Date: 2020.11.11. 3:30-4:30 (Beijing time).

Tencent meeting: 416 4789 4755

Zoom: 638 938 50418 (psw 123456)

Speaker: Zhenyao Sun (Wuhan University)

Title: Effect of noise on front propagation in reaction-diffusion equations

Abstract: We will survey some results about the propagation speed of the traveling wavefront of stochastic reaction-diffusion equations of the following form:

$$\partial_t u = \frac{1}{2}\partial_x^2 u + f(u) + \epsilon\sqrt{u(1-u)}\dot{W}.$$

The effect of the noise on the speed is quite different depending on whether the drift is Lipshitz or non-Lipchitz at ; and also depends on whether the noise coefficient is large, or small. We will also report a new result, based on an ongoing work with Clayton Barnes and Leonid Mytnik, on the traveling wavefront speed of stochastic reaction-diffusion equations in the case with small noise term and where the drift is non-Lipchitz.