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Asymptotic Properties of Solutions of Parabolic Equations Arising from Transient Diffusions

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摘要   This work is concerned with asymptotic properties of a class of parabolic systems arising from singularly perturbed diffusions. The underlying system has a fast varying component and a slowly changing component. One of the distinct features is that the fast varying diffusion is transient. Under such a setup, this paper presents an asymptotic analysis of the solutions of such parabolic equations. Asymptotic expansions of functional satisfying the parabolic system are obtained. Error bounds are derived.

关键词   singular perturbation   diffusion   backward operator

分类号

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Key words   singular perturbation   diffusion   backward operator

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