学習院大学

数学科談話会のお知らせ

【対面形式で開催します】

日時:2023年12月6日 水曜日

16:30 - 17:30

(この後 TEA-TIME があります)

場所: 学習院大学南 3 号館 2階 202 号室

http://www.math.gakushuin.ac.jp/

16:30 - 17:30

講演者: Stefan Junk 氏(学習院大学)

講演題目: Random interfaces, the KPZ Universality class and directed polymers

講演概要:

Interfaces between different phases occur in many physical systems, for example as the boundary between areas of opposite spin in a ferromagnet or as the edge of ice on a windshield. Since the 80s, an important focus of probability theory has been to describe such interfaces and to rigorously understand the scaling limits. In a seminal work, Kardar, Parisi and Zhang (KPZ) proposed a stochastic PDE that is expected to appear as the universal scaling limit in many different models. Unfortunately, it has proved difficult to make this connection rigorous because the KPZ equation is classically ill-defined and not easy to analyze. I will explain the background of this research and give on overview of the so-called directed polymer model, which is a discretization of the KPZ equation and my main research topic.

17:30 - 18:00

TEA TIME