

# Laboratoire de Physique Théorique et Hautes Energies

Unité Mixte de Recherche (UMR 7589) de Sorbonne Université et du CNRS

## SEMINAIRE du LPTHE

*Vendredi 2 Fevrier 2018, 11:00*

**Lev Ioffe**

*LPTHE*

**dy systems and disordered random graphs ; application to the phase diagram of**

*At very high disorder a generic closed quantum systems becomes completely localized. I argue that this (many body) localization is preempted by a wide regime of non-ergodic behavior that displays a number of unusual properties. A good system to study these effects are Josephson junction arrays in a somewhat unusual regime. The toy model of disordered many body systems that capture the physics of many body systems is provided by random regular graphs. I will sketch a simplified analytical theory of the non-ergodic phase in this models, compare the results with the direct numerical simulations and summarize the conclusions relevant for physical many body systems.*

**Bibliothèque du LPTHE, tour 13/14, 4<sup>ème</sup> étage**

*N.B. La liste de tous les séminaires en région parisienne est disponible sur  
<http://semparis.lpthe.jussieu.fr>*

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*LPTHE tour 13/14, 4<sup>ème</sup> étage, Campus P. et M. Curie, BP 126, 4, place Jussieu, F-75005 Paris, France*