INVARIANCE PRINCIPLE FOR THE RANDOM CONDUCTANCE MODEL WITH DYNAMIC CONDUCTANCES

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In this talk we present a quenched invariance principle for the random conductance model. More precisely, we consider a continuous time random walk X in an environment of time-dependent random conductances in $\mathbb{Z}^d$. We assume that the conductances are stationary ergodic, uniformly bounded and bounded away from zero and polynomially mixing in space and time. In the last years quenched invariance principles have been proven for X in the case of static conductances under various assumptions on the law of the conductances, while the result for general i.i.d. conductances has been recently obtained in [ABDH]. At the end of the talk we will discuss applications for stochastic interface models.

References

[An] S. Andres. Invariance Principle for the Random Conductance Model with dynamic bounded Conductances, Preprint available at arXiv:1202.0803v1.

[ABDH] S. Andres, M.T. Barlow, J.-D. Deuschel and B. Hambly. Invariance principle for the random conductance model, Preprint, to appear in *Probab. Theory Rel. Fields*.