

Abstract Submitted
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Spin Drag in the Disordered Hubbard Model WILLIAM MCGEHEE, WENCHAO XU, BRIAN DEMARCO, Univ of Illinois - Urbana — We report progress in measuring spin drag in a 3-dimensional disordered optical lattice to probe the role of disorder and localization effects in the Hubbard model. Relative motion between two spin states in an ultracold Fermi gas is prepared with a momentum selective Raman pulse. Disorder is introduced in a controlled fashion via optical speckle with correlation lengths comparable to the lattice spacing. Analogous transport measurements in a disordered harmonic trap are also discussed.

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