Robert P. Kraft

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Robert P. Kraft
June 16, 1927 ~ May 26, 2015
Aptos

Dr. Robert Paul Kraft died from complications of aspiration pneumonia due to a stroke on May 26, 2015. A prominent astronomer and former director of the University of California Observatories and a professor emeritus of astronomy and astrophysics at the University of California, Santa Cruz, Kraft was 87 years old.

The only child of Victor and Viola Kraft, he was born in Seattle, Washington, June 16, 1927, where Victor, who was a veteran of WWI, was employed as an automobile mechanic. A child of the Great Depression and WW II era, Kraft was encouraged by his mother to learn guitar, piano and banjo and appeared on stage and local radio at a very young age. He took classical piano lessons and sang in plays and musicals in grade school and in high school, where he also took a serious interest in mathematics. As a student at Roosevelt High School in Seattle, Kraft joined a "record club" and began collecting classical 78-rpm records, thus beginning his life-long interest in classical music. This opened him up to the wider world of international composers, conductors and symphony orchestras. By the middle of his junior year at Roosevelt, he was taking courses in trigonometry and calculus. In 1944, he enrolled in the University of Washington (UW) as a math major and obtained a B.S. in Mathematics in 1947.

During his first year in college, Kraft was introduced to astronomy by Theodor Jacobsen, a UW mathematics professor who also happened to teach astronomy and thus helped to foster his interest in the subject. Jacobsen also shared with Kraft an interest in classical music and hiking in the Cascades around Mt. Rainier. Jacobsen encouraged him to become a member of the Astronomical Society of the Pacific. In 1947, Kraft entered the UW math graduate program and, continuing his interest in astronomy, attended the 1948 dedication of the Mt. Palomar 200-inch telescope in southern CA. He prepared a thesis on the level effect in the radial velocities of classical Cepheids. Kraft was awarded an M.S. Degree in Mathematics from UW in 1949.

In 1948, Kraft met Rosalie Ann Reichmuth, a journalism major, at a student function in the basement of the UW Unitarian Church. They were married in Billings, Montana, Rosalie's
hometown, on August 28, 1949. Thus began their lives together as life-long Unitarians and Democrats, liberal political activists and advocates for social justice in a loving and supportive marriage that lasted nearly 60 years until Rosalie's untimely death in 2009.

In 1949, Kraft accepted a position teaching math at Whittier College in southern CA, where, as luck would have it, the college had a telescope and needed him to teach astronomy in a physical science course. Teaching this course awakened Kraft's interest in theoretical physics and made him aware of the basic philosophy of science: that the truth of a theory is tested by experimentation.

Kraft's first son, Kenneth, was born in 1950. Now a family man, Kraft applied and was admitted to the astronomy graduate program at UC Berkeley in 1951. During his time at Berkeley, Kraft was asked to work with Otto Struve, the world's foremost stellar spectroscopist, with whom he did much research and published several papers. He was awarded a Lick Observatory Fellowship in 1953 and began his Ph.D. thesis on Ca II emission in classical Cepheids under George Herbig's direction. After his second son, Kevin, was born in 1954, Kraft completed his thesis in 1955. For this he was awarded a Ph.D. in Astronomy.

As Kraft was completing his Ph.D studies at UC Berkeley, he was awarded a National Science Foundation Postdoctoral Fellowship. So, the family moved back to southern CA, where Kraft began working at the headquarters of the Mt. Wilson and Palomar Observatories in Pasadena. This allowed him observing time on the Mt. Wilson 60-inch and 100-inch telescopes where, in the 1920's, Edwin P. Hubble had discovered that we live in an expanding universe of countless galaxies. There, Kraft learned how to use the 100-inch coude and the Newtonian focus spectrographs under Olin Wilson and Don Osterbrock.

In 1956, Kraft accepted a one-year assistant professorship at Indiana University (IU) in Bloomington, which afforded him observation time at the McDonald 82-inch telescope in Ft. Davis, TX. At IU, he had his first formal teaching experience with graduate students, lecturing on stellar spectroscopy and stellar atmospheres. Half-way through his second year at IU, he was offered an assistant professorship at Yerkes Observatory of the University of Chicago. The family moved once again, from Bloomington, Indiana to the small town of Williams Bay, Wisconsin, where Yerkes is located.

After only a few months at Yerkes, Kraft received an invitation from I.S. Bowen, Director of Mt. Wilson and Palomar Observatories for an appointment as assistant astronomer at the Mt. Wilson Observatory of the Carnegie Institution of Washington. Because this appointment would mean access to the 200-inch telescope at Palomar (the largest in the world), Kraft accepted immediately. So, in 1959, the family moved back to California, yet again, and settled in Altadena, near Pasadena. In 1962, while at Carnegie, Kraft was awarded the Helen B. Warner Prize of the American Astronomical Society for his work on a revolutionary new model of classical novae. In the early 1960's, around the time of the Cuban Missile Crisis, Kraft joined a group of concerned Caltech scientists who gave lectures to the general public about the dangers of the possibility of nuclear war and that such a conflict must be avoided. In 1960, the family had moved farther from the center of Los Angeles to the small college-town suburb of Claremont, CA.

