



## 2011 Spring Colloquium Series

### **Dr. Klaus Kirsten**

Professor of Mathematics, Baylor University  
Member of CASPER

### Zeta Functions Everywhere

Functions of the eigenvalue spectrum of Laplace type differential operators play a crucial role in different branches of mathematics and physics. One of the most prominent representatives of these so-called spectral functions is the zeta function. Using different examples from mathematics and physics, Dr. Kirsten will explain where the interest in this function comes from. Topics considered are related to "Can one hear the shape of a drum?," the phenomenon of Bose-Einstein condensation and to the Casimir effect. New methods for the analysis of zeta functions will be outlined and applied to a variety of problems in these areas.

**Friday, January 21, 2010**

**1:30 p.m.**

**Baylor Sciences Building, Room C.105  
Baylor University, Waco**

**For additional information please call Sherri Honza x1271**