

中国科学院

随机复杂结构与数据科学重点实验室

学术报告

报告题目: Regularities and Exponential Ergodicity in Entropy for SDEs Driven by Distribution Dependent Noise

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时间: 2023年9月8日(周五) 15:30 - 16:30

地点: 数学院南楼 613

报告摘要: As two crucial tools characterizing regularity properties of stochastic systems, the log-Harnack inequality and Bismut formula have been intensively studied for distribution dependent (McKean-Vlasov) SDEs. However, due to technical difficulties, existing results mainly focus on the case with distribution free noise. In this paper, we introduce a noise decomposition argument to establish the log-Harnack inequality and Bismut formula for SDEs with distribution dependent noise, in both non-degenerate and degenerate situations. As application, the exponential ergodicity in entropy is investigated.