

DEPARTMENT OF PHYSICS

This Week in Physics

SYRACUSE UNIVERSITY
College of Arts & Sciences

Week of

November 17, 2008

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

DEPARTMENT OF PHYSICS

201 Physics Building
Syracuse NY 13244-1130

Phone: 315-443-3901
Fax: 315-443-9103
Email: davis@phy.syr.edu

TUESDAY, NOVEMBER 18, 2008

Condensed Matter/Biological Physics Seminar
11:00 AM, Rm 202

Dr. Stefano Zapperi (INFM-CNR Italy)

Dislocation avalanches, strain bursts, and the problem of plastic forming at the micron scale

THURSDAY, NOVEMBER 20

Colloquium

4:00 PM, Rm 202 (refreshments 3:30 PM, Rm 204)

Prof. Jens Gundlach (University of Washington)

Gravity on the Test Bench: Torsion Balance Renaissance

In the last two decades torsion balances have been reintroduced to modern physics. We have built highly refined torsion balances to search for subtle deviations from ordinary weak-field gravity; in particular, we have tested the equivalence principle to unprecedented precision, including a test searching for non-gravitational accelerations towards dark matter. We have built special torsion balances to test the $1/r^2$ -law of gravity for distance scales as small as a few tens of micrometers. Furthermore we have measured Newton's constant with unmatched precision and have tested $F=ma$. We are also using our ultra-sensitive torsion balance instruments to look for stray forces that may affect the gravity wave observatories LIGO and LISA.

FRIDAY, NOVEMBER 21

Joint Relativity/Cosmology/High Energy Physics Seminar
2:30 PM, Rm 202

Dr. Rafael Sorkin (Perimeter Institute)

TBA

