## 1082-60-67 Jonathon Peterson, Department of Mathematics, Purdue University, West Lafayette, IN 47907, and Gennady Samorodnitsky\* (gs18@cornell.edu), School of ORIE, Cornell University, Ithaca, NY 14850. How do heavy tails express themselves in random environment: weak weak limit theorems.

We consider a one-dimensional, transient random walk in a random i.i.d. environment. The asymptotic behaviour of such random walk depends to a large extent on a crucial parameter kappa>0 that determines the fluctuations of the process. When 0 < kappa < 2, the averaged distributions of the hitting times of the random walk converge to a kappa-stable distribution. However, it was shown recently that in this case there does not exist a quenched limiting distribution of the hitting times. That is, it is not true that for almost every fixed environment, the distributions of the hitting times (centered and scaled in any manner) converge to a non-degenerate distribution. We show, however, that the quenched distributions do have a limit in the weak sense. That is, the quenched distributions of the hitting times – viewed as a random probability measure on R – converge in distribution to a random probability measure, which has interesting stability properties. Our results generalize both the averaged limiting distribution and the non-existence of quenched limiting distributions. (Received June 18, 2012)