

Coolidge Award for medical physics given to Webster

At its annual meeting in July, the American Association of Physicists in Medicine will present the William D. Coolidge Award to Edward W. Webster. Webster is now director of the Radiological Sciences Division at Harvard Medical School; simultaneously he is director of Radiation Safety at Massachusetts General Hospital and professor of radiology in the physics department there, and he also teaches medical radiation physics at the Harvard School of Public Health and radiology in the Harvard-MIT Division of Health Sciences and Technology.

The Coolidge Award is given annually to recognize outstanding contributions to medical physics. It was established in 1913 to honor William D. Coolidge, the inventor of the "Coolidge" tubes, a new type of x-ray tube.

Webster's first work in medicine was on therapeutic applications of megavolt x rays. In the course of this work, he developed, along with W. A. Moos, an automatic dose computer for use with this therapeutic technique. Webster was also one of the first to use total-body radiation for the treatment of leukemia. In diagnostic radiology, Webster made significant contributions to the development of fluoroscopic imaging techniques and is currently studying the effect on image quality of various radiographic techniques. He has contributed to radiation safety by determining safe doses for diagnostic use, by assessing the general hazards associated with diagnostic radiology and by evaluating the effectiveness of radiation shielding. In fact, Webster holds a patent for composite shields for use with low-energy x rays. He has also been an active participant in numerous national and international scientific committees and panels. He has been an advocate for the development of safety standards and techniques for safe radiation use. He served on the National Academy of Sciences' Committee on the Biological Effects of Ionizing Radiation, and he was instrumental in the publication of the International Atomic Energy Agency's *Atlas of Radiation Dose Distributions*. Webster was also on the first Board of

Directors of the AAPM in 1958 and has been active in the Society ever since, serving in various capacities—as president and as the first editor of *The Medical Physicist*, among others.

After receiving his PhD in electrical engineering from the University of London in 1946, Webster was a research engineer in the English Electric Company until 1949. He came to MIT as guest researcher in 1949 and stayed to work as a radiation physicist with John Trump. In 1953 he began his association with the Massachusetts General Hospital as a physicist in the Department of Radiology there, and in 1954, as an assistant in radiology, he began an association with the Harvard Medical School which also continues to this day.



WEBSTER

Weisskopf wins Oppenheimer Prize

Victor F. Weisskopf, professor emeritus of physics of the Massachusetts Institute of Technology, has been given the J. Robert Oppenheimer Memorial Prize by the Center for Theoretical Studies at the University of Miami. Paul A. M. Dirac, the first winner of this prize, presented the award to Weisskopf and discussed his theory of variation in the universal gravitational constant at a special conference held to honor Dirac.

The Oppenheimer Prize is awarded annually to recognize outstanding contributions to theoretical and natural sciences, mathematics, and philosophy of science. Weisskopf was honored "for his achievements in theoretical quantum electrodynamics, the structure of the atomic nucleus, and elementary-particle physics."

While serving as group leader and associate head of the theory division for the Manhattan Project, Weisskopf contributed both to our understanding of nuclear energy and to our ability to exploit it. Weisskopf made most of his subsequent contributions to theories of nuclear reactions and to quantum electrodynamics while at MIT. He joined

the physics department there in 1945 and later became head of the theory group in the Laboratory of Nuclear Science. Weisskopf also played a significant role in the development of the European Center for Nuclear Research: While on a four-year leave from MIT 1961–64, he served as CERN's director, overseeing the completion of construction of the accelerator and the beginning of research. After his return from CERN he became Institute Professor in 1966 and head of the physics department in 1967.

Weisskopf also took this opportunity to present a paper that reflected his desire that nuclear technology be used only for peaceful purposes and his belief that one of the most important deterrents to nuclear war is a strong public opinion against nuclear arms escalation. (See his Guest Comment, *PHYSICS TODAY*, March, page 9.) Weisskopf has been concerned about this issue since 1944 when he helped found the Federation of Atomic Scientists, whose purpose is to inform the public about the possible consequences of nuclear war and to support the peaceful use of atomic energy. As a member of

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the Pontifical Academy, Weisskopf was recently sent to present the Academy's position on the dangers of nuclear war to President Reagan.

in brief

The **Materials Research Society** has presented the 1982 **von Hippel Award** to **Clarence C. Zener**, Emeritus University Professor of Physics at Carnegie-Mellon University. The award, which recognizes outstanding and interdisciplinary contributions to a broad spectrum of work in materials science, was given to Zener for his "contributions of great originality and impact in the fields of metallurgy, physics and applied mathematics." His research interests include theoretical atomic physics, dielectric breakdown, ferromagnetism, an elasticity internal friction, solid-state diffusion, elastic constants and the thermodynamics and kinetics of metallurgical transformations. Most recently he has been involved in developing solar sea power.

Surendra P. Singh, formerly of the University of Rochester, and **Howard J. Carmichael**, formerly of the City College of the City University of New York, were appointed assistant professors of physics at the University of Arkansas, Fayetteville.

Torgeir Engeland and **John Rekstad** of the University of Oslo were presented jointly with the nuclear-physics prize of Norsk Data for their contribution to the understanding of the structure of deformed atomic nuclei. The prize is sponsored by Norsk Data, the computer manufacturing firm, and is given annually at the Norwegian Physical Society Meeting.

Donald Voss, formerly of Lawrence Livermore Lab, has joined the staff of Mission Research Corporation in Albuquerque.

John Philip, director of the Australian Institute of Physical Sciences, has been awarded the **Robert E. Horton Medal** by the American Geophysical Union for his contributions to geophysics. Philip is most widely known for his work in developing the physical theory and mathematical analysis of water movement in soil. He explained for the first time the physics of infiltration, a process of water movement which plays a central part in the hydrologic cycle.

Gerald A. Smith, formerly of Michigan State University, has been appointed professor of physics and head of the physics department at Pennsylvania State University. Joining him in the newly-formed Laboratory for Elementary Particle Science are his colleagues **James J. Whitmore**, as professor of physics, and **Benedict Y. Oh**, as associate professor of physics, both formerly of Michigan State University.

David Schramm, Chairman of Astronomy and Astrophysics at the University of Chicago, has been named Louis Block Professor in the Physical Sciences.

Margaret L. A. MacVicar, associate professor of physical science and Cecil and Ida Green Professor of Education at MIT, has joined the Carnegie Institution of Washington as vice president. While at Carnegie she will retain her academic affiliation with MIT and work with Carnegie's president, James Ebert, on policy and financial administration.

obituaries

Philip Rudnick

Philip Rudnick, a research physicist and mathematician at the Marine Physical Laboratory of the Scripps Institution of Oceanography from 1949 to 1969, died 10 June 1982.

Rudnick was born on 21 May 1904. He received his BS, MS and PhD degrees in physics from the University of Chicago. After graduation in 1931, Rudnick served as assistant, associate and full professor of physics at Vanderbilt University. From 1942 to 1945, he worked at the Applied Physics Laboratory of Johns Hopkins University with Merle Tuve's group on proximity fuses and later on ram-jets. In 1947, in correspondence with Carl Eckart, he expressed an interest in the Bureau of Standards' high-speed computer that

was to be located at UCLA. This interest in computational physics led him, two years later, to join the Marine

RUDNICK

