
Individual invariance principles for degenerate diffusions in a periodic potential.

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Abstract

I will explain pointwise (individual) homogenization results (invariance principle) for a diffusion operator of the form $\Delta - \nabla V \nabla$, where V is measurable, periodic and such that $\exp(-V)$ and $\exp(V)$ are integrable. The key ingredient of the proof is a weighted Sobolev-type inequality. This is joint work with M. Ba that is to appear in Siam Journal on Mathematical Analysis.

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