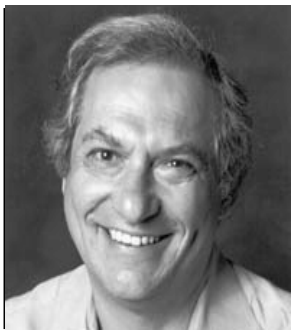
DIACONIS DELIVERS WALKER-AMES LECTURE



Persi Diaconis, Mary Sunseri Professor of Mathematics and Statistics at Stanford University, visited the University of Washington from October 15 to October 19, 2000, as a Walker-Ames Lecturer. His visit was hosted by the Departments of Mathematics and Statistics. Persi Diaconis is a distinguished and colorful mathematician. He is noted for his brilliant insight into the work of complicated mathematical and statistical problems and for his broad interests, which include number theory, combinatorics, group representation, random matrices, probability theory, and statistics.

Diaconis's Walker-Ames Lecture, which was delivered to a standing-room-only crowd in Kane Hall, was entitled "On Coincidences." In it he explained with several striking examples how a modicum of statistical thinking can be used to understand that apparent coincidences should not be regarded as surprising and how such reasoning can successfully debunk various pseudoscientific claims. In addition to this lecture, he spoke on "Probability, statistics and the zeros of the zeta function" in the Probability Seminar and on "What do we know about the Metropolis algorithm?" in a joint colloquium of the Departments of Mathematics and Statistics. Because he is well known to be an outstanding speaker, his talks draw large audiences from a variety of disciplines. As Professor Michael Perlman from UW Statistics department put it "His presence on any campus is always electrifying, ... It is certain that numerous mathematical seeds will be sown here during his tenure as a Walker-Ames Fellow."

Professor Diaconis has received many awards for his work. He has received the MacArthur Award, won the Rollo Davidson Prize, and is a fellow of the American Academy of Arts and Sciences and a member of the National Academy of Sciences. He is an ex-president of the Institute of Mathematical Statistics. Professor Diaconis started as a professional magician at age fourteen and invented many new tricks, some of which rely on probabilities. He has become an expert in many real-life problems, such as statistical problems related to ESP, birthday problems, and fast picture generation. His famous solution to the problem "How many times should a deck of cards be shuffled to mix it?"–the answer is seven–has caught nationwide attention not only in academia but also among the general public.

THE MILLIMAN LECTURES

Each year the Mathematics Department invites a distinguished mathematician to visit the department for a week and deliver a series of lectures called the Milliman Lectures. This Lectureship is funded by the Milliman Fund, an endowed fund established in 1983 by a gift from Grace Milliman Pollock and her husband, S. William Pollock, in honor of Mrs. Pollock's brother, W. A. Milliman, who received his Mathematics degree from the University of Washington in 1926.

The 1999-2000 Milliman Lecturer was **Peter Shor** of AT&T Labs Research, who visited the department during the week of May 1-5. His lectures were entitled:

1. Quantum algorithms
2. Quantum error correction
3. Quantum information theory

Dr. Shor is one of the world leaders in the novel subject of quantum computing—he recently received the Nevanlinna Prize and one of the MacArthur Foundation's "genius" fellowships for his work in this direction. Quantum computers are hypothetical machines that use principles of quantum mechanics for their basic operations. They will be very difficult to build; however, there seem to be no physical laws that would preclude their construction. Peter Shor showed that a quantum computer could factor large integers in polynomial time, which would be fatal for all currently used public key cryptosystems (for instance, those used when one is shopping over the internet).

The Milliman Lectures attracted a wide audience, not just from the Mathematics Department, but also from the departments of Physics, Computer Science, and Microsoft Research.

Shor's lectures are the first of the Milliman Lectures to be delivered by a mathematician from the industrial world as opposed to the world of academia.

The 2000-2001 Milliman Lecturer will be Charles Fefferman of Princeton University.

EDWARD WITTEN VISITS THE UNIVERSITY OF WASHINGTON

Edward Witten, Professor of Physics at the Institute for Advanced Study in Princeton and at the California Institute of Technology and the world's leading string theorist, visited the University of Washington on February 7-8 under the joint sponsorship of the Mathematics and Physics Departments. He gave a special Jacobsohn/Milliman Lecture on February 7 with the title "Strings, Quark Confinement, and Black Holes," which was heard by a standing-room-only crowd of approximately 450 in Kane 120.

A reception was held for Professor Witten at the Faculty Club after the lecture. He also delivered a seminar talk on February 8 entitled "Connectedness of the Boundary in the AdS/CFT Correspondence."

Witten is known for his many deep contributions at the interface of mathematics and physics. Among the many honors he has rece ived is a Fields Medal in 1990, usually regarded as the mathematical equivalent of a Nobel Prize.

The Mathematics and Physics Departments are pleased to have collaborated in hosting such an exceptional visitor to UW. We hope there will be similarly successful collaborations between the two departments in the future.