WE HEAR THAT

APS Presents Prizes and Awards in Washington

During the American Physical Society's meeting this month in Washington, DC, a number of individuals will be honored for their contributions to physics.

The Tom W. Bonner Prize is being given to **Felix H. Boehm** for "his pivotal contributions to our understanding of the weak interaction and fundamental symmetries in the nucleus." The award citation noted Boehm's "measurements of positron polarization in beta decay and their impact on the development of the V–A theory of weak interactions, his pioneering studies providing convincing evidence for parity violation in nuclear transitions, and his frontier-defining searches for violations of time-reversal invariance in nuclei and for neutrino oscillations." Boehm is the William L. Valentine Professor of Physics emeritus at Caltech.

The Dannie Heineman Prize for Mathematical Physics is being given to **Roman W. Jackiw,** a professor in the physics department at MIT. APS cites Jackiw for "his imaginative use of quantum field theory to throw light on physical problems, including his work on topological solitons, field theory at high temperatures, the existence of anomalies, and the role of these anomalies in particle physics."

The recipient of the Julius Lilienfeld Prize is **Valentine L. Telegdi** of CERN and Caltech. APS cites Telegdi for "his ingenious experiments to determine the characteristics of the elementary particles, for his discoveries concerning the nature of the weak forces of nature as revealed by the capture and decay of muons, for his rigorous analysis of particle interactions, and for his ability to inspire and enlighten diverse audiences."

This year's W. K. H. Panofsky Prize recipient is **Frank J. Sciulli,** a professor of physics at Columbia University. Sciulli is cited for "his contribution to a seminal set of high-energy neutrino experiments at Fermilab. These experiments played an important role in establishing the existence of weak neutral currents, they established accurate neutrino–nucleon cross sections and accurate values of basic electroweak parameters, they set important limits on neutrino oscillations, and they fit sum rules that helped establish the physical reality of quarks."

Howard M. Georgi has garnered the J. J. Sakurai Prize in recognition of "his pioneering contributions toward the unification of strong and electroweak interactions, and his application of quantum chromodynamics to the properties and interactions of hadrons." Georgi is the Mallinckrodt Professor of Physics at Harvard University.

Also to be honored at the April meeting are the three winners of the 1994 Apker Award, which recognizes outstanding achievements in physics by undergraduates: **Arthur Chu, Brandon Collings** and **Steven S. Gubser.** Chu, now a graduate student at Harvard, was cited for "his achievements as an undergraduate student at Harvard University, particularly his research on laser manipulation of three level A systems." Collings, who is now an electrical engineering graduate student at Princeton, was cited for "his achievements as an undergraduate student at Hamilton College, particularly his research on avalanche up-conversion in LaF_3:Tm^{3+}." Gubser is now studying at St. John's College in Cambridge, England; he received the award for "his achievements as an undergraduate student at Princeton University, particularly his research on geodesic distance in two-dimensional quantum gravity."

The 1995 Forum Award goes to **John P. Holdren,** the Class of 1935 Professor of Energy at the University of California, Berkeley. Holdren was chosen for "his many insightful contributions to the analysis of global energy issues, for his unstinting leadership in arms control, and for the clear and lucid presentation of these ideas to scientists and to the general public."

The Maria Goeppert-Mayer Award is being given to **Jacqueline N. Hewitt,** the Class of 1948 Associate Professor of Physics at MIT, for "her contributions to radio astronomy, in particular her pioneering work in detection of gravitational lenses, including the discovery of the first Einstein ring, and their detailed investigation using polarization, time-delay, and other measurements."

The APS Award for Research in an Undergraduate Institution goes to **Michael E. Sadler,** a professor of physics at Abilene Christian University, in Abilene, Texas. The prize citation notes Sadler's "leadership and outstanding research contributions in experimental pion–nucleon scattering and his energetic involvement and guidance of numerous undergraduate collaborators from Abilene Christian University at national and international laboratories."

The two winners of this year's Leo Szilard Award are **Roald Z. Sagdeev** and **Evgenii P. Velikhov.** The two are cited for "their contributions to Soviet *glasnost*, which was a major factor in reversing the nuclear arms race between the Soviet Union and the United States." Sagdeev is a Distinguished Professor and director of the East–West Center at the University of Maryland, and Velikhov is director of the Kurchatov Institute for Atomic Energy and vice president of the Russian Academy of Sciences.

The John Wheatley Award goes to **Galileo Violini** for "his leadership in the founding and directing of [the] Centro Internacional de Fisica in Bogota, Colombia, an institution which furthers physics collaboration and experimental research in the Andean region."

Optical Society Names Award Winners for 1995

The Optical Society of America recently announced the winners of many of its awards for 1995. (The recipients of several other OSA awards, including the Edwin H. Land Medal and the Engineering Excellence Awards, will be announced later this year.)

