1018-60-226 Firas Rassoul-Agha* (firas@math.utah.edu), 155 South 1400 East, Salt Lake City, UT 84112, and Timo Seppalainen (seppalai@math.wisc.edu). Almost-sure invariance principles for random walk in random environment.

We consider a discrete time random walk in random environment (RWRE). We state an almost-sure invariance principle, for random walk in general random environment, whose hypothesis requires a subdiffusive bound on the variance of the quenched mean (the mean when the environment is fixed), under an ergodic invariant measure for the process of the environment as seen from the moving particle.

Then, we use a combination of a martingale and a renewal approaches to check the hypothesis of the above theorem and conclude that the walk is diffusive in almost every fixed environment, for certain balistic RWREs. (Received March 07, 2006)