



北京理工大学

PDE RIT SEMINAR

Mean-Field Problem for the Stochastic Point Vortex Model with Environmental Noise

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时间：2026年5月22日 15: 00

地点：文萃楼E708

摘要： In this talk, I will discuss the stochastic point vortex model with environmental noise, which serves as a particle approximation of the stochastic two-dimensional Navier-Stokes equation.

The talk consists of two parts. In the first part, I will present quantitative particle approximation results for the stochastic Navier-Stokes equation by using a relative entropy method under the framework of conditional distributions. In the second part, I will discuss a functional central limit theorem for the stochastic point vortex model with environmental noise, where the environmental noise leads to a non-Gaussian behavior. This talk is based on two joint works with Xianliang Zhao.