



北京理工大学

数学与统计学院学术报告

Conditioned random walks on the general linear group

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时间：2024年12月24日(周二)下午4:00-5:00

地点：文萃楼E 409

摘要：Our objective is to explore random walks on the general linear group, constrained to a specific domain, with a primary focus on establishing the conditioned local limit theorem. In this talk, we show how to construct the target harmonic measure, which, together with the harmonic function, serves as a pivotal component in shaping the conditioned local limit theorem. Using a reversal identity, we introduce a reversed sequence characterized as a dual random walk with a perturbation depending on future observations. The investigation of such walks, which rely on future information, lies at the heart of the research. To carry out this study, we develop an approach grounded in the finite-size approximation of perturbations, enabling us to simplify the investigation to an array of Markov chains with increasing dimensions. Based on joint work with Ion Grama and Jean-François Quint.

报告人简介：肖惠，中国科学院数学与系统科学研究院副研究员。研究方向为概率论，主要包括随机矩阵乘积的极限理论、群上分枝随机游动等。相关论文发表在 J.Eur.Math.Soc., Ann.Probab., Ergodic Theory Dynam. Systems, Ann.Inst.Henri Poincaré Probab. Stat., Stochastic Process. Appl., J.Differential Equations, Sci. China Math. 等

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