



Arkansas-Oklahoma-Kansas Section Meeting of the AAPT

Minutes Oct 10, 2009
Submitted by Dr. Todd R. Leif
Cloud County CC
AOK Section Representative

The annual AOK section meeting was hosted by Kansas State University at Manhattan Kansas on Oct. 9-10th. Friday evening highlights included facility and laboratory tours as listed below.

Sorensen Laboratory
James R. Macdonald Atomic Physics Laboratory & Laser Labs
Soft & Biological Matter Physics Laboratory

This was followed by the "A-O-K Banquet--Mexican Fiesta Buffet"
During the Banquet the following people spoke and made welcoming presentations.

Official A-O-K Welcome from President, Sytil Murphy
Official Welcome from Dean Zollman, Head of K-State Physics Department
Introduction of Kansas Outstanding High School Teacher Award by Tim Bolton, K-State Physics Professor.



Penny Blue of Lyons High School was honored as the 2009 Kansas Science Teacher of the Year at the annual Arkansas-Oklahoma-Kansas section meeting of the American Association of Physics Teachers. Ms. Blue was presented with the award at the conference banquet held on Friday, October 9, 2009, at Kansas State University in Manhattan. In addition to the award, she will receive a \$100 honorarium. Ms. Blue was selected for this award by the Kansas area physics teachers of the A-O-K section.

Ms. Blue is an active member of the KSU Quarknet group which is sponsored by Dr. Tim Bolton at Kansas State University as well as a rural PTRA- Physics Teachers Resource agent. Kansas State Quarknet is a scientific outreach program that exposes high school teachers to contemporary topics in physics research. It is supported by the National Science Foundation and the US Department of Energy. The PTRA project has been sponsored by the American Association of Physics Teachers and the National Science foundation for nearly 20 years and they contribute significantly in the training and assistance of under qualified physics teachers in rural areas of Kansas.

Following the Banquet the dinner speaker was Corinne Manogue, Oregon State University Physics Department. Her topic was The Magic of Teaching. Nearly 45 people were in attendance for the evening events. The Banquet was followed by a brief executive meeting to find a list of potential section officer candidates.

Saturdays AOK meeting began with three available workshops for participants. Presenters and the topic of the workshops are listed below. During the Saturday events, approximately 50 participants were in attendance. The mix of participants included members from all three states, and the various instructional levels of high school, community colleges, four year colleges, and R1 universities.

The workshops included:

Physics Pathway by Chris Nakamura & Dean Zollman, KSU Physics Department

Scientific Methods: Spaghetti Bridge, Pendulum Simulation & Graphic Software by Charles Mamolo – Manhattan, KS High School

Web Resources & Building Your Courses with ComPADRE.org by Bruce Mason University of Oklahoma, and AAPT

Following the excellent workshop session there was a contributed talks session with the following presentations being delivered.

Pathway Active Learning Environment: An Integrated Teaching and Research Tool

Chris Nakamura, Kansas State University, Physics Department, 116 Cardwell Hall, Manhattan, KS 66506, cnakamur@phys.ksu.edu Sytil K. Murphy, Nasser M. Juma, Dean A. Zollman, Kansas State University

Apparatus to Investigate a Current Carrying Wire's Magnetic Field

Joshua Gross, Kansas State University, Physics Department, 116 Cardwell Hall, Manhattan, KS 66506, jgross@phys.ksu.edu Sytil K. Murphy & Dean A. Zollman, Kansas State University

Using the Galileoscope in Introductory Astronomy

Carl Rutledge, East Central University, Department of Physics, East Central University, Ada, OK 74820, crutledge@mac.com

Exploring Benefits of Physical and Virtual Manipulatives in Simple Machines

Jacquelyn J. Chini, Kansas State University, 116 Cardwell Hall, Manhattan, KS 66506, haynicz@phys.ksu.edu Adrian Carmichael & N. Sanjay Rebello, Kansas State University

Experimental Proof of Malus' Law using Photoelectric Current

Karen Williams, East Central University, 1100 E. 14th St., Ada, OK 74820, kwillims@mac.com Morgan Sennett, East Central University, OSU

Integrating Experimentation and Instrumentation in an Electronics Course Using LabVIEW and NI Elvis

Nasser Juma, Kansas State University, Physics Department, 116 Cardwell Hall, Manhattan, KS 66506 mhuninas@phys.ksu.edu N. Sanjay Rebello, Kristan Corwin & Brian Washburn, Kansas State University

This session was concluded with a break out session for contributed posters included the following presenters and their topic and a light refreshment was provided.

