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U.S. District Judge John E. Jones III to speak at the CPS Spring 2011 Conference

In 2005 Judge Jones presided over the landmark case of *Kitzmiller v. Dover School District*, after which he held that it was unconstitutional to teach intelligent design within a public school science curriculum in what has come to be known as the *Dover Decision*. Judge Jones will be the keynote speaker at the spring 2011 AAPT-CPS meeting, and will present *From Scopes to Kitzmiller: The Legal Battle Regarding Teaching Evolution in Public Schools*. His talk will trace the legal cases starting with the Scopes trial in Tennessee up to today, including Kitzmiller, and highlight the reasons for the jurisprudential progression. It also highlights matters relating to the Supreme Court and the Establishment Clause in the First Amendment.

Judge Jones was born and raised in Schuylkill County, Pennsylvania. He is a graduate of the Mercersburg Academy, Dickinson College, and The Dickinson School of Law of The Pennsylvania State University. In 1980 Judge Jones began his legal career as a law clerk to the President Judge of Schuylkill County, the Honorable Guy A. Bowe. Subsequently, he engaged in the private practice of law in Pottsville, Pennsylvania until the time of his elevation to the federal bench.

In May, 2006 Judge Jones was named by Time Magazine as one of its Time 100, the one hundred most influential people in the world. In 2006 Judge Jones was the recipient of the first John Marshall Judicial Independence Award, given by the Pennsylvania Bar Association. In 2009 Judge Jones was the recipient of the Geological Society of America's 2009 President's Medal, and in the same year was inducted into the George Washington Spirit Society.

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Spring 2011 Conference at Penn State Schuylkill

In 2007 Judge Jones and the Kitzmiller case were featured in the two-hour Nova special "Judgment Day: Intelligent Design on Trial," televised nationally by PBS. In April 2008 "Judgment Day" won a Peabody Award, which is the oldest and most distinguished honor in electronic media. Judge Jones has also appeared as a guest on national television shows such as Today on NBC, the NewsHour on PBS, and C-SPAN's America & The Courts.

Judge Jones has presided over several other noteworthy and high profile cases. In 2003 Judge Jones struck down portions of Shippensburg University's speech code on the basis that they violated the First Amendment's free speech guarantee. In that same year Judge Jones ruled, in a decision later affirmed by the United States Supreme Court, that the U.S. Department of Agriculture's statute assessing milk producers in order to fund advertising, including the Milk Mustache/got milk® campaign did not infringe the free speech rights of the producers. In 2006 he ruled that the Commonwealth of Pennsylvania's ballot access procedures for minor political parties did not violate the Constitution.

Judge Jones resides in Pottsville, Pennsylvania. He has been married to his wife Beth Ann since 1982. They are the parents of daughter Meghan, and son John.

Spring 2011 PTRAs Workshop At Penn State Schuylkill

This Spring's Workshop will be held on Friday, March 11, 2011 during the AAPT-CPS Spring Conference. This workshop will be a sharing of methods and ideas for physics or physical science teachers of all experience levels. It will focus on how we can use the idea of an engineering project to learn basic Physics concepts. Topics that lend themselves to engineering problems, as well as how to incorporate these topics into a "regular" physics class will be discussed and modeled. Several engineering projects will be used to illustrate the process. Wind power, sound, rockets, and NASA challenges are possible examples. Dave McCachren is from Indian Valley High School is one of the organizers of the Workshop.

Meet the Current CPS-AAPT Executive Officers

Acting President

Michael Doncheski
Penn State Mont Alto



Dr. Michael A. Doncheski is a Professor of Physics at Penn State - Mont Alto and has been teaching physics there since 1996. He received his PhD in Theoretical Elementary Particle Physics from Penn State in 1990, and prior to his current position held postdoctoral research appointments at the University of Wisconsin - Madison and Carleton University in Ottawa, Ontario. His research interests include Beyond the Standard Model Physics and Visualization Techniques in Teaching Quantum Mechanics.

Vice President

Michael Gallis
Penn State Schuylkill



Dr. Michael R. Gallis is an Assistant Professor of Physics at Penn State Schuylkill where he has been teaching since 1990. He received his PhD in Theoretical Physics from Penn State in 1990. His original research interests were in the Dynamics of Quantum Open Systems with applications to Quantum Decoherence and Measurement Theory. His current focus is on developing visual materials for use in Astronomy and Physics Courses, and maintains a YouTube channel for his 3-D animations.

