

Osheroff and Wolfram are MacArthur Foundation fellows

Douglas D. Osheroff of Bell Labs and Steven Wolfram of Caltech are physicists among 21 original prize fellows named by the MacArthur Foundation.

By the terms of the prize, each will be generously supported for five years without any requirement to engage in a particular project or to produce a piece of work. (See *PHYSICS TODAY*, September 1980, page 124.) The amount of money awarded depends on each recipient's age and increases by \$800 at each anniversary of the award. Osheroff, 35 years old, will receive \$35 200 for the first year; Wolfram, 21 years and the youngest winner, will start with the minimum amount, \$24 000.

Osheroff, who earned his BS at Caltech in 1967 and his PhD at Cornell in 1973, has worked at Bell Labs since his graduation. He won two prizes with David M. Lee and Robert C. Richardson for work on the superfluid phase of He^3 .

Wolfram was born in England, educated at Oxford (BA 1977) and Caltech (PhD 1980) and now holds a research position at Caltech. He has done work in theoretical elementary particle physics, cosmology and computer language design.

The prizes, unusual in providing so much unrestricted money to individuals,



OSHEROFF



WOLFRAM

stress individual contributions in creative endeavors. The prizes seek to enable "exceptionately talented individuals . . . who by their previous achievements have given evidence of originality, dedication to creative pursuits and capacity for self-direction . . . to do something or to produce something of real value to civilization." According to J. Roderick MacArthur, Chairman of the Selection Com-

mittee, a Foundation Director, and son of the late John MacArthur whose huge fortune from real estate, insurance and acquisition of banks and factories was used to establish the foundation, "This program is probably the best reflection of the rugged individualism exemplified by my father."

Up to 29 additional prizes are to be announced this year.

Academy of Arts and Sciences elects members

Among the 75 new members elected to the American Academy of Arts and Sciences were the following: Gordon A. Baym, professor of physics, University of Illinois; Stillman Drake, professor of the history of science, University of Toronto; Robert Louis Fleischer, research physicist, General Electric Corporate Research and Development; James Gilbert Glimm, professor of mathematics, Rockefeller University; Robert Gomer, professor of chemistry and Director of the James Franck Institute, University of Chicago; Bertrand Israel Halperin, professor of physics, Harvard University; Hermann Anton Haus, professor of nuclear engineering, MIT; Norman Carl Rasmussen, professor of nuclear engineering, MIT; Ian Munro Ross, President, Bell Telephone

Laboratories; Nicholas Peter Samios, Chairman of the department of physics, Brookhaven National Laboratory; David J. Thouless, professor of engineering and applied science, Yale University; and An Wang, Chairman of the Board, President and Director of Wang Laboratories.

There were 11 honorary foreign members elected. Among them was Nicola Cabibbo, professor of theoretical physics, University of Rome.

Institute of Physics bestows 11 awards

The Institute of Physics (London) has selected the 1981 winners for its annual awards.

P. N. Pusey, a member of the laser devices and techniques section of the Physics Group at the Royal Signals and Radar Establishment, Malvern, is the

winner of Charles Vernon Boys Prize for "his contributions both theoretical and experimental to the field of electromagnetic radiation scattering from random media."

J. C. Ward, chairman of the physics department, Macquarie University, Australia, has won the Guthrie Prize for "his outstanding contributions to theoretical physics, particularly in field theory renormalization, statistical mechanics, and the unification of weak and electromagnetic interactions."

The Duddell Prize has been awarded to Bruce A. Joyce for "his work on the growth of epitaxial semiconductor materials and related surface studies." Joyce is a visiting reader in physics at the University of Sussex and works at the Philips Research Laboratories in Redhill.

The Glazebrook Prize is going to Godfrey H. Stafford, Director-General of the Rutherford and Appleton Laboratories

and Master of St. Cross College, Oxford, for "his outstanding contributions to the organization of experimental high-energy physics."

John Michael Kosterlitz is the recipient of the Maxwell Prize for "his contributions to statistical physics particularly in the field of two-dimensional phase transitions." Kosterlitz is senior lecturer in mathematical physics at the University of Birmingham.

The (1980) Holweck Prize, awarded jointly by the Institute and the French Physics Society, has gone to David James Thouless of the University of Washington and Yale University. Thouless has worked on localized versus extended electrons in disordered systems.

Cyril Domb, professor of theoretical physics, Kings College, London, is the recipient of the Max Born Prize, awarded by the Institute and the Germany Physical Society. Domb's most important contribution has been the development of series expansions for the exploration of critical behavior.

