

This Week in Physics

SYRACUSE UNIVERSITY
College of Arts & Sciences

Week of
April 20, 2009

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

DEPARTMENT OF PHYSICS

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THURSDAY, APRIL 23

Colloquium

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

Prof. Brian DeMarco (University of IL, 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.

FRIDAY, APRIL 24

Thesis Defense

11:00 AM, Rm 202

Mr. Luca Giomi (Syracuse University)
Unordinary order: a theoretical, computational and experimental study of crystalline order in curved space.



Einstein Discovers That Time Can Stop Completely