AAPT PHYSICS EDUCATION

Section News

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Central Pennsylvania Section

The 61st Annual Conference of the American Association of Physics Teachers, Central Pennsylvania Section (CPS) was held Friday, March 8, and Saturday, March 9, 2013 at Millersville University, in Millersville, Pennsylvania. The conference was organized by the CPS Vice President, Dr. Mehmet Goksu.

On Friday Dave McCachren of Mifflin County High School in Lewistown, PA and Pat Callahan of Delaware Valley Regional High School in Frenchtown, NJ led an all day workshop entitled "Electronic and Digital Resources for Physics Teaching." The workshop was part of the Physics Teachers Resource Agents (PTRA) program.

The poster session was held Friday afternoon followed by the conference reception and banquet. After the banquet dinner Dr. Jeffrey Adams, Associate Provost for Academic Administration, gave the welcome address. Dr. Mike Nolan, Chair of the Department of Physics, then introduced the keynote speaker, Dr. Bulent Atalay. Dr. Atalay's presentation was entitled "Leonardo and the Intersection of Art and Science." Dr. Atalay spoke the interplay of art and science, using Leonardo da Vinci as the model of the artist-scientist-inventor.

Plenary sessions were held on Saturday. There were 16 presentations, and the talks were well attended. The General Business meeting was conducted before the lunch break. After the afternoon sessions there was a presentation of award certificates to student presenters followed by the closing of the meeting.

2013 CPS Executive Board Meeting and Fall PTRA Workshop

On Friday December 8, 2013 CPS hosted another day long PTRA workshop entitled "Engineering: Adapting Physics Activities for S.T.E.M." at Messiah College in Mechanicsburg, Pennsylvania. Once again, the workshop was led by Dave McCachren and Pat Callahan. The following day the CPS executive board met on campus, in part to finalize plans for the 62nd Annual Conference, which will be held Friday and Saturday, March 21 and 22, 2014.

-Michael R. Gallis, Section Representative

Florida Section

The Florida Section's Annual Fall Meeting was held at Santa Fe State College in Gainesville, Florida, October 18-19, 2013.

The meeting began Friday evening with informal discussions at Pomodoro Café before heading to the College for the plenary by Professor Steve Hagen from the University of Florida Physics Department. Dr. Hagen's talk, "Signaling, Swimming, Sliding and Surfing: The Physics of Microbes at Play" discussed current work on bacteria chemical signaling, specifically, quorum sensing which is what allows bacteria to synchronize colony-wide behavior. Physicists see quorum sensing as a way for bacteria to use increasing entropy to their advantage in locomotion using thermal energy. Once again participants were reminded of the connections between physics and the life sciences!

Saturday morning participants reconvened at Santa Fe for a series of contributed talks on pedagogical and curricular issues from PhysTEC, IB Physics, to Next Generation Science Standards as well as using optical illusions and Galileo's Thought Experiment in teaching.

Saturday afternoon participants had the opportunity to get their hands on Classroom Astronomer Spectrum Viewers and try out a series of activities in the workshop "Lights Fantastique and the Atomic Hotel."

The Section held its annual business meeting during lunch, hearing reports from the Treasurer, Jane Nelson and Section Representative, Jim Nelson. The section elected new officers: Karim Diff, President and Anne Cox, Section Representative and thanked Past-President, John Lucyk and outgoing Section Representative, Jim Nelson for their many years of service to the organization. The Section looks forward to the AAPT Winter Meeting in Orlando as well as participating in the NSTA Regional Meeting, Orlando, November 6-8, 2014.

—Anne J Cox, Florida Section Representative

Idaho-Utah Section

The Idaho-Utah Section of the American Association of Physics Teachers held their annual section meeting March 21-22 at the College of Idaho in Caldwell, hosted by Dr. Kathryn Devine, the incoming president of the section.

In attendance were 22 college faculty members, four

high school teachers, one high school student, seven undergraduates students, and one graduate student (for a total of 35 registered attendees).

The meeting began with a no-host dinner held at a local restaurant, and the ever-popular Demonstration Show on Friday evening, which was attended by several members of the Caldwell community as well as the conference attendees.

