

GEODESIC LÉVY FLIGHT AND THE FORAGING HYPOTHESIS

Speaker: Leo Tzou University of Armsterdam

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Venue: Zoom: 618-038-6257, Password: SCMS

Abstract: The Lévy Flight Foraging Hypothesis is a widely accepted dogma which asserts that animals using search strategies allowing for long jumps, also known as Lévy flights, have an evolutionary advantage over those animals using a foraging strategy based on continuous random walks modelled by Brownian motion. However, recent discoveries suggest that this popular belief may not be true in some geometric settings. In this talk we will explore some of the recent progress in this direction which combines Riemannian geometry with stochastic analysis to create a new paradigm for diffusion processes.