

M. Slowik: Metastability of Glauber dynamics with inhomogeneous coupling disorder

vendredi 28 octobre 2022 14:30 (1 heure)

Metastability is a phenomenon that occurs in the dynamics of a multi-stable non-linear system subject to noise. It is characterised by the existence of multiple, well separated time scales. The talk will be focused on the metastable behaviour of a general class of mean-field-like spin systems with random couplings that evolve according to a Glauber dynamics at fixed temperature. This class of systems comprises both the Ising model on inhomogeneous dense random graphs and the randomly diluted Hopfield model. Assuming that the corresponding system in which the random couplings are replaced by their averages is metastable I will explain how the metastability of the random system is implied with high probability. In particular, I will discuss the tail behaviour of the relevant metastable hitting times of the two systems and the moments of their ratio.

This is joint work with A. Bovier, F. Den Hollander, S. Mareello and E. Pulvirenti.