

WE HEAR THAT

Franklin Institute Bestows Medals

Each spring, in a ceremony in Philadelphia, the Franklin Institute, founded to continue the legacy of one of America's first scientists, recognizes both scientists and technologists of the current generation. This year, the highest science prize, the \$250 000 Bower Award and Prize in Science was presented to **Martin Rees**, the UK's astronomer royal and the Royal Society Professor at the University of Cambridge's Institute of Astronomy. Rees was selected for his "significant contributions and research on cosmic evolution, black holes and galaxies." The prize announcement goes on to elaborate: "Rees was also the first to propose the fantastic—and now widely accepted—theory that the engines driving the high-energy, deep-space quasars seen by the Hubble Space Telescope are actually enormous black holes."

At the same ceremony, **Ahmed Zewail** received the Benjamin Franklin Medal in Chemistry for "discovering a new way to study chemical reactions that uses extremely short pulses of laser light to create stop-action images of individual atoms as they react." Zewail is the Linus Pauling Professor of Chemistry and Physics at Caltech.

Benjamin Franklin Medals in Engineering went to two researchers—**Emmanuel Desurvire** and **David N. Payne**—for their "contributions to the revolution in extremely high-speed fiber optic communications." Specifically, they were honored for the joint invention of the erbium-doped fiber amplifier. Desurvire is at Alcatel Alsthom Research in Marcoussis, France, and Payne is a professor at the University of Southampton in the UK.

Horst L. Stormer, **Daniel C. Tsui** and **Robert B. Laughlin** received Benjamin Franklin Medals in Physics, the first two for discovering the fractional quantum Hall effect and the latter for developing a theoretical explanation of it. Stormer, until the last few months a laboratory director at Bell Laboratories, Lucent Technolo-

gies, is now a professor of physics and applied physics at Columbia University. Tsui is a professor of electrical engineering at Princeton University, and Laughlin is a professor of applied physics at Stanford University.

Flannery, Datz and Crim Honored by APS

At the annual meeting of the American Physical Society's division of atomic, molecular and optical physics, held in May in Santa Fe, three individuals were honored for their research contributions.

M. Raymond Flannery, a regents' professor of physics at Georgia Institute of Technology, accepted the Will Allis Prize. Flannery was cited for "advancing the understanding of recombination processes, in particular for developing a microscopic theory of three-body ionic recombination; and for his novel applications of classical and quantum mechanical methods to the dynamics of atomic, molecular and ionic systems."

The Davisson-Germer Prize went to **Sheldon Datz**, a Lockheed-Martin Senior Corporate Fellow at Oak Ridge National Laboratory, in recognition of "his broad contributions that have provided new understanding of the dynamics of atomic interactions with ions, electrons and photons at energies ranging from a fraction of a millielectron volt to many trillion electron volts."

Also at the DAMOP meeting, **F. Fleming Crim** accepted the Earle K. Plyler Prize. (See PHYSICS TODAY, February, page 49).

Optical Society of America Announces Awards for 1998

The Optical Society of America has announced this year's recipients of its awards. Most of the awards will be presented at the group's annual meeting in October.

Arthur Ashkin is receiving OSA's highest award, the Frederic Ives Medal/Jarus W. Quinn Endowment, for "his pioneering work on the manipulation of particles with light, including the invention of the 'optical tweezers' trap and his studies of radiation forces on atoms and for important contributions to nonlinear optics." Ashkin worked at what was then AT&T Bell

Laboratories for 40 years, until his retirement as a member of the technical staff in 1992.

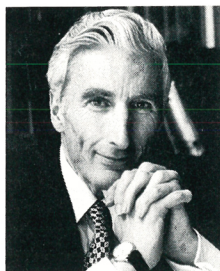
The Allen Prize recipient is **Huailin Chen**, a research scientist in the wind lidar group at NASA's Goddard Space Flight Center. Chen has been chosen for "his novel design and implementation of an ultranarrow Faraday filter, which permits continuous, high-quality, daytime measurements of mesopause atmospheric temperatures by suppressing the detected sky background by a factor of 6000."

Peter Zoller is getting the Max Born Award for "his outstanding and leading theoretical contributions to quantum optics, especially in the fields of quantum computation, quantum communications and networking, and Bose-Einstein condensation." Zoller is a professor of theoretical physics and head of the Institute for Theoretical Physics at Innsbruck University in Austria.

This year, the Joseph Fraunhofer Award/Robert M. Burley Prize is going to **James Robert Leger**, a professor of electrical and computer engineering at the University of Minnesota. OSA cites Leger for having "pioneered the use of diffractive optical elements in laser resonator design and the coherent addition of beams from arrays of lasers including laser diodes... [and] stimulated new directions in the use of diffractive optics for beam combination and shaping that are finding widespread applications in many fields of optics."

The winner of the Nick Holonyak Jr Award is **M. George Craford**, the R&D manager of the optoelectronics division at Hewlett-Packard. Craford was recognized for "his pioneering contributions and leadership in the research and development of visible-wavelength light-emitting-diode (LED) materials and devices, including the first yellow LED and the high-brightness, transparent-substrate, red-orange-yellow InAlGaP LED that exceeds in performance the incandescent lamp."

Takeshi Oka, the Robert A. Millikan Distinguished Service Professor at the Enrico Fermi Institute in Chicago, is the recipient of the Ellis R. Lippin-



MARTIN REES



ARTHUR ASHKIN