Donnerstag, den 23.07.2015 um 15:30 Uhr in Raum 46-576

Many-body localization

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Disorder in a non-interacting quantum system can lead to Anderson localization where single-particle wave functions become localized in some region of space. Recently, the study of interaction effects in systems which do exhibit Anderson localization has attracted renewed interest.

In my talk I will present recent theoretical progress in understanding localization in many-body systems. I will, in particular, discuss one-dimensional lattice models with binary disorder which can potentially be realized in cold atomic gases using two species of atoms. A purification scheme can be used to perform an exact binary disorder average making such models amenable to numerical studies directly in the thermodynamic limit.

Gäste sind herzlich willkommen.  

Die Dozenten der Theoretischen Physik