ID de Contribution: **28**   Type: **Invited talk**

Constructing Many-Body Localized Eigenstates: Questions and Answers

lundi 13 juin 2016 10:15 (45 minutes)

For a weakly interacting quantum spin chain with random local interactions, we prove that many-body localization follows from a physically reasonable assumption that limits the extent of level attraction in the statistics of eigenvalues. In a KAM-style construction, a sequence of local unitary transformations is used to diagonalize the Hamiltonian by deforming the initial tensor-product basis into a complete set of exact many-body eigenfunctions. We discuss prospects for the level-statistics problem and for results in higher dimensions.

Orateur: IMBRIE, John (University of Virginia)

Classification de Session: Morning Session1