University of Florida, Mathematics Department
Seventh Ulam Colloquium

by

Richard Stanley
Department of Mathematics, MIT

on

A Survey of Lattice Points in Polytopes

Date and Time: 4:00 - 4:55pm, Monday, October 11, 2004
Room: Little Hall 109
Refreshments: After the lecture in the Atrium (LIT 339)

OPENING REMARKS
by
Neil Sullivan
Dean, College of Liberal Arts and Sciences

Abstract: The enumeration of lattice points in polytopes has a long history and close connections with many different areas, such as combinatorics, commutative algebra, algebraic geometry, number theory, topology, computer science, and statistics. We will survey some of the highlights of this subject, including Pick's theorem, the Ehrhart polynomial, reciprocity, magic squares, zonotopes, graphical degree sequences, and connections with commutative algebra.

---

* Richard Stanley is the Norman Levinson Professor of Applied Mathematics at MIT. He received his PhD at Harvard University in 1971, then held prestigious Instructorships at Berkeley and MIT. He is the author of several classic textbooks, such as Enumerative Combinatorics I and II, and Combinatorics and Commutative Algebra. He received the Steele Prize for Mathematical Exposition in 2001, for his book Enumerative Combinatorics. He is also a winner of the Polya Price, and the Rolf Shock prize, and a senior fellow of the Clay Mathematical Institute. Prof. Stanley is the author of more than 130 research papers, and has graduated 40 doctoral students, many of them famous on their own. Finally, he is a member of the National Academy of Sciences.

This years Ulam Colloquium is part of the Special Year in Number Theory and Combinatorics.