Departmental Colloquium

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Friday, December 2, 2016
3:00p.m., HH 3017

Disordered Fermion Systems on a Lattice

Abstract:

In this talk we discuss the dynamics of Fermion systems on a lattice with random interactions and the spectral properties of the associated KMS (temperature) states. We will show that the spectrum of the random evolution group is almost surely independent of the disorder. As a consequence, we will establish that the spectrum of the random modular operator associated with the kms state is also almost surely independent of the disorder. All such results are in accordance with the principle of self-averaging which affirms that the physically relevant quantities do not depend on the disorder.