第12回

- 講演者： **Der-Chen Chang** 氏 (Georgetown大学)
  - 題目：Heat Kernels for a family of subelliptic operators
  - 日時：平成25年11月8日（金）16：30〜17：30

In this talk, we discuss the heat kernel for the second-order operator $$\Delta=\frac{1}{2}\sum_{k=1}^n (\frac{\partial}{\partial x_k})^2 +\frac{1}{2}\sum_{k=1}^n(x_k^{m_k}\frac{\partial}{\partial y_k})^2$$ with $m_k\in\mathbb{N}$, which is a degenerate elliptic operator. Obviously, this operator is closed related to the Grushin operator $$L_G=\frac{1}{2}(\frac{\partial}{\partial x})^2 +\frac{1}{2}(x^m\frac{\partial}{\partial y})^2$$ with $m\in\mathbb{N}$. In this talk, we study the formula for the heat kernel of the diffusion operator $\frac{\partial}{\partial t}-\Delta$. The formula involves an integral of a product between the volume function and an exponential term. We also discuss the small time asymptotic expansions of the heat kernel.

.lg-outer.lg-pull-caption-up.lg-thumb-open .lg-sub-html {bottom:80px;}

63 images