We Hear That

Balibar, Davis, and Packard to Share London Prize

Sébastien Balibar, **J. C. Séamus Davis**, and **Richard E. Packard** will receive the Fritz London Prize in Low Temperature Physics this August at the 24th International Conference on Low Temperature Physics in Orlando, Florida.


HORST MEYER

Balibar

Balibar is being recognized for "his work on the surfaces of helium crystals, especially their roughening transitions, their quantum dynamics, and their instability under stress, for his study of cavitation in liquid helium at negative pressure using high amplitude acoustic waves and for his early experiments on quantum evaporation of superfluid ^{4}He," according to the citation. He is a director of research at CNRS and the École Normale Supérieure in Paris.


Davis

Davis, a professor of physics at Cornell University, is being honored for "his studies of superfluid ^{3}He weak link arrays revealing a rich variety of phenomena including quantum interference," and for his "invention and development of spectroscopic imaging STM [scanning tunneling microscope] techniques and their application in studies of individual impurity/dopant atom effects, vortex-core electronic structure, quasiparticle interference effects, and alternative ordered states in the cuprate superconductors."

A professor of physics at the University of California, Berkeley, Packard is being recognized for "his studies in superfluid helium of important macroscopic quantum effects on the single quantum level"—in particular for his detection of single quantized vortex lines, photography of quantized vortices, and proof of quantization of circulation in ^{3}He—and for "his development of weak link arrays


Packard

in both ^{3}He and ^{4}He and the discoveries of a rich variety of related phenomena including quantum interference."

The prize is presented every three years. It is accompanied this year by a cash award of $24 000, which will be divided evenly among the three winners.

AIP Bestows Gemant Award on von Baeyer

The American Institute of Physics has named **Hans Christian von Baeyer** as the winner of the 2005 Andrew Gemant Award. Presented annually to recognize the accomplishments of a person who has made significant contributions to the cultural, artistic, or humanistic dimension of physics, the award is accompanied by $5000 for the winner. An additional $3000 is given to the institution of the winner's choice to further the communication of physics to the public.

Chancellor Professor of Physics at the College of William and Mary in Williamsburg, Virginia, von Baeyer was honored for "his authorship of many highly acclaimed articles and books and his delivery of countless lectures that illustrate his dedication and ability to communicate physics to wide audiences," according to the citation. Calling him "an accomplished theoretical physicist," the institute adds that "his writings reflect such depth, passion and clarity that even the most scientifically naïve can't help but care about science."

Von Baeyer has designated the College of William and Mary as the recipient of the institutional proceeds.

In Brief

Two former presidents of the American Physical Society are among the five recipients of this year's Heinz Award. The $250 000 award is bestowed annually in five categories by the Heinz Family Foundation in Pittsburgh, Pennsylvania, in honor of the late US Senator John Heinz. **Sidney D. Drell**, professor emeritus of theoretical physics at SLAC, senior fellow at Stanford University's Hoover Institution, and a founding and active member of JASON, received the public policy award for "championing a doctrine that reduced the threat of nuclear war while ensuring US security." **Mildred S. Dresselhaus**, former director of the Office of Science at the US Department of Energy, former president of the American Association for the Advancement of Science, chair of the governing board of the American Institute of Physics, and an MIT professor in the physics and the electrical engineering and computer science departments, received the award in technology, the economy, and employment for her "investigations into superconductivity, the electronic properties of carbon, [her work on] the new physics at the nanometer scale, [and her] abiding commitment to support the advancement of women in the sciences."

Obituaries

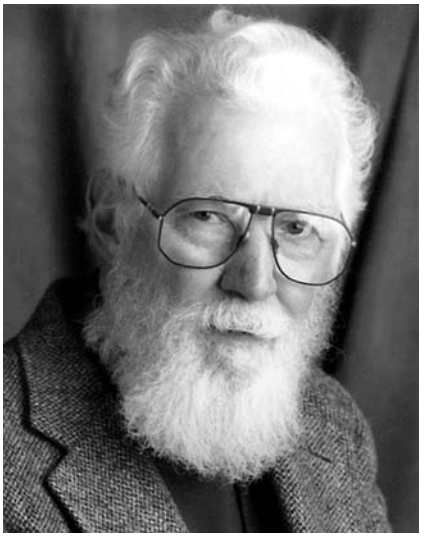
Thomas Michael Donahue

The world lost a luminary of space and planetary science and a pioneer of space exploration with the death of Thomas Michael Donahue, on 16 October 2004, from complications following heart surgery.

Tom's work began after World War II when he first used sounding rockets to study Earth's upper atmosphere; he continued that work for almost 60 years. His influence on space exploration through his scientific achievements and the policy positions he held continues today. Tom was an experimenter or scientist on numerous NASA missions, including Voyager, Pioneer Venus, and Galileo, and the current Cassini mission. He was one of the first scientists to argue that a substantial Martian ocean had existed, and he was involved in early studies documenting destruction of Earth's ozone layer.

Tom was born on 23 May 1921 in Healdton, Oklahoma, but grew up in Kansas City, Missouri. He brought the passion of an eternal learner to every aspect of his life, from learning

For PHYSICS TODAY to consider an obituary for publication, we must be notified within five months of the scientist's death.



Thomas Michael Donahue

about the history of his Irish family—Tom was an avid contributor to the O'Donoghue Society—to knowing how the solar system was formed, singing to his sons and granddaughters, or enjoying some good wine.

