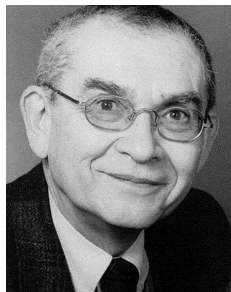


WE HEAR THAT

Manin, Shor Win King Faisal Prize

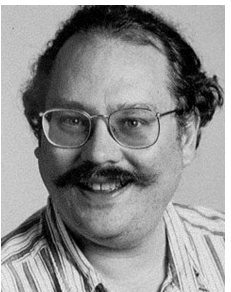
Yuri I. Manin and **Peter W. Shor** are sharing this year's King Faisal International Prize for Science (Mathematics), which comes with a cash award of about \$200 000. The King Faisal Foundation in Riyadh, Saudi Arabia, named the two winners last November.

Manin was cited as "a towering figure in mathematics for the past four decades." According to the foundation, "his work extends from the most abstract field of number theory to the most practical, dealing with the establishment of secure mathematical foundations for present-day physical theories explaining the structure of matter and the universe." He is a director of the Max Planck Institute for Mathematics, located in Bonn, Germany. He is also a researcher at the Steklov Mathematical Institute of the Russian Academy of Sciences and a Board of Trustees Professor at Northwestern University.



MANIN

The foundation characterized Shor, a member of AT&T Labs Research at the AT&T Shannon Laboratory in Florham Park, New Jersey, as "an outstanding scientist in the field of computer science." According to the citation, not only did Shor "point out links between the theory of numbers and that of quantum computers, but he developed intellectual tools to show that quantum computing can tackle exceedingly difficult problems more quickly than contemporary computers." Among these problems, added the foundation, is "resolving a very great integral number into its primary factors, the so-called factoring problem."



SHOR

The King Faisal International Prize was first awarded in 1979. This

year, in addition to the science prize, the foundation also awarded prizes in the categories of service to Islam, Arabic literature, and medicine.

APS to Present Awards at March Meeting

At its annual March meeting, held this year in Indianapolis, Indiana, the American Physical Society will present 15 prizes and awards for distinguished research or service.

The occasion will be the debut of the George E. Valley Jr Prize, a biannual prize created at the bequest of its namesake to recognize one individual, under age 30, for his or her outstanding scientific contribution to the knowledge of physics. The inaugural recipient will be **David Goldhaber-Gordon**, an assistant professor in the department of physics and in the Geballe Laboratory for Advanced Materials at Stanford University. He is being honored for "the discovery and elucidation of the physics of the Kondo effect in single electron transistors."

APS will give its David Adler Lectureship Award to **Chris G. Van de Walle**, a principal scientist at the Xerox Palo Alto Research Center, for his "incisive theoretical contributions to the understanding of the behavior of hydrogen in semiconductors and heterostructure energy band diagrams and the exceptional exposition of this work in the scientific community."

The LeRoy Apker Award for undergraduate research at a PhD-granting institution will go to **Kathryn Todd** for her senior thesis, "Studies of Double-Layer Two-Dimensional Electron Gases," written at Caltech under the supervision of James Eisenstein. Todd is now a graduate student at Stanford. The Apker Award for undergraduate research at a non-PhD-granting institution will be given to **Robert Wagner**, a senior at Illinois State University, for his studies of intense-laser physics theory done under Rainier Grobe and Charles Su.

The Biological Physics Prize will go to **Carlos Bustamante** for his "pioneering work in single molecule biophysics and the elucidation of the fundamental physics principles underlying the mechanical properties

and forces involved in DNA replication and transcription." Bustamante is an investigator with the Howard Hughes Medical Institute at the departments of physics and of molecular and cellular biology at the University of California, Berkeley.

The Oliver E. Buckley Condensed Matter Prize will honor three researchers for "theoretical and experimental work establishing the composite fermion model for the half-filled Landau level and other quantized Hall systems." The recipients are **Jainendra Jain**, Erwin W. Mueller Professor of Physics at Pennsylvania State University; **Nicholas Read**, a professor of physics and applied physics at Yale University; and **Robert Willett**, a member of the technical staff at Bell Laboratories, Lucent Technologies, in Murray Hill, New Jersey.

Timothy J. Bunning will be awarded the John H. Dillon Medal for his "outstanding accomplishments in developing polymer-based materials for optical applications and for elucidating the physics and chemistry underlying their formation." Bunning is a senior materials research engineer at the Air Force Research Laboratory, located at Wright-Patterson Air Force Base in Ohio.

The Polymer Physics Prize will go to **Thomas Witten**, professor in the department of physics, the James Franck Institute and the College of the University of Chicago. The citation praises his "outstanding theoretical contributions to the understanding of polymers and complex fluids."

James W. Allen and **Thomas Timusk** will share the Frank Isakson Prize for Optical Effects in Solids for their "outstanding contributions to the field of spectroscopy in strongly correlated electron systems leading to elucidation of many-body physics." Allen is a professor of physics at the University of Michigan and Timusk is a professor of physics and astronomy at McMaster University in Canada.

Robert J. Soulen Jr., a research physicist at the Naval Research Laboratory in Washington, DC, will receive the Joseph F. Keithley Award for Advances in Measurement Science. He is being cited for "developing low-temperature noise thermometry to achieve an absolute thermometer, which now defines the year 2000 International Temperature Scale between 1 mK and 1 K to an accuracy