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Asymptotic behavior of systems of stochastic partial differential equations with multiplicative noise. (English) [Zbl 1093.60035](#)

Da Prato, Giuseppe (ed.) et al., Stochastic partial differential equations and applications – VII. Papers of the 7th meeting, Levico, Terme, Italy, January 5–10, 2004. Boca Raton, FL: Chapman & Hall/CRC (ISBN 0-8247-0027-9/pbk). Lecture Notes in Pure and Applied Mathematics 245, 61-75 (2006).

The author considers a system of reaction diffusion equations with Lipschitz nonlinearities and multiplicative noise, which is not of trace class. The main results show that the corresponding Markov semigroup admits a unique invariant measure, which is ergodic and strongly mixing. The main assumptions are sufficiently strong dissipation and the covariance of the noise being diagonal with respect to the linear operator.

For the entire collection see [\[Zbl 1079.60009\]](#).

Reviewer: [Dirk Blömker \(Aachen\)](#)

MSC:

[60H15](#) Stochastic partial differential equations (aspects of stochastic analysis) Cited in **10** Documents

Keywords:

[ergodicity](#); [invariant measure](#); [transition semigroup](#); [reaction-diffusion system](#)