

THE MATHEMATICS DEPARTMENT PRESENTS

# A MATHEMATICS COLLOQUIUM

THURSDAY, February 1, 2007

BOND HALL 106

4:00 pm

**Title: Multitype Branching Processes: What They Are and How to Make Them Useful**

**Speaker: Peter Olofsson**, Tulane University

**Abstract:** I will start with a brief introduction to multitype branching processes. Next, I will describe two biological processes that can be modeled as multitype branching processes: mutations in mitochondrial DNA and the polymerase chain reaction, PCR. I will explain why classic asymptotic results are not applicable and state results about sampling in finite time that address the problems.

Refreshments will precede the talk at 3:30pm in Bond Hall 300  
courtesy of Linda Cave.