Masterseminar

Statistical mechanics: a Hamilton-Jacobi approach

Prof. Hendrik Weber
Summer Term 25
Monday 10:00-12:00

This graduate seminar is intended for students in the Master's programs in Mathematics. Depending on the background of the participants, we will discuss mathematical techniques for studying the behaviour of mean-field systems with disordered interactions. The main focus will be on certain problems of statistical inference in high dimension, and on spin glasses. The techniques we present aim to determine the free energy of these systems, in the limit of large system size, by showing that they asymptotically satisfy a Hamilton-Jacobi equation.

The seminar can prepare for a Master thesis in this area.

(non-obligatory) preliminary meeting:
Mon 20 Jan 2025 10:00-11:00
room 120.29, 2nd floor Orléans-Ring 10

If you would like to participate via zoom, please contact us via email by 17 Jan 2025 at sek.ag.weber@uni-muenster.de