

# Directed polymers in random heavy-tail environment

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The directed polymer model, introduced more than 30 years ago and intensively studied since then, can be used to describe a polymer interacting with the impurities of a heterogeneous medium. The model is known to exhibit a localization phenomenon, the polymer “stretching” to reach more favorable regions of the environment, but describing the localized trajectories (super-diffusivity exponent, scaling limits, etc?) is still mostly open. I will present the case of an environment with heavy-tail distribution, where some of these results are at reach (joint work with Niccolò Torri), and I will discuss possible directions of research.

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