Michael Freedman named winner of the National Medal of Science

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MATHEMATICIAN WINS NATIONAL MEDAL OF SCIENCE

Michael Freedman, Charles Lee Powell Professor of Mathematics at the University of California, San Diego, has been named a winner of the National Medal of Science.

The Medal was presented to Freedman and 19 other distinguished scientists by President Ronald Reagan during a ceremony in the White House Rose Garden June 25.

The Medal, established by Congress in 1959, is awarded by the President to individuals "deserving of special recognition by reason of their outstanding contributions to knowledge in the physical, biological, mathematical, behavioral or social sciences."

Freedman, 36, becomes the third UCSD faculty member to win the National Medal of Science during the past three years. In 1985, astronomer Margaret Burbidge and oceanographer Walter Munk won the award.

Individuals are chosen by a special committee of the National Science Foundation to receive the award, based on nominations from a variety of sources.

In 1986 Freedman won the Fields Medal, the most prestigious award in mathematics.

The Fields Medal is given every four years to promising young mathematicians and is considered the mathematics equivalent of the Nobel Prize. It was presented to Freedman and two others last August during the meeting of the International Congress of Mathematicians (ICM) in Berkeley.

The Fields Medal is awarded to young mathematicians in recognition of progressive achievements in the field of mathematics. According to an ICM announcement, Freedman won his medal for his "amazing results in the field of topology."

Topology is a branch of mathematics that involves the study of shapes, and is currently centered on the global structure of four-dimensional spaces.

In 1983 Freedman achieved international recognition among his colleagues by solving an 82-year old mathematical riddle known as the four-dimensional Poincare conjecture. The hypothesis, named after its author, the famed French mathematician Henri Poincare, is one of a handful of intellectual labyrinths that have challenged mathematicians for decades.

His work could eventually affect our understanding of the universe since most models of the universe are based on four-dimensional manifolds.

In recognition of his achievements, Freedman was named a 1984 winner of a $176,000 prize by the John D. and Catherine T. MacArthur Foundation. The prestigious tax-free award, which goes each year to "a small number of exceptionally talented individuals," has allowed him to begin pursuing new avenues in his research.

In April of 1984, Freedman was named "California Scientist of the Year" by the California Museum of Science and Industry in Los Angeles, and the following month he was selected for membership in the National Academy of Sciences.

He is also a winner of the Veblen Prize, one of the major awards in mathematics, given by the American Mathematical Society.

Freedman, a resident of La Jolla, joined the UCSD Department of Mathematics in 1976 as an assistant professor after spending a year at the Institute for Advanced Study in Princeton, New Jersey. He earned his Ph.D. in mathematics from Princeton University in 1973.

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