

DEPARTMENT OF PHYSICS

This Week in Physics

SYRACUSE UNIVERSITY
College of Arts & Sciences

Week of

September 28, 2009

[http://www.phy.syr.edu/
SeminarsEvents.htm](http://www.phy.syr.edu/SeminarsEvents.htm)

DEPARTMENT OF PHYSICS

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MONDAY, SEPTEMBER 28

Joint Relativity/Cosmology/High Energy Physics Seminar
2:30 PM, Rm

Dr. Can Kilic (Rutgers University)

TBA

THURSDAY, OCTOBER 1

Colloquium

4:00 PM, Rm 202 (refreshments 3:30 PM)

Prof. Brian DeMarco (University of Illinois, Urbana-Champaign)

Experiments with Dirty Bosons

Ultra-cold atom gases trapped in an optical lattice are now poised to make strong contributions to resolving outstanding questions in condensed matter physics. In these experiments, atom gases are cooled to temperatures below a millionth of a degree of absolute zero and confined in a crystal of light. I will talk about how we are using this system to simulate models relevant to dirty superconductors and highlight some recent results, including the first experiments in a fine-grained disordered lattice and the observation of a disorder-induced superfluid-to-insulator transition.

