复旦大学数学科学学院
数学综合报告会

报告题目：Some scaling limits for 2D Euler equations with multiplicative transport noises

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地点：腾讯会议 ID: 999 829 731

报告摘要：

We consider the stochastic 2D Euler equations on the torus, perturbed by multiplicative noise of transport type. We study the equations both in the white noise regime and in the more regular regime of L^2-functions. Under suitable scaling of the noises, we show that, in the white noise regime, the solutions of the stochastic 2D Euler equations converge weakly to the unique stationary solution to the 2D Navier-Stokes equations driven by space-time white noise, while the solutions in the L^2-regime converge weakly to the unique solution of the deterministic 2D Navier-Stokes equations. We also mention some recent progress on the modified Surface Quasi-Geostrophic equations.
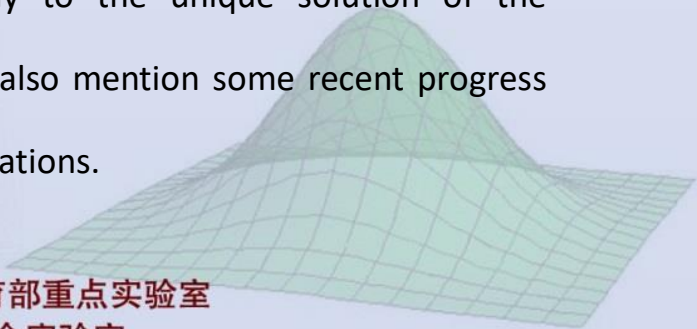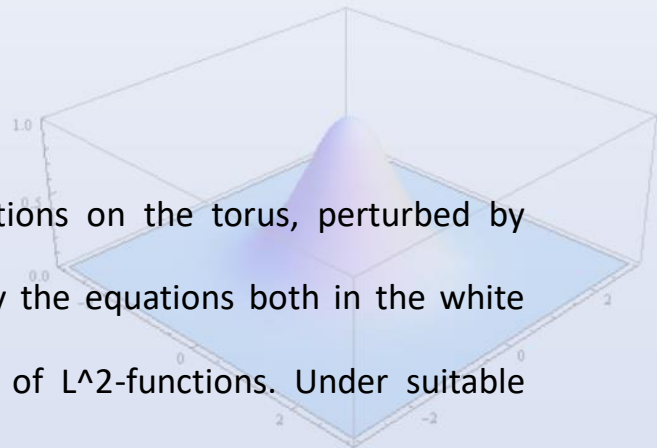
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