

The SPS Zone 13 2009 Meeting
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The 2009 Zone 13 Society of Physics Students (SPS) meeting was held jointly with the Spring 2009 Texas sections of the American Physical Society (APS) and American Association of Physics Teachers (AAPT) held at Tarleton State University on April 2-4.

In total, the conference drew over 250 people from across the state of Texas. Invited speakers, faculty and students presented papers 86 papers, 11 posters and 5 workshops. The sessions included: Special session on Advance Lab, Astronomy and Space Physics, Condensed Matter, and AAPT and APS contributed papers. See attached meeting program. Guest speakers included:

Carl Weinning

Professor of Physics at Illinois State University
“Physics Teacher Education – Problems Solutions”

Bruce Gnade

Professor of Material Science and Engineering and Chemistry at the University of Texas at Dallas
“Materials and Processes for Flexible Electronics”

Ensign John Garza

Instructor at the Naval Nuclear Power School
“The Nuclear Navy and Mission of the Navy Nuclear Power School”

Banquet speaker - Mr. Todd Barber of NASA JPL

“Unveiling the Saturnian System: Cassini’s Excellent Adventure at the Ring Planet”

Also available were tours of Tarleton’s planetarium and undergraduate research laboratories including the scanning electron microscope, x-ray, ion accelerator, and the 32-inch remotely controllable telescope.

In addition to being able to attend the APS and AAPT sessions, Friday afternoon there was a SPS Undergraduate and High School session. Fifteen papers were presented from Stephen F. Austin, University of Texas at Arlington, Angelo State University, Texas Tech University, and Lake Highlands High School.

Session F2: SPS: Undergraduate and High School

Chair: Mike Hibbs, Tarleton State University
Science Building - 110
Friday, April 3, 2009

- **“Simple Segmented Mirror for Focusing Parallel Light Rays”**
Sean Jordan, Michael Siskind - Lake Highlands High School

- **“Room Acoustics”**
Andrew Kocurek - Stephen F. Austin
- **“Looking for Evidence of Magnetosheath Current as Suggested by LFM Global MHD Simulations”**
Sophia Cockrell , Phyllis Whittlesey , Elizabeth Mitchell , Ramon Lopez -
University of Texas at Arlington
- **“Torsion Oscillator Properties of a Vibrating Mass-Spring-Meter Stick System”**
Michael Stradley , Benson Coleman , Stephen Adams – Lake Highlands High School
- **“Chaotic Systems”**
Denis Myasishchev , David Bixler – Angelo State
- **“Relationship Between Magnetosheath and Solar Wind Parameters”**
Crystal Red Eagle , Phyllis Whittlesey , Robert Allen , Sophia Cockrell , Elizabeth Mitchell ,
Ramon Lopez - University of Texas at Arlington
- **“Microwind Alternative Energy and the Windbelt”**
Eric Myers - Stephen F. Austin
- **“3D Animations of Fresnel's Equations”**
Donald May , Daniel Parish , Richard Nobra , Ashley Golden , Naresh Kanaujiya , Jessica Debnam
- **“Properties of Threaded Rod Torsion Pendulums”**
Alexandra Atalis , Javid Omar - Lake Highlands High School
- **“Wide-field imaging by leakage of surface plasmon-coupled fluorescence”**
Catherine Chesnutt , Stephen Frisbie , Luis Grave-de-Peralta , Ayrton Bernussi – Texas Tech University
- **“Tracking The Polar Cap Boundary Under Strong Solar Wind Driving”**
Randall Bradshaw , Robert Bruntz , Ramon Lopez - University of Texas at Arlington
- **“Occultation of TYC5234-01020-1 by Minor Planet 43 Ariadne”**
Justin Parish - Stephen F. Austin
- **“Introducing New Undergraduates Into a Research Group Through Use of a Wiki”**
Phyllis Whittlesey , Ramon Lopez - University of Texas at Arlington
- **“Reconstruction of a Proton Accelerator for 25 keV Electron Experiments”**
Jordan Watkins , Scott Williams – Angelo State University
- **“A Table for Ionospheric Boundaries and Solar Wind Conditions”**
Robert Allen , Jorge Landivar , Ramon Lopez - University of Texas at Arlington

On the first night (Thursday, April 2), as part of that conference, a social for all attending members of SPS and high school students was provided. The SPS social was organized by Tarleton' SPS president Anthony Raymond and faculty SPS Advisor Dr. Michael Hibbs. In all, 52 attended, representing 6 universities and 1 high school. The social was held in the game room of the Student Center. The students played pool, ping pong, board and computer games. Tarleton provided pizzas, snacks and drinks for the event. All that attend thought the social was a huge success. Another benefit enjoyed by SPS students was the Texas Section of the American Physical Society provided free lunch tickets and reduced priced banquet tickets to students who pre-register.

SPS Students attending the 2009 Spring Meeting of the Texas Sections of the APS, AAPT and SPS



Over 85 attend the SPS Paper Session



SPS Students From 5 Universities Enjoy a Social on the First Night of the Conference



Students Give Physics Demonstrations