



SYRACUSE UNIVERSITY

The College of Arts and Sciences

Department of Physics

SU PHYSICS NEWS - September 2011

Presentations by faculty:

- **Simon Catterall:** lecturer at international summer school “Lattice QCD and Hadronic Structure” at the Institute for Nuclear Research, Dubna, Russia (September 13-18, 2011).
- **Cristina Marchetti:** invited talk, DYNACT11, the international workshop on “Collective Dynamics and Pattern Formation in Active Matter Systems” held at the Max Planck Institute for the Physics of Complex Systems, Dresden, Germany (September 12-17, 2011).
- **Liviu Movileanu:**
 - talk, International Conference “Processes in isotopes and molecules” (PIM-2011), National Institute for Research and Development of Isotopic and Molecular Technologies (ICNDTIM), Cluj-Napoca, Cluj-Napoca, Romania. Engineered Nanopores for Protein Detection (September 29 – October 1, 2011).
 - talk, “Single-molecule detection with engineered nanopores”, The Upstate Cancer Research Institute (CRI) Monthly Seminar, 2011-2012, Department of Pharmacology, The State University of New York - Upstate Medical University, Syracuse, NY (September 15th, 2011).
- **Britton Plourde:** invited talk “Superconducting Circuits for Quantum Information Science” at the *Buffalo Workshop on Quantum Computing*, Buffalo, NY (September 17, 2011).
- **Tomasz Skwarnicki:** talk, “Recent LHCb results”, University of Colorado, Boulder (September 12, 2011).
- **Rafael Sorkin:** invited lecture, “A quantum field theory with a covariant cutoff in which black hole radiance could be studied”, *ESF Exploratory Workshop on Gravity as Thermodynamics: towards the microscopic origin of geometry*, SISSA, Trieste, Italy.
- **Scott Watson:**
 - invited colloquium at Bryn Mawr College.
 - workshop organizer and presenter of *Northeast Cosmology Workshop* at McGill University, Montreal, Canada (September 30 – October 2, 2011).

New Grants and Awards:

- **Cristina Marchetti:**
 - with Co-PIs Pat Mather (Biomedical & chemical engineering), **Alan Middleton**

(Physics), Dacheng Ren (Biomedical & chemical engineering) and Karin Ruhlandt-Senge (chemistry), has received an award by the NSF-IGERT (Integrated Graduate Education Research and Training) program for research and graduate training on “Soft Interfaces”. The award, in the amount of \$2.96M over five years, will support six new two-year graduate fellowships per year for five years for doctoral students doing research on soft and biological materials in one of the four participating departments (physics, biomedical & chemical engineering, chemistry and biology).

- received a \$5,000 Ad Hoc Grant from the Burroughs Wellcome Fund to support the 2012 Aspen Winter Conference on *Form and Growth: Pattern Formation in Biology*.
- awarded \$5,000 from the Howard Hughes Medical Institute (HHMI) to support the 2012 Aspen Winter Conference on *Form and Growth: Pattern Formation in Biology*.
- with co-organizers Susan Coppersmith (Wisconsin-Madison) and Clare Yu (UC-Irvine), **Cristina Marchetti** has received a \$10,000 grant from ICAM to support the 2012 Aspen Winter Conference on *Form and Growth: Pattern Formation in Biology*.
- awarded \$7,000 from the NSF DMR-Biomaterials program to support the 2012 Aspen Winter Conference on *Form and Growth: Pattern Formation in Biology*.
- **Britton Plourde:** NSF grant “Coupling a Single Vortex in a Superconductor to a Single Microwave Photon” for \$345,000 over three years started Sept. 15, 2011.
- **Richard Schnee:**
 - obtained funding as a subaward from the University of Minnesota as part of the NSF award entitled “Assay and Acquisition of Radiopure Materials” in the amount of \$87,508 for the time from May 1, 2011 - September 30, 2012.
 - obtained additional continuation funding as a subaward from the University of California, Berkeley as part of the NSF award entitled “SuperCDMS at Soudan” in the amount of \$40,000 for the time from October 1, 2011 - September 30, 2012.

Outreach:

- **Allen Miller:** organized a meeting at the Physics Building on the morning of September 17, attended by fifteen Central New York high school physics teachers. The meeting included talks by three teachers on their summer research activities, including two teachers who did research at CERN, supervised by the Physics Department particle research group.

Other:

- The following faculty have reached a “Milestone Anniversary” with SU:
 - **Eric Schiff:** 30 years (start date 9/1/81).
 - **Edward Lipson:** 35 years (start date 9/1/76).
 - **Carl Rosenzweig:** 35 years (start date 9/1/76).

- The *Conference Experience for Undergraduates* program awarded undergraduate student **Dan Jardin**, working with **Richard Schnee**, funding to cover expenses for his presenting his research and participating in the program at the 2011 Fall meeting of the Division of Nuclear Physics of the American Physical Society.
- **Sheldon Stone**: met with Dr Steven E. Koonin, Under Secretary for Science, Department of Energy United States of America on Wed. Sept.14 as the LHCb representative. There was one representative for each of the other LHC experiments, ALICE, ATLAS and CMS and two CERN luminaries present, as well as the U. S. permanent mission secretary. A morning meeting was followed by a lively discussion at lunch.
- **Marina Artuso and Sheldon Stone** attended a reception at the U. S. Mission in Geneva.

