

Greetings! I hope you are enjoying your summer. I've been attending a Modeling Workshop in New Jersey, and losing track of time -- I apologize that this is later than intended. Hopefully it is an outlier. (But please don't discard it yet!)

The National AAPT meeting at the University of Pennsylvania is fast-approaching, and I'd strongly encourage you to register for if you'll be around and you haven't registered yet. Also, if you're a local high school teacher who is planning on attending and hasn't told me yet, I'm still compiling a list of registrants for headcount purposes. I hope to see and/or meet many of you there!! I've also been continuing to update our mailing list, so if this is your first time receiving this newsletter, or you hadn't received one for a while before this, the change is probably due to corrections to the mailing list. Please let me know by email (jwaldman - at - archmereacademy.com) if you would like me to change your subscription, or if you have friends or colleagues who would like to be added.

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4. University Lab Workshops @ AAPT
5. Save the Date for Fall 2012 Demo Show (10/27/12 @ Harriton) and Spring 2013 Section Meeting (4/19-20 @ Drexel)
6. Job Opening at Lancaster Country Day (posted 6/27)
7. Full- or Part-time Physics Opening at Agnes Irwin (posted 6/22)
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I am currently collecting announcements for the next newsletter. We are particularly interested in learning about job openings at any level, including high school, college, community college, full-time, and part-time, in addition to upcoming workshops and events, and online resources. May the Force(s) Be With You,

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AP & Honors Physics Teacher  
Archmere Academy  
Claymont, DE 19703

### **1. TEACHERS' DAY AT QUARK MATTER 2012 CONFERENCE**

High school physics teachers are invited to participate in an afternoon workshop as part of the educational outreach activities of the Quark Matter 2012 conference being held in Washington,

DC. The program will focus on the physics of smallest constituents of matter - the quarks and the gluons that hold them together. Today quarks and gluons hide in the building blocks of atomic nuclei, protons and neutrons, but during the cosmic Big Bang they roamed freely through the cosmos in a state of matter that has come to be called the quark-gluon plasma (or QGP). The focus of this workshop is the perplexing nature of this state of matter. Topics and speakers include:

- Michael Lisa (OSU): Exploring the properties of quark matter with relativistic heavy ions: Recent results
- Paul Chesler (MIT): Unexpected connections: Hot quark matter, black holes, and superstring theory
- Hannah Petersen (Duke): Visualizing the "little bangs": Simulations and visualizations of relativistic heavy ion collisions
- Michael Lisa (OSU): Measuring the "little bangs": The amazing physics of particle detectors.

The workshop piggy-backs on the larger Quark Matter 2012 conference (<http://qm2012.bnl.gov>), but as an outreach activity, registration is expected to be \$FREE. Please contact Prof. Alice Mignerey at [mignerey - at - umd.edu](mailto:mignerey-at-umd.edu) for further information to register to participate. Continuing Education Credit may be obtained through the APS with additional on-line activities.

Sunday, August 12, 2012 from 1-5 PM  
Omni Shoreham Hotel  
2500 Calvert Street NW  
Washington DC

## **2. AAPT NATIONAL MEETING:**

Our national parent organization, the American Association of Physics Teachers, is having its annual conference right here in Philadelphia this summer! (Last year it was in Omaha. The year before that it was in Portland. It hasn't been in Philadelphia since 2002, so this is a rare opportunity, to have it so close!)

The dates will be July 28-August 1, and the theme will be "Physics: The Experimental Core". Lots of information (and registration) is available on the AAPT website: <http://www.aapt.org/Conferences/sm2012/>. The advanced registration deadline has already passed; but you can still register online or onsite at the regular rate. **First-time attendees who are high-school teachers can attend one day (7/30) for a reduced rate (see below)**. Registration rates are also dramatically lower for undergraduates, and registration is complimentary for any high school student who attends. (They do have to register, though!)

Here are links to the registration page and the tentative schedule:

<http://www.aapt.org/Conferences/sm2012/index.cfm>

<http://www.aapt.org/Conferences/sm2012/upload/beta-schedule.pdf>

Things you can definitely expect to happen at the national meeting:

- Plenary talk by Professor Amy Bug (Swarthmore College) on gender in physics
- Meet and mingle with peers from around the country
- Buy awesome things you could otherwise only get on the internet
- Talks, papers, and updates on the state of physics and physics education research
- Vote on the AAPT High School Photo Contest submissions
- Apparatus competition
- Demo show!

