## 21ème conférence Claude Itzykson - Dynamics, Disorder and Localization in Interacting Quantum Many Body Systems

ID de Contribution: 38 Type: Invited talk

## Influence of an imperfect bath on an MBL system

lundi 13 juin 2016 11:00 (45 minutes)

In this talk, I will consider a fully MBL system coupled to an imperfect bath, representing a small (microscopic or mesoscopic) chunk of an ergodic material. This set-up arrises naturally since disorder fluctuations naturally lead to the formation of such spots inside the MBL phase. My aim is to describe the intermediate region arising in the vicinity of the ergodic spot. I will provide a simple theoretical framework to do so, and present some preliminary numerical results to test the validity of the theory. This analysis has strong implications on the question of the stability of the localized phase.

From collaboration with Wojciech De Roeck

Orateur: HUVENEERS, Francois (Paris Dauphine, CEREMADE)

Classification de Session: Morning Session1