

THE UNIVERSITY



OF HONG KONG

*Institute of Mathematical Research
Department of Mathematics*

GEOMETRY SEMINAR

On Heat Kernels

Professor Peter Greiner
University of Toronto, Canada

Abstract

I shall discuss the construction and the natural form of heat kernels, starting with the Laplace-Beltrami operator on a Riemannian manifold and end up with the latest conjecture on the form of a heat kernel for a subelliptic operator. Heat kernels heavily depend on the underlying geometry, Riemannian for elliptic operators and subRiemannian for subelliptic operators. In particular I shall construct the Neumann kernel for the $\bar{\partial}$ -Neumann problem as a function of the Kohn-Laplacian on the boundary.

Date: November 25, 2010 (Thursday)

Time: 3:00 - 4:00pm

Place: Room 210, Run Run Shaw Bldg., HKU

All are welcome