$S_t \circ c(h)(a_s)_{ti}c(s) + \mathfrak{S}_e m^i n(a_r)$

Quenched limits for a one-dimensional, transient, random walk in random environment

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Over 30 years ago Kesten, Kozlov, and Spitzer calculated the annealed (or averaged) limiting distributions for a one-dimensional, transient, random walk in random environment. Their results were interesting in that they exhibited non-gaussian scaling and limiting distributions related to the stable laws. It is a natural question to ask what the quenched limiting distribution (distribution of the walk given the environment) is in this situation. Do quenched limiting distributions exist? If so, are they the same as the annealed limiting distributions? The answers to these questions are very interesting and quite surprising.