國立中興大學
應用數學系 學術演講

主講人：Dr. KYUNG-YOUN KIM

講題 Topic：

HEAT KERNEL ESTIMATES FOR A LARGE CLASS OF MARKOV PROCESS

摘要 Abstract：

In this talk, we discuss Markov process which is a stochastic process contained Brownian motion, and I will talk about the results on the transition density estimates for Markov process. The transition density plays an important role in analysis as well as in probability theory since it is a fundamental solution to the corresponding heat equation.
We consider the following two classes of Markov processes:
(1) the pure jump Markov processes X whose jumping kernels are comparable to the measurable function with the weak scaling condition;
(2) for d-independent 1-dimensional α-stable processes Yi, let Y :=(Y1,..., Yd) be an anisotropic Lévy process. Then we consider anisotropic Markov processes Z := (Z1,...,Zd) whose jumping kernels are comparable to that of Y .
We obtain sharp two sided estimates for the transition densities for X and Z. The first project is joint work with Tomasz Grzywny and Panki Kim, and the second project is joint work with Moritz Kassmann and Takashi Kumagai.

時間：110 年 1 月 6 日 (三) 上午 11 時 10 分

地點：資訊科學大樓 501 室

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