

The logarithmic correction for the fronts of a cascading family of Branching Brownian Motions

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Abstract

In this talk, I will introduce the connection between some systems of Fisher-KPP type reaction-diffusion equations and a cascading family of Branching Brownian Motions. The location of the median of the rightmost particle of this particle system coincides with the location of the front of the equations, so the associated long time asymptotics can be studied from both a probability and a PDE point of view. I will present results on the long time behavior of the system and analyze interesting applications and probabilistic connections.