Secretary

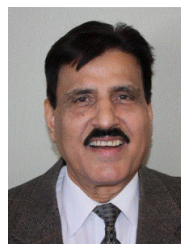
Stephen Van Hook
Penn State U Park



Dr. Stephen J. Van Hook is Lecturer in physics at Penn State University Park. He received his M.A. in physics from the University of California at Berkeley, and his PhD in physics from the University of Texas at Austin, where he worked in the Center for Nonlinear Dynamics. His current research interest is in Physics Education Research at both the K-12 and University level and he is the co-Director of the K-3 Research-based Inquiry Physics Experience (RIPE) project. He taught at Georgetown University and Bowling Green State University before coming to Penn State in 2007.

Treasurer

Sadari Khanna
York College



Dr. Sardari Khanna is Professor of Physics at York College, Pennsylvania since 1965. He received his Ph.D. from Saugar University, India. His thesis was in the area of Solid State Physics. He has been on the E-Board of the Academic Senate as a Treasurer for the last 32 years. The York College has set up an Academic Senate Scholarship last year in his name to honor him for his long and distinguished service.

Section Rep

Lynn Aldrich
Misericordia U.



Dr. Lynn K. Aldrich is an Associate Professor of Physics at Misericordia University and has been teaching physics there since 1988. She received her Ed.D. in Science Education from Temple University and her M.S. in Physics from the University of Alabama in Birmingham. Her research interests include topics in Physics Education such as self-efficacy in pre-service elementary teachers of science and service learning in introductory physics classes.

High School Rep

Dave McCachren
Indian Valley HS



Dave McCachren has been teaching physics in the Mifflin County School District since 1973; currently at Indian Valley High School. He received my BS (1973) and Med (1977) in Physics Education from Indiana University of Pennsylvania. He has been a PTRA Representative since 1995.

2 Yr College Rep

Greg Dolise
Harrisburg Area
Comm College



Gregory Dolise is an Associate Professor of Physics at Harrisburg Area Community College. He teaches astronomy as well as physics courses in traditional and online formats. Greg has worked in the aerospace sector, there he specialized in star simulation and space optics. An early job was with Perkin-Elmer on the Hubble Space Telescope. Greg performed measurements for vibration testing of the secondary mirror, and helped with design and fabrication of the star simulator to test the Optical Control system and Fine Guidance System of HST.

Web Master

John Reid
Lock Haven U



Dr. John D. Reid is a Professor of Physics at Lock Haven University and has taught physics there since 1997. He worked for 4 years at Lockheed Missiles and Space Co., in Sunnyvale, CA, as a Satellite Operations Engineer. He received his Ph.D. in Experimental High Energy Physics from Penn State in 1993. Before teaching at Lock Haven, he did his graduate work on Charmonium Spectroscopy at Fermilab, and postdoctoral work on Strange Quark Matter at Brookhaven Lab.

OTHER AAPT-CPS NEWS

Another Successful PTRA Workshop

This Time Held at
Penn State University Park Campus
Submitted by Dave McCachren



On November 19, 2010, twelve physics teachers from all over the state gathered at Penn State Main Campus for a PTRA workshop on Using Amusement Parks to learn physics concepts. Discussion on why use a park, logistics, cost were featured. Various measurement techniques were demonstrated from simple estimation to video to wireless accelerometer. An engineering component allowed participants to design a pipe foam roller coaster. Activities were modeled as hands on as would be done in a classroom. Sharing of ideas and interacting with other physics teachers was fantastic. PTRA workshops allow these interactions!

Dave McCachren is the AAPT-CPS Executive Board High School Representative. He is one of the organizers for PTRA Workshops.

Bellefonte Area Middle School Hosts Science Night

Submitted by Jim Nye



It was yet another well-attended event for Bellefonte Area Middle School's 3rd Annual Family Science Night held on Thursday evening on November 4th, 2010. The middle school gymnasium was packed full of dazzling and intriguing science activities such as expanding ivory soap, crushing a soda can, an inflatable planetarium show, and observing snakes and lizards. Penn State University clubs and Lock Haven University Physics and Chemistry Clubs brought some a plethora of amazing experiments and demonstrations as well. Last year's Family Science Night yielded close to 700 people in attendance, and this year's event had about the same number in attendance. Outside the gym was the hovercraft station where students could ride on a homemade hovercraft and discover Newton's Laws of Motion. Overall, the event was a success and a general good time was had by all who attended and participated.

Jim Nye is the 8th grade Science Teacher at the Bellefonte



Physics Demonstration Page

Simple Electrostatics Experiments

John Reid

With the dry winter weather and holiday season it's a fun time to do electrostatics experiments. This one is very simple to do. It is easiest to do with at least two people.

