Mathematics People

Hopfield Awarded Dirac Medal

JOHN J. HOPFIELD of Princeton University has been awarded the 2001 Dirac Medal of the Abdus Salam International Centre for Theoretical Physics (ICTP). The award citation reads: "J. J. Hopfield has made important contributions in an impressively broad spectra of scientific subjects. His special and rare gift is his ability to cross the interdisciplinary boundary to discover new questions and propose answers that uncover the conceptual structure behind the experimental facts. His early research on the light emitting diodes has been recognised with the Buckley Prize. In biology he understood the need for and proposed the principle 'proofreading', by which the replication mechanism manages to achieve accuracy far beyond the possible in equilibrium processes. The famous Hopfield model of neural processing demonstrated by construction how qualitatively different computation in a computer and in the brain could be. More recently, he has found an entirely different organizing principle in olfaction and demonstrated a new principle in which neural function can take advantage of the temporal structure of the 'spiking' interneural communication."

The ICTP awarded its first Dirac Medal in 1985. Given in honor of P. A. M. Dirac, the medal is awarded annually on Dirac's birthday, August 8, to an individual who has made significant contributions to theoretical physics and mathematics. The medalists also receive a prize of US$5,000.

An international committee of distinguished scientists selects the winners from a list of nominated candidates. The Dirac Medal is not awarded to Nobel Laureates or Wolf Foundation Prize winners.

—From an ICTP announcement

B. H. Neumann Awards Given

The B. H. Neumann Awards for 2001 have been awarded by the Board of the Australian Mathematics Trust to ANDY EDWARDS of Ormiston College, Brisbane; MICHAEL EVANS of Scotch College; and ALICE THOMAS of Meriden College, Sydney.

The awards, named for Bernhard H. Neumann, are presented each year to mathematicians who have made important contributions over many years to the enrichment of mathematics learning in Australia and its region.

—Board of the Australian Mathematics Trust