

*NJAAPT
c/o James Kovalcin
101 Providence Blvd
Kendall Park, NJ 08824*



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- Joint Spring Meeting - March 12-13st
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See www.NJAAPT.org for more details!

NJAAPT NEWSLETTER

March - 2010

President's Message

It has happened to all of us at one time or another and in my case the latest "AH HA" moment occurred when I began thinking of what I was to write about to the membership for the newsletter. I do know how many actually read the President's Message, but sometimes topics arise which must be addressed for the benefit of all the members.

There are two issues that I believe are important to address:

1. **Membership Renewal** – Our membership dues have not changed since I first joined the NJAAPT. A fee of \$10/yr or \$25/3 years is more than reasonable to belong to an organization that assist you in your teaching. However, there are numerous individuals who have not paid their dues for years and still remain on our membership roll is unfair to the rest of the membership. If you are uncertain of your status, email Dave Bandel for a clarification of your membership date.
2. **Member Participation** – If you look at our calendar of events, we try to offer at least one type of activity per month. This year we had to postpone a fall Make-n-Take workshop due to lack of numbers. This is disheartening and, hopefully, is not a harbinger of things to come. At these activities we seem to be seeing the same faces and we need to draw in new participants. I must also mention that the workshop leaders seem to be the same people every year. If you have an idea for a workshop, bring your proposal to an executive board meeting or mail your proposal for consideration. You are a wealth of information, why not share it with your fellow NJAAPT members. All of us could use some new ideas in our teaching and these workshops provide the opportunity to refresh our approach in relating physics concepts to our students. Please take the opportunities offered to you and attend at least one of these a year.

I would like to hear your thought on this President's Message, so send me an email. The executive board and I realize that we are facing a situation that is common in virtually every section in the AAPT. The NJAAPT is your organization and the membership should have a great say in what it is to accomplish. Get involved as a workshop leader, an executive board member, or an officer.

Ray Polomski

NJAAPT Membership Application below!

Build Your Own Particle Accelerator for Under \$30

With so much interest in the Large Hadron Collider (LHC) in the news lately, it's only natural that teachers would want to build their own version for the classroom. On Nov 16, 2009, a workshop sponsored by NJAAPT was held for physics teachers to build their own classroom-sized model of a particle accelerator.

The particle accelerator we built is similar to the LHC, except that the LHC is circular and the one built here is more of the linear-type. And the LHC was built on the France-Switzerland border, while ours were built in a classroom at the high school in Hillsborough, NJ. And the LHC accelerates protons while ours accelerates magnetic marbles. Oh, and the LHC cost around 6 billion dollars and took over 20 years to build, while ours cost about \$30, took a couple of hours on a Saturday to build, and also included some coffee and a bagel. But other than that, it's almost like the LHC if you use your imagination!

Seriously though... The workshop started with an introduction to using the constructed model in the classroom. Students can simulate collisions between a 'target', which is an isotope of some element constructed from the plastic magnetic marbles which is suspended at the exit of the 'accelerator'. Another marble or set of marbles, simulating a proton or alpha particle, is dropped through the top entrance of the accelerator. When it exits the accelerator tube, the 'particle' collides with the target and undergoes various types of reactions – breaking apart into new combinations of particles, or perhaps being captured. Students can then write reaction equations for the nuclear process that occurred. There are a number of other activities which are available on the website <http://www.jinaweb.org/outreach/marble/>

The model itself was not difficult or time-consuming to build, but that is a reflection of the many hours spent by Tibi Dragoiu and Joe Spaccavento in designing and planning how to build it in a short time. Tibi and Joe had attended a workshop on particle physics last summer at the University of Michigan, and have generously spent time to present a workshop that shows some of what they did there.

In addition to the model, participants received information and activity handouts, website resources, a CD and DVD, and a t-shirt. A number of participants expressed an interest in looking at the summer program at the University of Michigan. All of the participants were eager to find ways to use the device in the classroom.

Thanks to Tibi and Joe for all of their efforts, and to NJAAPT for sponsoring the workshop.

Nancy Michaelsen

Amusement Park Physics Workshop at Six Flags Great Adventure

Good news. We have met with the management of Six Flags Great Adventure in an effort to renew our partnership with them. Six Flags has requested that we conduct a workshop to introduce teachers to using their facility as a physics-teaching tool. It has been about five years since we sponsored such an activity and now it's time to do it again.

The date selected for the workshop is Saturday, April 17. Why do a workshop? There are new teachers who have not attended Physics Day with their classes or maybe they attended as a student. Why not show the connection between the amusement park ride and the basic physics concepts that are taught in class?

We know that the present packet of material contain rides that are no longer available for data gathering. Therefore the workshop can serve two purposes:

1. to introduce the rides as physics resources.
2. to begin the process of revising the workbook.

