概率论系列报告

报告题目（Title）: Generalisations of continuous-state branching processes

报告人（Speaker）: Dr. Sandra Palau Calderón, Centro de Investigación en Matemáticas Mexico

时间（Time）: 11 月 21 日(周一)下午 3: 00-4: 00

地点（Venue）: 北京大学理科一号楼 1303

摘要（Abstract）: This talk concerns on new developments of continuous-state branching processes. In particular, we focus on two different topics on this subject. The first topicis related to continuous-state branching processes in a Lévy random environment. In order to define this class of processes, we study the existence and uniqueness of strong solutions of a particular class of non-negative stochastic differential equations driven by Brownian motions and Poisson random measures which are mutually independent. The long-term behaviours of the extinction and explosion probabilities are studied.

The second topic is related to multi-type continuous-state branching processes with a countable infinite number of types. We define this kind of processes as a super Markov chain with both local and non-local branching mechanisms. Special attention is given to extinction events; in particular local and global extinction are studied.

欢迎参加