Presenters on the Demonstration show included Chris Stoker of Mountain View High School, Harold Stokes from BYU, Richard Hills from Weber State, Clark Snelgrove from BYU, James Coburn from Utah State, Duane Merrell from BYU, Brian Pyper from BYU-Idaho, and Phil Matheson from Utah Valley University.

Saturday morning brought three sessions of talks and a planetarium presentation. The lunchtime business meeting included a raffle and election for the president elect. The election was won by Steven Shropshire from Idaho State University in Pocatello, which is where the section meeting will be held in March of 2016.

So the current spate of officers includes past president Phil Matheson, President Kathryn Devine, Vice President Larry Smith, and President Elect Steve Shropshire.

Next year's meeting is planned for March 13-14 at Snow College in Ephraim, Utah, hosted by Larry Smith. Details of the conference, abstracts, and other information can be found on the section wesite: idahoutah.aaptsections.org.

—Brian Pyper, Section Representative

Long Island Section

This year's activities included a Spring Conference, a Fall Conference, our annual Physics Olympics, our AP Exam Review, the end of the school year Lipta Barbeque, and our October Physics Day at Great Adventure. Our board meetings rotate around to our board members houses on a once a month basis during the school year, where our planning and coordination take place alongside a delicious breakfast.

The Physics Olympics took place on March 26, 2013, hosted once again by Physics Department at Farmingdale State College. The Marshmallow Tower was added to the five event slate this year, where spaghetti and tape were used to construct the tallest marshmallow-topped tower. Mepham High School triumphed over schools from all over Long Island. The day provided plenty of challenge and fun thanks to Dr. Gillian Winters, our second Vice President.

Continuing with our Saturday morning format, the Spring Conference took place on April 20, 2013 at Sachem High School East. Physics teacher Rich Gearns arranged to share his amazing classroom with our members. His gallery of Physics toys and demos are inspiring and served as the background for our theme of the importance of reading. Rich shared his methods for getting students to delve into books that allow exploration of scientific ideas outside of the required curriculum. Dava Sobel, author of Galileo's Daughter, talked what lead her to write about important science themes and history. The shortened time frame for our conferences seems to be encouraging more people to attend. We had about thirty participants, about 30 % more than our all-day format.

A great opportunity to decompress after the demands of preparing for the big test was afforded by the AP Exam Review on May 13, 2013 at Deer Park BOCES. Bill Leacock from Mepham High School lead the analysis of the B exam, while Dr. Winter of Smithtown High Schools lead the C exam.

An end of the year celebration was graciously host by LIPTA president Ed McDaniels at Lipta Barbeque. For the first time, the party took place during the last week of school, June 19. The turnout was great as everyone took the opportunity to talk about the New York State Regents exam and share their year's tales.

Students took center-stage at Physics Day at Adventureland on October 22, 2013 . This small amusement park in Farmingdale, NY, gives Long Island students a chance to use Physics on their favorite rides. Rich Yngstrom, our Committee Chair, organizes the day, providing workbooks which the students can use for taking data. Since the event takes place early in the school year, most teachers use the
data as the concepts evolve throughout the year.

The Fall Conference took place at Dowling College in Oakdale, New York on October 26, 2013. The lovely setting in an old Vanderbilt mansion was a new venue for our organization. There was a turnout of about thirty five teachers, confirming the trend that we are seeing of enthusiasm for the 8:30-noon length. The day's schedule called for an equipment "smorgasbord", where teachers were invited to bring their favorite equipment to share with others as ordering for the year would be occurring . The session was high-jacked, however, when Ed McDaniels lead an impromptu accounting of the various types of Physics being offered in participants schools in the interests of trying to get a handle on how the new AP B test format should

be handled. Everyone was interested in seeing how other schools were scheduling the different level Physics students.

The conference continued (as planned) with Harry Stuckey and Dr. Gillian Winters unveiled the elegant and informative Standard Model poster that our local Quarknet group worked on over the summer with Dr. Helio Takai at Brookhaven National Labs. Each participant received a copy of this great classroom asset. The day ended with a presentation by Tania Entwistle, Physics instructor at Dowling, encouraging the use of more open-ended lab techniques. It was interesting to see the how diverse the approaches of high school Physics teachers is. Various resources were provided to begin to move toward the student-centered lab model promoted by the Common Core and the NGSS.

