

A renormalization group analysis of the Anderson transition in infinite dimensions

lundi 18 mars 2024 11:00 (30 minutes)

I will present a renormalization group analysis of the problem of the Anderson localization on a Regular Random Graph which is the limit of the RG flow of Abrahams, Anderson, Licciardello, and Ramakrishnan to infinite-dimensional graphs.

I will show how the one-parameter scaling hypothesis is recovered for sufficiently large system sizes for both eigenstates and spectrum observables and explain the non-monotonic behavior of dynamical and spectral quantities as a function of the system size for values of disorder close to the transition. I will show the implications of our work for Many-Body Localization.

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