Cut 4 pieces of tape (such as Scotch tape), each about 3-4 inches long. Fold tabs on each end so that they can easily be removed from a surface. Place two pieces on a table top and on each of these place the remaining two pieces as shown in Figure 1.

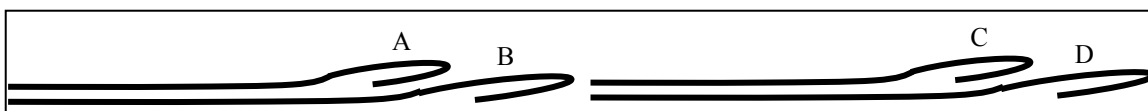


Figure 1. Four pieces of tape. Two on top of two others and all four taped to a table top.

Grabbing the tab, remove piece B from the table top bringing piece A with it. Likewise, remove piece D from the table top bringing piece C with it. Carefully separate A from B and C from D. There are now four separate pieces. Hold them vertically by the tabs. Bring them together in different combinations as shown in Figure 2. You will find that some are attracted and some repelled. This is an easy way to demonstrate that there are two kinds of charge.

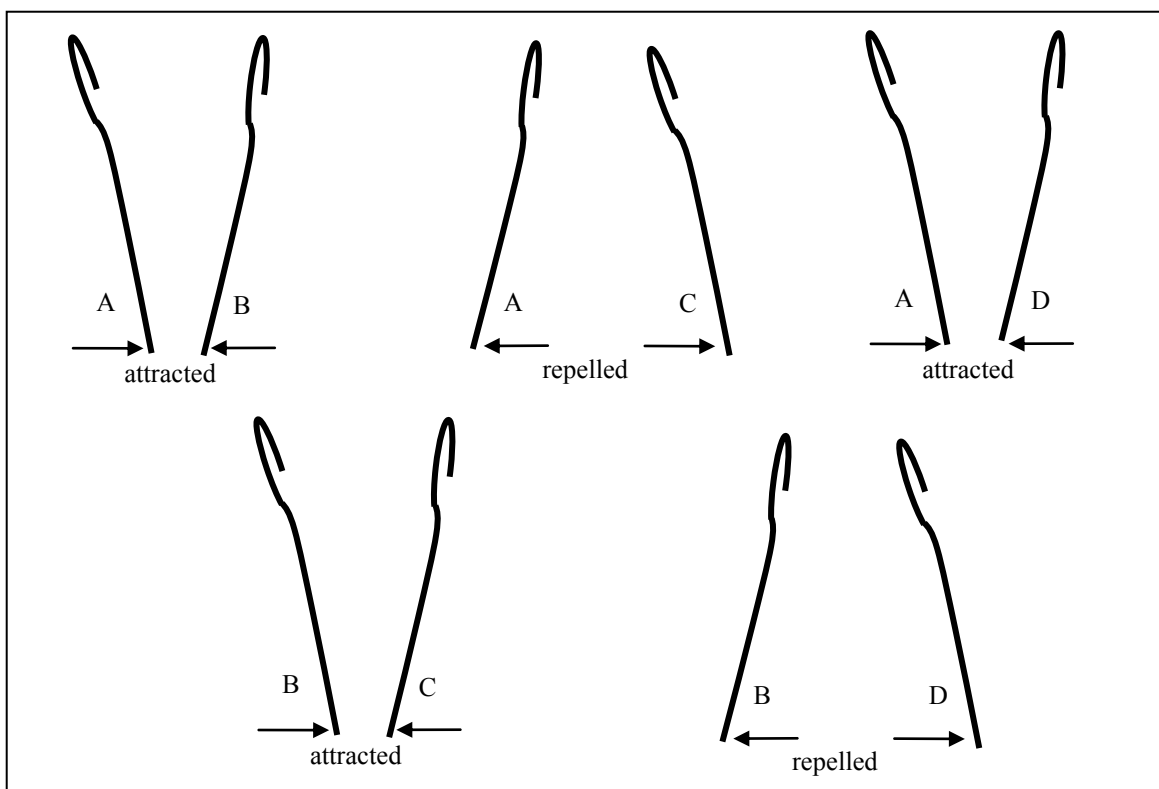


Figure 2. Four pieces of tape held near each other in different combinations demonstrating two kinds of electric charge.

