SEMINÁRIO
ANÁLISE E EQUAÇÕES DIFERENCIAIS

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Stochastic two-scale Young measures and homogenization of conservation laws with multiplicative noise

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Abstract:

We consider the generalized almost periodic homogenization problem for two different types of stochastic conservation laws with oscillatory coefficients and multiplicative noise. In both cases the stochastic perturbations are such that the equation admits special stochastic solutions which play the role of the steady-state solutions in the deterministic case. Our homogenization method is based on the notion of stochastic two-scale Young measures, whose existence we establish.

FCT Fundação para a Ciência e a Tecnologia