We Hear That

Lieb, Widom Given Boltzmann Award

The International Union of Pure and Applied Physics has jointly honored **Elliott Lieb** and **Benjamin Widom** with its 1998 Boltzmann Award. The award, which is given every three years, was presented this year at the IUPAP-sponsored 20th International Conference on Statistical Physics in Paris from 20–24 July. Lieb is a professor of mathematical physics and the Higgins Professor of Physics at Princeton University. He was cited for "his outstanding mathematical investigations of fundamental problems in classical and quantum statistical physics, including exact solutions of a wide range of models with important applications." Widom, the Goldwin Smith Professor of Chemistry at Cornell University, was honored for "his illuminating studies of the statistical mechanics of fluids and fluid mixtures and their interfacial properties, especially his clear and general formulation of scaling hypotheses for the equation of state and surface tensions of fluids near critical points."

Berners-Lee, Carlstrom, Santer Named MacArthur Fellows

In June, the MacArthur Foundation named as fellows 23 individuals ranging from cattle ranchers to economists to biochemists. Besides earning the moniker of "genius," each will receive a generous and unrestricted grant over the next five years. On the list were three with physics or astrophysics backgrounds: **Tim Berners-Lee**, the director of the World Wide Web Consortium (W3C) at the Laboratory for Computer Science at MIT; **John Carlstrom**, a professor of astronomy and astrophysics at the University of Chicago and associate director of the university's Center for Astrophysical Research in Antarctica; and **Benjamin Santer**, an atmospheric scientist in the program for climate model diagnosis and intercomparison at the Lawrence Livermore National Laboratory. Their grants ranged from $260 000 to $270 000.

Berners-Lee conceived and developed the World Wide Web, designed the uniform resource locator system and established the first Web server on the Internet. According to the foundation, he has "pioneered a revolutionary communications system requiring minimal technical understanding to locate and distribute information throughout the world at very low cost." Berners-Lee also recently garnered the Technology Award given by the Eduard Rhein Foundation of Mayen, Germany.

Carlstrom has designed, built and used astronomical instruments such as an interferometer that operates at submillimeter wavelengths. Next year, he and his colleagues will mount new detectors on a new telescope they have built at the South Pole to make precise measurements of the cosmic microwave background. The foundation states that Carlstrom's "devices have enhanced the study of accretion disks around young stars, have enabled astronomers to understand better the role of magnetism in star formation, and may soon lead to more precise measurements of the density of the universe."

Santer is an atmospheric scientist whose research in climate modeling and greenhouse gas effects supports the hypothesis that human activity contributes to global warming. He was the lead author for one chapter in the "Second Assessment Report" published by the Intergovernmental Panel on Climate Change in 1996. The foundation praises "his research and leadership [which] have had far-reaching effects, contributing important scientific foundations for recent international negotiations in Kyoto on greenhouse gas emissions."

In Brief

When the fall term begins at Stanford University, the new dean of humanities and science will be **Malcolm Beasley,** the Theodore and Sydney Rosenberg Professor of Applied Physics. Despite the administrative demands of his new post, Beasley hopes to remain active in research and teaching.

At a November ceremony in Kyoto, Japan, the Inamori Foundation will present Kyoto Prizes in three categories. The prize in the category of advanced technology will go to **Kurt Wüthrich**, a professor of molecular biophysics and chairman of the department of biology at the Swiss Federal Institute of Technology. The foundation's announcement of the prize stated that Wüthrich's research on nuclear magnetic resonance led him to develop a method for determining the conformations of proteins, nucleic acids and other biomacromolecules in solutions or biomembranes.

Among the soccer heroes, actors and industrialists on the honors list for Queen Elizabeth's official birthday on 13 June was the name of physicist **Joseph Rotblatt**, who won the 1995 Nobel Prize for Peace as the president of Pugwash. An emeritus professor of physics at the St. Bartholomew's Hospital Medical College in London, Rotblatt received the award of Knight Commander, Order of St. Michael and St. George, for "services to international understanding."

The National High Magnetic Field Laboratory has selected **Greg Boebinger** to head a newly created center for high magnetic field research at Los Alamos National Laboratory, one of three institutions that jointly run the NHMFL. Boebinger had been at Bell Laboratories, Lucent Technologies.

At its June meeting in Albuquerque, the Astronomical Society of the Pacific named **Samuel Barden** to receive the 1998 Maria and Eric Muhlmann Award. Barden is a scientist at the Kitt Peak National Observatory in Tucson, Arizona, which is run by National Optical Astronomy Observatories. Barden was recognized for "his pioneering use of optical fibers with astronomical spectrometers," especially the Hydra Multi-Fiber Positioner.

Obituaries

Robert Adolph Becker

Robert Adolph Becker, a nuclear physicist and pioneering space physicist, died on 19 August 1997 in Montrose, California.

