



北京理工大学

数学与统计学院学术报告

Quantitative equilibrium fluctuations for interacting particle systems

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时间: 2024年01月10日 下午15:00-16:00

地点: 文翠楼E1008

摘要: We consider a class of interacting particle systems in continuous space of non-gradient type, which are associated to quasi-regular Dirichlet form and reversible with respect to Poisson point processes with constant density. For these models, a rate of convergence was recently obtained for certain finite-volume approximations of the bulk diffusion matrix in the previous work by Giunti, Gu and Mourrat. Here, we show how to leverage this to obtain quantitative versions of a number of results capturing the large-scale fluctuations of these systems, such as the convergence of two-point correlation functions and the Green--Kubo formula.