

particular, he initiated and led an important reorganization of the AAS and its leading scientific publication, the *Astrophysical Journal*.

His impact on astrophysics was recognized with numerous awards and prizes. The last of them, the National Medal of Science, was awarded to him posthumously by President Clinton.

Martin's clarity of thinking was legendary, as was his ability to summarize and explain in just a few sentences any recent scientific development. At the weekly colloquium at Princeton, he often summed up the lecture for the audience so masterfully that it was not uncommon for his summary to be more lucid and informative than the hour-long lecture that preceded it.

He was also known for having thought through an impressive range of scientific, science policy and social issues. When asked a difficult question by one of his colleagues—how should this or that be addressed, handled or resolved—he always had a well-reasoned, compassionate and sound answer. If there really are wise old men, warm and humane, Martin was certainly one of them. With his and Spitzer's departure, life at Princeton will never be the same again.

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Eugene Ghiron Fubini

Eugene Ghiron Fubini died in Brookline, Massachusetts, on 5 August after a lifetime of making numerous contributions to military and civilian technology and of consistent dedication to the security and prosperity of the US.

Fubini, whose father was the well-known mathematician Guido Fubini, was born in Turin, Italy, on 19 April 1913. He received his *laurea* (doctorate) in physics from the University of Rome in 1933 under the guidance of Enrico Fermi.

The brilliance of Fermi, whom Fubini regarded as "the smartest person I've ever known," persuaded him—wrongly—that physics was too difficult for him to excel at. Consequently, Fubini turned to engineering—specifically, radio and electronics. He worked at the National Institute of Electrotechnics in Rome and then, after emigrating to the US in 1939, at CBS as an engineer.

When the US entered World War II late in 1941, Fubini (although technically an enemy alien) joined Harvard University's secret Radio Research Laboratory, which was responsible for the R&D of electronic intelligence and countermeasures. He became a scien-

tific consultant and technical observer for the US Army and Navy in the European theater of operations. His work involved electronic reconnaissance and jamming for the invasions of Italy and southern France, as well as combat missions for the Eighth Air Force. Thanks to his skill, courage, enthusiasm and engaging personality, he established a lasting rapport with military personnel of all ranks.

When the war ended, Fubini joined what is now AIL Systems, Inc, a subsidiary of Eaton Corp, in Melville, New York. For 15 years, he was involved in the development of a wide variety of electronic intelligence and reconnaissance systems and was largely responsible for AIL's rapid growth in the late 1950s and early 1960s.

In March 1961, Fubini joined the Office of the Secretary of Defense as deputy director of defense research and engineering (R&E) for research and information systems, beginning an intense and dedicated association with OSD that lasted in various forms for over 30 years.

In June 1963, he became principal deputy director of R&E and an assistant secretary of defense. In those roles, he oversaw the intelligence agencies of the Department of Defense (DOD), as well as the programs and budgets for command, control and communications. His contributions over the following decades to what has become known as C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance)—the brain of modern military capability—have not been equaled.

In June 1965, he returned to the private sector, joining IBM Corp as a vice president responsible for (among other activities) the research division and the advanced systems development division. He was an early advocate of the development of the personal computer.

After leaving IBM in April 1969, he became a private consultant to industry and government for the rest of his career, during which he continued his leadership role in advising various elements of DOD and other government agencies, as well as NATO. He helped to create many advisory committees, whose work went beyond technical contributions to include military tactics and national strategy. He also served as a director on several corporate boards.

Beyond his brilliant and broad intellect, Fubini's many friends and associates valued his infectious and inspiring spirit, his unpretentious and ebullient manner and his commitment to excellence. He loved the US and its armed forces, which returned the af-

fection. He was always volunteering to help those he knew—or those he didn't know, but who had heard of him and asked for help—in finding jobs or in solving technical or personal problems. No wonder so many of us loved him, miss him and will remember him for a very long time.

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Earl K. Hyde

Earl K. Hyde, a senior scientist and deputy director emeritus at Lawrence Berkeley National Laboratory (LBNL), died in Berkeley, California, on 3 March at the age of 76.

Earl was born in Rossburn, Manitoba, but grew up in Joliet, Illinois. After earning a BS in chemistry from the University of Chicago in 1941, he joined the Manhattan Project at Chicago, where he distinguished himself by characterizing the chemical properties of a number of compounds of uranium, plutonium and protactinium.

In 1946, Earl received a PhD in chemistry from the University of Chicago and then joined the staff of Argonne National Laboratory, where he studied the nuclear properties of new isotopes of uranium and plutonium. In early 1949, Glenn Seaborg invited him to spend a year at the Radiation Laboratory of the University of California, Berkeley. That stay of one year at what became LBNL was to lengthen to almost four decades.

Earl's first studies there were on the chemical—and particularly the nuclear—properties of heavy element iso-



EARL K. HYDE