After graduating in 1942 from Rockhurst College (now University) in Kansas City, Missouri, with degrees in classics and physics, Tom began his graduate work in physics at Johns Hopkins University in Baltimore, Maryland. His studies, though, were interrupted by service in the Signal Corps of the US Army. On returning to Hopkins in 1945, he went on to obtain his PhD in atomic physics, under Gerhardt Dieke, in 1947. His thesis was entitled "An Investigation of the Spontaneous Oscillations in Glow Discharges."

In 1951 Tom joined the University of Pittsburgh in Pennsylvania and, eight years later, became a professor of physics there. He eventually was the director of the university's Laboratory for Atmospheric and Space Sciences (1966–74) and the Space Research Coordination Center (1970–74).

He left Pennsylvania in 1974 for the University of Michigan in Ann Arbor to take the post of chairman of the department of atmospheric and oceanic science (later renamed atmospheric, oceanic and space sciences); he held that position until 1981. In 1986 he was named the Henry Russel Lecturer, the highest honor conferred by the university on a faculty member, and in 1987 was named the Edward H. White II Distinguished University Professor of Planetary Science.

When asked to describe, for the University of Michigan's website, his work, Tom wrote:

> I parlayed my training in atomic physics into a faculty position at [the University of Pittsburgh], doing research in aeronomy and laboratory studies of atomic physics. This led to rocket and satellite exploration of the upper atmosphere of Earth in the 60s and spacecraft exploration of Mars, Venus, and the Outer Planets beginning in the 70s. Along the way my students, postdocs, and I were deeply involved in the problem of anthropogenic destruction of the stratospheric ozone in the early 70s. This led to my continuing interest in global climate change.

Tom's understated description left out the enormous impact he had as a member of the National Academy of Sciences, the International Academy of Astronautics, and the American Association for the Advancement of Science, and as chair of the Space Science Board of the National Academies' National Research Council.

Tom brought his powerful intellect and drive to a broad range of lifelong passions beyond science. Fluent in several languages, from classical Greek to modern Irish, he was also widely read in American, Irish, and French history and literature. He loved classical and folk music, and sang hundreds of songs in keys only he knew! A devotee of tennis, he continued playing weekly matches with his friend and colleague George Carignan until early in 2004. And in the spring of that year, Tom was able to attend one last ceremony honoring him when the University of Michigan and the department of atmospheric, oceanic and space sciences awarded Tom's friend Lennard Fisk, former department chair and current Space Science Board chair, with the Thomas M. Donahue Collegiate Professorship of Space Science.

Tom was a giant in the planetary atmosphere field. He was an intelligent, knowledgeable, and very interesting person. Tom's colleagues, friends, students, and family miss him very much.

Tamas I. Gombosi
University of Michigan, Ann Arbor

Joel Henry Ferziger

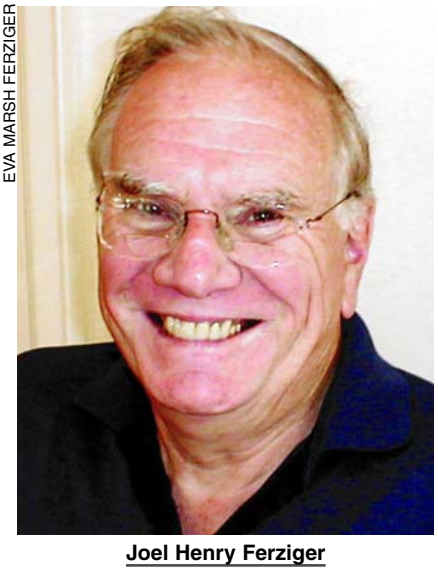
Joel Henry Ferziger, a recognized authority in the fields of thermodynamics and fluid mechanics both in the US and abroad, and professor emeritus of mechanical engineering at Stanford University, died of pancreatic cancer at a hospital in Stanford on 16 August 2004.

Joel was born on 24 March 1937 in Brooklyn, New York. When he was 16 years old, he entered the Cooper Union for the Advancement of Science and Art in New York City, where he received a bachelor's degree in chemical engineering in 1957. He subsequently enrolled in the nuclear engineering program at the University of Michigan, Ann Arbor, and earned a master's degree in 1959 and a doctorate in 1962. Joel and his doctoral adviser, Paul Zweifel, turned his dissertation "The Theory of Neutron Slowing Down in Nuclear Reactors," into a book of the same title (Pergamon Press) in 1966.

At age 24, Joel became a member of the Stanford University faculty; he remained there the rest of his career, although he was a visiting professor at Queen Mary, University of London, in 1979. At his retirement party four months before he died, he told his colleagues, "This has been my dream job for 43 years. I cannot imagine wanting to do anything else. If I were independently wealthy, I probably would have done it for free."

During the first decade of his career, Joel rose to prominence in the areas of neutron transport theory and radiation transport theory and their applications. In 1972 he and Hans G. Kaper wrote *Mathematical Theory of Transport Processes in Gases* (North-Holland, 1972).

Beginning in the 1970s, he turned his attention to computational fluid dynamics and turbulence and became internationally known for his innovative work in developing computer simulations to model complex turbulent flows. A self-described "numerical experimentalist," Joel believed, and taught, that to do computer simulations rigorously, it is also necessary to



EVA MARSH FERZIGER

Joel Henry Ferziger