WE HEAR THAT

Wigner Medal Awarded to Kac and Moody

The originators of Kac–Moody algebras were honored for their work at the 20th Colloquium on Group Theoretical Methods in Physics held in July in Osaka, Japan. **Victor Kac** of MIT and **Robert Moody** of the University of Alberta, co-winners of the Wigner Medal given at the biennial meeting, were cited for their development of a new class of algebras, which are infinite in dimension and applicable to conformal field theory. The two worked on these algebras independently but simultaneously.

AGU Honors Four in San Francisco

Four individuals received medals from the American Geophysical Union during the fall AGU meeting in San Francisco. The Maurice Ewing Medal, which is awarded jointly by AGU and the US Navy for contributions to marine geophysics, went to **John A. Orcutt.** Orcutt, the director of the Institute of Geophysics and Planetary Physics, was cited for "the application of seismic methods to the understanding of the Earth" and for his leadership of the IGPP, which is part of the University of California's Scripps Institution of Oceanography, in La Jolla.

Two individuals were presented with James B. Macelwane Medals at the fall meeting. The first was **Jeremy Bloxham,** whose "leading contribution has been to uncover and theoretically interpret worldwide measurements of the Earth's magnetic field going back 300 years and more." Bloxham is a professor in the department of Earth and planetary sciences at Harvard University.

The other Macelwane medalist was **John E. Vidale,** who was cited for "geophysical studies of subducted lithospheric slabs, upper-mantle discontinuities, core–mantle structure and earthquake sources." Vidale is a geophysicist at the US Geological Survey in Menlo Park, California.

The Waldo Smith Medal was presented to **Cecil H. Green** for his "extraordinary contributions to the geophysics and electronics industries, to the training of scientists, physicians and engineers, and to strengthening education and research institutions." Green, who is retired, was a founder of Texas Instruments.

IN BRIEF

Vera Rubin, staff scientist in the Department of Terrestrial Magnetism of the Carnegie Institution in Washington, DC, received the Dickson Prize from Carnegie Mellon University last November. The announcement of the award cited her discovery that spiral galaxies contain more mass than can be attributed to visible stars and gas.

Last fall **Anthony Rothman** joined the department of physics and astronomy at Bennington College in Vermont. Rothman had been an associate at Harvard College Observatory and is an ongoing visiting research fellow at the University of Texas's Center for Relativity in Austin.

This past November the Ettore Majorana Center in Erice, Italy, announced the recipients of its annual Ettore Majorana–Erice–Science for Peace Prize for the years from 1989 through 1992. The recipients for 1989 included **Sidney David Drell,** professor and deputy director of the Stanford Linear Accelerator Center; **Murray Gell-Mann,** Millikan Professor of Theoretical Physics at Caltech; **Henry Way Kendall,** professor of physics at MIT; and **Abdus Salam,** director of the International Centre for Theoretical Physics in Trieste, Italy. **Tsung-Dao Lee,** Enrico Fermi Professor of Physics at Columbia University, was awarded a prize for 1990. Recipients of 1991 prizes included **Richard L. Garwin,** fellow of IBM's Thomas J. Watson Research Center, in Yorktown Heights, New York; **Sheldon Lee Glashow,** Mellon Professor of Science at Harvard University; **Roald Zinnurovich Sagdeev,** distinguished professor and director of the East–West Center at the University of Maryland; **Kai Manne Borje Siegbahn,** professor of physics at the University of Uppsala, Sweden; and **Yevgeniy Pavlovich Velikhov,** director of the Kurchatov Institute for Atomic Energy and vice president of the Russian Academy of Sciences. Prizes for 1992 went to **Jerome Karle,** chief scientist in the laboratory for the structure of matter at the US Naval Research Laboratory in Washington, DC; **Arne Magnéli,** professor emeritus of inorganic chemistry at the University of Stockholm, Sweden; **Norman Foster Ramsey,** Higgins Professor of Physics at Harvard; and **Chien-Shiung Wu,** professor emeritus of physics at Columbia. Awards were given posthumously to **Linus Pauling, Julian Schwinger** and **Dorothy Crowfoot Hodgkin** for the years 1989, 1990 and 1991, respectively.

OBITUARIES

Robert Sard

Robert D. Sard, a professor emeritus of physics at the University of Illinois at Urbana–Champaign, died on 29 May 1994, at the age of 78.

In the late 1940s Sard established a reputation as an outstanding cosmic-ray and particle physicist. His experiments used stopping muons from cosmic rays. In one experiment he discovered the production of neutrons resulting from the capture of negative muons by nuclei. In another experiment he showed that a muon does not decay to an electron and a γ ray. Sard's experiments showed that a muon is essentially like an electron but that it has an intrinsic characteristic that forbids it from transforming into an electron. Experiments by Marcello Conversi, Ettore Pancini and Oreste Piccioni and by Sard were among the first to establish the existence of the family of weakly interacting elementary particles now called leptons.

Bob Sard was born on 23 August 1916 in New York City. In 1935 he received his bachelor's degree from Harvard University. After his graduation, fellowships from Harvard enabled him to spend part of a year at Ernest Rutherford's laboratory in Cambridge, England, and subsequently two years at the Kamerlingh Onnes cryogenic laboratory in Leiden, the Netherlands, where Paul Ehrenfest aroused Sard's interest in cosmic rays.