Our organization is held together by all the members mentioned above, as well as Terese Keogh, our newspaper editor, who produces at least two papers a year to our membership and Bill Lynch, our Recording Secretary. I am grateful to them all for another successful year supplying interesting and useful experiences for Long Island Physics teachers and students.

—Tania Entwistle, Section Representative

Michigan Section

On October 12, 2013, the Michigan section of AAPT convened at Kirtland Community College (KCC) in Roscommon, MI. About 30 people interested in physics and education convened in a very lively program of workshops, discussion tables, and contributed presentations coordinated by Alan Grafe (UM Flint). Scott Cochran of KCC, President of MIAAPT, served both as site host and as meeting presider.

We welcomed Dr. Joseph Krajcik, director of the Institute for Collaborative Research in Education, Assessment, and Teaching Environments for Science, Technology, Engineering and Mathematics (CREATE for STEM), as our keynote speaker. Dr. Krajcik is a faculty member in science education at Michigan State University and co-editor of the Journal of Research in Science Teaching. His presentation was titled "Understanding the Next Generation of Science Standards and their Implications for Teaching Physical Science and Physics." We learned about how the framework of the core ideas came about in the physical science and also the meaning of core disciplinary ideas, practices, and crosscutting concepts. It was a very engaging and enlightening presentation!

At the start of the meeting, there was a very lively session of contributed presentations that ran almost 45 minutes over the scheduled time because of the discussion and questions that were generated. Some highlights of the session included two research presentations by students from UM-Flint ; one was a senior project on normal modes of oscillation, the other, a project looking at dynamic strain of Ge on Si using spectroscopic ellipsometry. There was a presentation on the first steps of transforming introductory physics at Michigan State University by James T. Laverty. Other highlights included: Steve Dickie (Divine Child High School) demonstrating some simple apps available for teaching physics; Michael Faleski (Delta College) discussing wide-ranging usage of clickers in the physics classroom; Laurence Tarini (Grand Valley State University) looking at circuit problems without the junction rule; a study of student of enrollment patterns and performance of students by Changgong Zhou (Lawrence Tech University); and professional development through the Global Physics Department shown by Danny Caballero (Michigan State University_.

Because the morning presentations ran over time, we had a working lunch with folks divided into two large tables discussing 1) effective integration of lecture and lab instruction and 2) NGSS activities for the classroom. After lunch, along with the keynote address, we had the business meeting at which many topics were discussed such as how to improve communication within the organization and what can be done to improve our meetings.

After a myriad of door prizes were given out, two parallel workshops were offered. The first workshop was a "Make and Take" coordinated by Steve Dickie and James Gell (Plymouth High School) in which simple devices for teaching physics such as for light, color, and circular motion. Scott Cochran and Jennifer Sieszputowski (Kirtland Community College) ran the other workshop on how to conduct science laboratory courses online. In addition, there was an observing session of the night sky on Friday, October 11th to take advantage of the amazing views from Central Northern Michigan.

—Michael Faleski, Section Representative

Minnesota Section

On April 26, 2014, the Minnesota section of the American Association of Physics Teachers held its annual meeting at Augsburg College with 27 members in attendance. Ten talks were presented on a variety of topics including helicoseir dynamics, an update on new Direct Measurement physics videos, an open source cheap data acquisition system for physics labs, computer problem-solving coaches, and an update on plans for a new planetarium in the Twin Cities area.

Three talks from physics faculty at Minnesota State University, Moorhead showcased recent work in their department on transforming their labs and physics curriculum, including an introductory lab on scaling laws using bones, an advanced lab using an inexpensive ECG apparatus described in The Physics Teacher, and a transition of the introductory courses to the Matter and Interactions curriculum. Five posters presented student research from a study of the dynamics of lipid monolayers to work on developing inexpensive equipment for an advanced lab involving ultrafast optical phenomena.

At the business meeting, elections were held for a new slate of officers, prizes were awarded for the best student oral and poster presentations, and ideas for getting involved in the summer meeting of the American Association of Physics Teachers, to be held this coming July on the campus of the University of Minnesota, Twin Cities, were discussed. The prize for the best student oral presentation was awarded to Sam Peterson from Hamline University for his talk "Helicoseir dynamics: Mathematica modeling" and the prize for the best student poster presentation was awarded to Luis Hernandez from Augsburg College for his poster "Comparison of cholesterol and 25-hydroxycholesterol in phase separated phospholipid monolayers." Both students received $50 gift certificates to Barnes and Noble.

