Texas State University Department of Mathematics Colloquium Friday, September 30, 2022 3:30pm in Derrick 329

Asymmetric and Symmetric Cooperative Motion



Jessica Lin McGill University

Abstract: We prove distributional convergence for a family of random processes on Z, which describe a type of random walk with dependent delay. They can also be realized by a tree-indexed random process. The model generalizes the "hipster random walks" studied by Addario-Berry et al [Probability Theory and Related Fields, '20]. We introduce a novel approach which relies on convergence results for finite difference schemes of certainly fully nonlinear PDEs. This talk is based on joint work with Louigi Addario-Berry and Erin Beckman.