58th Annual Conference Report
Joint Meeting with CPS, SES, NJ Sections of AAPT at LaSalle University
12-13 March, 2010

Contributed by CPS Executive Board Members

The 58th Annual Conference of the American Association of Physics Teachers, Central Pennsylvania Section (AAPT-CPS) was a joint event sponsored by the Southeastern PA Section, Central PA Section, New Jersey Section, the Physics Club of New York, and La Salle University. Ling Liang from La Salle University hosted the conference. There were about 70-80 registered attendees. The theme was "How we teach may be more important than WHAT we teach..."

There was an all day workshop on Friday run by the Physics Teachers Resource Agents (PRTA) for physics teachers. Dave McCachren of Indian Valley High School in Lewistown, PA and Pat Callahan of Delaware Valley Regional High School in Frenchtown, NJ conducted the workshop. The workshop was titled "Physics with Video Analysis", and participants explored the use of Logger Pro as a tool to analyze data from video clips.

The poster session began a half hour before the banquet dinner and continued through the dinner on Friday in the Union Building Ballroom. There were only a half dozen posters presented, and the poster session was a success largely because of contributions by the Central PA section.

After dinner, the meeting attendees were treated to an invited talk by Derrick H. Pitts, Chief Astronomer and Planetarium Director at the Franklin Institute Science Museum. The talk was titled "The (Universal) Matrix Reloaded" and took place in the Dan Rodden Theater. In his presentation, Dr. Pitts presented an overview of the universe using some outstanding astronomical photos, and he discussed our new understanding of the universe's accelerating expansion culminating in a brief description of dark matter and dark energy. The talk's goal was to alter how we think about the cosmos, its origins and ourselves.

On Saturday morning, the membership enjoyed a continental breakfast in the Roland Holroyd Science Center Atrium, and there was an official welcome and introduction given by Jay Eldred Bagley, President of the SEPA section. After this, Warren Hein, AAPT Executive Officer, gave an update on the PhysTEC Project and talked about the physics department's role in the preparation of pre-college physics teachers. This was followed by an invited lecture by Matt Greenwolfe, the President-Elect of the American Modeling Teachers Association. Greenwolfe's talk was entitled, "Don't Hide the Model! High School Students and Computational Modeling with Vpython".

Lunch was served at noon, and for a short period of time after lunch members could meet with vendors and publishers. Parallel General Business Meetings were held by section beginning at 1:30 pm in various locations on campus. During the Central PA section's business meeting, award certificates were made to student presenters who were in attendance. The president of CPS, Dr. Michael Doncheski, presided over the business meeting and gave a Service Recognition Award to our Past President, Dr. John Reid. An additional recognition was made to Greg Dolise for going above and beyond the call of duty in helping to improve the membership list.

continued on next page

58th Annual Conference Report *continued*

The General Meeting ended with the election of executive officers of AAPT-CPS. Two current members of the Executive Board were elected to new positions: Mr. Kip Trout from Penn State York was elected President, and Dr. Mike Gallis from Penn State Schuylkill was elected Vice President. (Subsequently Kip Trout resigned his office and Dr. Mike Doncheski assumed the responsibility of Acting President.) The position of Secretary was not filled at the meeting, but the membership voted to empower the Executive Committee to fill the position as soon as possible with a qualified candidate. Four members of the current Executive Committee were re-elected: Dr. Lynn Aldrich of Misericordia University was re-elected Section Representative, Dr. Sardari Khanna of York College was re-elected as Treasurer, David McCachren of Indian Valley High School was re-elected High School Representative and Gregory Dolise of Harrisburg Area Community College was re-elected Two-year College Representative. An additional Executive Committee position was voted on and added: Dr. John Reid was elected as Web-Master for the CPS-AAPT.

The joint conference concluded with a great demo show conducted by Bill Berner from University of Pennsylvania and a drawing for door prizes.

Upcoming Meetings

Fall PTRAs Workshop

Date and Location to be decided.

Spring 2012 AAPT-CPS Conference

Held at Penn State University Park

Date: To Be Decided

From the CPS-AAPT Constitution...

Objectives of the Central PA Section of the American Association of Physics Teachers (CPS-AAPT) are to:

- advance the teaching of physics in the colleges and universities of Central Pennsylvania and environs,
- promote a professional spirit and acquaintanceship among the members of the Section, and
- encourage instruction in physics in the secondary schools of the region served by the Section.

Support AAPT-CPS

- Encourage your colleagues to join and support AAPT-CPS
- AAPT-CPS offers a 1 year free membership for new AAPT-CPS Conference Meeting Attendees
- AAPT-CPS is always looking ahead to plan future conferences. The success of AAPT-CPS depends on members volunteering to help with governance and hosting conferences. If you are interested in volunteering please contact any Executive Board Member for more information.