Tentatively, in conjunction with Six Flags Great Adventure, the workshop will hopefully include: free parking, breakfast, materials, entrance into Six Flags Great Adventure, and a reduced admission fee for family members of the workshop participants. The cost of the workshop will be held to as low as possible and hours toward the 100-hour requirement will be presented. There will be a limit of 20 on a first come basis.

Further information will be posted on our website: www.njaapt.org and that of Six Flags Great Adventure. An email regarding the registration and further information will be sent in March.

Ray Polomski

See Workshop Application below!

*Amusement Park Physics Workshop
Six Flags Great Adventure Teacher Workshop*

Name: _____

Home Address: _____

School: _____

School Address: _____

Home/Cell Phone: _____

Email: _____

NJAAPT Member? Yes _____ No _____

Please provide all information requested in case of cancellation of the workshop.

- Breakfast & Refreshments will be provided!
- \$20 for NJAAPT members, \$30 for non-members.
- No parking fee!
- Workshop Limited to the first 20 teachers!
- Registration deadline Wednesday, April 14th
- Documentation of professional development hours will be provided!

For more information contact Ray Polomski at r7429@optonline.net or 201-664-3920

Make check payable to NJAAPT and mail to:

**Ray Polomski
189 Richard Drive
River Vale, NJ 07675**

*Joint SEP/NJAAPT
Spring Meeting 2010*

Joint Meeting Information

We have mentioned that our Spring Meeting in Princeton is being replaced by a Joint Section Meeting at LaSalle University in Philadelphia. Much planning has been done to ensure the success of the venture among the NJ, SEPA, and Central PA Sections.

Listed below are the fee schedules for the meeting and they are very reasonable. We would like to host the next Joint Meeting in March 2011 at Princeton and it would be helpful if we had a nice turnout from NJ at LaSalle. Please consider attending and maybe participating by presenting a 15 minute program for the benefit all those in attendance.

Friday dinner only	\$25
Saturday workshop and breakfast only	\$35
Both sessions	\$50

There will be an additional \$5 for one day or \$10 for both days added to these fees for anyone registering within 3 days of the conference date or at the door.

Ray Polomski

See Joint Meeting Application below!

**Registration for AAPT regional conference at La Salle University
March 12 & 13, 2010**

Name _____ Date _____

School (name & address) _____

Email _____

Section: NJ ____ Central PA ____ SE PA ____ Other (specify) _____

Friday (March 12, 2010):

\$60 per person for PTRA workshop: Physics with Video Analysis

(Pre-registration required. This will be fully refundable if we receive an AAPT mini grant)

Pre-registration -- \$ 30 per person: Registration fee covers dinner, student poster presentations, & invited talk.

On-site registration -- \$35 per person.

Students may attend the evening session for free but need to pay for dinner: \$21 per student (pre-registration required)

TOTAL = \$ _____

Saturday (March 13, 2010):

Pre-registration -- \$40 per person: Registration fee covers talks, demos, continental breakfast and lunch.

On-site registration -- \$45 per person.

Students may attend the conference for free but need to pay for continental breakfast and lunch, \$14 per student (pre-registration required)

If you register for both Friday and Saturday, the pre-registration fee is \$65 per person, on-site registration is \$75 per person.

TOTAL = \$ _____

To register, please email Art Zadrozny at artzadrozny@gmail.com and tell Art that you are attending only Friday or only Saturday or attending both Friday and Saturday. Please make out your check to "SEPS/AAPT" and mail your check to: Art Zadrozny, Treasurer SEPS/AAPT, 1229 Gail Rd, West Chester, PA 19380. Please do this before **Feb. 22, 2010**.

Poster presentations - Friday, 6 pm – 7:40 pm. Students who are interested in presenting posters at the conference please follow the link for online submission before the deadline **Feb. 22, 2010**.

<http://www.aaptcps.org/phpFormGenerator/use/RegFormSpring09/form1.html> (or go to www.aaptcps.org then click on **Upcoming Meetings/Workshops**, then click on the **Online Poster Registration** link.)

Contributed Talks - Saturday, 10:45 AM – noon. If you wish to give a 10- 15 min talk/demo, please send the title and the abstract to Jessie Blair at jessieblair1228@hotmail.com on or before **Feb. 22, 2010**.

Please feel free to invite your friends and colleagues!



American Association of Physics Teachers

NJAAPT Registration and Renewal Form

Last Name: _____ First Name: _____ Middle Initial: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Occupation: _____ Employer: _____

Home Phone #: _____ Work Phone #: _____

E-mail Address: _____

Alternate E-mail: _____

Webpage: _____

Please make checks payable to **NJAAPT**

\$25 for a 3 year membership or \$10 for a 1 year membership

Mail completed application and check to our Treasurer:

Dave Bandel
41 Deer Path Drive
Flanders, NJ 07836

Welcome to NJAAPT - If your membership has been sponsored by a current NJAAPT member please identify that member so they are properly credited! (only applies to 3 year membership)

NJAAPT sponsor: _____