

IN BRIEF

Geoffrey W. Marcy, professor in the astronomy department and director of the Center for Integrative Planetary Science at the University of California, Berkeley

Rowena G. Matthews, G. Robert Greenberg Distinguished University Professor at the University of Michigan

David W. McLaughlin, director of the Courant Institute of Mathematical Sciences, professor of mathematics and neural science, and provost at New York University

James C. McWilliams, Louis B. Slichter Professor of Earth Sciences at UCLA

Saul Perlmutter, senior scientist in the physics division at Lawrence Berkeley National Laboratory

Veerabhadran Ramanathan, Victor C. Alderson Professor of Applied Ocean Sciences and professor of atmospheric and climate sciences at the Scripps Institution of Oceanography at the University of California, San Diego

Mark A. Ratner, Charles E. and Emma H. Morrison Professor of Chemistry at Northwestern University

Stephen H. Schneider, professor in the biological sciences department and the Institute for International Studies at Stanford University

Gerald Schubert, chair of UCLA's Earth and space sciences department

Peter W. Shor, member and fellow at AT&T Labs—Research in Florham Park, New Jersey

Yum-Tong Siu, William Elwood Byerly Professor of Mathematics at Harvard University

Scott D. Tremaine, chair of Princeton University's astrophysical sciences department

Sheldon Weinbaum, CUNY Distinguished Professor of Mechanical and Biomedical Engineering at the City College of the City University of New York.

The newly elected foreign members include

Francisco de la Cruz, scientist at the Bariloche Atomic Center in San Carlos de Bariloche, Río Negro, Argentina

Gerhard Ertl, director of the Fritz Haber Institute of the Max Planck Society in Berlin, Germany

Brian Hoskins, professor of meteorology and Royal Society Research Professor at Reading University in the UK

Wolfgang Ketterle, John D. MacArthur Professor of Physics at MIT

David Ruelle, Honorary Professor of Mathematical Physics at the Institut des Hautes Etudes Scientifiques in Bures-sur-Yvette, France.

Leon Radziemski joined the Research Corp in Tucson, Arizona, last May as its new program officer. Among his duties, he will be the liaison between the American Physical Society and the company, which funds two APS awards and also funds physics faculty research. Radziemski previously served for 12 years as dean of the College of Sciences at Washington State University.

After 29 years as editor of *Astrophysical Journal Letters*, **Alexander Dalgarno**, Phillips Professor of Astronomy at Harvard University and senior scientist at the Smithsonian Astrophysical Observatory in Cambridge, Massachusetts, is retiring from the position. He will be succeeded by **Christopher Sneden**, the Rex G. Baker Jr Centennial Research Professor in Astronomy at the University of Texas at Austin. The transition will take place this fall.

Walter L. Brown, who spent more than 50 years with Bell Laboratories, Lucent Technologies, and its recent spinoff, Agere Systems, retired from Agere. On 1 June, he joined Lehigh University's material science and engineering faculty as an adjunct professor. He had been the associate director of materials research at Agere.

The National Academy of Engineering presented its Charles Stark Draper Prize in February to **Robert Langer**, Kenneth J. Germeshausen Professor of Chemical and Biomedical Engineering at MIT. The academy acknowledged Langer as "a pioneer in applying engineering principles to medical problems. . . . His creative engineering of polymer plastics is now allowing delivery of medicine in unique ways to difficult locations in the body." The prize came with a purse of \$500 000.

In March, the UK's Institute of Physics announced the appointment of **Julia King** as its next chief executive. Currently the director of marine engineering and technology at Rolls-Royce in Derby, King will succeed **Alun Jones** in September.

Bruce Berne, Higgins Professor of Chemistry at Columbia University, received the 2002 Joel Henry Hildebrand Award in the Theoretical and Experimental Chemistry of Liq-

uids in April at the annual meeting of the American Chemical Society. He was acknowledged for his "pioneering contributions to the theory of dynamic processes in liquids, processes such as chemical reaction, vibrational relaxation, and quantum solvation; and for the first molecular dynamics simulation of a molecular fluid." The award consisted of \$5000 and a certificate.

