

北京师范大学 随机数学研究中心

学术报告

报告人: 王旻旻 (University of Sussex)

题目: Yaglom limit for critical neutron transport

时间: 2021年11月8日 (周一) 下午4:00-5:00

地点: Zoom: 835 447 785 60 (密码: 123 456)

摘要: In this talk, we will look at spatial branching processes with non local branching mechanisms. A typical example of such processes is given by the neutron branching process, which emulates the dynamics of neutrons inside a nuclear reactor core. Under mild conditions, it can be shown that such a system has a growth rate, say λ . Our main results extend the classical Kolmogorov's Theorem and Yaglom's Theorem to the neutron branching processes in the critical case (i.e. $\lambda = 0$). We will discuss the challenges posed by the non local branching mechanisms in proving these results and how we can get around them.

This is based on a joint work with Simon Harris, Emma Horton and Andreas Kyprianou (arXiv:2103.02237).