

WICHITA STATE UNIVERSITY
Department of Mathematics and Statistics

*The Lecture Series in the
Mathematical Sciences Presents Our Guest:*

Dr. Patrick McDonald

Division of Natural Science, New College of Florida

"Moment Problems and Spectral Geometry"

Abstract:

There are many beautiful connections between Brownian motion exiting a smoothly bounded domain and the geometry of the domain. In this talk I will survey several of these connections, with special attention on the relationship between exit time moments and Dirichlet spectrum. The material lies at the intersection of a number of fields including Probability, PDE, Differential Geometry, and Classical Analysis.

The talk is intended for a general mathematical audience (All required technical tools will be developed during the course of the talk).

**Friday, April 22, 2005
3:00 PM in 372 Jabara Hall**

*Please come join us for refreshments before the lecture
at 2:30 p.m. in room 353 Jabara Hall.*