

# Workshop in Stochastic Analysis and Applications

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## Polynomial ballisticity conditions for random walks in strong mixing environments

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### Abstract

We consider a class of  $d$ -dimensional random walks in strong mixing environments (RWRE), with underlying dimension  $d \geq 2$ . In this mixing setup we introduce an effective polynomial condition similar to what has already been considered for i.i.d. environments by Berger, Drewitz and Ramírez (2014) and prove it to be equivalent to various ballisticity conditions. As a consequence we obtain an annealed functional central limit theorem in this mixing setup.

This is joint work with Enrique Guerra and Glauco Valle (to appear in Prob. Th. Rel. Fields)