

Wu receives Wolf Prize in physics

Chien Shiung Wu, the Michel I. Pupin Professor of Physics at Columbia University, was selected to be the first recipient of the Wolf Prize in Physics. The Prize, offered by the Wolf Foundation, consists of \$100 000 and is awarded in recognition of the achievements of those scientists who have made great contributions on behalf of humanity.

Wu was honored for her work on the mechanism of beta disintegration in particular and weak interactions in general, along with her other important contribution in other areas of fundamental physics, physics instrumentation and more recently, biology.

Her most widely acclaimed research demonstrated that the direction of emission of beta rays is strongly correlated with the direction of spin of the emitting nucleus, showing that parity is not conserved in beta disintegration. This experiment, done in 1956, overthrew a law of symmetry long believed to govern all interactions in the nuclei of atoms, and provided support for a theory espoused by Tsung-Dao Lee of Columbia and Chen Ning Yang of the Institute for Advanced Study, who were to receive the Nobel Prize for their work.

Wu was born in China in 1912, and



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came to the United States in 1936 for graduate work at the University of California. She received a PhD in physics and went on to teach at Smith College in 1940 and later at Princeton before becoming a senior scientist at Columbia in 1944. She was named an associate professor of physics in 1952 and full professor in 1958, the same year as her election to

the National Academy of Sciences.

Before her crucial experiment in 1956, Wu was known internationally as a leading experimental physicist, particularly for her work in beta decay. Other contributions include her demonstration that the quanta from the annihilation of positrons and electrons are polarized along right angles, a finding in accordance with Dirac's theory, proving that the electron and the positron have opposite parity. In more recent years, Wu has made a thorough study of the x-ray spectra of muonic atoms and has become interested in biological problems, especially the structure of hemoglobin. Her studies of the latter have greatly clarified its complicated structure.

The presentation of the Wolf Prize took place in a special ceremony at the Israeli Parliament (the Knesset) on 10 April. The other prizes presented by the Wolf Foundation, dedicated to researchers in agriculture, mathematics, chemistry and medicine, were also presented.

The Wolf Foundation was founded in 1976 with an initial endowment of \$10 million with a dedication to honor and promote science and art throughout the world without regard to nationality, race, color, sex or political belief.

Columbia honors Wilson for tectonics theory

J. Tuzo Wilson, the Canadian geophysicist who has spent much of his career piecing together the puzzle of continental drift and plate tectonics, was awarded the 1978 Vetlesen Prize, the premier award in the earth sciences and sponsored by Columbia University.

Wilson, who at present is the director general of the Ontario Science Center in Toronto, received the Vetlesen Gold Medal and a cash prize of \$50 000 at a dinner held in his honor at Columbia on 27 April.

Wilson has been one of the major contributors to the revolution that swept the earth sciences with the introduction of continental-drift theory. He introduced a dynamic, on-going model of the processes of continent-building and ocean-

basin forming to compete successfully against the relatively static hypothesis that assumed great eras of geological hiatus between geologic events.

Continental drift was a possibility first suspected by a German meteorologist, Alfred Wegener, early this century. Wilson's contribution of seafloor spreading was first described at a meeting before the American Philosophical Society in 1968 through a paper entitled, "The Life History of the Ocean Basins," in which he described the dynamic forces that cause ocean basins to form, be destroyed and to form again.

Wilson earned a PhD in geology from Princeton University in 1936 and then served with the Geological Survey of Canada and the Royal Canadian Engineers. He joined the University of Toronto in 1946, becoming principal of its Erndale College in 1967 and a distin-

guished lecturer in 1974. He accepted his present position at the Ontario Science Center in that same year, and went on to become professor emeritus at Toronto in 1977.

The Vetlesen Prize is presented for outstanding achievement in the sciences resulting in a clearer understanding of the Earth, its history or its relation to the universe, and is open to scientists of all nations. This year marked the ninth presentation of the prize since 1960.

Edward Teller was named as the second recipient of the Henry T. Heald Award of the Illinois Institute of Technology, inaugurated last year in honor of IIT's first president.

David Finkelstein, physicist on the faculty of Yeshiva University since 1960, was appointed its dean for natural sciences

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and mathematics and will also serve as the director of the Belfer Research Center, a facility conducting research programs related to energy science and technology, materials science and medical instrumentation.

Formerly the director of advanced research for the American Optical Corporation, **Elias Snitzer** has joined United Technologies' Research Center as manager of technical planning. Snitzer will be involved with programs in the area of fiber-optics telecommunications.

Stephen G. Brush, physicist and historian of science at the University of Maryland,

received the 1977 Pfizer Award presented by the History of Science Society for his book, *The Kind of Motion We Call Heat*, on the history of the kinetic theory of gases in the 19th century.

Edward A. Knapp, the associate division leader of the medical-physics division of Los Alamos Scientific Laboratory, was appointed the leader of the newly formed division of accelerator technology.

Richard L. Herbst, most recently affiliated with the applied-physics department of Stanford University, was named director of research for the Quanta-Ray Corporation, where he will be involved with laser-related instrumentation for nonlinear optics.

obituaries

Bernard Gregory

Bernard Gregory, one of France's most influential scientists, died at home in Elancourt, France, on Christmas eve at age 58. His death was a severe loss for French science, for the idea of international collaboration he so heartily espoused and for the community of high-energy physicists worldwide.

In 1938, Gregory gained first in the entrance examinations for both the Ecole Polytechnique and the Ecole Normale Supérieure, two of the most difficult *grande écoles* in France. He chose the Polytechnique, but after one year the war in France terminated his studies. Serving as a lieutenant, he was captured in 1940 and remained a prisoner until the end of the war in 1944. His accounts of his prison years, when he took every opportunity to obtain physics and mathematics books for his own study, were fascinating.

He returned to the Ecole Polytechnique, graduating first in his class of 1945. In 1948, he came to the United States for graduate work with Bruno Rossi at the Massachusetts Institute of Technology, where he received a PhD for his work on the interactions of cosmic rays and nuclei.

In 1951, Gregory became an assistant director at the cosmic-ray laboratory of the Ecole Polytechnique, where he, with many other excellent young physicists, devoted his scientific efforts to problems in cosmic rays. Gregory was invited to Brookhaven National Laboratory, where one of the big new accelerators was in operation, in 1958.

He became the scientific director of CERN in the early 1960's, and contributed much to make it an active center for European physicists and non-European guests. In particular, his persuasive arguments were of great help to the Di-



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rectorate in its efforts to expand CERN's facilities by constructing the intersecting proton storage ring (perhaps better known as the ISR), an addition that was to give CERN a unique facility in particle research.

He was appointed the director-general of CERN in 1966, and during his five-year term CERN continued to be in the forefront of particle research and also a truly international center with American, Russian and other foreign physicists working productively with the Europeans.

In 1971 Gregory returned to Paris and became the head of the High-Energy Laboratory at the Ecole Polytechnique, and in 1973 the French Government appointed him the director of the Centre National de la Recherche Scientifique, a post roughly equivalent to the director of the National Science Foundation. Three years later he stepped one rung higher, taking over the Delegation Generale à la Recherche Scientifique et Technique, a position comparable to the US Presidential Scientific Adviser.

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