Born in Tacoma, Washington, on 10 February 1913, Bob earned his bachelor's degree at the College of Puget Sound in 1935. Realizing a boyhood dream, he was accepted for graduate studies at Caltech, where he earned MS and PhD degrees in physics in 1937 and 1941, respectively. Bob's graduate research in nuclear physics was supervised by Charles Lauritsen at Caltech's Kellogg Radiation Laboratory.

When the US entered World War II, Bob was assigned to war-related projects at, successively, the Carnegie

ROBERT ADOLPH BECKER

Institution's Department of Terrestrial Magnetism (1941), the National Bureau of Standards (1941–43) and the University of California's Radiation Laboratory (1943). At those places he worked on proximity fuses, rocket development and the Manhattan Project. During the last two years of the war, he worked at the University of Washington's applied physics laboratory on torpedoes that sense the magnetic fields of their targets.

In 1946, Bob joined the physics department of the University of Illinois as an assistant professor, where he remained for 15 years, attaining full professorship. While a member of the faculty, he wrote *Introduction to Theoretical Mechanics* (McGraw-Hill, 1954), which became a widely used textbook. (Many years later, after he retired, Bob greatly enjoyed providing full solutions to the textbook's problems in response to letters from fellow retirees who were studying his text for their self-edification, but who could not solve the tougher problems.)

Bob's research at Illinois was focused on proton- and deuteron-induced nuclear reactions—a topic that also led him to consider the relevance of those reactions to astrophysics.

Two successive Guggenheim fellowships in 1958–60 enabled Bob to take a sabbatical at Caltech as a visiting professor.

The year 1960 proved to be a major turning point in Bob's scientific career. In June, The Aerospace Corp, a nonprofit organization located in El Segundo, California, was created to provide the US Air Force with scientific and technical advice on military space systems. To set up a laboratories division, Aerospace called on Chalmers Sherwin, who had worked with Bob at the University of Illinois. Sherwin, in turn, invited Bob to Aerospace to set up its space physics laboratory.

One of the main objectives of space physics, which was still in its infancy at that time, is the characterization of the near-Earth environment in which space systems operate. Under the constant influence of solar activity, this environment was found to be highly dynamic and potentially harmful to spacecraft. As director of the space physics laboratory from 1960 to 1968, Bob assembled a group of young, talented experimentalists and theorists who accomplished pioneering research in this new field. Experiments evolved from simple, "piggyback" packages, which hitched rides on Air Force and NASA spacecraft, to missions dedicated to investigating single topics, such as the electrical charging of spacecraft. Bob had a remarkable ability to recognize talent in the young people he hired, many of whom later led distinguished careers.

Bob chose to retire from Aerospace in 1973 and moved to Carmel, California, where he continued to pursue his scientific interests, including the origin and evolution of the Solar System. We relish our memories of Bob's gruff demeanor, his utter disdain for bureaucracy (and his unique ways to sidestep it), his frequent admonitions and his colorful expressions. Most of all, we recall his unswerving dedication to scientific excellence.

GEORGE A. PAULIKAS
The Aerospace Corp
El Segundo, California
DALE VRABEC
Estes Park, Colorado

Arthur Constantine Damask

Arthur Constantine Damask, whose career began in metal physics and ended in medical physics and accident analysis, died in New York City on 27 January 1998 from complications following surgery.

Born in Woodstown, New Jersey, on 28 July 1924, Damask earned a BS from Muhlenberg College in 1949 and an MS and PhD in physics from Iowa State University in 1954 and 1964, respectively.

The first phase of Damask's career began in 1954, when he was stationed at Brookhaven National Laboratory as a guest scientist from the US Army's Frankford Arsenal research laboratory. Over a ten-year period, Damask was primarily involved in metal physics, working on such problems as order–disorder transformations in alloys and nucleation kinetics in precipitation

ARTHUR CONSTANTINE DAMASK

processes. Radiation effects in solids also interested him, and he was responsible for some crucial experiments on radiation-enhanced diffusion in alloys, a phenomenon he elucidated through neutron experiments at the Nevada Test Site and at Lawrence Livermore National Laboratory. This work resulted in the preparation of a series of papers and culminated in the publication of a book, *Point Defects in Metals* (Gordon and Breach, 1963), which he wrote with George Dienes and which became a standard text.

The second and third phases of Damask's career unfolded after he was appointed to a physics professorship at Queens College (part of what is now City University of New York) in 1965, a position he retained until his retirement in 1991. Those phases involved his making notable contibutions in two distinct fields—medical physics and accident analysis.

Early in the 1970s, Damask became interested in forensic science—both practicing it and exhorting other physical scientists to do so. As he gained experience in the field, he quickly became known and respected among forensic practioners in the engineering sciences as a solver of puzzles, a writer of books, a teacher. He was one of those people who, upon entering a new field, feel driven to write about it, and, in his case, to write about it with the eye of a physicist. His Medical Physics series—written in part with Charles Swenberg and published by Academic Press—commenced in 1978 with *Physiological Physics, External Probes* and was followed in 1990 by *Injury Causation and Analyses* (volume 1 written with his son Jay; volume 2 written with his sons John and Jay) addressed what the laws of physics permitted and prohibited with respect to injury-based