SU PHYSICS NEWS – JULY 2013

Presentations by Faculty:

- **Marina Artuso**: lecture, “Flavor physics at hadron machines” at the 41st SLAC Summer Institute, SLAC National Accelerator Laboratory, (operated by Stanford University and DOE) (July 8–19, 2013).
- **Jay Hubisz**: invited talk, “Dilaton Phenomenology” at LHC - The First Part of the Journey, KITP, UC Santa Barbara (July 11, 2013).
- **Liviu Movileanu**: invited talk, Telluride Workshop on Biophysical Dynamics, Telluride Science Research Center (TSRC), Telluride, Colorado (July 22-26, 2013).

Presentations by Emeritus Faculty:

- **A.P. Balachandran**: talk, “Edge States: Topological Insulators and Superconductors” at Instituto de Fisica, Universidade Federal do Rio de Janeiro (July 8, 2013) and The Institute of Mathematical Sciences, Chennai (July 31, 2013).

Presentations by Research Faculty, Postdocs and Students:

- **Manu Aarul** (undergraduate), a Beckman scholar and a Biophysical Science major at SU in the Movileanu laboratory, presented a poster to the National Beckman Symposium, The University of California at Irvine, July 26, 2013. His presentation is displayed at the below link: [http://www.beckmansymposium.com/poster-presentations/23-developing-nanopore-technologies](http://www.beckmansymposium.com/poster-presentations/23-developing-nanopore-technologies). Also, for more information about this technology, you can take a look at the following youtube movie: [http://www.youtube.com/watch?v=NuuspLYGA7w](http://www.youtube.com/watch?v=NuuspLYGA7w).
- **Daniela Bogorin** (postdoc) and **Matthew Ware** (graduate student) attended the International Superconducting Electronics Conference in Cambridge, MA, and gave poster presentations of their work – “Superconducting transmon qubits with surface-treated three-dimensional cavities” and “Asymmetric transmons for controllable multi-qubit interactions” (July 8-11, 2013).
New Grants and Awards:

- The National Science Foundation has awarded a new grant to Prof. Eric Schiff. The award is for a project titled “Fundamental Research on Physics of Instability of Organic Solar Cells: Collaborative Research” and is in the amount of $163,000 over three years.

- National Science Foundation has awarded a new grant to the team of Lisa Manning (co-PI, A&S) and Jay Henderson (PI, ECS) who will equally share the work on a project titled “Collaborative Research: Utilization of Smart Materials and Predictive Modeling to Integrate Intracellular Dynamics with Cell Biomechanics and Collective Tissue Behavior”. This project will measure and simulate the motion of multiple cells on programmable substrates and is funded in the amount of $291,000.

- Sheldon Stone, Marina Artuso, Tomasz Skwarnicki and Steve Blusk: The NSF will be funding MRI proposal PHY-1337127, “Development of a Radiation Tolerant Low-mass Silicon Tracker for the LHCb Upgrade” at the level of $396,900.

Outreach:

- Steve Blusk: organized a 1 week workshop (Quarknet) for 8 local high physics school teachers, held in the Physics Department at SU; co-organizers were Profs. Mitch Soderberg and Ray Mountain (July 15-19).

- Sam Sampere: attended the National AAPT Summer Meeting in Portland Oregon from July 12 – 17, 2013.
  - Workshop leader: for Physics Lecture Demonstrations I and Physics Lecture Demonstrations II.
  - Invited talks (Sampere et. al.):
    - talk, “Demonstrations for High School Physics”.
    - PIRA Session,: Managing Resources in an Era of Increasing Enrollments.
    - talk, “Lecture Demonstrations in Larger Lecture Halls”.
  Both talks were 60+ attendee standing room only crowds! As a result, I just received an invitation to give a talk and a workshop in Mexico for AAPT-MX at the Universidad Autonóma de Baja California at Ensenada campus, in the Ensenada City in the state of Baja California, Mexico.
  - My candidacy for VP of AAPT was announced, voting to happen this fall.

Other:

