

Spinrad receives Heineman Prize for Astrophysics

The American Institute of Physics and the American Astronomical Society presented their joint Dannie Heineman Prize for Astrophysics to Hyron Spinrad (University of California, Berkeley) at the AAS meeting held in January.

The citation noted that over the last 20 years Spinrad "has greatly advanced our understanding of the chemical evolution of galaxies, the properties of extremely faint radio galaxies, and the nature of primitive material in comets." Spinrad received both his BA (1955) and PhD (1961) from Berkeley. From 1961 to 1964, he was a senior scientist at the Jet Propulsion Laboratory, where he was involved in ground-based support for spacecraft observations of the chemical composition of the Martian atmosphere. In 1964 he returned to teaching at Berkeley as an assistant professor of astronomy. He became a full professor in 1968 and was named Miller Professor for 1971-72 and 1978-79. He served as chairman of Berkeley's astronomy department from 1980 to 1984.

In the late 1960s and early 1970s Spinrad made extensive spectroscopic studies of stars in the visible and near infrared. He found a subgroup of older stars rich in metals, with some proto-

types in the solar vicinity, mostly located in the nuclei of external galaxies. Until then it had generally been thought that older stars in galactic nuclei formed too early to have been enriched by supernova explosions and therefore would be relatively poor in metals. Spinrad has recently studied powerful radio galaxies to identify optically luminous standard candles. This work has extended the boundaries of galaxy detection to very large redshifts, or very long look-back times.

Since 1980 Spinrad has measured

mass losses in comets (how much water is boiled off as they round the Sun) through techniques of optical spectroscopy. Additionally, in collaboration with Michael Belton (Kitt Peak National Observatory) and Susan Wyckoff and Peter Wehinger (both at Arizona State University), he has studied bare cometary nuclei at great distances from the Sun.

Spinrad and Richard G. Kron (University of Chicago) are currently writing a graduate-level book on distant galaxies.

in brief

Ami E. Berkowitz, formerly a research physicist at General Electric's research and development center in Schenectady, New York, has been appointed to an endowed chair of the Center for Magnetic Recording Research at the University of California, San Diego, and has been named a professor in the university's physics department.

Robert F. O'Connell, professor of physics at Louisiana State University (Baton Rouge), has been named Boyd Professor by the Louisiana state university system.

In the astronomy department of the University of Texas at Austin, **Frank N. Bash** has been named Frank N. Edmonds Jr Regents Professor, **William H. Jeffreys** has been named Harlan J. Smith Centennial Professor and **J. Craig Wheeler** has been named Samuel T. and

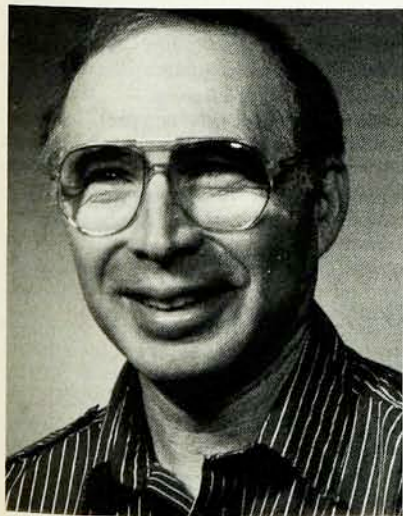
Fern Yanagisawa Regents Professor. Wheeler succeeded Bash as department chairman in September 1986.

John D. Ramshaw, formerly a staff member of the theoretical division at Los Alamos National Laboratory, has accepted an appointment as scientific and engineering fellow in the Idaho National Engineering Laboratory.

Deborah D. L. Chung, formerly associate professor of metallurgical engineering and materials science at Carnegie-Mellon University, has joined SUNY at Buffalo as professor of mechanical and aerospace engineering.

Robert Hanbury Brown, emeritus professor of physics at the University of Sydney, Australia, delivered the 21st Karl G. Jansky Lecture, "Stars, photons and uncommon sense," at the University of Virginia on 2 October.

SPINRAD



obituaries

François N. Frenkiel

François Naftali Frenkiel died in Rockville, Maryland, on 9 July 1986 at age 75.

Frenkiel was born in Warsaw on 19 September 1910. He studied at the

University of Ghent, receiving degrees in mechanical engineering and in aeronautical engineering, and at the University of Lille, where he worked with J. Kampé de Fériet and received a PhD in physics. Until 1943, he had a career in aeronautics at the French Aeronau-