By 1962, Kraft considered gravitational radiation as the cause of the evolution of close binary stars. Later, he worked with many students and colleagues to determine the chemical composition of different types of evolved stars in the galactic halo and in globular clusters, significantly improving our understanding of the chemical evolution of the Milky Way Galaxy.
"Between 1962 and 1965, Bob Kraft published a remarkable series of now classic papers, convincingly demonstrating that both the bright classical novae, known from antiquity, and the much fainter dwarf novae, whose studies essentially began in the 19th century, all had one thing in common--they were binary star systems," said his colleague John Faulkner, a professor emeritus of astronomy and astrophysics at UC Santa Cruz.

During the mid 1960's, Kraft had become disillusioned with life in the sprawling, polluted suburbs of southern CA. When, in 1967, he was offered a professorship in astronomy at the beautiful new Santa Cruz campus at the University of California, he accepted it. The Lick Observatory scientific staff had moved down from Mt. Hamilton to the UCSC campus, allowing Kraft to both teach astronomy on campus and observe at the Lick 120-inch telescope, then the second largest telescope in the world. Almost immediately after arriving at UCSC, along with teaching and observing, Kraft began serving as acting director of Lick Observatory for a total of five years. Later, he accepted an appointment as director of UCO/Lick from 1981 to 1991.

In 1971, Kraft was elected to the National Academy of Sciences and in 1974, to the American Academy of Arts and Sciences. Kraft was also elected President of the American Astronomical Society, serving from 1974 to 1976.

During his directorship at Lick, Kraft played a key role in negotiating commitment of the resources of the Lick Observatory to the construction and instrumentation of the W.M. Keck Observatory on Mauna Kea, Hawaii, the home of the world's first 10-meter telescope. That telescope, now known as Keck I, and its twin, Keck II, were the largest optical and infrared telescopes ever built. UCO/Lick operates the Observatories in cooperation with Caltech and NASA.

In 1995, Kraft was awarded the Henry Norris Russell Lectureship. This prestigious award by the American Astronomical Society honors a lifetime's achievement in astronomy.

From 1997 to 2000, Kraft served as President of the International Astronomical Union (IAU). During his presidency, he took steps to place support for the best science among the IAU's highest priorities.

Kraft finally gave up observing at telescopes in 1999, but kept busy with research in astronomy and helping younger, aspiring graduate students with their research and education for the rest of his life.

In 2005, Kraft was awarded the Catherine Wolfe Bruce Gold Medal. The Bruce Medal is the highest honor given by the Astronomical Society of the Pacific. It was the honor that Kraft was most proud of. It recognizes international scientists for fundamental and life-long contributions to the field of astronomy. Another recipient of this medal was Edwin P. Hubble, who was so honored in 1938.

Throughout his long and accomplished career as an internationally recognized astronomer, Kraft never fit the stereotype of a drab scientist in a white lab-coat. His interests were varied and many. He was a lover of music, a world traveler, a Francophile and connoisseur of fine wine. He especially loved Mozart, Berlioz, Beethoven, Stravinsky, and The Beatles. At UCSC, he taught oenology (wine tasting) and music appreciation courses. Following his retirement, he continued teaching very detailed courses on opera, music appreciation and The Enlightenment to life-long learners in his home in Aptos for many years, right up until he suffered a stroke in February, 2015.

Kraft was a patron of the arts and held season tickets to both the Santa Cruz and San Francisco Symphonies. To many of his friends, he seemed to know and appreciate music as much as he
knew astronomy. Kraft was remarkably philanthropic and donated generously to countless charities and political causes.

Kraft was a compassionate human being who endeavored to help all who sought his advice and guidance, including his students, his colleagues and members of his own family. He advocated for the common good of all people in need. Never one to boast or brag about his own professional success, he was always forthright in declaring his gratitude for the educational opportunities afforded him by state-supported public universities, declaring his belief in a more egalitarian society in which all people might have an equal opportunity to prosper.

Robert Kraft was a beautiful and extraordinary man who will surely be missed by all who knew him.

"In one of those stars I shall be living. In one of them I shall be laughing. And so it will be as if all the stars were laughing, when you look at the sky at night." - Antoine de Saint Exupéry

Kraft is survived by his older son Kenneth Kraft, his wife Ginger Charron Kraft and grandson Cary Kraft, his younger son Kevin Kraft and his partner Herman Brown.

A memorial service will take place on July 18, 2015, at 2:00 PM at the Unitarian Fellowship in Aptos, CA.

Memorial contributions may be made to: Guitars Not Guns, 123 Carol Ave., Santa Cruz, CA 95065, Watsonville/Aptos Adult Education, 294 Green Valley Rd., Watsonville, CA 95076, the Santa Cruz Symphony League, 307 Church St., Santa Cruz, CA 95060, the Unitarian-Universalist Fellowship, 6401 Freedom Blvd, Aptos CA 95003, or the Santa Cruz AIDS Project, 542 Ocean St., Santa Cruz, CA 95060.