

we hear that

The Franklin Institute presents annual awards

The Franklin Institute has honored 14 scientists for their contributions to physics. The Institute presented its annual awards on 29 October at the 49th Medal Day awards dinner.

John Bardeen, a two-time Nobel laureate in physics and professor of electrical engineering and physics at the University of Illinois at Urbana-Champaign, received the Franklin Medal, the Institute's most prestigious award. Bardeen was cited for his "comprehensive insight into the physical principles of electrical conductivity of solids; for his guidance of the thinking of scientists and engineers in the developing technology of semiconductor devices; and for his key role in developing the detailed theory of superconductivity." Bardeen was awarded the Nobel Prize in 1956 for research leading to the invention of the transistor and in 1972 for the theory of superconductivity.

Irwin I. Shapiro of the Massachusetts Institute of Technology was the recipient of the Albert A. Michelson Medal in recognition of his pioneering role in the development of radar astronomy and in the application of radar and radio techniques to fundamental problems in the universe. Shapiro received his PhD in physics from Harvard University in 1955. He was a staff member of the Lincoln Laboratories at MIT from 1954-70 and became professor of geophysics and physics at MIT in 1967.

Donald N. Langenberg of the University of Pennsylvania, William H. Parker of the University of California at Irvine and Barry N. Taylor of the National Bureau of Standards were awarded the



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John Price Wetherill Medal. These physicists were recognized for their experiments with the ac Josephson effect in the determination of $2e/h$ to high accuracy, and for their improvement in the knowledge of fundamental constants.

Bernard C. DeLoach Jr, head of the gallium-arsenide laser department at Bell Laboratories, won the Stuart Ballantine Medal for his theoretical contributions to and development of the IMPATT microwave oscillators. DeLoach received his PhD in physics from Ohio State University, and he joined Bell Laboratories in 1956.

The Howard N. Potts Medal was presented to LeGrand G. Van Uitert of Bell Laboratories for his ability in dis-

covering and developing ferrites for microwave communication, garnets for magnetic bubbles and lasers, and niobates for nonlinear optical devices. He received his PhD from Pennsylvania State University and joined Bell Laboratories in 1952.

Seven US scientists were presented the Certificate of Merit for their work in solid-state physics technology. The seven were: Frederic P. Heiman (Mars Money Systems Inc); Steven R. Hofstein (Princeton Electronic Products); Frank M. Wanlass (LSI Systems Inc); Bruce E. Deal (Fairchild Camera and Instrument Corp); Andrew S. Grove (Intel Corp); Chih-Tang Sah (University of Illinois at Urbana-Champaign); and Edward H. Snow (Reticon Corp).

Paul B. Moore named Senior US Scientist

Paul B. Moore, professor of geophysical sciences at the University of Chicago, has received the Senior US Scientist award from the Alexander von Humboldt Foundation in West Germany. The award consists of 30 000 deutschmarks (about \$12 000) and entitles Moore to spend six months at any research institute in the Federal Republic of Germany. He will spend March-August at the University of Göttingen.

Moore received his PhD in geophysics

from the University of Chicago in 1965. During 1965-66 he was a National Science Foundation fellow at the Swedish Natural History Museum in Stockholm. He joined the faculty of the University of Chicago in 1966 and assumed his present title in 1972.

Moore is a crystallographer whose areas of research include the crystal structure analysis of densely packed oxides, silicates, phosphates and arsenates; crystallochemical relationships; and the packing of various structural units. He is presently involved with structural hierarchies in crystals, apply-

ing graphical enumeration theorems to classify known structures and to retrieve as yet undiscovered arrangements.

Philip W. Anderson wins Heineman Prize

Philip W. Anderson, assistant director of physical research at Bell Laboratories and professor of physics at Princeton University, is the recipient of the Dannie Heineman Prize given by the Göttingen Academy of Sciences. The