—Chad Hoyt, Section Representative

Montana Section

On Friday October 18th, 2013 the Montana Section of AAPT held its annual meeting in Belgrade, Montana during the MEA-MFT Educators Conference. Over 30 members and friends were in attendance.

It was decided to extend the term of all current section officers through the next annual meeting. Door prizes of books and physics educational materials were well received by over a dozen winners. The prizes had been purchased by Section Rep, Rich McFate for $15 last spring from the AAPT physics store program to support the local sections (Thank you!).

President David Hembroff led a physics share-a-thon that allowed for group participation and was very much appreciated by those seeking support in physics education. Retired former section officer, Glen Govertsen, continues to remain an active ambassador for physics through his ever popular "Mr. G's Physics Show." He reported to have had the opportunity to share his program in Europe this past summer. His presentation on the previous day was packed wall-to-wall with many young teachers gleaning valuable demonstration insights from the master educator.

Section officers are communicating through email as needed outside of the annual meeting.

—Richard McFate, Section Representative

Nebraska

Minutes of the 10/26/13 Meeting of the N-AAPT meeting held in conjunction with UNL Astronomy Education Workshop.

Meeting was called to order by Jim Rynearson. The minutes and treasurer's report were read and approved.

Jim Rynearson wants to increase N-AAPT presence at NATS. Judy Stucky announced that many members were there, but had other commitments.

Comments were given about today's meeting/workshop. There was a general feeling that it was a good day. Kendra Sibbernsen stated that there was a good mix of Astronomy and Physics content. Jim Rynearson stated that there were many college and high school people. It was suggested by Jim Rynearson that future business meetings be conducted during lunch so attendance would be better.

Kendra Sibbernsen suggested the section start a Facebook page to facilitate dissemination of information. Shawn Langan volunteered to start an N-AAPT Facebook page.

The Winter/Fall meeting date was tentatively set for 03/22/2014 at Holdrege High School, Holdrege, Nebraska. The theme of the meeting is light. Jim Rynearson suggested carpooling for that meeting. Tom Brestel will contact Andrew Zwicker from the Princeton Plasma Physics Laboratory to see if he can do a virtual presentation at the Winter/Spring meeting about Plasma Physics and Nuclear Fusion.

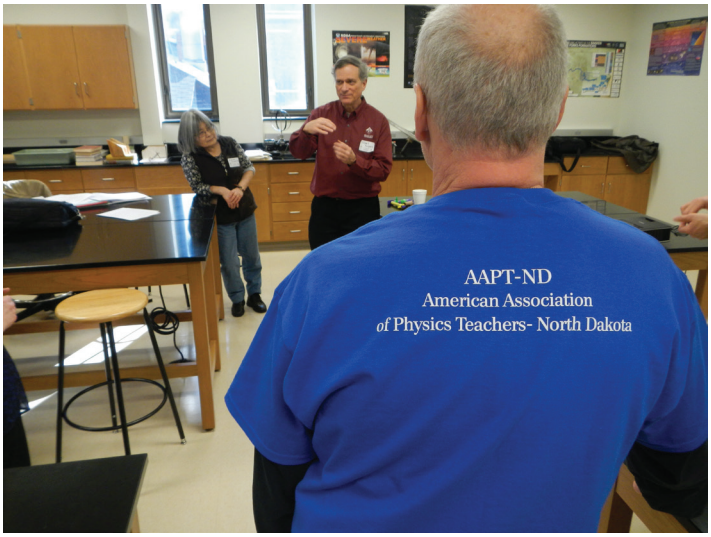
Sally Harms from Wayne State College had suggested Wayne State as the sight for the fall 2014 meeting, this was unanimously approved by the members present.

Judy Stucky gave a short presentation about the Space Symposium, www.spacefoundation.org. Judy said it was very well done and very professional. Lee Powell from UNK had some ideas for some speakers who may be in the area at the time of the Winter/Spring meeting that he will contact.

John Neimoth made a motion to adjourn the meeting, Shawn Langan seconded. The meeting was adjourned.

