

ty's faculty of arts and science.

Also honored at the ASA meeting was Anthony Armstrong Atchley of the Naval Postgraduate School, who received the R. Bruce Lindsay Award. The award, which recognizes achievements by a young researcher, was given to Atchley for "contributions to the understanding of acoustic cavitation and thermoacoustics." With Andrea Prosperetti and Larry Crum, Atchley demonstrated that cavitation in liquids depends primarily on the characteristics of the liquid and on bubble dynamics. More recently he has experimented on thermoacoustic heat transport at high acoustic amplitudes and on the onset of thermoacoustic oscillations.

Atchley earned a PhD in physics from the University of Mississippi in 1984. He then was the Hunt postdoctoral fellow at Yale University before joining the faculty of the Naval Postgraduate School in 1986.

## ASTRONOMICAL SOCIETY HONORS PACZYNSKI, BABCOCK

At the June meeting of the American Astronomical Society held in Columbus, Ohio, Bohdan Paczynski received the 1992 Dannie Heineman Prize for Astrophysics, and Horace W. Babcock received the 1992 George Ellery Hale Prize.

The Heineman Prize, given jointly by AAS and the American Institute of Physics, was presented to Paczynski for his "timely, important and insightful contributions to our theoretical understanding across a wide range of topics in modern astrophysics. These include his contributions to the theory

Bohdan Paczynski



of stellar structure and evolution, of interacting binary stars, and of a variety of puzzling objects in high-energy astrophysics." His work on stars covered the effects of mass transfer and gravitational radiation on the evolution of close binary systems, the formation of planetary nebulae and the evolution of their central stars. He is coordinating an observational search for very rare events of gravitational microlensing of stars in the Galactic bulge by any compact objects—stars, brown dwarfs or planets—in the Galactic disk. The search is being carried out at Las Campanas Observatory in Chile by a team from the Warsaw University and Carnegie Institution Observatories.

Paczynski received a PhD in astronomy from Warsaw University in 1964. From 1962 to 1982 he worked at the Institute of Astronomy (which later became the Copernicus Astronomical Center) in Warsaw. He then moved to Princeton, where he now is the Lyman Spitzer Jr Professor of Astrophysics.

The Hale Prize, a biennial award of the AAS solar physics division, is given for outstanding contributions to solar astronomy over an extended time. Babcock, a former director of the Mount Wilson and Las Campanas Observatories, is best known to solar physicists for inventing, in 1952, the magnetograph, a photoelectric instrument that has made practical the mapping of the Sun's magnetic field. In 1953 he proposed a system to correct telescopic seeing, which was the forerunner of adaptive optics.

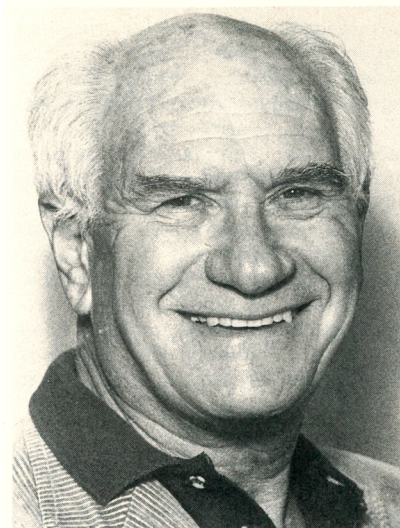
Babcock received a PhD in astronomy from the University of California in 1938 and then worked at Lick, Yerkes and McDonald Observatories. During World War II he worked on various military projects at MIT and then at Caltech. In 1946 he joined the staff of the Mount Wilson and Palomar Observatories and served as director from 1964 to 1974. From 1963 to 1978 he also directed Las Campanas Observatory.

## OBITUARIES

### David H. Frisch

After a short illness, David H. Frisch, professor emeritus of physics at MIT, died on 23 May 1991 at his home in Cambridge, Massachusetts. He was 73.

David was born in New York City on 12 March 1918 and grew up in San Antonio, Texas. He received his AB degree from Princeton University



David H. Frisch

in 1940 and then became a graduate assistant at the University of Wisconsin. The war sent him to Los Alamos, where he worked until 1945 on basic research toward the development of the fission bomb. After the war he came to MIT, where he obtained his PhD in physics while working under Victor Weisskopf. David ascended the professorial ladder, becoming a full professor in 1958 and retiring (in name only) as professor emeritus in 1988.

At MIT, David launched into a program in experimental particle physics. Characteristically, the experiments he pursued were at the frontier of knowledge. This program took him to virtually all the high-energy accelerators in the world at that time: Lawrence Berkeley Laboratory, Brookhaven National Laboratory and CERN. He developed the cylindrical spark chamber with its latest version in a magnetic field. The latter was, in a sense, grandfather to today's large-scale, almost 4 $\pi$  electronic detectors. In this work he trained, inspired and was helped by a truly world-class set of graduate students, who are now productive scientists at many institutions; they remember him with gratitude and affection.

David's urge to share the excitement of physics permeated his teaching at the undergraduate level. His best-known efforts included the movie *Relativistic Time Dilation*, which described measurements with cosmic-ray muons done with James Smith, and the book *Elementary Particles*, written with Alan M. Thorndike. David was at all times a strong proponent of bringing undergraduates into the laboratory, and he initiated many modern physics experi-