Greetings from the Chair

In 2012-2013, the Department of Physics has continued its growth which has began in 2009. Since then the number of majors has increased from 34 to 81. We have a larger freshmen class again in the Fall of 2013 (44 new students). Physics is among the few departments with its majors holding the highest Math and Reading SAT scores at SHU.

2012-2013 was Dr. Anthony Troha’s first year as the Faculty Associate in the Physics Department. As the Physics Laboratory Coordinator, he is the key person responsible for the maintenance and improvement of the Introductory and the Advanced Physics Laboratories. The department has benefited significantly from having a very efficient and dedicated laboratory coordinator. In 2012, we worked with Paul Fisher form SHU-TLTC for the installation of the LCD projectors for our Advanced Laboratory and Electronics Laboratory.

In 2012-2013, the faculty of the Department of Physics has exhibited a productive scholarship output. A total of four peer-reviewed articles have been published or accepted, and two book chapters were accepted for publication by respected scientific publisher, Springer. The faculty presented 7 papers and delivered two invited lectures. There were eight student research presentations in local, national, and international conferences, and two student fellowship awards: one from NJSGC and another form American Physical Society. The Physics Faculty applied for 8 research grants in the total amount of $500,000 and received a $236,000 in external grants funding. “The International 3rd Graduate Summer Institutes on Complex Plasmas” summer school was organized and held at Seton Hall University from July 31 to August 8, 2012 by Dr. Jose Lopez.

I am looking forward to another great year and cannot wait to share with you more in our next Newsletter!

Mehmet A Sahiner,
Chair, Department of Physics

Student Fellowships and Awards

- Isabella Duarte received a full Clare Booth Luce Fellowship, Seton Hall University.
- Leandro Gutierrez has been rewarded the New Jersey Space Grant Consortium - a NASA Sponsored Fellowship.
- William A. Manners, Christopher J Reehil have been awarded the APS student travel award.
- William A. Manners, Christopher J Reehil, and Ashley Sydlo have been inducted as Sigma Pi Sigma (the Physics Honor Society) members.

Student Presentations at Conferences

- Alex Manners, Chris Reehil, Stacie Ballau, Ashley Sydlo, Michael Brown, Arya Nabizadeh, Leandro Gutierrez, Anne Isash, Patrick Albers, Jesus Duran, Zachary Darby, and Michael McDougall, various posters at Petersheim Academic Expo, Seton Hall University, 2013

Right: Patrick Albers, Jesus Duran, Leandro Gutierrez, Michael McDougall presented posters at APS 2013 March meeting (03/20/13) and the Petersheim Expo (04/22/13).

Left: Annie Isah and Leandro Gutierrez presenting a poster for NASA-sponsored NJSGC Fellowship at Rutgers University on April 19, 2013.
Students Research

All of our undergraduate students have the opportunity to do research with our faculty.

William A Manners, Christopher J Reehil, Michael Brown, Arya Nabizadeh, Ashley A Sydlo, and Stacie M Ballou are working with Dr. Sahiner in his Advanced Materials Synthesis and Characterization Laboratory.

Sotiria Simeonidis is working with Dr. Shojania-Feizabadi in her Biophysics Laboratory.

Leandro Gutierrez, Patrick Albers, Jesus Duran, Anne Isah, and Michael McDougall are working on organic/inorganic solar cells fabrication and characterization with Dr. Wang.

Isabella Duarte and Zachary Darby are working on plasma physics with Dr. Lopez.

Astronomy Observatory Night

The Department of Physics Astronomical Observatory has been open to faculty, students, and the general public throughout the year. The observatory nights were coordinated with the Astronomy courses the department offers.

SHU Physics Club (SPS)

Out-Reach Activities

On Friday, April 20, 2013, five Seton Hall Physics club members presented a hands-on workshop entitled “Flinging Things or Learning about Catapults, Trebuchets and Launchers” at the Dutch Neck Elementary School’s Sixth Super Science Friday. William A Manners, Christopher J Reehil, Ashley A Sydlo, and Stacie M Ballou helped five third-grade classes construct and test catapults made of spoons, trebuchets made with rulers, and launchers made from straws. Students measured the distance their projectiles traveled through the classroom before moving on to the gym where they applied their knowledge to larger models. The Third-graders used the Physics Club’s sling shot catapult to shoot balls into a basketball hoop. They also experimented with a pump rocket launcher and the hand disc flingers to discover how far their projectiles would fly through the air. The students were enthusiastic and had a good time learning about Physics.

Where did our graduates go?

- **Andrew Klump**: Evans Analytical Group, Princeton NJ.
- **Carly Winton**: Virginia Tech, Graduate Program with full academic scholarship and tuition remission.
- **Michael Newby**: Epic company, Wisconsin.