—Kendra Sibbernsen, Section Representative

North Dakota Section



The North Dakota section of the American Association of Physics Teachers met on 21 Feb 2014 in Valley City, ND, on the Valley City State University (VCSU) campus. The meeting was held in conjunction with the North Dakota Science Teachers Association's annual meeting. The meeting opened with section business and election of officers. The business meeting was followed by discussion and sharing of demonstrations and teaching ideas.

—Anthony Musumba Mwene, Section Representative

Northern California/Nevada Section

The 2013-14 academic year has been a good year for our section. In the fall, we started with a Friday evening tour of the DoE Joint Genome Institute in Walnut Creek. On Saturday, over 60 physics educators gathered at Carondelet High School in Concord where Lynn Cominsky of Sonoma State University's NASA Education and Public Outreach Group presented ways that high school and middle school teachers can include rocketry in their courses or clubs. Our shorter presentations included a panel discussion on "Cheating in the Modern Classroom," and presentations on NITARP, better work in student teams, analyzing test data using scanning software, analyzing physics in Hollywood movies, and, of course, NGSS. Our break-out workshops included one on using video analysis to have students analyze a Cavendish Balance, and one where teachers learned how to use inexpensive power supplies from cast-off computers to power classroom labs.

In our spring meeting, we started with an afternoon workshop where both Vernier and PASCO presented their newest and best apparatus to about 20 educators. We were pleased to have both these exceptional companies bring out their wares to show off. The next day we had about 100 members gather at the Exploratorium in San Francisco to hear three speakers: Dr. Pascal Lee spoke on what a human mission to Mars would look like (and the current research/planning into this, as well as the potential scientific inquiries humans might make); Douglas Stone gave a talk on his book, "Einstein and the Quantum: The Quest of the Valiant Swabian;" and Christine and Dave Vernier provided a history of their company, a software company that cooperated with PASCO for hardware, grew to develop their own probes and connected them to Texas Instruments graphing calculators, to the birth of their own interfaces to computers, and finally to LabQuests that can be either free-standing or connecting to iPads and other computers. In the business part of our meeting, we passed a new dues structure that includes dues in our meeting registration--because some schools will reimburse for registration but not dues. We ended the meeting a couple hours early to allow members time to "explore" the new Exploratorium.

Complete coverage of our meetings can be found on our website, http://ncnaapt.org

—Lee Trampleasure, Section Representative

Ohio Section

The Spring 2014 Meeting of the Ohio Section of the American Association of Physics Teachers was held on Saturday, May 10th at the National Inventors' Hall of Fame School STEM Center of Learning Middle School and the University of Akron. After a continental breakfast and socializing, Alison White, Director of Akron Hub of Ohio STEM Learning Network, explained the history of the Middle School at the former National Inventors' Hall of Fame building in downtown Akron, Ohio. She then conducted a

tour of the facility showing the various levels of classrooms and example of student projects.

Following the tour, Susan Hall, Media Specialist for the National Inventors' Hall of Fame (NIHF) Middle School and a Hub facilitator, gave a presentation on Problem-Based Learning as used in the NIHF Middle School. She also described the professional development programs that are sponsored by the Akron Hub of the Ohio STEM Learning Network.

The business meeting began with the Report of the Winter 2014 Meeting of the National AAPT by the Ohio Section Representative, Myra West. Elections were held for the vacant offices. Sue Ramlo, University of Akron, was elected President-Elect; Jonathan Williams, Bowling Green State University, was elected Four-Year College/University Vice-President, Holly McTernan, St. Edward's High School, was elected Corresponding Secretary, and Bill Reitz, Hoover High School, was elected Section Representative. A "How-I-Do-It" was presented by Dick Heckathorne on the GUESS method for problem-solving. The "great give-a-way" ended the business meeting.

Following lunch on your own, attendees had a choice of one of two workshops held on the campus of the University of Akron. One workshop was entitled, "Introduction of Corrosion" , given by Lori Kraft, Associate Professor of General Technology, U of Akron. The second workshop was an "Introduction to Nanotechnology", given by Alper Buldum, Associate Professor of Physics, U of Akron.

—Myra West, Section Representative

Quebec Section

QcAPT Section Officers:

- President: Nathaniel lasry, John Abbott College
- Vice President: Jesus Vazquez-Abad, Université de Montréal
- Secretary-Treasurer: position vacant
- Section Representative: Chris Whittaker, Dawson College
- Webmaster: Michael Dugdale, John Abbott College

2013 Events & Activities

Feb.19th: QcAPT Annual Meeting
The Annual Meeting of the QcAPT was held. Calvin Kalman stepped down as Treasurer and the position remained vacant for the entire year.
Plans for the year were approved.

