

NAS to Grant Awards

At a ceremony in Washington, DC, on 1 May, the National Academy of Sciences will honor 14 individuals for their contributions to science. The laureates include four who are pursuing physics-related research.

The academy's highest honor, the Public Welfare Medal, will be presented to **Gilbert F. White**, the Gustavson Distinguished Professor Emeritus of Geography at the University of Colorado at Boulder. He is being cited for "sixty-five years of educating colleagues, students, and governments—through research, institution-building, and policy analyses—on how to change the ways we manage water resources, mitigate hazards, and assess the environment, enabling people to aspire to a more humane existence with the natural world."

Donald Lynden-Bell, a professor of astrophysics at the University of Cambridge, UK, will receive the John J. Carty Award for the Advancement of Science. He is being honored "for his outstanding work in theoretical astrophysics, and especially for the originality of his contributions to our understanding of the collective dynamic effects within stellar systems." The award consists of a medal and prize of \$25 000 and is presented every three years in a different field.

The Award for Initiatives in Research will go to **Kenneth A. Farley**, a professor of geochemistry at Caltech, for "his insightful use of isotope geochemistry to address the origin of Earth's atmosphere, the infall of cosmic dust, and the uplift rates of mountains." The \$15 000 prize is awarded annually in a different field.

George W. Wetherill will garner the J. Lawrence Smith Medal, which is accompanied by \$20 000 and is awarded every three years for investigations of meteoric bodies. A staff member of the Carnegie Institution of Washington, Wetherill was chosen for "his unique contributions to the cosmochronology of the planets and meteorites and to the orbital dynamics and formation of solar system bodies."

AAAS Honors Scientific Leadership

The American Association for the Advancement of Science presented its 1999 awards at its annual meeting in Washington, DC, in February. Among the recipients was **Neal F. Lane**, President Clinton's science adviser. He received the Philip Hauge Abelson prize for—in

the words of the citation—"his performance as an exceptional public servant, a distinguished scientist and educator, and for his unstinting service to the scientific community."

Gunter E. Weller garnered the International Scientific Cooperation Award "for his dedication to understanding global change and its regional consequences, and for successfully promoting global change as an international priority." Weller is a professor of geophysics, emeritus at the University of Alaska Fairbanks.

The Newcomb Cleveland Prize was presented to **Norman Murray** of the Canadian Institute for Theoretical As-

trophysics and **Matthew Holman** of the Harvard-Smithsonian Center for Astrophysics for their report, "The Origin of Chaos in the Outer Solar System," *Science*, volume 283, page 1877, 1999.

Lawrence M. Krauss was honored with the Public Understanding of Science and Technology Award for "his global impact as a scientific communicator, especially his ability to maintain an active scientific career while at the same time writing several accessible books about physics for the general public." He is chairman of the physics department, a professor of astronomy, and the Ambrose Swasey Professor of Physics at Case Western Reserve University.

OBITUARIES

Robert Rathbun Wilson

Robert Rathbun Wilson, the driving force behind the creation of two world-class high-energy physics laboratories—Cornell University's Laboratory of Nuclear Studies and Fermilab—died on 16 January in Ithaca, New York. Three years earlier he suffered a stroke from which he never recovered.

Born in Frontier, Wyoming, on 4 March 1914, Wilson began his university education in 1932 at the Berkeley campus of the University of California, where he earned an AB in 1936. Staying at Berkeley, he studied physics under Ernest O. Lawrence and earned a PhD in 1940. That same year, he was appointed instructor at Princeton University and was promoted to assistant professor the following year.

In 1943, Wilson joined the new laboratory being set up in Los Alamos, New Mexico, for the development of the atomic bomb. A year later, he was made head of the physics research division, which was responsible for experimental nuclear physics research and, later, for nuclear measurements made during the test of the first atomic bomb. Appalled by the destructive power of the bomb, Wilson worked effectively toward the end of World War II for civilian control of atomic energy. He was a leader in the formation of the Federation of Atomic Scientists, becoming its chairman in 1946.

After spending two years as an associate professor at Harvard University, Wilson moved in 1947 to Cornell University, where he spent the next 20 years as the director of the university's Laboratory of Nuclear Studies. At Cornell, he oversaw the construction of four successively more

energetic electron synchrotrons. The second of those accelerators—a 1.2 GeV strong focusing synchrotron—was the first operating accelerator of this type. Cornell has endured as an important center of experimental high-energy research in this age of giant national or international laboratories because it always had an accelerator with some unique physics capability built at a modest cost. During his tenure as director, Wilson insisted on this combination, which has been maintained by the two subsequent directors, Boyce McDaniel and Karl Berkelman.

During his 20 years at Cornell, Wilson remained deeply embedded in the physics program, as both mentor and experimentalist. He did extensive measurements of kaon and pion photoproduction in which he made the first observation of a new state of the nucleon, $N(1440)$. And in a series of elastic electron-nucleon scattering, he extended the work of Robert Hofstadter to larger momentum transfer and separated F_1 and F_2 , the nucleon's electromagnetic form factors.

In 1967, after completing the 10 GeV Cornell Synchrotron, Wilson left Ithaca to assume the directorship of Fermilab. Starting on a virgin site with no staff, he began the job of building the most ambitious accelerator project ever undertaken at that time. In addition to the challenge of building a cascade of large accelerators in less than five years, Wilson promised to double the 200 GeV energy of the originally proposed accelerator, a promise that he fulfilled, making it the highest-energy facility in the world. He accomplished that feat primarily by designing magnets that had a smaller aperture and higher magnetic fields, thereby increasing the energy of the protons circulating