

Ergodic properties of rank-based diffusions

Sayan Banerjee

We investigate the long-time behavior of rank-based diffusions with infinitely many particles where the drift and diffusivity of each particle depends on its relative rank in the system.

Unlike their finite dimensional analogues, such systems have infinitely many stationary measures and domains of attraction and extremality properties of such measures have been long-standing open questions. In this talk, we will explore some of these questions and provide answers to them in certain cases.