Joint Quantum Institute Seminar
March 10, 2008 at 12:30
Physics 1201

"Experiments on Disorder and Transport in the Bose-Hubbard model"

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Ultra-cold atom gases trapped in an optical lattice are now poised to make strong contributions to resolving outstanding questions in condensed matter physics. I will talk about how we are using this system to simulate models relevant to transport in dirty superconductors. I will report on two new results, including the observation of dissipation induced by quantum tunneling and thermal activation of phase slips, and the first experiments on an optical lattice that includes fine-grained disorder.

Hosts: Trey Porto / Luis Orozco