

# WICHITA STATE UNIVERSITY

Department of Mathematics and Statistics

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

**Dr. Klaus Kirsten**

Baylor University

*“Spectral functions: Techniques and applications”*

Abstract:

Functions of the eigenvalue spectrum of certain, mostly geometric, differential operators play a crucial role in different branches of mathematics and physics. Prominent representatives of these so-called spectral functions are the zeta function and the heat kernel. Using different examples from mathematics and physics, I will explain where the interest in spectral functions comes from. New methods for their analysis will be outlined and applied to a variety of problems in topics such as the heat equation and quantum theory.

**Friday, November 16, 2007**

**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.*