SU PHYSICS NEWS – MARCH 2013

Presentations by Faculty:

- **Steve Blusk:**
  - talk, “Cracking the Standard Model with Beauty & Charm”, Syracuse University graduate student visiting day (March 1, 2013).
  - phone interview with reporter Andrew Grant of “Science News” on the recent D0 mixing results from LHCb (March 7, 2013).

- **Jiji Fan:** talk, “Partially Dissipative Dark Matter”, *TAMU Workshop on Dark Matter*, College Station, TX (March 8-10, 2013).

- **Jay Hubisz:**
  - invited talk, “Higgslike Dilatons”, Yale University (March 26, 2013).

- **M. Cristina Marchetti:** contributed talk, “Defect dynamics in active liquid crystals”, APS March Meeting, Baltimore, MD (March 18–22, 2013).

- **Mitch Soderberg:** talk, “Calibrations with Muons in ArgoNeuT” at the *LArTPC R&D Workshop*, Fermilab (March 20-21, 2013). He also convened the Software session at this workshop.

- **Britton Plourde:** chaired the session “Superconducting Qubits: Magnetic Flux and Vortex Noise on Qubits and Resonators, Quasiparticles, and Qubit-Resonator Designs” at the APS March Meeting, Baltimore, MD (March 18, 2013).

Presentations by Emeritus Faculty:

- **A.P. Balachandran:**
  - invited seminars at the Indian Institute of Science Education and Research, Thiruvananthapuram:
    - “Magnetic Monopoles and Quantum Physics” (March 11, 2013).
    - “What is a Self-Adjoint Operator?” (March 18, 2013).
Presentations by Research Faculty, Postdocs and Students:

- **Shiladitya Banerjee**:


- **Yu Chen** (graduate student): invited talk, “The Neutron Multiplicity Meter at Soudan”, the AARM collaboration meeting at SLAC (March 4, 2013).

- **Jorge Lopez** (graduate student) in collaboration with **Jennifer Schwarz** and Liang Cao:


- **Sean Sweeney** (graduate student): contributed talk, “Minimal spanning trees at the percolation threshold: a numerical calculation”, APS March Meeting Baltimore, MD.


- Members of the **Plourde Group** made the following presentations at the APS March Meeting in Baltimore MD:
  - **Ibrahim Nsanzineza** (graduate student): “Effects of vortices trapped in superconducting microwave resonators” (March 18, 2013).
  - **Daniela F. Bogorin** (postdoc): “Materials Effects in 3D-Cavity Transmon Qubits” (March 18, 2013).
  - **Matthew Ware** (graduate student): “Tuning qubit interactions with asymmetric transmons” (March 21, 2013).
  - **Haozhi Wang** (graduate student): “Development of superconducting transmission-line metamaterials” (March 21, 2013).

Outreach:

- **Alessandra Borgia**: went to Washington D.C. on March 12-14 with 37 members of the USLUCO, SLUCO and UEC as a part of outreach and advocacy to the congressional and executive branch offices regarding High Energy Physics funding.

- Physics and the IGERT program hosted the **First Soft Interfaces IGERT Retreat**, Syracuse Biomaterials Institute, Bowne Hall (March 2, 2013).
Other:

- **Richard Galvez** (graduate student) has been awarded a prestigious NSF fellowship under the program EAPSI ([http://www.nsf.gov/funding/pgm_summ.jsp?pgm_id=5284](http://www.nsf.gov/funding/pgm_summ.jsp?pgm_id=5284)). This will allow him to travel to New Zealand this summer and begin a collaboration between the Elementary Particle Physics group and one of the top Cosmologists there, Richard Easther (Head of the department at the University of Auckland). Unfortunately, that is winter in New Zealand!

- **M. Cristina Marchetti**: served on the DCMP Fellowship selection committee at the APS March Meeting in Baltimore, MD (March 18-22, 2013).

- **Paul Souder** has been named co-recipient of the 2013 Jefferson Science Associates Outstanding Nuclear Physicist Award (along with Prof. Douglas Beck of the University of Illinois). The award was given “for your leadership in the development of the use of parity-violating electron scattering as a tool for the study of nucleon and nuclear structure, and precision studies of the standard model.” The award will be formally announced in mid-April, and presented at the Jefferson Lab Annual Users Group meeting May 29-31.

- **Scott Watson**:
  - hosted a workshop at Texas A&M, TAMU Workshop on Dark Matter ([http://darkmatter.tamu.edu](http://darkmatter.tamu.edu)), College Station, TX (March 8 – 10, 2013). Jiji Fan was one of the attendees. Scott was also interviewed by the local NBC news affiliate about the nature of the workshop and its importance.
  - attended a workshop, Mitchell Workshop on Cosmology and Inflation, Mitchell Institute, Houston, TX (March 28 - April 1, 2013).

- The Gravitational Wave group was well represented at the LIGO-Virgo collaboration meeting in Bethesda, MD, March 17 – 22, 2013:
  - experimental posters and talks:
    - other LIGO posters (experimental): Design ideas for an Advanced LIGO upgrade (Stefan Ballmer for the AIC Green Team).
    - Other LIGO talks (experimental): The Syracuse University Angular-Trap for a Large Scale Mirror: Current Status (Antonio Perreca).
  - from the analysis side:
    - “Testing the faithfulness of gravitational waveforms for spinning neutron star black hole systems”, (Duncan Brown, Ian Harry, Drew Keppel, Andrew Lundgren, Alex Nitz, Evan Oschner).
    - “Sensitivity of a template bank of spin-aligned waveforms to Neutron star - Black Hole mergers”, (Duncan Brown, Ian Harry, Drew Keppel, Andrew Lundgren, Alex Nitz, Evan Oschner).
    - “Searching for non-spinning stellar-mass Binary-Black-Holes using EOBNR and Taylor F2 waveforms in the advanced detector era”, (Duncan Brown, Prayush Kumar, Alex Nitz).
    - “Searches for eccentric neutron star binaries in the advanced detector era”, (Duncan Brown, Eliu Huerta).
• **Eliu Huerta** (postdoc)
  • poster: “Searches for eccentric neutron star binaries in the advanced detector era”.
  • talk: “Low mass off-line analysis for the third LIGO-Virgo Engineering Run”.

• **Eleni Degaga** (graduate student): has just been awarded a Faculty of the Future Fellowship from the Schlumberger Foundation. This is an award to women from developing and emerging economies who are preparing for PhD or post-doctoral study in the physical sciences and related disciplines at top universities for their disciplines abroad. The long-term goal of the Faculty for the Future program is to generate conditions that result in more women pursuing scientific disciplines. Grant recipients are therefore selected as much for their leadership capabilities as for their scientific talents, and they are expected to return to their home countries to continue their academic careers and inspire other young women.

• **Ryan Badman** (graduating senior): has just been awarded a National Science Foundation Graduate Research Fellowship, to fund his graduate studies in physics. This is a highly competitive and prestigious award.

• Syracuse University hosted the *First Soft Interfaces IGERT Retreat* (March 2, 2013).