### **3. HIGH SCHOOL TEACHER DAY**

If you are a high school teacher who has never attended an AAPT National Meeting, you can attend the Monday, July 30th events of the National Meeting this summer for the severely discounted cost of \$75. (Or you can just register for the whole weekend, but this is a lot more affordable!) July 30th is the "High School Teachers' Day", and gatherings and presentations on that day have been promised to particularly focus on the interests of high school teachers. The AAPT Teaching Awards -- the Paul W. Zitzewitz Award for Excellence in Pre-College Physics Teaching, and the David Halliday and Robert Resnick Award for Excellence in Undergraduate Teaching -- will be presented. There will be a meeting of the Physics in High Schools Committee, as well as a Benjamin Franklin Performance in the evening. A free lunch is also included.

Session topics include:

- The Good and the Bad of Video Lectures
- Frontiers in Astronomy and Space Science
- Textbooks and Labs Suitable for 9th Grade Physics
- PER: Topical Understanding – Introductory Level Teacher Preparation Around the World
- Physics Education Research (PER) in the High School
- Tutorials for PTRA and High School Teachers
- Vidshare: Motivating and Elucidating Short Videos You Can Use!
- Physics and Society Crackerbarrel
- APS Division of Biophysics Plenary Session
- Physics First Discussion Panel – Success Stories in the Delaware Valley
- Leadership Models in Science
- The Art and Science of Teaching
- Can Computational Modeling Be Accessible To Introductory Students?
- Labs at Many Levels
- iPad & iPhone Apps and Mobile Devices in the Classroom
- Video Analysis in the High School and Introductory College Classroom
- Mentoring Minority Students
- Oral History-Methods and Examples

More information here: <http://www.aapt.org/Conferences/sm2012/hsphyssteachday.cfm>

Teachers registering for only this day don't have to worry about rates going up after the Early Bird period ends. Registration takes place using a different form, located here: <http://www.aapt.org/Conferences/sm2012/upload/Phys-Day-Regis2-5-3-12.pdf>

#### **4. UNIVERSITY LAB WORKSHOPS**

Mary Anne Klassen (Swarthmore College) and Scott Shelley (Haverford College) are pleased to announce two workshops on Physics Labs at the upcoming AAPT conference. Scott is a member of the AAPT National Laboratories Committee. Here are the descriptions of the workshops:

##### **W15: Introductory Laboratories**

Saturday, July 28th (1:00 - 5:00)

Whether your lab curriculum is ripe for an overhaul or well-established, this workshop will provide new ideas to bring home to your institution. Six presenters from colleges and universities across the United States will each demonstrate their approach to a favorite introductory lab exercise. Attendees will have the opportunity to work with each apparatus. Documentation will be provided for each experiment, with lab manuals, sample data, equipment lists, and construction or purchase information. This workshop is appropriate primarily for college and university instructional laboratory developers. Organizers: Mary Ann Klassen (Swarthmore College), Scott Shelley Co-Organizer: Scott Shelley (Haverford College)

##### **W36: Intermediate and Advanced Laboratories**

Sunday, July 29th (1:00 - 5:00)

This workshop is appropriate for college and university instructional laboratory developers. At each of six stations, presenters will demonstrate an approach to an intermediate or advanced laboratory exercise. Each presenter will show and discuss the apparatus and techniques used. Attendees will cycle through the stations and have an opportunity to use each apparatus. Documentation will be provided for each experiment, with sample data, equipment lists, and construction or purchase information. Organizer: Van Bistrow (University of Chicago)

If either workshop interests you, please register for the workshop along with your conference registration! (If the workshops interest you, but the conference doesn't, you can buy a "Workshops Only" conference registration at a significantly lower rate.) We've had difficulties with good workshops getting cancelled in the past due to lack of registrants, and this one promises to be interesting and informative!

#### **5. SAVE THE DATE FOR THE FALL 2012 DEMO SHOW AND SPRING 2013 SECTION MEETING:**

We've picked the time and location for our 2012 Fall Demo Show, which will take place on a Saturday, rather than our usual Friday night time, in order to be accessible to a different/broader range of members. The demo show will take place on October 27, 2012, at Harriton High School in Rosemont, PA, where Bob Schwartz will be our host.

The SEPA Spring Meeting will be held on Friday, April 19, 2013, and Saturday, April 20, 2013, at Drexel University.

## **6. JOB OPENING FOR AP PHYSICS B TEACHER AT LANCASTER COUNTRY DAY SCHOOL**

Lancaster Country Day School seeks an experienced physics teacher for full-time employment starting in 2012-2013. Teaching responsibilities are Physics (one section), Conceptual Physics (two sections), and Advanced Placement Physics B (one section), which is a second-year physics course that includes a weekly 90 minute laboratory period. In the second year of employment, an additional section of teaching would be added, to bring the teaching requirement to five sections. Lancaster Country Day School supports the active engagement of students through inquiry, the use of technology, and faculty professional development.

Interested candidates should submit cover letter, resume, LCDS application, plus a professional portfolio of design samples/links. A portion of a portfolio is fine, as long as a complete portfolio can be presented during interview. A finalist will be asked to complete a small design project and be given 1 week to complete it. Send to bondye - at lancastercountryday.org.

Full PDF job description:

[www.lancastercountryday.org/downloads/employment/physics\\_position\\_2012pdf\\_\\_20120626\\_100739\\_1.pdf](http://www.lancastercountryday.org/downloads/employment/physics_position_2012pdf__20120626_100739_1.pdf)

School website: <http://www.lancastercountryday.org/headermenu/employment/>

## **7. JOB OPENING FOR FULL- OR PART-TIME PHYSICS TEACHER AT AGNES IRWIN SCHOOL**

The Agnes Irwin School's Science Department seeks an Upper School Teacher to teach two or three sections of Physics and possibly a section of Chemistry or Biology. The position will be part- or full-time and will begin in late August, 2012. Candidates should be excited to work in a rigorous academic environment with colleagues who value collaboration as well as independence. Please email resume and cover letter to ApplyAIS - at - agnesirwin.org To the attention of Cynthia Brown, Interim Director of Upper School.

Successful candidates must possess: Bachelor's degree in Education with strong experience in physics, chemistry and/or biology or a Bachelor's degree in Physics, Chemistry and/or Biology; advanced degree preferred • Prior experience teaching physics • Proficiency with the use of computer technology relevant to the classroom • Strong interpersonal and communication skills • Ability and interest in coaching a plus.

<http://careers.nais.org/jobs/4819381/physics-teacher-part-or-full-time>

## **8. JOB OPENING FOR PHYSICS/CHEMISTRY AT WOODLYNDE SCHOOL**

The Woodlynde School in Wayne/Strafford, PA has an opening for an Upper School Chemistry and Physics teacher. Woodlynde School seeks energetic and dedicated educators who thrive in an atmosphere of growth, achievement and success. The job would include responsibility for teaching chemistry and physics to 11th and 12th grade students. Certification in Chemistry and/or Physics is preferred. Applicants with additional certification in Special Education or Reading are highly encouraged to apply.

To apply, please download the employment application and submit the completed form, cover letter, resume, and clearances to Denise Basquill, Assistant Head of School:

Woodlynde School  
Attention: Denise Basquill  
445 Upper Gulph Rd.  
Strafford, PA 19087  
basquill - at - woodlynde.org  
<http://www.woodlynde.org/podium/default.aspx?t=118435>

### **9. JOB OPENING FOR PHYSICS TEACHER AT MASTERY CHARTER:**

Mastery Charter Schools is seeking dynamic and passionate secondary (7-12) physics teachers. Mastery teachers will work together to create a warm, welcoming school culture driven by student achievement. Teachers will be responsible for implementing Mastery's curriculum and utilizing classroom routines and procedures with consistency. Teachers will also be responsible for developing rigorous lesson plans, homework assignments and assessments. Working closely with school leaders, teachers will analyze student assessment data and use data to inform instruction. Teachers will collaborate in grade level teams to discuss student work, share best practices, and ensure student mastery of standards. Teachers will be expected to maintain close relationships with families, including phone calls and conferences, and will participate in on-going professional development in the spirit of continuous improvement. Mastery is looking for teachers committed to high expectations for students, teamwork, and our motto of "Excellence. No Excuses."  
<http://tbe.taleo.net/NA8/ats/careers/requisition.jsp?org=MASTERYCHARTER&cws=1&rid=262>

### **10. GLOBAL PHYSICS DEPARTMENT**

The Global Physics Department is a group of high school and college physics educators who meet online weekly on Wednesday nights at 9:30 Eastern to discuss physics, physics learning, and physics teaching. They use Elluminate Live to transmit audio, video, white board data, and chat communication. Check them out at <http://globalphysicsdept.posterous.com/#/>

### **11. SEPS AAPT ONLINE:**

For news, upcoming events, and photos of past events, check out the SEPS AAPT web presence online and on Facebook!

Website: <http://www.physics.upenn.edu/~aapt/>

Facebook: <https://www.facebook.com/?ref=logo#!/group.php?gid=166735829132>