of research programs in several universities in Europe and America; AIP sponsored a special symposium on the Scott Effect in 1970.

One of the unique features of Scott's research work was that it required nonmagnetic laboratories. Consequently, he participated in the design and construction of a series of laboratories dedicated to magnetism studies; the last of these was built at Oakland University in Rochester, Michigan, in 1969. Scott retired from the General Motors Research Laboratories in 1973. He was a fellow of the American Physical Society.

LERINDA FROST
General Motors Research Laboratories

Donald E. Cunningham

Donald E. Cunningham, who served as an AIP staff officer from 1959–62, died on 6 March 1984, ending a widely ranging career in teaching, research, administration and public-policy studies.

Cunningham was born in Providence, Rhode Island on 18 May 1930, and received his PhD in physics in 1959 from Case University. While completing his doctoral work, he served as a plasma-physics group leader at Thompson–Ramo–Wooldridge, Inc. His research interests included atomic collisions, optical pumping and plasma physics.

His appointment, in 1959, to the staff at AIP in the newly formed Department of Education turned his attention to the challenge of national problems in physics education. His first assignment was as administrator of the Visiting Scientists Program in Physics, jointly conducted by AIP and AAPT, and comprising three distinct programs: one directed toward colleges, another toward high schools and a third that arranged visits by distinguished foreign physicists. Later he took over the AIP Student Section program and developed the Bendix awards project within it. The impetus he gave the program eventually led to the Section's merger with Sigma Pi Sigma into the Society of Physics Students. Cunningham regarded this work as one of his proudest achievements.

In 1970, after teaching physics for several years—first at Adelphi University, where he eventually became the director of programs in the space-related sciences, then at Miami University in Ohio, where he also served as dean of research and established the Institute of Environmental Sciences—Cunningham became a special assistant to the director of NSF, with responsibilities for policy studies of the

CUNNINGHAM

role of science in regional development. This interest led him to join the University of Denver Research Institute in 1974, where he studied regional resource development. In 1979, he and several colleagues formed the independent Center for Public Issues; he became director and worked for this organization until his death.

Cunningham will be best remembered by his former associates at AIP for his wit, his friendliness and his missionary zeal: he once taught a lunch-hour course in basic physics to the support staff at AIP "to institute some physics at the American Institute of Physics."

WILLIAM C. KELLY
Bethesda, Maryland

Winfred M. Schwarz

Winfred M. Schwarz, emeritus professor at Union College in Schenectady, died 3 May 1984, at age 70.

Born in St. Louis, he received his BS and MS degrees from Washington University, and his PhD in 1941 from Ohio State. Schwarz came to Union College in 1946 as an assistant professor, and was appointed to the Frank Bailey Professorship in 1975. Until his retirement in 1979, he taught the College's electricity and magnetism course almost continuously, producing the textbook *Intermediate Electromagnetic Theory*, which was well received. Other interests led to calculations modeling thermal effects in geologic flow associated with plate tectonic movements, with Stephen E. DeLong and Roger Anderson of the State University of New York and Lamont-Doherty Laboratory. He continued these studies after retirement, working actively until a few months before his death.

Schwarz participated actively in both planning and teaching for the Summer Science Fellows program sponsored by the General Electric Company and Union College beginning shortly after World War II. The program, which served to update the education of high school science instructors, served as a prototype for the National Science Foundation Summer Institutes program.

Schwarz was an early and active member of the Mohawk Association of Scientists and Engineers, an area group concerned with the social effects of science and technology. He also served a term as zoning officer, and later as mayor of the village of Galway where he resided. In spite of a childhood illness that left him with one shortened leg, he was an active outdoorsman, energetic member of the Adirondack Mountain Club and indefatigable snowshoer.

CHARLES D. SWARTZ
ALFRED T. GOBLE
Union College

Edward A. Burke

Edward A. Burke, professor at Adelphi University and member of the international atomic-physics community, died suddenly on 11 June 1983 at the age of 53.

Burke did his undergraduate study at New York University, receiving a BA (physics-mathematics) in 1954. He earned both an MS (1955) and PhD (1959) in physics at Fordham University. He was associate professor at St. John's University, NY (1959–66), and professor at Adelphi University (1966–1983). While at St. John's University, he was chairman of the physics department from 1962 to 1965.

He was also a research scientist at Columbia University's Hudson Laboratory (1964–67), an associate physicist at Brookhaven National Laboratory (1965–66), and a consultant to the Energy Institute of Adelphi University (1982–1983).

Burke's research work in theoretical physics ranged from atomic theory to acoustics and solid-state physics. He published over a dozen papers concerning the numerical calculation of atomic orbitals.

Philip T. Smith

Philip T. Smith of RCA Laboratories died 5 April 1984 at the age of 81. He was born 16 September 1902 and attended the University of Minnesota, where he obtained his PhD in 1931. After serving as an assistant to the late John T. Tate (then editor of *Physical Review*) 1931–34, he was appointed to a one-year National Research Council fellowship at Princeton University and then went to serve as instructor in physics at the Massachusetts Institute of Technology. He accepted an appointment as research physicist in the Radiotron Division of RCA (1937–42), following which he worked in the RCA Laboratories. At the latter post, his principal efforts were directed toward the design and development of power tubes for ultra-high frequencies in transmitters. Most of this work was classified and hence has not been published. Smith served as a consultant on Project Matterhorn (Princeton 1955–57) and, for a time, as technical director of C. Stellar Associates, a group of scientists and engineers assembled from the staffs of RCA and Allis Chalmers, who performed some pioneering work on controlled thermonuclear fusion. In recognition of his contributions in this field, Smith was made a Fellow by the Radio Institute of America in 1960.

Smith's unfailing good spirits and eagerness to help students were an inspiration to many younger scientists. He will be sorely missed by his many friends and peers.

JOHN W. LISKA, *retired*
The Firestone Tire and Rubber Co.

Marvin E. Wyman

Marvin E. Wyman of the University of Illinois died on 26 September 1984. He was 63. Wyman earned his PhD in physics from the University of Illinois in 1950. He taught briefly at St. Olaf College in Northfield, Minnesota (1949–53) and then worked at Los Alamos National Laboratory until 1958, when he became a professor of nuclear engineering and physics at the University of Illinois. In 1965 he became chairman of the nuclear engineering program, and in 1975 he became assistant to the dean for long-range planning in the College of Engineering. During his tenure, Wyman was instrumental in obtaining a research nuclear reactor for the University. He also helped establish the undergraduate and doctoral programs in nuclear engineering there. In 1977, Wyman became associate provost for research and sponsored programs at Old Dominion University in Norfolk, Virginia. He was chairman of the committee on research reactors for the National Research Council during 1965–69. □