

WICHITA STATE UNIVERSITY  
Department of Mathematics and Statistics

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

**Dr. Xiaomi Hu**  
Wichita State University

*"Approximation of Partial Distribution in Renewal  
Function Calculation"*

Abstract:

A renewal process with waiting time being the life span of a product is widely used as a statistical model in the analysis of product failures. The renewal function is often the expected number of warranty services for the product. In this talk the approximation of partial distribution method in renewal function computations is proposed. The feasibility of the approach and the use of applets that can draw graphics and do calculations are explored. It is demonstrated in a case study that a partial gamma approximation achieves remarkable accuracy for  $k$ -out-of- $n$  product system with exponential component life.

**Friday, August 26, 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.*