

TEMPLE UNIVERSITY MATHEMATICS COLLOQUIUM

Christopher Hanusa

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will speak on

Let's Count: Enumeration through matrix methods

ABSTRACT: The goal of an enumerative combinatorialist is not just to count, but to count *better*. This talk will focus around two matrix-based methods that have proved useful. The first method, popularized by Gessel and Viennot, is a way to count the number of disjoint n -tuples of lattice paths using a determinant of order n . The second method, introduced by physicists Kasteleyn and Percus, counts domino tilings of a region using a determinant as well. The goal of the talk is to present the key ideas behind these methods and give an insight into enumerative combinatorics. No knowledge of combinatorics is needed to enjoy this presentation.

Wednesday (!), MARCH 15, 2006

LECTURE AT 2:40 PM (!)

**ROOM 617, WACHMAN BUILDING
DEPARTMENT OF MATHEMATICS**