


复旦大学数学科学学院
数学综合报告会

报告题目：Heat kernel estimates for jump processes on metric measure spaces (II)

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报告摘要：

There has been intense interest in studying heat kernels of jump processes, due to their importance both in theory and in applications. One of the classical examples of jump processes is so-called α-stable process, and it is well known that the heat kernel of α-stable process has “nice” two-side estimates. Recently, similar results have been generalized to stable-like processes (or Dirichlet froms). However, there are also many cases when the processes are not “nice”, whose heat kernels do not have matching upper and lower bounds. We consider (singular) jump processes on metric measure spaces, and investigate some equivalent conditions of associated heat kernel estimates of certain types. We first study them on ultra-metric spaces, and then generalized the results to abstract metric measure spaces.

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