ID de Contribution: **4** Type: **Non spécifié**

Transition in the Integrated Density of States of a correlated random Schrödinger operator

lundi 24 juin 2024 16:30 (55 minutes)

In 2017, Sabot, Tarrés and Zeng proved a connection between a reinforced random walks with a non-linear sigma-model coming from statistical mechanics, studied by Disertori, Spencer and Zirnbauer. In both models there is the presence of a random Schrödinger operator. We study the Integrated Density of Stated for this model and show it undergoes a phase transition depending on the dimension and the strength of the disorder, that is linked to the strength of the reinforcement parameter in random walks. This behavior is in stark contrast with the usual behavior of the IDS in disordered systems, known as Lifshitz tails, which are usually associated to Anderson Localization and pure point spectrum in the random operator. This is joint work with M. Disertori, X. Zeng, and V. Rapenne.

Orateur: ROJAS-MOLINA, Constanza