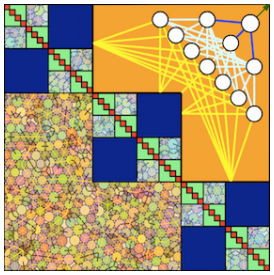

ID de Contribution: **27** Type: **Non spécifié**

Statistical physics of inference and learning: from algorithmic strategies to proofs.

mardi 3 mai 2022 14:00 (1 heure)

The scope of these lectures is to discuss the statistical physics approach to high dimensional inference and learning. In these problems one seeks for a particular configuration of some variables (the signal) which is hidden in a rough energy landscape of spurious non-informative minima. We will focus on two aspects of these problems: on the one hand we will show how statistical physics provides powerful algorithms to reconstruct the signal from some measurements. On the other hand we will show how the performances of such algorithms can be analyzed on a rigorous basis and compared to the information theoretic limits that can be proven using the techniques developed to analyze rigorously mean field spin glasses.

Orateur: Prof. KRZAKALA, Florent (EPFL)