May 30th, 2013: Teacher Day at CAP1 Congress
In conjunction with the SALTISE2 initiative (Supporting Active Learning and Technological Innovation in Science Education) and the CAP Division of Physics Education, the QcAPT Helped to coordinate the 13th Annual Physics Teachers' Day at the 2013 CAP Annual Congress (Montreal, QC, May 27-□31).
The day featured plenary talks by Joe Reddish (U. of Maryland) and Robert Hawkes (Mount Allison University), invited talks by David Meltzer (Arizona State U.), Joe Reddish, and Chris Whittaker (Dawson College and QcAPT Section Representative), and Six Contributed talks. About 75 people attended this part of the CAP Congress.

—Chris Whittaker, Section Representative

Southern California Section

On Saturday, May 3, 2014, over fifty members of the Southern California Section of AAPT gathered at Irvine Valley College (Irvine, CA) for a day full of persuasive presentations and dynamic discussions. SCAAPT thanks Alec Sim, who hosted the meeting and Bradley "Peanut" McCoy, who served as Program Chair of the meeting. The meeting was called to order by SCAAPT President James Lincoln.

Jeff Phillips led a morning workshop ("Essential Problem Solving Skills and How to Teach Them") in which he shared his problem-solving activities that were developed in an NSF-funded project. Many of the activities employ a think-aloud protocol where students share their reasoning as they work. Workshop participants were able to view pre-recorded student think-alouds as well as follow the protocol themselves.

The meeting included several fascinating invited presentations. Connie Wells (Pembroke Hill School and a commissioner for the AP Physics redesign project and current co-chair of the AP Physics 2 Development Committee) shared the latest information released by the College Board about the new AP Physics courses, Physics 1 and Physics 2. Daniel S. Helman (Prescott College) delivered an energetic presentation about utilizing lightning for practice applications.

Brian Woods (Wallis Annenberg HS and formerly of the San Onofre Nuclear Generating Station) offered an insider's perspective on the history and operation of SONGS as well as the physics behind nuclear fission. Giovanni Zocchi (UCLA) reported on experiments in which his group has measured the physical properties of individual enzyme and DNA molecules. At this scale, many of molecules behave in a rather unexpected ways. For example, some display viscoeleastic properties much like silly putty and discussed how DNA acts like

a spring that is used to stretch proteins.

Several other SCAAPT members also gave engaging contributed presentations:

- Galen T. Pickett, CSU Long Beach, "Social Homework System at CSU Long Beach"
- Annabella Kraut, Tarbut V' Torah High School, "Starting a STEM Program"
- Katherine Wilcox and Morgan Chong Kim, EnCorps, "Bringing STEM Experience into the Classroom: The EnCorps STEM Teachers Program"
- Marilyn Garza and Jesse Kasehagen, Santa Barbara Junior High and Santa Barbara Middle School, "Using Lessons from University Research to Guide Middle School Science Students"
- Bradley "Peanut" McCoy, Azusa Pacific University, "Modeling and Incentivizing Qualitative Thinking"
- Heather Doyle, Santa Monica Pier Aquarium, "Pier Physics"
- Phil Gash, CSU Chico, "The Other Vibrational Mode of a Slinky"
- James Lincoln, Tarbut V' Torah High School, "New Demos & Experiments with iPhone Slow Motion"
- George Kuck, Retired CSULB, "Homeschooling: An Underserved Community"

Elections were held and SCAAPT congratulates the following winners:

- President: James Lincoln, Tarbut V'Forah High School
- Vice President for High Schools: Cliff Gerstman, Middle College High School
- Vice President for 2-year Colleges: Lee Loveridge, Pierce College
- Vice President for Universities: Bradley "Peanut" McCoy, Azusa Pacific University
- Treasurer/Secretary: Nuria Rodriguez, Santa Monica College
- Web Manager: Bob Baker, University Senior High School (Ret)
- Section Representative: Jeff Phillips, Loyola Marymount University

The ever-popular Show 'n' Tell featured demonstrations by James Lincoln: AAPT films, Dean Papadakis: UV detectors and simple motors, and Rachael DeLeon and Brendan Nugent: Physics at iFly Hollywood. The meeting ended with the World Famous "Order of Magnitude Contest." This meeting's question was: What is the ratio of living tree mass in the US to lumber in US homes?