Robert M. Boynton is this year's recipient of the Frederic Ives Medal, the highest honor bestowed by OSA. Boynton, an emeritus professor of psychology at the University of California, San Diego, was cited for his "fundamental contributions to the understanding of human color vision, and

for leadership in teaching and in service of the vision community."

OSA's Allen Prize, which recognizes an individual's contributions to atmospheric remote sensing while a graduate student, goes to **Carter Grotbeck,** now a postdoctoral fellow at Sandia National Laboratories. Grotbeck is cited for his "initiative and proficiency in developing a solar aureole camera and the associated inversion algorithm for reducing the camera data."

The Max Born Award goes this year to **F. Tito Arecchi** for his "many contributions to photon statistics of lasers, cooperative atomic radiation effects and laser instabilities and chaos." Arecchi is the chair of physics at the University of Florence, Italy, and president of the Istituto Nazionale di Ottica, also in Florence.

Joseph H. Apfel is the winner of the joint Joseph Fraunhofer Award–Robert M. Burley Prize. Apfel, who retired in 1988 as chief technical officer of Optical Coating Laboratory in Santa Rosa, California, is cited for his "tireless efforts to simplify the theoretical underpinnings of optical thin films and for casting design rules into graphical forms that can be easily manipulated without extensive computations."

The recipient of OSA's Ellis P. Lippincott Award is **Giancinto Scoles,** the Donner Professor of Science at Princeton University. The citation accompanying the award credits Scoles's "pioneering contributions to the development of new molecular-beam methods for vibrational spectroscopy, which have led to fundamental advances in our knowledge of weakly bound molecules and larger clusters and in our understanding of the mechanisms of intramolecular vibrational redistribution."

The Adolph Lomb Medal, given to an individual who has made noteworthy contributions to optics before the age of 30, goes to **Turan Erdogan,** an assistant professor at the University of Rochester's Institute of Optics. Erdogan was cited for his "application of electron-beam lithography to fabrication of circular diffraction gratings and demonstration of a surface-emitting semiconductor laser based on these gratings."

The winner of the 1995 C. E. K. Mees Medal is **Serge Lowenthal** of the Institut d'Optique of the Centre National de la Recherche Scientifique in Paris. OSA cited him for "numerous major and significant contributions to optics, especially in x-ray imaging, holography and optical information processing, and [for] his continuous, energetic and tireless pursuit of the goal of international cooperation."

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The William F. Meggers Award is being given to **Robert N. Compton** for his "seminal contributions to the understanding of the nature of atomic and molecular negative ions (especially doubly charged anions) and to the field of multiphoton excitation processes in the gas phase." Compton is a corporate fellow at Oak Ridge National Laboratory and a professor of chemistry at the University of Tennessee.

The David Richardson Medal goes this year to **Julian Stone** for his "leadership in the advancement of lightwave component and optical measurement techniques." Stone is a Distinguished Member of the Technical Staff at AT&T Bell Laboratories in Holmdel, New Jersey.

Ivan P. Kaminow, head of the broadband networks research department at AT&T Bell Labs in Holmdel, is the winner of the Charles Hard Townes Award. OSA chose Kaminow for his "outstanding leadership and contributions to the field of quantum electronics over the past 40 years, which include pioneering the invention and development of titanium-diffused $LiNbO_3$ waveguides and revolutionary innovations in electro-optic modulators."

The winner of the 1995 John Tyndall Award is **Tingye Li,** head of the lightwave systems research department at AT&T Bell Labs in Holmdel. Li is cited for "sustained advances in high-capacity optical fiber communication systems created by his pioneering research, leadership and personal contributions over more than two decades."

Gerard Mourou has garnered the R. W. Wood Prize for his "contributions to the field of ultrafast optics, in particular for introducing the concept of chirped pulse amplification for laser systems to boost optical power

peaks to unprecedented levels." Mourou is an electrical engineering professor and the director of the NSF Science and Technology Center for Ultrafast Optical Science at the University of Michigan.

AAPT Honors Taylor, Clark and Others at Winter Meeting

During its winter meeting in Orlando, Florida, the American Association of Physics Teachers recognized several individuals for their contributions to physics education and to the association.

The Oersted Medal, AAPT's highest honor, was presented to **Robert Beck Clark,** a professor of physics at Texas A&M University. Clark was

ROBERT BECK CLARK

cited for "his contributions to the improvement of physics teaching, as a college teacher and as an active participant in many programs aimed at physics teaching at all levels."

This year's Richtmyer Memorial Lecturer was **Joseph H. Taylor,** the McDonnell Distinguished University Professor of Physics at Princeton University. Taylor, who shared the 1993 Nobel Prize in Physics for the discovery in 1974 of the first binary pulsar, spoke about pulsars of this type and their use in the study of relativistic gravity.

AAPT also presented Distinguished Service Citations to four of its members: **Charles R. Lang,** a physics teacher at Omaha Westside High School, in Omaha, Nebraska; **Charles E. Robertson,** a senior lecturer in the physics department at