Workshop on Spin Glasses



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Overview of spin glass methodology in computational problems I

Monday 26 September 2022 11:00 (1h 30m)

In this mini-lecture, I will give a subjective overview of some of the main application areas of methods from spin glasses in computational problems. We will see how to view a variety of problems studied in combinatorics, optimization, inference and learning under the same umbrella. Paying attention to what is known mathematically rigorously, I will discuss both the statistical (static) and algorithmic (dynamical) results that are known for two specific settings encompassing a broad range of applications – the low-rank matrix estimation and the generalized linear model. I will also present numerous associated open questions.

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