

AOK Section Minutes: November 2-3 2012

Submitted by Dr. Todd R. Leif AOK Section Representative

The 2012 Arkansas-Oklahoma-Kansas Section Meeting of The American Association of Physics Teachers was held on Friday and Saturday November 2– 3, 2012 at Northwestern Oklahoma State University in Enid, OK. The theme of the meeting was *“From Isolation to Inclusion: Assembling and Utilizing Resources for Physics Education”*. Our host for the event was Dr. Steven Maier of NWOSU.

Participants arrived on Friday, November 2nd where they were treated to an opportunity to view posters and participate in an Expert TA Workshop. After the workshop a Departmental Colloquium featuring Andy Rundquist, Physics Faculty Member from Hamline University was enjoyed by the numerous AOK members who traveled to Enid for the opening day’s activities.

After enjoying the Colloquium talk several members of the group attended a Planetarium program (at Northern Oklahoma College, a Two Year College which is also located at Enid). This session allowed visitors to see the recently renovated planetarium as well as the beautiful observatory located on the former Phillips University Campus.

The Annual evening banquet and distinguished guest speaker included 1948 NWOSU Graduate Jim Hood. Hood is the Founder and Curator of The St. John Science Museum in St. John, Kansas (www.stjohnsciencemuseum.org). For nearly 40 years, Jim was a high school mathematics and science teacher. Jim's father and uncle also attended NOWSU while the institution was officially designated as a normal school. The interesting presentation of “Historical Physics Materials” was enjoyed by all who attended.

Additionally the AOK Teacher of the Year Recipients was honored and received a plaque and a check for \$100. The Oklahoma membership elected two members of the Oklahoma physics teachers group, Lane Matheson and Vince Freeman. Their biographical information is included below.

Lane Matheson is the director of Memorial High School's robotics program. She was Tulsa Public School's teacher of the year and a runner up for Oklahoma state teacher of the year. She teaches engineering and Physics full time. She led various engineering activities throughout the week long camp GLEE (Girls Learning and Excited about Engineering) camp for middle school-9th grade girls and helped the public learn about her school's program. At the end of the camp, she provided teacher volunteers with materials to do the same activities in the classroom (prosthetic hand, solar boat...). In addition to all that, her students really respect and love her classes!

Vince Freeman received a physics teacher education degree from ECU in 2007 and has been teaching at Woodward High since. He was an enthusiastic student at ECU, and his previous military experience has served him well as a high school teacher. Vince has had great praises for his teaching among his students that has made its way back to ECU faculty and students. He has been successful working with challenging classroom dynamic s in part because of his experiences as a prison guard at a maximum security prison in McAlester, OK.

Cloudy skies interrupted the planned Observatory program which was to be held after the speaker and meal at Northern Oklahoma College.

On Saturday, November 3rd an early morning meet and greet social hour was held with coffee and breakfast snacks, during which the NWOSU ToPPS groups participated in a Follow-Up session from their previous summer workshop experiences. The following AOK section members then presented the following papers during the AM Morning paper sessions

Karen Williams kwillims@mac.com, kwillims@ecok.edu and Carl Rutledge crutledge@mac.com
East Central University (OK) *"Career Paths of ECU Graduates"*

Chris Pettit cpettit@emporia.edu
Emporia State University (KS)
"DIY Modeling Software – Build Three-Dimensional Game Quality Simulations with your Students"

Al Adams ajadams@ualr.edu
University of Arkansas at Little Rock *"Progress in Revitalizing College Physics at UALR"*

Dustin Burgardt dburgard@g.emporia.edu and Jorge Ballester jballest@emporia.edu

Emporia State University (KS) *"Design and Construction of a Pulse Induction Metal Detector"*

Todd Leif tleif@cloud.edu
Cloud County Community College (KS) *"New Faculty Experience for TYC Physics Instructors"*

Shane Thompson thompso@asmsa.org
Arkansas School for Mathematics, Sciences, and the Arts *"Creating a Concept-First Flipped Classroom"*

Jorge Ballester jballest@emporia.edu
Emporia State University (KS) *"The Phone Book Myth Revisited and a Question"*

Saturday Luncheon included a second separate talk from Keynote Speaker Andy Rundquist Physics Faculty Member Hamline University arundquist@gw.hamline.edu. Andy Rundquist is a member of the physics department at Hamline University. He is the founder and an active contributing member of the Global Physics Department (<http://globalphysicsdept.org>) and has become an authority on the usage and implementation of Standards Based Grading in the physics community. He is an active user of social media for professional networking, maintains a lucrative blog and is a pioneer in facilitating access to HS/University colleagues as resources for educators around the globe.

