

THE MATHEMATICS DEPARTMENT PRESENTS

A MATHEMATICS COLLOQUIUM

THURSDAY, May 14, 2009

BOND HALL 217

4:00 pm

Title: **Markov Chains and Applications**

Speaker: **Nathan Hall**, Western Washington University

Abstract:

Processes which do not rely on the past, but use only information from their present state to determine the future outcomes can be modeled by a Markov chain, a stochastic process developed by Andrey Markov. Some questions that will be answered during the talk are: How can we model processes which have states that cannot be left once reached? What is the probability of reaching a particular state such as this? What will be the long term behavior in a Markov chain? How long until we reach or return to a particular state in the process? Theorems and examples addressing these questions and others will be discussed. This talk should be accessible to someone with introductory knowledge of probability and matrix algebra.

Refreshments will precede the talk at 3:30pm in Bond Hall 300
courtesy of Dr. Edoh Amiran