

SPS Zone 10 Celebrates the International Year of Astronomy at Ludicrous Speed!



Rhodes College hosted the 2009 Society of Physics Students Zone 10 Meeting on February 27-28, 2009. SPS chapters from the University of Southern Mississippi, Centenary College, and Louisiana Tech attended. The title of the meeting was “Celebrating the International Year of Astronomy at Ludicrous Speed.”

The meeting started Friday evening at 6:30 p.m. with registration, refreshments, and a demo show. Demos included a Bed of Nails, Generator Bike, Van de Graaff, Chladni Plates, Lord Kelvin’s Water Drop Experiment, Spandex Gravity Wells, and Singing Flame.

The meeting was officially opened by Rhodes SPS President and Zone 10 AZC Jenna Smith, who welcomed everyone to the meeting. SPS Director Gary White talked about opportunities with SPS National, including internships, scholarships, and awards. Sigma Pi Sigma President Ann Viano also talked briefly about $\Sigma\Pi\Sigma$ Chapter Project Awards which can help fund activities for $\Sigma\Pi\Sigma$ chapters.

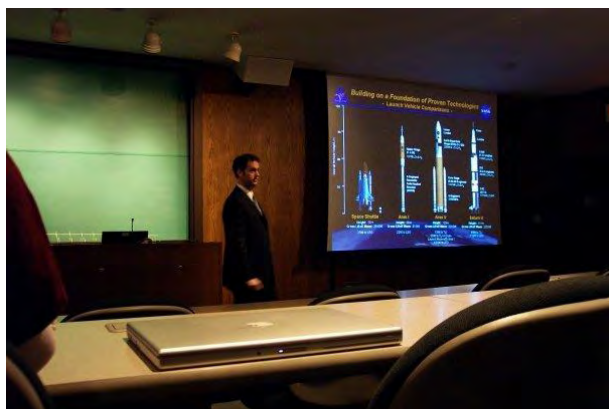
Our two speakers for the evening were both from the Center for Earthquake Research and Information (CERI) in Memphis. Dr. Chuck Langston, the Director of CERI, spoke about two projects he is currently working on. One uses seismic waveforms to infer source parameters and earth structure and the other studies the interaction of atmospheric acoustic shock waves to determine the characterization of the source and the ground response. After Dr. Langston, Rhodes physics alumnus and current CERI graduate student Michael Towle spoke about his work. He spent a few weeks last summer on a boat in the Mississippi River recording seismic data.



Rhodes SPS Outreach Officer and NASA IYA Student Ambassador Josh Fuchs then talked about the International Year of Astronomy. He gave a brief overview of what IYA is before talking about various ways that SPS chapters can become involved. Friday evening wrapped up with more socializing and demo exploration.

Saturday started off early with a light breakfast around 8:30. Afterwards, AZC Jenna Smith took care of some Zone business and allowed Zone Councilor and Associate Zone Councilor nominees to introduce themselves and talk about their plans if elected. Centenary College also agreed to host the 2011 Zone 10 Meeting! Everyone had the chance to go on a tour of the Rhodes campus after that. An ongoing event on Saturday was “What the heck is it?” The Rhodes SPS students gathered 15 pieces of old physics equipment and attendees guessed what each item was. Prizes were given for the most accurate and funniest answers.

Alan Rhodes was the keynote speaker for the weekend. Mr. Rhodes works at NASA’s Johnson Space Center on the Constellation Program; the title of his talk was “How to get to the Moon: The Constellation Program and the Road Ahead.” He presented some background about how he got came to work for NASA, introduced the Constellation Project, and explained how we are going to get back to the Moon. He had a lot of great pictures of the new equipment that is being built now. At the end of his talk, there were plenty of questions from interested students and faculty.



Following a great lunch from Jason’s Deli, Alan Rhodes spoke again about student opportunities at NASA. He talked about the Undergraduate Student Research Program and the Cooperative Education Program that NASA offers. Once again, students got asked a multitude of questions.

Chapter reports were next on the agenda. Every chapter present talked about the great stuff they had done in the previous year. This was a great place for each chapter to get ideas on other events and activities they could do.



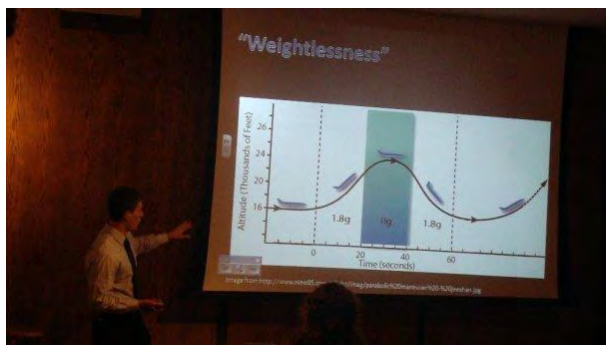
After chapter reports there was a poster presentation session. Kelsey Dudziak from Rhodes College presented *Structural Investigation of the Nuclei in Z=52 to Z=78 Region by E-GOS Method*, Josh Fuchs from Rhodes College presented *Temperature Effects on in Vivo Functions of Molecular Motors*, Roland Womack and Richard Lopez from Centenary College presented *Design and Construction of an Automated Community Bicycle Loan/Return System*, Lulu Li from Rhodes College presented *Binary Electrostatic Motion of Electrically Charged Spheres in Weightlessness*, and Stephanie Milazzo from Rhodes College presented *A Novel Ultrasonic Device for Measuring the Viscoelastic Properties of Fluids*. The poster presentations were pleasantly interrupted by snowfall- a sight rarely seen at a Zone 10 spring meeting! The 5" of snow added some excitement to the weekend.



Following the poster presentations, everyone participated in a great game of Future Faces of Physics Jeopardy. Gary White hosted with his best Alex Trebek impression, and it was a lot of fun! Everyone learned about diversity issues in physics, and received rainbow glasses from SPS as a prize.



After a tour of the Physics Department, students presented more research. James Nolan from Centenary College started off the oral presentation session talking about *Solvent-Dependent Characterization of the Fluorescent Glucose Analog 2-(N-(7-nitrobenz-2-oxa-1,3-diazol-4-yl)amino)-2deoxyglucose (2-NBDG)*. Brad Atkins from Rhodes College then presented his research experience *Zero-G with NASA*. Ty McCleery from the University of Southern Mississippi finished up the oral presentations with *What Goes Up Must Go Round: Analysis of a Falling Maple Seed*.



Dinner consisted of authentic Memphis barbecue from Memphis' second oldest barbecue shop. Winners of "What the heck is it?" were announced and goodbyes exchanged before everyone departed into the snowy night.

