

# 短 课 程

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报告题目: Mean Field Limit of Interacting Particle Systems with Singular Kernels

报告时间: 2022年12月20/23/27/30日, 09:00-12:00

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**报告摘要:** This short course will focus on recent progress in the derivation of mean field PDEs from large systems of interacting particles with singular kernels, with or without noise. Motivations are ubiquitous and arise from physics, biology and social sciences, numerical analysis of particle method and stochastic gradient descent, neural networks, etc. We will first review classical methods and results of mean field limit/propagation of chaos and then focus on the recent developed relative entropy/modulated energy based method and BBGKY hierarchy approach for systems with singular interactions.