



复旦大学数学科学学院 数学综合报告会

报告题目: Functional integral representations of parabolic equations and applications in CFD

报告人: Prof Qian, zhongmin (Oxford University)

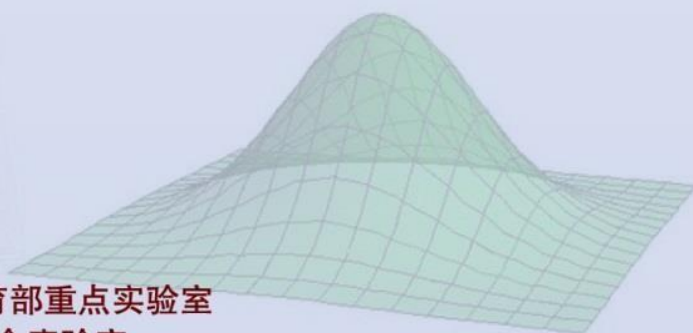
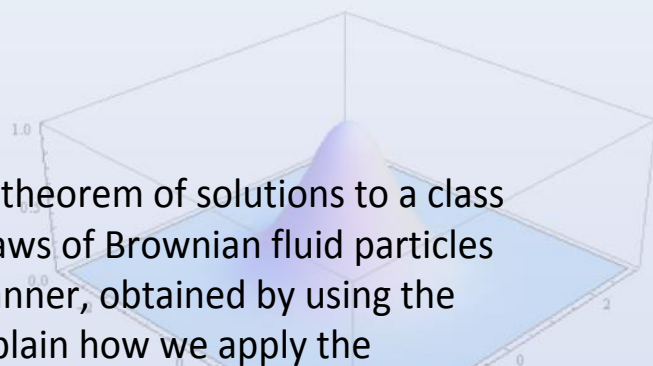
时间: 2025-04-17 星期四 15:00-16:00

地点: 光华东主楼1601

报告摘要:

We shall present an (implicit) representation theorem of solutions to a class of linear parabolic equations in terms of the laws of Brownian fluid particles (diffusions with fluid velocity) in a forward manner, obtained by using the duality of fundamental solutions. We then explain how we apply the representation theorem, together with a key idea from the Large Eddy Simulations, to numerically solve viscous fluid flow equations (Navier-Stokes equations) near the boundary.

The talk is based on several recent work with Jian-Guo Liu, Zhihao Guo and Vladislav Cherepanov



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