

Stix and Liepmann receive APS Division prizes

The American Physics Society will present its 1980 James Clerk Maxwell Prize in Plasma Physics and its 1980 Fluid Dynamics Prize at two division meetings to be held in November. Thomas H. Stix, assistant director of the Plasma Physics Laboratory and professor of astrophysical science at Princeton University, will receive the APS James Clerk Maxwell Prize "for his contributions to the theory of wave propagation in plasmas for his pioneering research on radio frequency plasma heating" (see this issue, page 55). The APS Fluid Dynamics Prize will be given to Hans Wolfgang Liepmann, Charles Lee Powell Professor of Fluid Mechanics and Thermodynamics and director of the Graduate Aeronautics Laboratories at Caltech, in honor of "his numerous contributions in fluid mechanics . . . [in] areas such as flow instability and turbulence, gas kinetics, viscous compress-

ible fluids, and liquid helium flows."

Stix earned his bachelor of science degree from Caltech in 1948 and his doctoral degree in physics from Princeton four years afterward. He joined the Plasma Physics Laboratory immediately following the completion of his doctoral work. Stix took a co-appointment as an astrophysics professor at Princeton in 1962. His research over the years has concerned controlled thermonuclear fusion, particularly waves and instabilities, and plasma heating and confinement.

The University of Zurich granted Liepmann a doctorate in physics in 1938. He spent a year as a fellow in physics at Zurich before traveling in 1939 to Caltech where he has remained since his arrival. Liepmann's research interests have included laminar instability, transition and turbulence, shock-wave boundary layer interaction, transonic flow, aerodynamic noise

and the fluid dynamics of helium II.

The Maxwell Prize ceremony will occur at an awards banquet held during the 10-14 November meeting of the APS Division of Plasma Physics in San Diego, California. The prize recognizes "outstanding contributions to the advancement and diffusion of knowledge of properties of highly ionized gases of natural and laboratory origin." The prize, which consists of \$4000 and a certificate, is sponsored by the Maxwell Laboratories, Inc. of San Diego, California.

A banquet at the Ithaca, New York meeting of the APS Division of Fluid Dynamics on 24-26 November will be the occasion for the presentation of the Fluid Dynamics Prize. The \$3000 award and certificate of merit which accompany the prize honor "outstanding achievement in fluid dynamics research." The award is supported by the Office of Naval Research.

Thomas Miner wins AAPT Millikan Award

Thomas D. Miner, associate editor of *The Physics Teacher*, is the recipient of the 1980 Robert A. Millikan Award of the American Association of Physics Teachers. He was honored "for his long and devoted efforts at physics teaching and at the betterment of physics teaching" at a ceremony held at the June AAPT meeting in Troy, New York. At that ceremony Miner presented the Millikan Memorial Lecture, "Prides and Prejudices of a Physics Teacher." The award, which includes a medal, \$300 and a citation, is supported by an annual gift from Prentice-Hall, Inc.

Miner earned a bachelor's degree at Middlebury College in 1932 and an master's degree at Cornell University the following year. In 1934 he began teaching physics at Garden City High School, Garden City, New York. Miner remained there until 1966 when he became a faculty member of the Belfer Graduate School of Science at Yeshiva University. By 1972 Miner



MINER

had resigned his assistant professorship of physics education at Yeshiva University to join the staff of *The Physics Teacher*.

German Physical Society honors Funke and Faissner

The German Physical Society recently announced the winners of two awards: The Walter Schottky Prize and the Max Born Medal and Prize.

Klaus Funke of the Technical University of Hannover was honored with the Schottky Prize "for his highly successful experimental and theoretical investigations of the atomic mechanisms underlying charge transport in fast-ion conductors." The high mobility of charge in fast-ion conductors makes these substances applicable to long-lived, miniaturized batteries such as those used in pacemakers and satellites.

The Born Medal Prize, and which is jointly administered by the German Physical Society and the Institute of Physics (United Kingdom), was awarded the Helmut Faissner, professor and director of the Experimental Physics Institute, Rhenish-Westfalian Technical High School, Aachen. Faissner received the prize for providing "the first experimental verification of neu-

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tral currents," a phenomenon crucial to the theory of the electroweak interaction.

obituaries

C. J. Gorter

On 30 March 1980 C. J. Gorter, one of The Netherlands' leading physicists, died after a long illness. He was 73 years old.

Cornelius Jacobus Gorter studied at the University of Leiden under W. J. de Haas and Paul Ehrenfest in the early 1930's. He obtained his doctoral degree in 1932 with a thesis entitled "Paramagnetic Properties of Salts." By that time he had already felt the stimulus of the work of John H. van Vleck, with whom he had close contact in later years.

After his doctoral work, Gorter worked for five years in Adriaan D. Fokker's laboratory at Teyler's Foundation in Haarlem. From there he went as a lecturer to the University of Groningen, after which he became extraordinary professor at the University of Amsterdam in Pieter Zeeman's chair. In 1946 Gorter succeeded Willem H. Keesom as professor at Leiden. He remained in Leiden as director of the Kamerlingh Onnes Laboratory until 1973.

Among Gorter's most important scientific work was the discovery of paramagnetic relaxation, the electric analog of which was known since 1932 through the theoretical work of Ivar Waller. During the Second World War, he wrote a classic monograph on the subject "Paramagnetic Relaxation." Another important field of research in which he stimulated many of his collaborators was antiferromagnetism. Gorter studied many aspects of this phenomenon in $\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$ and developed with Haantjes a theoretical description of antiferromagnetism in a double-sublattice substance.

Gorter was also active in other fields. In 1933 he was the first to apply thermodynamics to the transition of materials from the normal to the superconducting state. Together with Hendrik B. G. Casimir, he developed a thermodynamic description of the phenomenon, using a two-fluid model and an internal-order parameter. The electrostatics for this model were developed by Fritz and Heinz London about the same time. Gorter's contributions to the understanding of second-order phase transitions should also be mentioned as should his formulation of the "Gorter-Mellink equation" for the

Jerome I. Friedman, professor of physics at Massachusetts Institute of Technology, has been named director of the Institute's Laboratory for Nuclear Science.



GORTER

mutual friction of two fluids in liquid helium II.

Gorter was a man of great kindness and integrity as well as brilliant physicist. During his career he served as president of the Royal Netherlands Academy of Sciences and vice-president of IUPAP. His high standing in international circles is attested to by his seven honorary doctorates from foreign universities and his membership in seven foreign science academies.

J. VAN DEN HANDEL
*Kamerlingh Onnes Laboratory
Leiden, The Netherlands*

John D. McNutt

John D. McNutt, director of the Center for Positron Studies at the University of Texas at Arlington, died on 15 July 1980 at the age of 42. He received his education at the University of Michigan and Wayne State University. It was during his doctoral and postdoctoral training under Leonard O. Roellig that McNutt developed an enduring enthusiasm for low-energy positron research.

McNutt spent his entire professional career, beginning in 1967, in the department of physics of the University of Texas at Arlington. He was soon recog-