After a nice lunch and presentation by Dr. Rundquist, AOK members were again treated to a poster session. This poster session included the following presenters and their topics:

Mishal Benson mbenson2@uca.edu and Andrew Mason,
University of Central Arkansas *"Teaching Expert-like Problem Solving Framework: College to High School"*

Shelby Burns mjhankins44@gmail.com and Debra Burris dburris@uca.edu
University of Central Arkansas *"Stream Team as Laboratory Experience for Middle School Students"*

Elena Gregg egregg@oru.edu

Oral Roberts University (OK) *"Improving Performance Through Motivation"*

Matt Hankins mjhankins44@gmail.com and Debra Burris dburris@uca.edu

University of Central Arkansas *"Ancient Astronomy: The Point Remove Mound Complex"*

Rachel Hovey rhovey@g.emporia.edu, Alyssa Floro,

Emporia State University (KS) *"High Resolution Magnetic Field Mapping With a Compass"*

Jeremy Jacobs jjacobs0924@gmail.com, Steven Clark, and Debra Burris dburris@uca.edu,

University of Central Arkansas *"Determining the FWHM of the H- β emission line of Active Galactic Nuclei"*

Tristan Odekirk tjodekirk@gmail.com Debra Burris dburris@uca.edu University of Central Arkansas

Jacob Teffs University of North Dakota Trends in Light n-Capture Elements

Carl Rutledge crutledge@mac.com

East Central University (OK) *"Using A Personal Solar Telescope for Astronomy Outreach"*

Phillip Scott phllp.sctt@gmail.com

McAlester High School (OK) *"A Southern Sky Adventure: How does the sky compare when observed and photographed from rural Oklahoma, Kitt Peak National"*

Jory Snyder snydejo@tulsaschools.org

Tulsa Public Schools (OK) *"SeaPerch Underwater"* ROVsWebsite: www.seaperch.org

Karen Williams kwillims@mac.com, kwillims@ecok.edu

East Central University (OK) *"CoCoRaHS: Community Collaborative Rain, Hail, and Snow Network"*

The AOK Section meeting concluded with another round of talks given by the following members. It was interesting to note that each of the sessions was quite well represented with membership speakers from all three states in our section. The overall count of attending members was remarkably evenly split at Kansas 20, Oklahoma 22, and Arkansas, 18. There was a nice turnout for one of the more "centrally located" meetings that our section has had during the past decade.

Final session speakers and their talk titles included:

Steven Maier sjmaier@nwsu.edu

Northwestern Oklahoma State University *"ToPPS and Project Oklahoma Whiteboard"*

www.nwsu.edu/whiteboard

Larry Weaver lweave11@jccc.edu

Johnson County Community College (KS) *"Keeping Informed Via and Getting Answers on the Internet"*

Jim Deane jim.deane@gmail.com

Ottawa Senior High School (KS) *"Standards Based Grading in the HS Physics Classroom"*

Debra Burris dburris@uca.edu

University of Central Arkansas *"Integrating Physical Science into Middle School GT Projects"*

Al Adams ajadams@ualr.edu

University of Arkansas at Little Rock *"Progress in Developing Laboratories for Our Life Science Students"*

At the conclusion of the talks, door prizes and the annual AOK Business meeting took place. At the business meeting the section elected a slate of officers and reaffirmed that next year's AOK section meeting will be hosted by Anne Gillis (2013 AOK president) and Danny Mattern (AOK Two Year College Representative) at Butler Community College in El Dorado, Kansas. The date and time will be determined in the near future. The list of the AOK section officers is updated on the AOK website hosted by the AAPT.

Additional details about the recently held AOK Section meeting can be found at the 2012 AOK Website:

www.nwosu.edu/AAPT.