

概率论系列报告

报告题目 (Title): **Invariant Markov processes under actions of Lie groups**

报告人 (Speaker): 廖明 (Auburn University)

时间 (Time): 5月13日(周一)下午 2:00-3:00

地点 (Venue): 北京大学理科一号楼 1303

摘要 (Abstract): The invariance under a group action is a central theme in mathematics. In probability theory, the invariance of probability distributions under various transformations has played an important role. In the classical theory, the translation invariant Markov processes in a Euclidean space can be identified with Levy processes, which are characterized by independent and stationary increments. By the celebrated Levy-Khinchin formula, a Levy process may be represented by a triple of a drift vector, a covariance matrix and a Levy measure, in the sense that its probability distribution is determined by the triple, and to any such triple, there is an associated Levy process. The purpose of this talk is to present a representation theory for more general invariant Markov processes under the action of a Lie group, in the spirit of the classical Levy-Khinchin representation.

欢迎参加