SCAAPT thanks its corporate sponsors –Arbor Scientific, PASCO, and iFly Hollywood– for their support and donation of door prizes.

The Southern California Section will hold its next meeting in the Fall. Please bookmark the SCAAPT homepage (http://www.scaapt.org/) and check for more information in the Summer.

New Physics Teacher Workshop (NPTW)—SCAAPT's New Physics Teacher workshop has completed its 3rd year and continues to be a success. Typically, 30 teachers receive training, handouts, and lab equipment all for free at three different workshops each year. Next year SCAAPT plans to continue the workshop program and possibly expand to a 2nd South Counties Section in order to accommodate San Diego and Orange County teachers. The next NPTW will likely be at USC in August. Please visit http://www.nptw.org for more information.

Video Contest—Kevin Wei, West Torrance HS, won the 2nd Annual SCAAPT Physics Student Video Contest with his video "The Physics of Snake Motion." Kevin's prize was $500, plus a $50 Amazon gift card to his teacher, Marcia Kim. Kevin's video as well as many other outstanding entrees can be found at http://www.physicsvideos.net/contest2014.htm.

—Jeff Phillips, Section Representative

Southern Ohio Section

The Southern Ohio Section's spring meeting was March 15, 2014 at Bishop Hartley High School in Columbus. About 30 members were in attendance, including several first-time attendees. Many thanks go to Ann Lane Hawk and her colleagues for hosting us.

Several invited talks addressed different aspects of incorporating physics students and teachers in research efforts. Special guest, Aaron Titus (High Point University) shared how a focus on undergraduate research in his department has led to an increase in physics majors in "Physics on Steroids." Mike Sokoloff (University of Cincinnati) shared his experiences with Quarknet. In "Science Fair and Student Engagement at All Levels," Sandy Doty (Ohio University-Lancaster)told us the story of how she has taken a regional science fair from nothing to outgrowing the available space in just a few short

years.

We enjoyed two sessions of contributed presentations on a wide variety of topics: "Effectiveness of Inquiry-based Instruction in a Low Socioeconomic District" by Christine Farley, Jessie Miller, Andrew Ruth, and Kelly Williams (Marion City Schools); "Implementing Peer Review of Writing for Freshmen Engineers" by Kathy Harper (The Ohio State University); "Learning VPython/Glowscript" by Lenore Horner (The Seven Hills School); "Fun With Water Fountains" by Sandy Doty; "The Errors of My Ways" by Kevin McChesney (Pickerington High School – Central); "From Clickers to Web Clickers: The New Generation Classroom Response System" by Lei Bao (The Ohio State University); and "Physics and ART" by Burt Stumpf (Ohio University)

The section also conducted its annual election of officers. The new president-elect is John Rowe, Teacher-in-residence with PhysTEC at the University of Cincinnati. Kathy Harper of Ohio State was re-elected to serve as section representative, and Matthew Kennedy of Columbus Torah Academy is the new vice president for high schools. Stepping into the position of president is Mark Plano-Clark (University of Cincinnati), and Lenore Horner is now past president. The board has also appointed Kevin McChesney as the section's webmaster.

State Science Day

On the morning of Saturday May 10, 28 volunteers from central and southern Ohio served as judges at Ohio's State Science Day competition to determine the awarding of physics prizes for students in high school and middle school. As he has for many years, Gordon Aubrecht of The Ohio State University coordinated the efforts of judging over 150 projects. For the first time, an elementary level prize was awarded for students in 5th-6th grade. The prizes are awarded by the Southern Ohio Section of AAPT, with the generous financial support of the Ohio Section of APS.