The Thomas Young Prize was awarded to Nicholas John Phillips for "his contributions to holography." He is a senior lecturer in physics at Loughborough University.

Keith A. Browning has won the Charles Chree Prize for "his applications of radar techniques to meteorological problems." He is in charge of the Meteorological Office Radar Research Laboratory at the Royal Signals and Radar Establishment, Malvern.

Geoffrey E. Foxcroft is the recipient of the 1981 Bragg Prize for "his many and varied contributions to the teaching of physics." Foxcroft, Senior Science Master at the Rugby School from 1959 to 1980, now works on the Nuffield O-level electronics examinations for the Oxford and Cambridge Board.

A. J. Leggett of the University of Sussex has won the Simon Memorial Prize "for his outstanding contribution to the theory of superfluid He^3 ."

in brief

Daniel Rugar has been awarded the Acoustical Society of America's 1981 F. V. Hunt Postdoctoral Research Fellowship. He will work on acoustic microscopy of living cells at Stanford University.

Bernard F. Burke, professor of physics at MIT, will be the first occupant of the William A. M. Burden Professorship in Astrophysics. The new chair will, according to MIT president Paul E. Gray, supplement the Institute's capacity in astrophysics and make possible creative new initiatives for both teaching and research in that field. Burke was educated at MIT (SB 1950; PhD 1953).

He worked at the Carnegie Institution of Washington from 1953 to 1965, the last three years as head of its radio astronomy section. In 1965 he returned to MIT. He has participated in pioneering research in very-long-baseline interferometry.

Carnegie-Mellon University awarded the 1980-81 Dickson Prize for science to **John Werner Cahn** of the Center for Materials Science of the National Bureau of Science. Cahn will receive the \$10 000 prize in recognition of his contributions to the understanding of the thermodynamics of surfaces, interfaces and phase transformations in metallic systems.

Benjamin Levich, professor of chemical engineering and physics and Director of the Institute of Applied Chemical Physics at City College, received the

Michael Faraday Medal of the British Chemical Society.

Grant J. Mathews from the W. K. Kellogg Radiation Laboratory of the California Institute of Technology has joined the Experimental Physics Division of the E. O. Lawrence Livermore National Laboratory to carry out research in nuclear and astrophysics.

The American Institute of Aeronautics and Astronautics has chosen **Bruce Murray**, Director of the Jet Propulsion Laboratory, Pasadena, and professor of planetary science at Caltech, to deliver the von Karman Lecture in Astronautics.

James Andrews has become director of the Ocean Science and Technology Laboratory of the Naval Ocean Research and Development Activity.

obituaries

David L. Dexter

David L. Dexter, professor of physics at the University of Rochester, died after a short illness on 29 March 1981, at the age of 56.

Dexter was born in Ashland, Wisconsin, served in the Army Air Force during World War II, received a BS in physics from Michigan State University in 1947, and did his graduate work at the University of Wisconsin (MS 1948, PhD 1951). After doing some experiments on low-angle x-ray scattering in Madison, he switched into solid-state theory upon starting postdoctoral work in Urbana (1951-52). After a summer at the Naval Research Laboratory he went to the University of Rochester, where he held a series of appointments in the Institute of Optics and the Department of Physics and Astronomy.

Dexter's theoretical work covered a wide variety of phenomena in solids ranging from electrical conductivity to optical absorption and emission. His primary interest was in the discovery and elucidation of new mechanisms at the atomic level. In one study he generalized Theodor Förster's resonance transfer theory and applied it to the process of sensitized luminescence in inorganic solids. The multipole and exchange mechanisms he introduced have found wide applicability in energy transfer: It would be difficult to find any active energy-transfer research group in the world not intimately familiar with the "Förster-Dexter theory." Some of his most recent predictions on cooperative absorption processes are just now beginning to receive experimental confirmation.

To a large number of condensed matter physicists the passing of Dave Dex-



DEXTER

ter will mean the loss of an uncompromising teacher whose students and their students form an academic genealogy that now reaches forward by at least four generations.

ROBERT S. KNOX
University of Rochester
W. BEALL FOWLER
Lehigh University
JOHN D. DOW
University of Illinois

M. A. Gilleo

Mathia Alten Gilleo died on 14 November 1980. For the past eleven years, he was employed by the Allied Chemical Corporation in Morristown, New Jersey, as a research manager of optical physics.

Gilleo was born on 16 May 1922, in East Grand Rapids, Michigan. His ear-