired self-assembly.

Marrian spoke of his plans for the society. “Having moved to industry,” he said, “I have become acutely aware that AVS is in a unique position to bridge the needs and interests of academia, government, and industry. To strengthen these ties, I will focus on meeting the needs of our corporate members by, for example, linking our highly skilled and motivated student members with industry.” He added that he will “develop an AVS initiative that enables academia and government to benefit from insights into the research issues of relevance to industry today.”

In other AVS election news, **Joe Greene** (University of Illinois at Urbana–Champaign) remains the society’s secretary and **John Coburn** (University of California, Berkeley) retains his position as treasurer. The new AVS directors are **David Castner** (University of Washington) and **Rachel S. Goldman** (University of Michigan). The society’s newly elected trustees are **Theodore E. Madey** (Rutgers University) and **William Sproul** (Advanced Energy Industries Inc, Fort Collins, Colorado).



Marrian



Macosko