SU PHYSICS NEWS – DECEMBER 2012

Presentations by Faculty:

- **Steve Blusk**: talk, “Cracking the Standard Model with Beauty and Charm”, SU Physics Undergraduate Research Day (December 1, 2012).
- **Simon Catterall**: invited talk, *Annual UK Theory Meeting*, Durham University, Durham, UK (December 17-19, 2012).

Presentations by Emeritus Faculty:

- **Rafael Sorkin**:
  - invited seminar, “If spacetime is a causal set then lorentz symmetry is unbroken”, Raman Research Institute Bengaluru (Bangalore), India (December 20, 2012).
Presentations by Research Faculty, Postdocs and Students:

- **Mohammad Mohammad**: attended the 2012 American Society for Cell Biology meeting in San Francisco, and presented a poster (December 14-19, 2012).

- **SU Undergraduate Research Day Undergraduate Presentations (December 1, 2012)**:
  - **Gogee Ghulam**: “Determining Background from Radon Progenies”.
  - **Tom Badman**: “REU experience at Los Alamos and Syracuse University Neutrino Fermilab Collaboration”.
  - **Ryan Badman**: “Hadronic Interaction Studies in the ATLAS Inner Detector”.

New Grants and Awards:

- **Richard Schnee**: received funding as a subaward from the University of Minnesota for the NSF grant, “Integrative Tools for Underground Science,” totaling $135,206 for 2 years beginning October 1, 2012.

- **Scott Watson**: received funding for a three year grant from NASA ($450K) for the project, “Establishing the Post-Inflationary History from Fundamental Theory and Cosmological Observations”.

Outreach:

- **Steve Blusk**: talk, “Cosmic Connections: From the Big Bang to the LHC”, Weedsport High School (December 20, 2012).

Other:

- **Undergraduate Research Day 2012**: Saturday December 1st. Organized by Matt LaHaye and Lisa Manning. This year’s URD drew 60 attendees, both students and faculty, from 8 different colleges and universities from across NY. Events included 12 student talks and 16 student posters, as well as four SU faculty talks (Mark Bowick, Jay Hubisz, Steve Blusk, and Martin Forstner) and a tour of some of the department’s laboratories.

- **SU Undergraduate Research Day Undergraduates Poster Presentations (December 1, 2012)**:
  - **Manu Arul**: “Engineering and Characterization of Robust FhuA-based Nanopores”.
  - **Kelley McCabe**: “Removal of Long-Lived$^{222}$Rn Daughters by Electropolishing Thin Layers of Stainless Steel”.
  - **Deborah Noble**: “Construction of a Radon Emanation System”.
  - **Steven Sorokanich**: “Surface Loss Minimization in Resonant Cavities”.

- **Liviu Movileanu**:
  - participant, NSF Biomaterials Briefing on “Important Areas for Future Investment,” Section on Thin Films and Interfaces, Arlington, Virginia (December 3, 2012).

- Sound Bites:
  - Shiladitya Banerjee (Graduate Student), “Intercellular adhesions organize epithelial cell-matrix forces”.
  - Adolphe Badiambile (Graduate Student), “Ion induced changes in phosphoinositide monolayers at physiological concentrations”.
  - Belete R. Cheneke (Graduate Student), “Kinetic and Energetic Insights into the Gating of a Single Protein Channel”.
  - Eleni Degaga (Graduate Student), “Force dependent changes in non-erythrocyte spectrin and ankyrins”.
  - Xu Ma (Graduate Student), “Defect Interactions in Active Nematics”.
  - Dapeng “Max” Bi (Research Associate), “Energy barriers for cellular rearrangements in tissues”.
  - David Mayett (Graduate Student), “A minimal model for quantum glassiness”.
  - Ian Mc Cabe (Graduate Student), “Dynamics of PIP₂-CA²⁺ Structures in Lipid Bilayers”.
  - Gulmammad Mammadov (Graduate Student), “Light and chemical modulation of the membrane potential in phototactic cells”.
  - Rastko Sknepnek (Research Associate), “Wrinkle patterns on thin sheets adhered to substrates with negative curvature”.
  - Jen Schwarz (Professor), “Contact processes in crowded environments”.
  - Sean Sweeney (Graduate Student), “Minimal spanning trees at the percolation threshold: a numerical calculation”.
  - Kazage Utuje (Graduate Student), “Collective Motility of Migrating Cell Layers”.
  - Sven Wijtmans (Graduate Student), “Identifying Defects in Disordered and Ordered Solids”.
  - Xingbo Yang (Graduate Student), “Pattern Formation in Growing Polar Bacteria”.

November News:

- Mark Bowick: served on an NSF site visit evaluation of the Harvard MRSEC program.