

Mathematical physics prize to Robert B. Griffiths

Contributions to physics of several different kinds will be honored at a ceremonial session during the annual joint meeting of The American Physical Society and the American Association of Physics Teachers: Robert B. Griffiths will receive the Dannie Heinemann Prize for Mathematical Physics, Raymond E. Goldstein (MIT) will receive the Apker Award (see *PHYSICS TODAY*, December, page 76), Frank Oppenheimer will receive the Oersted Medal and David N. Schramm will give the Richtmyer Lecture.

Griffiths receives the Heinemann Prize for "his contributions to statistical mechanics and thermodynamics; in particular, for his work on correlation inequalities, the theory of tricritical points, and phase equilibria." The prize, which includes an award of \$5000, is administered jointly by APS and AIP and recognizes outstanding publications in mathematical physics.

After graduating from Princeton in 1957, Griffiths went to Stanford to receive his MS in 1958 and PhD in 1962, and subsequently spent two years at the University of California in San Diego as a postdoctoral fellow. In 1964 he joined Carnegie-Mellon University in Pittsburgh. He became professor of physics in 1969 and was named to the Otto Stern professorship in 1979.

GRIFFITHS



Thermodynamics and statistical mechanics have provided Griffiths with his major research interests for the past two decades. The particular work for which he receives the Heinemann Prize concerns phase transitions. The correlation inequalities arose in investigating the behavior of an Ising-model ferromagnet: Griffiths found that above the critical temperature, where the system is not magnetized, the correlations of pairs of spins increase as the temperature approaches the critical temperature. Griffiths' work on tricritical points concerns phase transitions in multi-parameter systems. As one varies some parameter of a thermodynamic system—as in certain kinds of magnets—a second-order phase transition may change into a first-order transition; the point at which the change occurs is a tricritical point. Griffiths later worked with Benjamin Widom at Cornell on tricritical points in fluid mixtures. An evangelical Christian, Griffiths is also an amateur theologian and helps to teach a course on Christianity and Science.

The Oersted Medal, awarded by the American Association of Physics Teachers, is given to outstanding teachers of physics.

Oppenheimer received his bachelor's degree from Johns Hopkins University in 1933 and his PhD from Caltech in 1939. He held positions at Stanford (1939–41), the University of California at Berkeley (1941–47), and the University of Minnesota at Minneapolis (1947–49). In 1957 he became the science teacher in a local public school in Colorado. He joined the University of Colorado, Boulder, in 1959; since 1980 he has been professor emeritus there. His research in physics has included work on cosmic rays, isotope separation and high-energy physics.

In 1969 Oppenheimer founded The Exploratorium in San Francisco; he has remained its director since then. The Exploratorium is a science museum that teaches by letting visitors interact with the exhibits—not just by pushing buttons to let programmed automata perform, but by manipulating the apparatus. While such exhibits

are becoming more common, Oppenheimer was a pioneer in seeing their importance and in developing ideas for them. The Exploratorium remains a unique institution.

Schramm is professor of physics and astrophysics at the University of Chicago and a member of the Enrico Fermi Institute there. He received his bachelor's degree from MIT in 1967 and his PhD from Caltech in 1971. Before coming to the University of Chicago 1977, Schramm was at Caltech (1971–72) and the University of Texas at Austin (1972–77). Schramm's research concerns astrophysics and cosmology—the origin of the elements, stellar evolution, and black holes are among his interests. (See, for example his article in *PHYSICS TODAY*, April, page 27.) His Richtmyer lecture will be on "The Matter of the Universe."

Southeastern APS honors W. L. Alford and I. A. Sellin

The Southeastern Section of The American Physical Society has chosen the winners of its awards for excellence in physics teaching and research in the southeast region. William Lumpkin Alford of Auburn University has won the Pegram Award for teaching, and Ivan A. Sellin of the University of Tennessee has been honored with the Beams Award for research.

The teaching award is named for George Braxton Pegram, a leading figure in the early history of both APS and its Southeastern Section; it is given annually.

The APS Section recognized Alford "as a patient and helpful teacher who is also demanding of high standards. Many of his students now are teachers in the southeast, and they credit him with being the primary influence on their teaching philosophies." Alford received his PhD from the California Institute of Technology in 1953 and became an assistant professor of physics at Auburn the same year. Except for the period (from 1958 to 1964) when he worked as a nuclear physicist at the