

数学与系统科学研究院

计算数学所学术报告

报告人: **Dr. Yitzhak Fouxon**

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报告题目:

**Kraichnan model of turbulent  
transport of Cahn-Hilliard passive  
scalar**

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报告时间: **2019 年 5 月 11 日 (周六)**

**上午 10:30-12:30**

报告地点: 科技综合楼三层

**311 报告厅**

## **Abstract:**

Recent years saw much progress in the study of turbulent transport of the passive scalar. The mixing was successfully described using the Kraichnan model of the flow which allowed to uncover the previously unknown mechanisms of anomalous scaling which constitutes the central problem of turbulence. Having non-trivial steady state statistics demands the presence of a stationary source of fluctuations. In this lecture we introduce the Cahn-Hilliard model of the passive scalar turbulence. This model seems to be most significant step toward the solution of the fully interacting flow-scalar system. We provide some theoretical results with stress on the rate of coarse-graining in the presence of turbulence.

**欢迎大家参加！**