APS PRIZES AWARDED AT DIVISION MEETINGS

In October and November the American Physical Society acknowledged the research achievements of several individuals. Three meetings held during those months provided the settings for award presentations: the International Laser Science meeting, held in Toronto; the meeting of the APS division of fluid dynamics, in Albuquerque, New Mexico; and the meeting of the APS division of plasma physics, in St. Louis, Missouri.

At the laser science meeting, **John L. Hall** received the Arthur L. Schawlow Prize for "his outstanding work in applying laser techniques to the study of quantum optics and fundamental physical constants, and his invention and development of key ideas that have advanced the state of the art of lasers for spectroscopy and metrology." Hall is a senior scientist at the National Institute of Standards and Technology in Boulder, Colorado, a fellow of the Joint Institute for Laboratory Astrophysics and a lecturer at the University of Colorado.

At the fluid dynamics meeting, **Theodore Yao-tsu Wu,** a professor of engineering science at Caltech, was presented with the 1993 Fluid Dynamics Prize. APS cited Wu for "his trailblazing studies on the nonlinear theory of supercavitating hydrofoils, his perceptive and substantial contributions to the theory of animal locomotion at low Reynolds numbers and his discovery and subsequent elucidation of upstream-running solitary waves caused by a moving body." The citation also noted "his devotion and generosity in furthering the careers of young scientists." The Otto Laporte Award went to **Robert Kraichnan,** a consultant and independent researcher in Santa Fe, New Mexico. He was chosen for "a lifetime of significant contributions to statistical fluid dynamics including nonlinear response functions, mapping closures, inverse cascades and the Eulerian and Lagrangian direct-interaction theories."

At the plasma physics meeting, the Maxwell Prize was presented to **Russell M. Kulsrud,** a professor in the department of astrophysical sciences at Princeton University. APS cited Kulsrud for "his pioneering contributions to basic plasma theory, to the physics of magnetically confined plasmas and to plasma astrophysics." The citation noted that "his most important work encompasses plasma equilibria and stability, adiabatic invariance, ballooning modes, runaway electrons, colliding beams, spin-polarized plasmas and cosmic-ray instabilities." The 1993 Excellence in Plasma Physics Award was shared by pairs of researchers at three universities: **Yoshiaki Kato** and **Kunioki Mima** of Osaka University's Institute of Laser Engineering; **Robert H. Lehmberg** and **Stephen P. Obenschain,** both researchers in the Naval Research Laboratory's plasma physics division; and **Stanley Skupsky** and **John M. Soures** of the Laboratory for Laser Energetics at the University of Rochester. APS cited them for "the development of laser-beam smoothing techniques and for the demonstration of the benefits of these techniques in reducing instabilities and thereby controlling the intense compression of pellets of plasma." Also at the plasma physics meeting, **Michael E. Glinsky**, a postdoctoral physicist in the laser program at Lawrence Livermore National Laboratory, was given the Simon Ramo Award. APS cited Glinsky for "seminal contributions to the theory of three-body recombination in strongly magnetized plasmas, and for a unified theoretical calculation of the collisional equipartition rate in strongly magnetized pure-electron plasmas that has enabled quantitative comparison to experiment over a range of eight decades in the effective magnetic field strength."

ASA RECOGNIZES WORK IN ACOUSTICS

One of the highlights of the Acoustical Society of America's meeting in Denver this past October was the presentation of awards to three individuals. **Homer P. Bucker,** research physicist at the Naval Command Control and Ocean Surveillance Center in San Diego, California, received the Pioneers of Underwater Acoustics Medal. Bucker was cited by ASA for "groundbreaking work integrating signal processing and acoustic modeling." The Silver Medal in Acoustical Oceanography went to **Clarence S. Clay,** a professor emeritus of geophysics at the University of Wisconson. ASA cited Clay for "contributions to understanding acoustic propagation in layered waveguides, scattering from the ocean's boundaries and marine life, and ocean parameters and processes." **Steven L. Garrett** garnered the Silver Medal in Physical Acoustics and Engineering Acoustics. Garrett, a physics professor at the Naval Postgraduate School, in Monterey, California, received the medal for "leadership in transferring fundamental concepts of fiber optics and thermoacoustics into practical applications."

RHEOLOGY SOCIETY HONORS JOSEPH

At the 65th annual meeting of the Society of Rheology, held in Boston in October, **Daniel D. Joseph** received the Bingham Medal. Joseph was cited for "major contributions to the fields of rheology, fluid mechanics and thermal science." The award citation went on to note Joseph's "landmark 1985 paper on hyperbolicity and wave propagation with Renardy and Saut" that "set a new direction in rheological fluid mechanics, showing that vorticity was a key variable, with waves of vorticity propagating into fluids at rest." Joseph is the Russell J. Penrose Professor of Aerospace Engineering and Mechanics at the University of Minnesota.

Daniel D. Joseph

IN BRIEF

The Packard Foundation has awarded five-year fellowships worth $500 000 to each of 20 young faculty members. In addition to the recipi-