Visualizing Quantum Mechanics - Solids and Light

Penny Blue, Lyons High School, 601 E American Rd, Lyons, Ks 67554, pblue@usd405.com

Teaching Physics in America. Outsider's View

Elena Gregg, Oral Roberts University, 7777 S Lewis Ave, Tulsa, OK 74171, e Gregg@oru.edu

Videos in Introductory Astronomy: Student Opinions

Carl Rutledge, East Central University, 1100 East 14th Street, Ada, OK 74820, crutledge@mac.com

Protocol for Analysis of Content Questions

Mojgan Matloob Haghanikar, Kansas State Univeristy, Physics Department, 116 Cardwell Hall, Manhattan, KS 66506, mojgan@phys.ksu.edu Sytil Murphy & Dean Zollman, Kansas State University

Probing Students' Understanding of Resonance

*Sytil Murphy, Kansas State University, 116 Cardwell Hall, Manhattan, KS 66506, smurphy@phys.ksu.edu
Dyan McBride (currently at Mercyhurst College, PA) & Josh Gross, Kansas State University*

After a delicious sandwich lunch the keynote speech was given by Professor Corinne Manogue Department of Physics – Oregon State University Bridging the Gap between Mathematics & Physics. Professor Manogue gave an actively engaging presentation about the work that she has been doing at Oregon State. Following her talk the afternoon session included another set of excellent contributed talks These speakers included the following and their topics.

Exploring Students' Patterns of Reasoning

Mojgan Matloob Haghanikar, Kansas State University, 116 Cardwell Hall, Manhattan, KS 66506, mojgan@phys.ksu.edu Sytil Murphy & Dean Zollman, Kansas State University

Facilitating Student Transfer of Problem Solving in Introductory Mechanics

*Dong-Hai Nguyen, Kansas State University, 116 Cardwell Hall, Manhattan, Kansas 66506, donghai@phys.ksu.edu
N. Sanjay Rebello, Kansas State University*

Study on How College Science Courses Influence Elementary School Teachers

*Sytil Murphy, Kansas State University, 116 Cardwell Hall, Manhattan, KS 66056, smurphy@phys.ksu.edu
Mojgan Matloob Haghanikar & Dean A. Zollman, Kansas State University*

High School Physics in Oklahoma: A Status Report & Implications

Steven Maier, Northwestern Oklahoma State University (NWOSU), 709 Oklahoma Blvd., Alva, OK 73717, sjmaier@nwsu.edu

Helping Physics Majors Prepare for Teaching Careers

Elizabeth Gire, Kansas State University, Physics Department, 116 Cardwell Hall, Manhattan, KS 66506, egire@phys.ksu.edu Corinne Manogue, Oregon State University

At the conclusion of the paper sessions members were invited to participate in a quick shot “Share-A-Thon” where people just presented some things that were interesting and not a “formal paper” presentation. This session provide a number of new and interesting things for our physics society members to think about. The pre-enrolled presenters included the following.

- **Penny Blue**, Lyons High School, 601 E American Rd, Lyons, KS 67554, 620-257-5114, pblue@usd405.com
- **Steven Maier**, Northwestern Oklahoma State University, 709 Oklahoma Blvd., Alva, OK 73717, 580- 327-8562, sjmaier@nwsu.edu
- **Bruce Mason**, University of Oklahoma, 440 W. Brooks Street, Norman, OK 73019, 405-325-396, bmason@ou.edu
- **Adebanjo Oriade**, Bethany College, 335 East Swensson Avenue, Lindsborg, KS 67456, Lindsborg, KS 67456, 785-227-3380 ext. 8149, banjo@bethanylboro.edu

The AOK business meeting was then held with past president Jim Gilbert reading a proclamation about the excellent facilities, meeting organization, and contributions from the KSU physics department, staff, etc. He thanked them for providing such an excellent meeting and passed the gavel on to the host Sytil Murphy for next year's meeting which will be held somewhere in Arkansas.

The election of officers occurred and the great gift giveaway & wrap-followed. Drawings were held for items from the following vendors. Catalogs and flyers were also available from these vendors at the registration table. The AOK section would like to thank them for their contributions. The vendors and there gifts are listed below.

Pasco Scientific - www.pasco.com

- Structure System – Truss Set

Vernier - www.vernier.com

- \$50 Gift Certificate
- Physics with Video Analysis Book
- Physics with Vernier Book

Ztek Co. - www.ztek.com

- Bicycle Physics CD
- Color Images of Physical Phenomena CD
- Physics InfoMall CD

This concluded the meeting of the AOK section for calender year 2009. The officers will be updated on the AAPT and AOK web site when official verification of addresses and contact information is made.