

Award in recognition of "his service to planetary science and planetary astronomy during his long tenure as a program manager at NASA headquarters." Among the projects that benefited from Brunk's "judgment and wisdom in the allocation of resources," the award citation stated, were the University of Hawaii's 88-inch telescope and the NASA Infrared Telescope Facility, both on Mauna Kea in Hawaii; the McDonald Observatory 107-inch telescope near Austin, Texas; and the 61-inch telescope at the University of Arizona's Steward Observatory near Tucson. Brunk, who is retired, was NASA's program chief of planetary astronomy from 1965 to 1982 and chief of the planetary sciences branch from 1982 to 1985.

IN BRIEF

In Finland, **Olli Lounasmaa** retired in January as director of the low-temperature laboratory at the Helsinki University of Technology in Espoo. His successor is **Mikko Paalanen**, who was in the physics department at the University of Jyväskylä from 1992–95 and at AT&T Bell Labs before then. Lounasmaa has a Humboldt Research Award to spend the next nine months at the Hahn–Meitner Institute in Berlin, Germany.

The Carnegie Foundation for the Advancement of Teaching annually selects a US Professor of the Year from each of four different types of institutions of higher education. The winner in the category of research and doctoral institutions for 1995 was **Howard Goldberg**, a professor of physics at the University of Illinois at Chicago.

Last fall, **Manfred Robert Schroeder**, a professor of physics at the University

of Göttingen in Germany, was awarded the Helmholtz Medal by the German Acoustical Society. Schroeder was cited for "outstanding contributions to number theory and its application to physics and acoustics."

The 1996 Coblentz Award, which recognizes outstanding achievement by a molecular spectroscopist under the age of 36, has gone to **X. Sunney Xie**, a researcher at the Environmental Molecular Sciences Laboratory, a unit of the Pacific Northwest Laboratory in Richland, Washington.

David E. Carlson has garnered the 1995 Karl W. Boör Solar Energy Medal of Merit, sponsored by the University of Delaware. Carlson, vice president of the thin film division of Solarex, an AMOCO subsidiary located in Newtown, Pennsylvania, was honored for "his discovery and development of thin film amorphous silicon solar cells for the conversion of sunlight to electricity."

The Electron Devices Society of the Institute of Electrical and Electronics Engineers has presented its 1995 Distinguished Service Award to **Lewis M. Terman** of IBM Corp's Thomas J. Watson Research Center in Yorktown Heights, New York. Terman was honored for his service to the society.

The University of Colorado at Boulder has created a new award, the George Gamow Memorial Lecture Award, to honor the faculty member who has made the most significant contribution to the public's understanding of science. Its first recipient is **Albert Bartlett**, a professor emeritus of physics, who frequently is asked to give his lecture "Arithmetic, Population and Energy," to lay audiences.

met his wife, also a physicist, Eugenia Kannegiesser, at Odessa. He returned the next year to marry her in Lenin-grad, a courageous act since the couple then had a long battle to get her out of the country.

Peierls's first publications appeared in 1929, and for some decades thereafter he produced a stream of seminal papers. Quantum mechanics was new, and its applications largely unexplored. He and Lev Landau published their thoughts on quantum electrodynamics, which survived their battering, but the work for which Peierls is best remembered from this period is on the physics of phonons. He actually established "zones" before Léon Brillouin (whose name is now attached to them) and extended the concept to phonons, established the Boltzmann equation for phonons and discovered the Umklapp process whereby the analog of momentum conservation in a lattice is modulo a reciprocal lattice vector. His many papers on electrons in metals have now passed so deeply into the literature that it is hard to identify his contributions to conductivity in magnetic fields and to the concept of a hole in the theory of electrons in solids.

A Rockefeller fellowship took him from Zurich to Rome and then to Cambridge. The political disasters overtaking the European continent in 1933 took Peierls to Manchester where a fund had been set up for refugees. He and Hans Bethe found themselves together there. They published fruitfully on photodisintegration (put to them by James Chadwick) and on the statistical mechanics of alloys, and their results still serve as the basis of mean-field theories of structural phase changes in complex alloys. After Manchester, Bethe moved to Cornell University and Peierls moved to the University of

OBITUARIES

Rudolph E. Peierls

Rudolph Peierls, one of the last survivors from the heroic age of quantum mechanics and a major player in the drama of the irruption of nuclear physics into world affairs, died on 19 September 1995 at the age of 88.

Peierls was born in Berlin of a Jewish father and Catholic mother and was baptized a Protestant because his father believed in leaving options open. He went to the Humboldt School in Berlin and then, as was the custom in Germany, sampled several universities in building up his first degree: Berlin (where Max Planck's lectures were among the world's worst), Munich

(where Arnold Sommerfeld's were among the world's best) and Leipzig, where he gained his doctorate. His grounding in classical physics by Sommerfeld had an interesting consequence many years later when Egon Orowan was stuck on the force required to move a dislocation. As Peierls remarked, he knew nothing about dislocations but did know classical elasticity, and the solution he derived for Orowan's problem was later developed further by David Nabarro as the Peierls–Nabarro force.

His postdoc years took him around Europe, notably to Zurich, from 1929–32, where he was Wolfgang Pauli's assistant, and to the USSR, where he



RUDOLPH E. PEIERLS