

Metastability for stochastic dynamics: a quick review and some new results

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Abstract:

As an interesting and rather common phenomenon in nature, metastability has been studied from multiple viewpoints, with different goals and big variety of tools. Its modeling has been object of many mathematical studies. In this lecture, I plan to start by revisiting some aspects of the metastable behavior in the frame of stochastic dynamics, hoping to discuss some of the basic motivations and to quickly review some of known mathematical results, through a class of concrete (somehow generic) examples. Finally, I should focus on more recent results applicable to the stochastic Ising model in the two-dimensional lattice, obtained in collaboration with Alexandre Gaudillière and Paolo Milanesi, both from Université Aix-Marseille.