



## Mathematics and CS Seminar

# Delocalization for Random Schrödinger Operators on Tree Graphs with small disorder

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Host: Laszlo Erdös

There is a strong relation between the dynamics of a system and the spectral properties of the Hamiltonian that defines it. Hence the spectrum of models that can describe real-world material is an interesting object to study. A successful method to accomplish this is the analysis of Random Schrödinger Operators, where one adds a random potential to a known Hamiltonian. A natural question to ask is under which conditions the spectral properties remain unchanged. The goal of this talk is to present the article by Aizenmann, Sims, and Warzel (2006) "Stability of the Absolutely Continuous Spectrum of Random Schrödinger Operators on Tree Graphs". Which tells us a condition under which the ac spectrum continues to exist. In other words, when the system continues to exhibit de-localized states. During the talk, we will introduce the model, the main theorem of the paper, and its relation to previous results, and then we will sketch the main ideas behind the proof. This talk is the final part of my rotation with the Erds group.

**Tuesday, March 12, 2024 04:15pm - 05:15pm**

Office Bldg West / Ground floor / Heinzl Seminar Room (I21.EG.101)



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