

Founding Physicist At UCSD, Pioneer In Quantum Physics, Dies

August 12, 2004

Kim McDonald

Norman M. Kroll, an emeritus professor of physics at the University of California, San Diego and one of the pioneers of the field of quantum electrodynamics, died in La Jolla on Sunday, August 8, after a brief illness. He was 82.

Kroll was one of UCSD's founding faculty members, arriving in 1962 as a professor of physics after 20 years at Columbia University. He spent 40 years at UCSD, conducting research on electrodynamics, atomic physics, particle physics, free electron lasers and the design of subatomic particle accelerators. In addition, he made numerous contributions to the development of UCSD as one of the nation's leading research universities and served twice as chair of UCSD's Department of Physics, from 1963 to 1965 and from 1983 to 1988.

A member of the prestigious National Academy of Sciences and American Academy of Arts and Sciences and a fellow of the American Physical Society, he was regarded by his colleagues as one of the physics department's most distinguished faculty members.

"He was a brilliant theoretical physicist with deep physical insight and broad scientific interests," says Julius Kuti, acting chair of UCSD's physics department and a close colleague and friend. "We will miss Norman's keen intellect and wise counsel."

In addition to his scientific contributions, Kroll is remembered by friends and family for his lifelong interest in opera and chamber music, serving on a committee that advises UCSD's chamber music series. He had a passion for gourmet food and fine wine and enjoyed ocean swimming, boogie-boarding, hiking and observing and identifying wildflowers.

Born in Tulsa, Oklahoma on April 6, 1922, Kroll attended Rice University in Houston from 1938 to 1940, then received his bachelor degree from Columbia University in 1942. He followed with graduate studies at Columbia, where he worked with Professor Willis Lamb, a Nobel laureate, and received his Ph.D. in 1948. He continued at Columbia as an assistant professor, associate professor and full professor of physics, quickly becoming one of the world's leaders in the field of quantum electrodynamics.

After retiring from teaching in 1991, he continued an active role as a research physicist at UCSD until his death. His retirement also included a continuing consulting relationship with the Stanford Linear Accelerator Center, to which he commuted weekly until the fall of 2000. At SLAC, he played a leading role in the development of the mathematical foundation for the design of a next generation linear collider, a project that is the highest priority for the nation's particle physicists seeking to understand the fundamental particles and forces of nature.

His career included visiting appointments to many other prestigious institutions, including the Institute for Advanced Study in Princeton, N.J.; Cornell University; CERN, the European Organization for Particle Physics in Geneva; the Neils Bohr Institute and the University of Rome.

He is survived by his wife, Sally Ruth Kroll of La Jolla, and four children: Linda Kroll of Berkeley, a professor of education at Mills College; Cynthia Kroll of Piedmont, CA, a senior regional economist at UC Berkeley; Heather Kroll of Seattle, a physiatrist at Seattle's Virginia Mason Medical Center; and Ira Joseph Kroll of Philadelphia, an associate professor of physics and astronomy at the University of Pennsylvania. He is also survived by seven grandchildren: Condyl and Dana Creek; Russell, Carolyn and Owen Hall; and Fiona and Erin Ruddell.

A private family memorial will be held on Saturday and a memorial for friends and the campus community will be held in the fall. In lieu of flowers, the family requests that contributions be made to UCSD's physics department. Specific information on how to contribute can be obtained from Joan Grohman at (858) 534-6832 or jgrohman@ucsd.edu.

Media Contact: Kim McDonald (858) 534-7572

