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Lyapunov exponents of PDEs driven by fractional noise with Markovian switching. (English)

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Summary: In this article, we study a class of stochastic parabolic equations driven by fractional noise with Markovian switching. Based on the explicit representation of the strong solution given by an evolution system, we investigate the p -th moment and almost sure exponential stabilities with the exponential rate function t^{2H} .

MSC:

60H15 Stochastic partial differential equations (aspects of stochastic analysis)

Cited in 3 Documents

60G22 Fractional processes, including fractional Brownian motion

Keywords:

stochastic parabolic equation; fractional noise; fractional Brownian motion; Lyapunov exponent; stability

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