

Hot times for cold atoms in random potentials

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A fine understanding of phase-coherent transport in random potentials is of vital importance for comprehending the properties of complex physical systems, ranging from electrons in semiconductors to excitations in biomolecules. In this talk I will highlight recent progress, both theoretical and experimental, in tracking the coherent expansion dynamics of ultracold matter waves in disordered optical potentials. Specifically, I will present recent experiments on coherent backscattering and discuss a newly found signature of phase-coherent Anderson localization in strong disorder, where transport comes to a complete stop.