



## Zone 6 SPS Meeting 2009



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Thursday, March 12, 2009.

A group of 39 persons from Puerto Rico, Florida, and Maryland were welcome at Rooms 328-329 of the Physics Department from University of Puerto Rico, Mayagüez. We had a brief meeting in which they were inform about the logistic of the activity. The group from Georgia was delayed and was met at the Holiday Inn Hotel at Mayagüez. After dinner the whole group was reunited at this hotel and was directed to know of the night activities in Mayagüez.

Friday, March 13, 2009.

The Zone Meeting started at 09:00 with the welcoming on the hands of the physics' students Ángel Manuel and Teresa Rodriguez. The word was given to the Chancellor of our University, the Director of The Physics Department and our councilors who gave them a salutation. After that the word was given to Kendra Rand, representing the National SPS, and the Zone 6 Councilor Dr. Willie Rockward who gave us an update about what's going on in our zone. A series of students' presentations took place about their researches, and a poster section was open for those who wished to present a further material. We also had a Physics Jeopardy game during the meeting which served to fraternize. As a closure to a long day, we finished with a formal dinner in which the Guest speaker was an Assistant Professor of Physics at MIT, Prof. Enectali Figueroa-Feliciano. The Schedule of the activity has been posted below. Around 70 persons attended these activities.

### Schedule:

9:00 am - Welcome Speech at UPRM – Figueroa Chapel Amphitheater at Chardon Building

Dr. Iván Velez Arocho

Dr. Moisés Orengo - Dean of Art and Sciences

Dr. Héctor Jiménez – Director of the Physics Department at UPRM

Dr. Erick Roura – SPS Councilor at UPRM

Dr. Pablo Marrero – SPS Councilor at UPRM

9:30 am Speaker: **Kendra Rand** – SPS National

Title: **SPS Opportunities**

10:00 am Speaker: **Dr. Willie Rockward** – Zone 6 Councilor

Title: **Zone 6 Updates**

10:30 am Presentation by **Dr. Willie Rockward** - Morehouse College - Atlanta, Georgia

Title: **Undergraduate research and mentoring projects of the Micro/Nano Optics and Engineering (MORE) Laboratory at Morehouse College**

10:45 am **Angie Marchany** University of Puerto Rico Mayaguez, Puerto Rico  
Title: **SPS UPRM Chapter Report**

11:00 am **Denisse Olarte** Florida International University Miami, Florida  
Title: **SPS FIU Chapter Report**

11:15 am Students Presentations:

11:15 am – **Jarrad Pond** University of Central Florida Orlando, Florida  
Title: **Perturbation Analysis of the Density and Velocity Fluctuations in the Universe on Large Scales, including Decaying Solutions and Rotational Velocities, in matter-dominated and  $\Lambda$ -dominated Universes**

11:30 am – **Abel Demissie** Morehouse College Atlanta, Georgia  
Title: **Electron tunneling through Self Assembled organic Monolayer**

11:45 am – **Andres Delannoy** University of Puerto Rico Mayaguez, Puerto Rico  
Title: **Weak Magnetic Measurement System**

12:00 pm Lunch

1:30 pm Future Faces of Physics Jeopardy – Host: Kendra Rand

2:30 pm Students Presentations:

2:30 pm – **Rahul Patel** Florida International University Miami, Florida  
Title: **Dust Trajectories in the National Spherical Torus Experiment (NSTX)**

2:45 pm – **Kevin Thomas** University of Central Florida Orlando, Florida  
Title: **Fighting Wrong Beliefs**

3:00 pm – **Michael Joseph Williams** Morehouse College Atlanta, Georgia  
Title: **Analysis of how Chemical Bonds React to Vacuumed Extreme Ultraviolet Light**

3:15 pm – **Sarah Nymeyer** University of Central Florida Orlando, Florida  
Title: **A Representative Sample of Exoplanetary Secondary Eclipses**

3:30 pm – **Jonathan Fraine** University of Central Florida Orlando, Florida  
Title: **Numerical Modeling of Dusty Disk System Morphologies With Deep Impact Derived Opacities**

3:45 pm Break: Snacks

4:30-6:00 pm Poster Session at 2<sup>nd</sup> floor of the Student Center at UPRM

**Joshua Burrow** Morehouse College Atlanta, Georgia  
Title: **Uncertainty Quantification of Digital Image Correlation**

**Laura Rodriguez** Florida International University Miami, Florida  
Title: **An evaluation of pseudoscience as a tool for teaching physical sciences**

**Kristina Kraakmo** University of Central Florida Orlando, Florida  
Title: **An evaluation of pseudoscience as a tool for teaching physical sciences**

**David Hill** Morehouse College Atlanta, Georgia  
Title: **Nanopatterning with Table-Top Extreme Ultraviolet Lasers**

**Jonathan Fraine** University of Central Florida Orlando, Florida  
Title: **Numerical Modeling of Dusty Disk System Morphologies With Deep Impact Derived Opacities**

8:30 – 10:00 pm Formal Dinner

Guest Speaker: Prof. ENECTALI (TALI) FIGUEROA-FELICIANO, Assistant Professor of Physics at MIT  
Provided by SPS – UPRM chapter /Physics Department at UPRM / NASA SPACE GRANT  
Location: Eugene Francis Room at Physics Building - UPRM

Saturday, March 14, 2009.

A group of 39 persons attended the field trip. Our first stop was at the Arecibo Observatory where we had a special presentation provided by one of the administrators of the Visitors Center. We had lunch at a local restaurant and then we visited Camuy's Caverns where we had a guided tour inside the Caverns. Our final stop was at a beach in the town of Isabela where we enjoyed watching the sunset.

Sunday, March 15, 2009.

We dedicated this day to a "Presidents Meeting" at the Physics Department. We had one person representing each of the visiting universities. Also Dr. Willie Rockward, Zone 6 Councilor, and Mrs. Kendra Rand, representing the SPS National, attended to this meeting. The purpose was to exchange ideas of the activities that are hosted by the SPS chapters at their universities and to propose new activities that can be done in the future. Also we learned from scholarships and grants that are available from the SPS National offices that allow us a chapter to be more active in our community.

## Photos

