

Alpher and Herman honored for radiation research

Ralph A. Alpher of the General Electric Research and Development Center and Robert Herman of the General Motors Research Laboratories are the joint recipients of two awards—the Magellanic Premium of the American Philosophical Society (the oldest award in the US for scientific research) and the Georges Vanderlinden Prize of the Belgian Royal Academy of Sciences, Letters, and Fine Arts. They were chosen to receive these prizes as a result of their prediction of 3K black-body radiation.

In 1948 and 1949, while at The Johns Hopkins University applied physics laboratory, they proposed that if the universe originated in a "Big Bang," remnants of that event should be detectable now as a background noise in the microwave region throughout the universe. The theory remained unconfirmed until 1965, when a research team at Bell Laboratories observed the predicted radiation and obtained an apparent black-body temperature of 3.3K. Since then, many independent observations have been made, and experimenters at Berkeley, California, have recently confirmed the black-body character of the radiation at 2.99K. The existence of 3K black-body radiation is cru-



ALPHER



HERMAN

cial to the so-called "Big Bang" theory.

Alpher received his PhD in physics from George Washington University in 1948. In 1955 he joined the GE Research and Development Center, working in exploratory high-temperature gas dynamics and investigations of magnetohydrodynamics. Recently he joined the Center's energy-sciences branch to

do research on energy conversion and transmission problems.

Herman earned his doctorate in physics at Princeton University. Before joining General Motors in 1950 he taught at the University of Maryland. In 1959 he became head of the theoretical physics (now traffic science) department at GM Research.

Williams named recipient of 1975 Coolidge Award

The American Association of Physicists in Medicine recently named Marvin M. D. Williams, professor emeritus of biophysics at the University of Minnesota, as the fourth recipient of the Coolidge Award. The award, named for x-ray pioneer William D. Coolidge (1873–1975), recognizes "distinguished contributions to medical physics" and consists of a bronze plaque bearing a likeness of Coolidge. It was presented 5 August during AAPM's 17th annual meeting in San Antonio, Texas.

Williams completed his doctorate at the University of Minnesota in 1931 and then spent four years as assistant professor at Union Medical College in Peiping, China. Returning to the US in 1936, he became research assistant in biophysics at the Mayo Clinic in Rochester, Minnesota. In 1950 he was appointed full professor in the Mayo

Graduate School, from which he retired in 1967. A charter member of the AAPM, he has been very active for almost a half-century in the scientific, educational and professional aspects of medical physics. His work has previously been honored by his medical colleagues through the award in 1965 of the Radiological Society of North America's Gold Medal.

DeLoach receives IEEE's David Sarnoff Award

Bernard C. DeLoach Jr has received the David Sarnoff Award in electronics of the Institute of Electrical and Electronics Engineers. DeLoach, head of the gallium-arsenide laser department at Bell Laboratories, was named winner of the \$1000 award in appreciation of his work on the impact avalanche and transit time device.

DeLoach earned his doctorate in

physics in 1956 from Ohio State University. He has made contributions to microwave solid-state devices and their circuit applications and is now interested in developing solid-state lasers.

Observatory named for Gerard P. Kuiper

The world's largest flying astronomical observatory has been dedicated by the National Aeronautics and Space Administration to the memory of the late astronomer Gerard P. Kuiper. Kuiper, who died in December 1973, was active in NASA's early space programs, including missions to the Moon, Venus, Mercury and Jupiter. He was a pioneer in using aircraft for infrared astronomy. Kuiper founded and directed the University of Arizona lunar and planetary laboratory, which, under his guidance, produced detailed studies and maps of the Moon's surface that facilitated the

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first lunar landing. The Gerard P. Kuiper Airborne Observatory is an \$11-million modified four-engine jet transport (C141) that carries a 36-inch infrared telescope.

David J. Rose is cited by American Nuclear Society

The American Nuclear Society has presented its 1975 Arthur Holly Compton Award to David J. Rose, professor of nuclear engineering at the Massachusetts Institute of Technology. The annual award recognizes outstanding contributions to nuclear science and/or engineering education.

Rose earned his doctorate in physics from MIT in 1950 and was on the Bell Laboratories technical staff from 1951 until 1958, when he joined the MIT faculty. In selecting him for the \$1000 Compton Award, the ANS praised Rose's teaching abilities and his work on energy policy and the handling of nuclear wastes.

At the University of Leiden, The Netherlands **J. Mayo Greenberg** will fill the new chair of laboratory astrophysics. Under his direction a group is being organized to serve as interdisciplinary link between the departments of physics and astronomy. Greenberg is now with the department of astronomy and space science of the State University of New York at Albany.

Ralston Russell Jr., professor of ceramic engineering at Ohio State University in Columbus, has become president of the American Ceramic Society.

David P. Ross has joined the Southern Interstate Nuclear Board in Atlanta, Georgia as director of energy and environmental problems. He was previously assistant professor of physics at Sam Houston State University.

Rocco Petrone, formerly associate administrator of NASA, has joined the National Center for Resource Recovery as president and chief executive officer. The center, a joint industry-labor effort, is concerned with recovering energy and materials from solid waste.

obituaries

Lawrence E. Kinsler

Lawrence E. Kinsler, professor of physics at the Naval Postgraduate School during 1946-70, died on 18 May at the age of 64.

Kinsler received his doctorate from the California Institute of Technology in 1934. It is a tribute to his scholarship that he received immediate post-doctoral employment at a time when even economists recognized the existence of a depression. He was appointed assistant professor of physics at Rollins College and became chairman of its science division in 1938.

During the years of World War II, he joined the Naval Reserve and was called to active duty to teach at the Naval Academy, where he became head of the physics division in 1945. In 1946 he joined the faculty of the Naval Postgraduate School at Annapolis and was promoted to the rank of professor in 1949.

Upon joining the Naval Postgraduate School, Kinsler perceived the importance of acoustics to the Navy and from that time specialized in this field. He collaborated with Austin Frey on the well-known textbook *Fundamentals of Acoustics*; written to present the principles of acoustics, it also treated effectively the applications of these principles



KINSLER

to the fields of sonar and underwater acoustics. Although last revised in 1962, this text is still much used.

When the Naval Postgraduate School moved to Monterey he played a key role in the design of the physics-department building and in developing a strong acoustics program. His activity in curricular development led to his appointment as Dean of Curricula from 1962-66. Upon his retirement in 1970, the