DOCUMENTS OF THE GENERAL FACULTY

REPORT OF THE MEMORIAL RESOLUTION COMMITTEE FOR WALTER ELMER MILLETT

The special committee of the General Faculty to prepare a memorial resolution for Walter Elmer Millett, professor emeritus, physics, has filed with the secretary of the General Faculty the following report.

Sue Alexander Greninger, Secretary
The General Faculty

IN MEMORIAM
WALTER ELMER MILLETT

Walter E. Millett, age 86, died August 24, 2003, at Trinity Care Center in San Antonio, Texas following a stroke.

He was born July 26, 1917, in East Moline, Illinois. He attended Central High School in Ft. Lauderdale, Florida, graduating in 1935; he enrolled at the University of Florida where he received his B.S. (1940) and his M.S. (1942) in physics and mathematics. He then spent three and a half years at the prestigious MIT Radiation Laboratory, where, during World War II, large-scale research at the “RadLab” was devoted to the rapid development of microwave radar. Nearly half of the radar deployed in World War II was designed in this lab. Walter worked at the RadLab under the direction of Professor Ed Purcell (eventual Nobel Laureate) on microwave antennas. The purpose of the work was to improve the resolution of radar systems by shifting from 10 cm to 3 cm and finally to 1.25 cm systems. Aircraft would better accommodate the smaller antennas. Unfortunately, absorption due to atmospheric humidity severely limited the 1.25 systems.

On May 29, 1944, Walter married Barbara Twigg in Dorchester, Massachusetts. Following the war, he enrolled in graduate school at Harvard University in physics. He received his Ph.D. in 1949 under the supervision of Professor K.T. Bainbridge, known for his mass spectrographs and precise test of the relation $E=mc^2$. Walter’s thesis studied relativistic charged particle focusing in crossed electric and magnetic fields. Following graduation, he accepted an Atomic Energy Commission Postdoctoral Fellowship at Cal Tech under Professor W.R. Smythe, widely recognized for his graduate text on electricity and magnetism. These work experiences shaped Walter’s lifelong interest in electricity and magnetism. Leaving California, he returned to the University of Florida as a lecturer (1950) and assistant professor (1951).

In 1952, Walter joined The University of Texas physics department as an assistant professor. At Texas, he conducted an active research program in positron annihilation, supported by grants from the National Science Foundation. He was a pioneer in the use of this technique to determine the momentum distributions of electrons in both solids and liquids. It was at least a decade before his competitors were able to match the quality of data he was able to obtain. In 1957, he was promoted to associate professor. In the summer of 1960, Walter did positron annihilation studies at the Niels Bohr Institute in Copenhagen, Denmark. He was promoted to professor in 1962. He went on modified service in 1982 and was appointed professor emeritus in 1987.

During his years at UT, Walter carried out a number of major revisions of undergraduate physics laboratories. He taught a celebrated junior course in electricity and magnetism in which students were required to provide part of the lectures. Many students have testified to the wonderful in-class discussions and the intuition and skills they developed in the class.

Walter’s research in positron annihilation produced over fourteen M.A. and fifteen Ph.D. students. His relationship with his students continued long after they were granted degrees. During the later part of his career, he shared a laboratory with the late Professor Arthur Lockenvitz, and the two participated in photon experiments. After his retirement, Walter continued working on a physics problem that his family affectionately called his “yellow pages" since it was written on familiar yellow tablets. This work was devoted to providing a model of the photon and occupied a large portion of his time until his death.

Walter had a passion for growing and tending flowers and was an avid walker, never missing his daily two-mile hike. He was willing to tackle almost any project. Despite his advanced age, he was building brick fences and patio structures at the time of his stroke.

In 1972, Walter married Ethel Grant Long. He is survived by three step children, Wilbur Long and wife, Leslie, of Wassau, Florida; John Long of Austin, Texas; and Allene Ramsey and husband, David, of Sylva, North Carolina; by grandchildren, Sam Long, Noreen Long, Eric Long, Sean Long, Ryan Long, Kevin Long, Erin Bock, Amber Whitlow, and Matthew Ramsey; by two great-grandchildren, Christopher Long and Evan Long. He was preceded in death by both wives.

This memorial resolution was prepared by a special committee consisting of Professors Melvin E. L. Oakes (Chair), John David Gavenda, and James C. Thompson.

Distributed to the dean of the College of Natural Sciences, the executive vice president and provost, and the president on June 14, 2004. Copies are available on request from the Office of the General Faculty, FAC 22, F9500. This resolution is posted under "Memorials" at: http://www.utexas.edu/faculty/council/.