Forum de Physique Statistique @ ENS

Mercredi 16 Octobre 2019, 12 :00
LPENS, Conf IV
Domaines : cond-mat.stat-mech

Titre : *Statistical properties of energy barriers and activated dynamics in mean-field models of glasses*

Orateur : **Valentina Ros (ENS)**

Résumé : *Understanding the geometrical properties of high-dimensional, random energy landscapes is an important problem in the physics of glassy systems, with plenty of interdisciplinary applications. Among these properties, an important role is played by the statistics of stationary points, which is relevant in determining the evolution of local dynamics within the landscape. In this talk I will focus on the energy landscape of a simple model for glasses (the so-called spherical p-spin model) and I will present a framework to compute the statistical properties of the saddle points surrounding local minima of the landscape. I will discuss how this computation allows to extract information on the distribution of energy barriers surrounding the minimum, as well as on its connectivity in configuration space. I will comment on the dynamical implications on these results, especially for the activated regime of the dynamics, relevant when the dimension of configuration space is large but finite.*