

Séminaire de mathématiques et leurs applications

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Titre: Periodic homogenization of convolution type nonlocal operators.

Résumé: The talk will focus on homogenization problem for nonlocal linear operators with a kernel of convolution type in media with a periodic microstructure. We consider the diffusive scaling of these operators and show that under natural assumptions on the kernel the homogenization result holds and that the limit operator is a second order elliptic operator with constant coefficients. We also show that the invariance principle holds for the related family of Markov processes.