



## 复旦大学数学科学学院 数学综合报告会

报告题目: Kolmogorov's theory of turbulence and its rigorous 1d model

报告人: Professor Sergei B. Kuksin (Paris Diderot University; Shandong University)

时间: 2021-12-07 星期二 16:30 – 17:30; 2021-12-10 星期五 16:30 – 17:30; 2021-12-14 星期二 16:30-17:30; 2021-12-17 星期五 16:30-17:30; 2021-12-21 星期二 16:30-17:30

地点: ZOOM Meeting ID: 878 1712 1063, Passcode: 345958

报告摘要:

In my lectures I will present the principles of Kolmogorov's theory of turbulence, known as the K41 theory, in relation to its one-dimensional version, dealing with turbulence in the fictitious one-dimensional fluid. The latter is modeled by the stochastic Burgers equation, and the corresponding 1d versions of the laws of K41 theory are rigorously proved, based on the properties of solutions for that equation. The lectures are based on my recent joint book A. Boritchev, S. Kuksin "One-Dimensional Turbulence and the Stochastic Burgers Equation", AMS 2021.

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