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## HIGH CONDUCTIVITY LIMITS FOR REACTION-DIFFUSION EQUATIONS

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Abstract: A reaction-diffusion equation on  $[0, 1]^d$  with the heat conductivity  $\kappa > 0$ , a polynomial drift term, and an additive random perturbation is considered. It is shown that if  $\kappa$  tends to infinity, then the corresponding solutions of the equation converge to a process satisfying an ordinary Itô equation.

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