

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:

Levy walks: anomalous diffusion and recent applications

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报告时间: **2019 年 5 月 10 日 (周五)**

上午 10:30-12:30

报告地点: 科技综合楼三层

311 报告厅

Abstract:

In this talk we introduce the notion of anomalous diffusion and its derivation for the usual (not Lorentz-model type) Levy walks. We demonstrate that dimension can bring significant changes in the theory. In dimension higher than the usually studied one-dimensional case there is no symmetry restoration at large scales as in the normal diffusion or anomalous one-dimensional diffusion. The form of the probability density function of the walker's coordinate is no longer universal and depends strongly on the microscopic anisotropy. We demonstrates that the fractional Laplace equation, successful in one-dimensional case can be problematic in higher dimensions.

欢迎大家参加！