



复旦大学数学科学学院 数学综合报告会

报告题目: Long time dynamics for combustion in random media

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报告摘要:

We study long time dynamics of combustive processes in random media, modeled by reaction-diffusion equations with random ignition reactions. One expects that under reasonable hypotheses on the randomness, large space-time scale dynamics of solutions to these equations is almost surely governed by a homogeneous Hamilton-Jacobi equation. While this was previously shown in one dimension as well as for radially symmetric reactions in several dimensions, we prove this phenomenon in the general non-isotropic multidimensional setting. We also prove the rate of convergence when the initial data is close to an indicator function of a convex set.

This talk is based on the joint work with Andrej Zlatoš.

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