At the 7th International Conference on the Structure of Surfaces, to be held this month in Newcastle, Australia, the Surface Structure Prize will be presented jointly to **Donald W. Jepsen**, **Franco Jona**, and **P. M. Marcus** for their "pioneering contributions to the development of quantitative low-energy electron diffraction (LEED) for the determination of the atomic structure of crystal surfaces." Marcus is an emeritus staff member at IBM's T. J. Watson Research Center in Yorktown Heights, New York. Jona is a leading professor in the materials science and engineering department at SUNY Stony Brook. Jepsen is retired from his position as a research staff member at the T. J. Watson Research Center.

Franco Porcelli, professor of plasma physics at the Politecnico di Torino in Italy, became the editor of *Physics Letters A* in January, succeeding **Miklos Porkolab**.

In February, in a ceremony at the Royal Society of Medicine in London, the Rank Prize Funds awarded several Rank Prizes for Opto-electronics. **Brian Garside** (Opto-Electronics Inc), **Kenneth O. Hill** (Zenastra Photonics Inc), **Gerald Meltz** (OFT Associates), and **William W. Morey** (Sabeus Photonics Inc) jointly received a prize for "the invention and development of fiber Bragg gratings." The four winners shared the cash prize of £40 000 (about \$58 000). A prize for "the invention and application of optical coherence tomography" went to **James G. Fujimoto** (MIT), **Carmen A. Puliafito** (Bascom Palmer Eye Institute, University of Miami School of Medicine), and **Eric A. Swanson** (LightLab Imaging and also Sycamore Networks Inc). Fujimoto received £20 000 (about \$29 000), and Puliafito and Swanson each received £10 000 (close to \$14 500). A prize went to **Robert D. Burnham** of Estes Park, Colorado, **Kenichi Iga** (Japan Society for the Promotion of Science), and **Donald R. Scifres** (JDS Uniphase Corp) for "the invention of vertical-cavity surface-emitting lasers." The

winners each received £12 500 (approximately \$18 000).

The State Preeminent Science and Technology Award for 2001, China's highest award for achievement in science, went to two recipients, one of them solid-state physicist **Huang Kun**. The citation noted that, "for the last half century, [Kun] has been not only making important contributions to solid-state physics, but at the same time making contributions to the teaching of general physics, solid-state physics, and semiconductor physics in colleges and universities." He is a physicist with the Chinese Academy of Sciences and honorary director of the academy's institute of semiconductors. Accompanying the prize was a cash award of 5 million yuan (about \$605 000).

Martin C. E. Huber, visiting scientist at the International Space

Science Institute in Bern, Switzerland, will become the next president of the European Physical Society. He starts his term in March 2003, succeeding **Martial Ducloy**.

In April, **Joanna S. Fowler**, senior chemist and director of the PET (positron emission tomography) program at Brookhaven National Laboratory, received the 2002 Glenn T. Seaborg Award for Nuclear Chemistry from the American Chemical Society. Fowler was recognized for her "pioneering contributions to positron emission tomography including the development of fluorine-18-fluorodeoxyglucose, a radiotracer used worldwide for measuring brain function and for diagnosing cancer, and for the development of radiotracers for imaging monoamine oxidase, an enzyme found to be reduced in the brains of smokers." She received a cash prize of \$3000.

In 1936, the rector Henry Tizard, who noticed that Hanbury was keener on flying airplanes than attending lectures, yanked him out of college and sent him to Bawdsey Manor. This fairytale castle was hidden away on the Suffolk coast, where Robert Watson-Watt's team was developing radar in great secrecy. Of this period Hanbury later wrote, "Nothing which I have done since then has been so exciting, so absorbing, or so worthwhile." In 1942, he went to Washington, DC, to liaise with the US Navy, and remained there until 1947.

