

时间: 2022.11.10 10:00-11:00 am (Beijing time).

zoom: 81599105766 (密码 111222)

报告人: Louis Fan (Indiana University)

题目: Long time behavior of stochastic reaction-diffusion equations on metric graphs

摘要: I will talk about methods to compute the probability of extinction, the quasi-stationary distribution and other long-time behaviors for stochastic reaction-diffusion equations of Wright-Fisher type. These equations arise in the study of spatial population genetics. Importantly, we consider these equations on metric graphs that flexibly parametrize the underlying space. This enables us to not only bypass the ill-posedness issue of these equations in higher dimensions, but also assess the impact of space and stochasticity on the coexistence and the genealogies of interacting populations. Based on joint work with Rick Durrett, Wenqing Hu, Greg Terlov, and ongoing work with Yifan (Johnny) Yang and Oliver Tough.