The winning projects this year were: Elementary: "The Effect of Nose Cone Shape on the Drag and Stability of Nose Cones" (Matthew Doty, Granville Intermediate Elementary School); Middle: "Light Assisted Sugar Estimation Using Refraction" (Shifra Narasimhan, Athens Middle School), "Will Directing Light Through a Reflective Tube and onto a Photovoltaic Cell Increase the Power Output Produced by the Photovoltaic Cell?" (Anjali Prabhakaran, Ridge Academy), "Granular Materials: The Silo Effect" (Karina Kosa, Hundson High School); High: "Fabricating an Artificial Nose using Mesoporous Crystals" (Achal Fernando-Peiris, Mt. Vernon High School), "Utilizing Molecular Dynamics Simulation of Crystalline P3HT to Study Water Diffusion" (Alexander Weber, St. Vincent-St. Mary School), "The Effects of Biomimicry on an Airfoil" (Matthew Jenson, Archbishop Alter High School).

Upcoming Events

The Fall 2014 section meeting is scheduled for Saturday, October 11 at the Seven Hills School. Our host will be Lenore Horner. More information will be posted as it becomes available at the section's web site: www.sosaapt.weebly.com.

The Southern Ohio section will also be part of a regional meeting in the spring of 2015 with the Kentucky, Appalachian, and Tennessee sections. It will be held on March 13 and 14 at Eastern Kentucky University. Southern Ohio will still hold its usual spring meeting, at a time and location still to be determined.

—Kathy Harper, Section Representative

Texas Section

The Joint Spring 2014 meeting of the Texas Section AAPT and APS was held at Abilene Christian University March 20-22, 2014. The meeting was hosted by Jess Dowdy and the physics department and had slightly less than 200 in attendance. There were three primary themes: The Future of Energy, Physics Education Research for Science Majors, and Future of Optics. Special speakers included: Kirk Sorenson (Liquid Thorium), Peter McIntyre (TX A&M – accelerator energy), Andrew Dessler (TX A&M – Energy and Environment), Jeff Kimble (Cal Tech- Quantum Optics), Michael Loverude (PER at Junior Senior college level), and Robert Hargraves (Dartmouth—famous author).

The board meeting for TSAAPT was held Thursday evening. Items on the agenda included support and submissions for the next state science teacher conference, CAST (Conference for the Advancement of Science Teaching), edits to be done on the new website, and management of the website and other social media such as Facebook and twitter.

The Fall meeting site is at Texas A&M University (Oct. 17-29, 2014) and will be testing a new venue using Friday through Sunday as the meeting days instead of the typical Thursday through Saturday.

The Spring 2015 meeting will be held at Lee Col-

lege March 12-14, 2014 and the Fall 2015 meeting will be at Baylor University October 15-17, 2015.
In conjunction with the plenary sessions, posters, and presentations, eleven workshops were held Friday and Saturday for teachers and students over a wide range of topics including: engineering design in the classroom, flipping clas rooms, circuits and resistance, photoelectric effect, changes in AP Physics, video analysis, using TIPERS in the classroom, and how to integrate iOS devices in your class. Toni Sauncy also presented a session for the university students in "Careers Toolbox for Physics Students".
The business meeting for TSAAPT was held Friday during the luncheon.

It is at this time that new officers are typically elected, however the board decided to utilize the website and survey monkey to post candidate profiles and conduct voting.

A link to the voting site was sent to all members and their votes were tallied using the survey.
Voters were cross-referenced to ensure that all were members and no one voted twice. Winners of the election were declared at the end of May and included: Dr. Andra Troncalli from Austin College (Vice President) and Dr. Jim Sizemore from Tyler Junior College (Section Council at Large for Two Year College). Prizes were given to high school teachers who were attending for the first time, provided by ACU physics department.

Friday evening entertainment was provided by the ACU Theatre Department before the Award Ceremony. The play was Copenhagen, by Michael Frayn, is based on a meeting between the physicists Niels Bohr and Werner Heisenberg. Award recipients included:

David Donnelly (Robert N. Little Award), Karen Jo Matsler (Katherine Mays Award; Lifetime Outstanding Contributions to High School Physics Education in Texas), Michael Strange and Stephanie Ingle (Outstanding Pre-College Excellence in Education).

The members also decided to create a "Reme brance" page on the website for those that have had significant contributions to TSAAPT and physics education in Texas. That page is under construction but can be found at http://texas.aaptsections.org/in-remebrance/.

For pictures and information from the meeting, go to the Texas Section website: http://texas.aaptsections.org/ and select Meetings/Spring 2014.

—Karen Jo Matsler, Section Representative

To list your section meeting in the AAPT Calendar of Events, e-mail the information to mgardner@aapt.org