

**Southeast Pennsylvania American Association of Physics Teachers**  
**Spring Meeting – March 30/31, 2012**  
**Theme: Growing Your Physics Program**

Friday, March 30, 2012

This year Saint Joseph's University in Philadelphia hosted our spring meeting, "Growing Your Physics Program." The evening began with a delicious meal served in the Mandeville dining room and good conversations between colleagues. Mary Sevon, our president, introduced our guest speaker, Robert C Hilborn, Associate Executive Officer, AAPT. Robert spoke to the group on "How to Grow Your High School or Undergraduate Physics Program." The focus of the talk was to describe the work of the National Task Force on undergraduate physics, and the crucial elements of recruiting and retaining students in physics. Using the acronym "SPIN-UP" (Strategic Programs for Innovations in Undergraduate Physics) the study conducted by this National Task Force identified several key features of thriving undergraduate physics programs. For further information on this report, go to the AAPT website to the link, SPIN-UP report.

Saturday, March 31, 2012

After breakfast, the meeting resumed in the Science Center with an introductory greeting from Dr. Paul Angiolillo, the SJU host. Mary Sevon introduced Dr. A Goonewardene, Professor of Physics and Director of Nanotechnology at Lock Haven University. Dr. Goonewardene introduced the concept of nanotechnology and how this discipline is being developed at LHU. A program initially begun with one student enrolled is now flourishing as a result of making it interdisciplinary between biology, chemistry, physics and health science. LHU and Penn State have collaborated in developing a summer program, Incorporating Tools of Nanotechnology, held on Penn State Campus; it is hoped in the future with increased enrollment into the nano-program, LHU will be able to sustain this summer program within their own campus. Also a Nano Club has been established at LHU as a means of bringing interdisciplinary groups together. Vashti Sawtelle, a Post Doc., at the University of Maryland, followed this talk and she gave a detailed report on the transformation of Florida International University's Undergraduate Physics Program. This transformation occurred due to three factors: the incorporation of modeling instruction, development of a learning assistant programs and an established PLC (Physics Learning Center.)

Our contributed papers and demonstration consisted of the following:

- Tutorials in Upper-Level Undergraduate Physics - Carolyn Sealfon
- To the Moon through Game-based Learning and Assessment: CyGaMEs Selene and MoonGazers Activities. - Debbie Denise Reese
- The Mobile and maximum Overhang  
Worksheet for the classic PSSC film Periodic Motion (Ivy an Humes) -  
Jeffrey Wetherhold

- Use of the Gencon hand generator along with a short puzzle with capacitors and bulbs in a simple circuit – Barry Feierman

After the presentations of contributed papers and demonstrations, our annual SEPS AAPT members' meeting was held.

After lunch, the group divided into two workshops. One of the workshops focused on the "Interactive Lecture Demonstrations" with instructors, Jeffrey Sudol, Assistant Professor at West Chester University and Doug Kurtz, Associate Professor at Saint Joseph's University. The other workshop dealt with "Active Learning Based on the Outcomes of Physics Education Research Using DC Circuits as an example" presented by Priscilla Laws and Maxine Willis.

This concluded the 2012 SEPS AAPT Spring Meeting.