SEMPARIS – Séminaires en région parisienne

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Forum de Physique Statistique @ ENS

Mercredi 22 Janvier 2020, 12 :00
LPENS, Conf. IV
Domaines : cond-mat.stat-mech

Titre : *Non-ergodic, glassy properties of Anderson localization*

Orateur : **Gabriel Lemarié (Université Toulouse III)**

Résumé : *In this seminar, I will describe some non-ergodic, glassy properties of Anderson localization. Anderson localization occurs in disordered quantum systems due to the subtle interplay between quantum interference and disorder. I will discuss the case of random graphs, where Anderson localization is closely related to the problem of many-body localization, and also its effects on quantum transport in dimension two. Guided by an analogy with the problem of directed polymers, which is considered a " baby spin glass ", I will present the results of exact numerical simulations which demonstrate that Anderson localization has non- ergodic, glassy properties, some crucially affected by quantum interference.*