

# NJAAPT Newsletter

## September 2006

### *President's Message*

**Welcome back to another fun filled year of physics.** The summer has passed so rapidly that it may feel as if you hardly had a chance to catch your breath, but now it's time to get back to thinking of how we can best serve the students in our classrooms.

First, we have to take stock of our commitment to teaching and make every day a meaningful experience.

Second, we must continually try to improve our techniques to make learning a lifelong.

Third, we need to get involved in the activities of the section by attending workshops, attending meetings, or serving on the executive board.

All of these points were brought home when attending the AAPT Summer Meeting at Syracuse University in July. All we can do is ask what we can do for you as members and then we can plan for activities that will stimulate your intellectual curiosity. The fate of the programs we provide is in your hands – you decide whether or not we are meeting your needs - read Nancy Michaelson's article on her first summer meeting. Also, look at Fred Pregger's demonstration on diffraction.

**Have a great time in the classroom this year.**

Ray Polomski

### *Upcoming Events*

As our calendar year begins, we ask that you attempt to schedule at least one activity that the NJAAPT sponsors. The calendar of events should provide you with the opportunity to meet new people and to bring back to your classes new ways of introducing physics that are new and exciting.

One of our most popular events is held every December and that is the Holiday Treats program. This fills quickly since we can only provide space for thirty-five members. If you have not attended this great evening, talk to others that have. You will be surprised at what you are missing. Lots of materials for you to use and to share with others are donated, purchased or made for the event.

Regarding the Holiday Treats, we could use some help in providing for our attendees. You could help out by making an item for those attending or by possibly providing enough items for everyone. There's a lot of talent in our ranks and we would like to be able to tap into it. Why not share something you use as a demonstration or as a teaching tool with the rest of the section.

If you can do this, contact Ray Polomski at: [r7429@optonline.net](mailto:r7429@optonline.net). It would surely be appreciated.

# *AAPT National Meeting in Syracuse*

## *By Nancy Michaelson*

For the first time, I attended the AAPT Summer Meeting, which was at Syracuse University in July. I had never attended a summer meeting before, for many reasons---other summer plans, money, time, teaching subjects other than Physics, and just plain not knowing or thinking about the meetings, (excuses, excuses...)

I'll get right to the point---the meeting was amazing!

I started out by attending workshops on Saturday/Sunday. The first was the lecture-demonstration workshop on Electricity, Magnetism, Light, & Optics. Presented by PIRA\*, it was 8 hours of demos -- a marathon of 100+ demonstrations (well, I didn't actually *count* the number of demonstrations, but I'll take their word for it). Not only were the demos awe-inspiring, but so were the dozen or so people who facilitated the workshop.

Sunday I opted for a change of pace; a different, shorter workshop. I left some time to get outside, sightsee the area, and plan for the upcoming days. You need time to plan---there's just too much to see and do.

Monday through Wednesday were full days. The main problem was: how does one choose when there are so many events scheduled, some of which run at the same time?

There were lots of presentations, guest speakers, workshops, vendor exhibits (yes, free stuff), poster sessions,

“crackerbarrel” discussions, the PIRA room with make ‘n takes, the apparatus competition, the photography competition, and various receptions (yes, more free stuff). I found myself staying late at some sessions because the topics and the people were so fascinating and informative!

Don't think that all we did was attend sessions and take notes! There was fun to be had. Vernier sponsored an evening reception. You know, for some people, a good party means getting plastered. But for AAPT folks, a good party is food, drink, fun, music, dancing, a free plastic vernier caliper, and a double rainbow forming in the sky, with lightning, right after the thunderstorm we had. Now *that's* a good party!

This meeting was an incredible experience. It was an opportunity to meet Physics teachers from all over the US, at all levels of education, to share ideas and experiences. In some schools, there are few Physics teachers with whom to discuss Physics instruction, so meetings such as this provide a chance to see what is happening outside of your own classroom.

The only downside? I have too many things to unpack from the workshops and vendors. So much for trying to simplify my life --now I have more stuff. But it's a good thing.

So why should you go to the next national AAPT meeting? Go for the workshops, presentations, and professional development. Go to meet others like (and unlike) yourself. Heck, go for the free stuff. But, if I can give one word of advice, it would be....”Go!”

Next year's AAPT Summer Meeting: July 28-Aug 1, 2007 at the University of North Carolina, Greensboro, NC.

## Workshop Registration

Time to register for the first workshop of the season hosted by Jessie Blair at Monmouth Regional HS in Tinton Falls, NJ. The program will be a **Bed of Nails Make n Take and Sharing Ideas on Mechanics**. **Cost: \$15 for members and \$25 for non-members with a one year membership.** It's an easy location to get to and you will have a fun time with lots to bring back to your classroom. Mark **Sat. Sept. 29, 2006** on your calendar. To register, call Jessie Blair at: 732-531-4569 (evenings) or 732-542-1170x150 (days) or email: [jblair@monmouthregional.net](mailto:jblair@monmouthregional.net)

A registration form and directions to the school are available on our website: [www.njaapt.org](http://www.njaapt.org)

## Model Rocketry Contest

The Team America Rocketry Challenge (TARC) is the world's largest model rocket contest, which began in 2003 as a one-time celebration of the centennial of flight. The contest is sponsored by the Aerospace Industries Association and the National Association of Rocketry, with co-sponsorship by the National Aeronautics and Space Administration, the Defense Department, American Association of Physics Teachers, and 39 AIA member companies. Students must design, build, and fly a model rocket carrying one raw egg that reaches and altitude of 850 feet, while

keeping it aloft for 45 seconds and returning it to the ground with the egg uncracked. The goal is to encourage students to study advanced math and sciences and to consider studying aerospace fields in college. TARC is open to teams of students in grades 7-12 from any US school or non-profit youth organization (ex: Boy/Girl Scouts, 4-H, Civil AirPatrol). 2007 Contest Rules are posted on the website, and applications will be available September 6, 2006. Please visit us on the web at [www.rocketcontest.org](http://www.rocketcontest.org) and sign up to get updates and the latest details on this exciting, educational event.

## Fred Pregger's Demo Corner

Here's another simple idea.

This really happened. Quite a few years ago I was walking in my yard thinking about how to introduce the topic of diffraction to my freshman physics class. As I wandered a tiny feather about five centimeters long fluttered down in front of me from a little bird up in a tree. I picked up the feather, looked at it and saw a beautiful spectrum in the sunlight. Of course it was produced by the many parallel barbs of the feather and, "Eureka", I had my introduction. I kept that feather and used it for years, passing it around the class when I got to the topic. It was a very nice transmission grating.

Of course today you could do a similar thing with a CD or DVD as a reflection grating but the advantage of the feather is that with the naked eye or a simple magnifying glass you can easily see the parallel slits.

