

Robert H. Koch 1929 - 2010

Robert H. Koch, emeritus professor of astronomy and astrophysics at the University of Pennsylvania, passed away at his home in Ardmore, Pennsylvania on 11 October 2010 after a brief illness. Bob was 80 years old and remained sharp and intellectually engaged with the astronomical community up until the onset of complications from a brain tumor.



Bob was born in York, Pennsylvania on 19 December 1929, and graduated from York Catholic High School in 1947. He attended the University of Pennsylvania on a senatorial scholarship, graduating in 1951. After two years in the United States Army, he enrolled in graduate school at the University of Pennsylvania, doing his doctoral research on the photoelectric photometry of R CMa, AO Cas, AS Eri, and XY Leo at the Steward Observatory, University of Arizona in Tucson. Bob would continue this exploration of close binary stars, their atmospheres and interactions, for the rest of his career. Bob met his future spouse, Joanne C. Underwood, while in graduate school in 1957 and they were married in 1959. Bob received his PhD in astronomy in 1959 and moved to Amherst, Massachusetts where he taught as a member of the Four College Astronomy Department until 1966.

Following a year at the University of New Mexico in Albuquerque, Bob joined the Astronomy Department at Penn, teaching and doing research there until his retirement in 1996. Bob's main interests were the study of close and eclipsing binary stars, stellar envelopes and winds, intrinsic variables, transits and occultations, and the Milky Way Galaxy, producing well over 100 refereed publications. Bob was partial to photoelectric photometry and polarimetry, conducting most of his observational research at the University of Pennsylvania Flower and Cook Observatory, and at other ground- and space-based observatories. As an international figure in the area of binary stars, Bob had widespread collaborations with scientists at other institutions, in the US and throughout the world, and made significant contributions to the understanding of the process of mass transfer and accretion in close binary star systems and in developing stellar polarization standards. A number of astronomers were the recipients of his inspiration and mentorship as doctoral students at Penn.

Bob was a polymath who was able to expound eloquently on the intricacies of observational polarization measures or the various dealings of notable figures of the High Middle Ages with no advance notice. Along with his friend, biochemist Dr. Robert E. Davies, Bob helped establish at Penn one of the first courses to examine the astrophysical and biological implications for life beyond earth, long before NASA's own focus on the subject took shape. Bob was active in the astronomical community and served as president of IAU Commission 42 (close binaries).

A life-long love of astronomy led Bob to continue pursuing many areas of astronomical research during retirement. As an emeritus professor, he made important contributions to the detection of exoplanets by the eclipse-timing method, and explored the development of large, lightweight telescope mirrors for ground- and space-based observatories.

In his retirement, Bob also researched and wrote a history of observational astronomy at the University of Pennsylvania. He also was an active gardener and a talented musician, and learned to play the mandolin when he was 77. In addition, Bob and Joanne both loved traveling and bird watching, visiting nearly 30 countries during his retirement years. Besides Joanne, Bob's survivors include sons Thomas and James (Dana), daughters Elizabeth (Murray) and Patricia Budlong (Steven), seven grandchildren, a brother and a

sister. Bob once wrote that he long ago decided “to control my career so as to have as much fun as grief”; in this he was successful beyond his dreams.

Joanne Koch
Michael Corcoran
Bruce Holenstein
Edward Sion

For more information:

<http://www.legacy.com/obituaries/mainlinemedianews/obituary.aspx?n=robert-h-koch&pid=146110910>

<http://www.upenn.edu/almanac/volumes/v57/n08/obit.html#koch>