The expertise gained in the Allied effort to develop radar was applied at the end of the war with great success to the new field of radio astronomy. Hanbury, having spent two years as a consulting engineer with Watson-Watt, was among the last of the radar veterans to join this field. In 1949, Hanbury joined the Jodrell Bank Observatory, which was originally set up by Bernard Lovell—another radar veteran—for the study of cosmic-ray showers. A 218-foot paraboloid that had been constructed for this purpose was converted into a first-class radio telescope by Hanbury and his colleague, Cyril Hazard, with considerable effort. Some of the many important discoveries made with this instrument conflicted with the findings of Martin Ryle's group at Cambridge. The conflict established a much needed and healthy opposition to ensure the proper advancement of this rapidly growing science. Hanbury inspired an entire generation of aspiring radio astronomers at Jodrell and elsewhere.

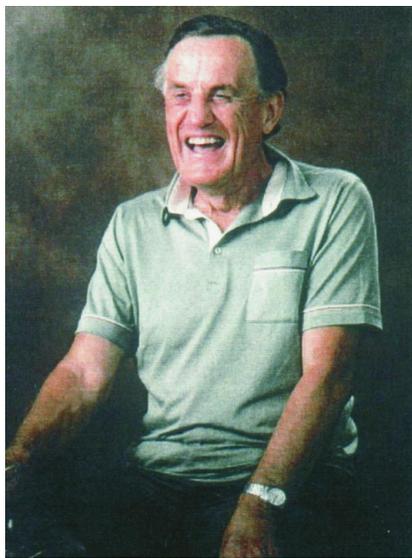
Hanbury is best known for his invention of the intensity interferometer to increase the baseline range of radio interferometry. His brilliant idea of applying this technique to optical astronomy unpredictably changed the course of his professional career. In the radio domain, intensity interferometry meant the comparison of the detected signals from two different radio antennas pointed at the same radio source, and the validity of the correlation was simply understood and easily demonstrated. In the optical domain, however, this correlation translated into comparing the times of arrival of photons from a given star at two different collectors, and that is where the trouble started. Indignant physicists quoting from and brandishing sacred texts such as those by Walter Heitler and Paul Dirac repeatedly told Hanbury and his theoretical collaborator, Richard Twiss, that such a scheme could not

OBITUARIES

Robert Hanbury Brown

The death of Robert Hanbury Brown on 16 January 2002 was sad news to a number of worlds, within each of which he had left an indelible imprint. In World War II, Hanbury—as everyone knew him—played a vital role in the development of airborne radar. In the field of radio astronomy, the first of several new windows that transformed our view of the universe over the last half century, he was one of the pioneers. Applying ideas borrowed from radio to optical astronomy, Hanbury and his associates made amazing and lasting contributions to our knowledge and understanding of stars. In this process, he incidentally created a wholly new and important branch of fundamental physics now known as quantum optics. Yet another world was India, the land of Hanbury's birth, where physicists and astronomers have lost a much esteemed and beloved friend. Unusual to the end, he contracted no fewer than three primary cancers and died peacefully in his sleep at a hospice in Andover, UK, from an aggressive lymphoma.

Hanbury was born on 31 August 1916 in Aravankadu in the Nilgiri hills of southern India. Sent to England at age 8 to attend a preparatory school where no science was taught,



ROBERT HANBURY BROWN

Hanbury was all set to become a classics scholar at Tonbridge, his next school. But his passion—science—was encouraged by his grandfather, Robert Hanbury Brown, who kept his own laboratory.

When a financial crisis in the family precluded attendance at the University of Cambridge, Hanbury switched to Brighton Technical College. There he earned his BSc degree in electrical engineering in 1935 and subsequently received a scholarship to Imperial College, London, to pursue his PhD. But this was not to be.