Probabilities and PDEs

Friday, April 22, 2022
4:30–5:30 PM @ 380-382T

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Abstract

In this talk I will present some connections between probability and PDE, in particular between branching random walks and branching Brownian motion and reaction diffusion equations. I will discuss the long-time behavior of solutions of Fisher-KPP and of Allen-Cahn equations, in particular their convergence to travelling wave solutions. Finally, I will present some interesting problems and results in this area. Prerequisites are kept to a minimum throughout the talk and my hope is that this connection between PDEs and probability will be of interest to everyone attending.