

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: Stochastic analysis of infinite particle systems: the scheme and tail method

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时间: 2024年3月27日 (周三) 16:00 - 17:00

地点: N613

报告摘要: We consider dynamics of infinite particle systems in  $\mathbb{R}^d$  with (very strong) interactions. The dynamics are described by the infinite-dimensional stochastic differential equations (ISDEs). Lang initiated this type of ISDE. He solved the ISDE by Ito's method, which requires Lipschitz continuity (at least locally). Hence, the validity of Lang's approach was restrictive and could not be applied to long-range potential such as Coulomb potentials. In Osada-Tanemura (PTRF, 177, 1137-1242, 2020), we developed a new approach to ISDEs called the scheme and tail method. In this talk, we would like to explain the basic idea of the method and its applications.