To notify the community about a colleague's death, subscribers can visit http://www.physicstoday.org/obituaries, where they can submit obituaries (up to 750 words), comments, and reminiscences. Each month recently posted material will be summarized here, in print. Select online obituaries will later appear in print.

Stanley Sweet Hanna

Stanley Sweet Hanna

Nuclear physicist Stanley Sweet Hanna, who retired from the physics faculty of Stanford University in 1991, died on 27 December 2012 in Palo Alto, California.

Born in Sagaing, Burma, on 17 May 1920, Stan was the third child of missionary parents. At age 14 he was sent to the US for his education. He attended Denison University, where he was elected to Phi Beta Kappa and graduated in 1941 with a bachelor of arts degree.

Stan then entered graduate school at the Johns Hopkins University, but during World War II his graduate training was interrupted while he served one year in the US Army at the Los Alamos Laboratory. After returning to his graduate study, he earned a PhD in physics in 1947 under Gerhard Dieke. He became an instructor and later an assistant professor at Johns Hopkins until 1955, when he joined the research faculty staff at Argonne National Laboratory. In 1958–59 he spent a year at Oxford University as a Guggenheim fellow, and in 1963 he joined the physics faculty at Stanford, where he taught and conducted research for the rest of his career.

Stan's work was characterized by his outstanding capacity for experimental innovation. That was especially evident in his use of the Mössbauer effect to discover the nuclear Zeeman splitting in iron-57. His interpretation of that spectral feature led to a determination of the magnetic moment of the nucleus's excited state and gave the direction and magnitude of the hyperfine field that was unexpectedly opposite to the magnetic field's direction. Stan observed the first nuclear Zeeman splitting of tin-119, a "nonmagnetic" atom, in a magnetic alloy. He extended his study of hyperfine fields to implanted ions and free ions. He utilized large decoupling fields to preserve nuclear alignment and to measure nuclear g-factors.

Stan broke new ground in using large sodium iodide crystals to study gamma rays from giant resonances in a number of nuclei. Those studies resulted in the determination of resonant structures of intermediate width, constancy of the angular distributions, and isospin splitting in the resonances and in the detection of quadrupole radiation. He introduced the use of polarized protons to obtain definitive measurements of electric quadrupole and dipole resonances and their configurations.

In his study of analog states, Stan was the first to observe $\Delta T = 2$ isospin resonances and their radiative decay. He developed the method of producing polarized beta-emitting nuclei by using a polarized gas-jet target in a nuclear reaction. He employed the pion charge-exchange reaction to excite analog giant resonances in light nuclei and to show convincingly the existence of isospin splitting.

Producing such a large number and variety of essential contributions clearly distinguished Stan as a leader in the field of nuclear physics. His achievements were recognized worldwide with many awards from and visiting professorships at universities and institutions abroad. He received two Alexander von Humboldt Awards, one from the Max Planck Institute for Nuclear Physics in Heidelberg, Germany, in 1977 and the other from Marburg University in Marburg, Germany, in 1989. Among the foreign institutions he taught at were the Weizmann Institute of Science in Rehovot, Israel, in 1969–70; Osaka University in Japan in 1972; and the Centre de Recherches Nucleaires in Strasbourg, France, in 1984.

At conferences worldwide, Stan presented more than 100 invited lectures based on his 167 refereed journal articles. His abiding leadership was recognized when he was elected chairman of the American Physical Society's division of nuclear physics in 1976–77. He also served on the society's executive committee in 1979–82.

The appreciation that Stan's colleagues and graduate students had for him was expressed during the retirement symposium held at Stanford in honor of his 70th birthday in 1991. A *zeitschrift* based on the symposium and including other relevant papers was published in 1994.

Throughout his long career, Stan gave generously of himself to all with whom he interacted. As an adviser, role model, confidant, and friend, he saw each person as an individual, acknowledging strengths, helping overcome weaknesses, giving encouragement, and enthusiastically praising success. Having thus touched the lives and careers of so many students and colleagues, Stan has left a lasting legacy to be cherished by those who knew him.

Lawrence Fagg
Catholic University of America
Washington, DC
Ralph Segel
Northwestern University
Evanston, Illinois

Adilet Imambekov

A rising star in the field of quantum many-body physics, Adilet Imambekov died on 18 July 2012 at age 30 while climbing Khan Tengri mountain in Kazakhstan. Despite his youth, Adilet made key contributions to the field of strongly correlated systems; in particular, he devised a new conceptual framework for describing universal dynamics of one-dimensional quantum systems. Adilet's work was distinguished by a combination of deep physical insight, mathematical rigor, and elegance.

Born on 2 September 1981, Adilet grew up in Zhambyl (now Taraz) and Almaty, Kazakhstan. His extraordinary abilities were evident by age 14, when he won national physics and mathematics competitions, then attended one of the former Soviet Union's best science high schools, Kolmogorov Lyceum in Moscow. Adilet became the first student in 14 years to graduate with highest