

NJAAPT NEWSLETTER FALL 2007

President's Message

Can you believe that we are already at the time of the year when the NJAAPT really swings into action? But then again, we expect that there are activities for the section every month and the upcoming months are no exception. The list seems to be the same each year, however, there is always that change that makes it enjoyable to get out and do something different.

The executive board has been meeting to put together a diversified program of activities that should intrigue most of the membership. Along with the prospects of completing a calendar, we are trying to make it more efficient for the membership to register for workshops and to pay dues online. We have been investigating the use of PayPal to streamline the financial aspects of the organization and hopefully this should be active in the next few months. Needless to say, the job of being an executive board member is time consuming, but it also rewarding. Think about maybe participating in the life of the NJAAPT by volunteering to be on the executive board – meeting dates are posted on our website.

Now, a quick recap of what's happened so far. We made our presence felt at the NJSC in October with three Demo Dens, a Physics Teachers Roundtable, and presentations in the morning and afternoon session. Photos are on the website and there is an article in the newsletter. On October 20th, we co-sponsored with Bergen Community College and afternoon and evening meeting that was very well attended. See the newsletter article for a synopsis and the website for photos of the event. Jessie Blair hosted an Electricity and Magnetism Hands On Workshop on Nov. 3 at Monmouth Regional HS.

What will be happening in the next few months? Holiday Treats, the Physics Olympics, Dave's Demo Nite, and the sectional meeting at Princeton. But, by far, the biggest event is something that we are a part of – the Winter Meeting of the AAPT in Baltimore. Information on these events appear in the newsletter or on the website,

Please use the website to obtain information on the activities and keep us u to date on any changes that may occur with your email or mailing address.

Have a Happy Holiday Season and a Happy New Year.

Ray Polomski

NJAAPT & Bergen Community College Meeting

Saturday, October 20, dawned as an overcast day but the clouds dissipated by late morning to provide those attending the BBC/NJAAPT meeting with a glorious fall day. Proposed by Paul Griffo and Joe Sivo, faculty members at BCC, the day was planned to take advantage of the telescopes housed at the school and to provide the attendees with a speaker and a demonstration show.

Unusual as it was to schedule an event at 3 PM on a Saturday afternoon in the fall, about fifty people attended the program. Joe and Paul set up the solar telescopes in front of the Tec Building for viewing the surface of the sun. Although the sun did not cooperate by showing any sunspots, many were able to witness for the first time seeing a prominence. The telescopes were available for an hour and there was a constant stream of onlookers who wanted the opportunity to view the closest star to us.

Dr. Roger Opstbaum, a professor at BCC, was the featured speaker and his topic was “Teaching Global Warming.” His presentation was filled with information about the reasons for the recorded rise in average global temperature and numerous graphs and charts were shown to illustrate his points. As he noted, the major culprit is water vapor in the atmosphere that is the cause of the increase.

John Johnston, a retired physics teacher from Nanuet HS in Nanuet, NY, presented a demonstration show for the audience that was related to astronomy. Using a variety of commonly available items and some that he constructed, John demonstrated the principles behind the optics of the telescope, how spectra are formed, why sunspots appear dark against the background of the sun’s surface, and the Doppler effect. All of his demonstrations and what are needed to duplicate them were distributed in a handout to the audience.

Food and refreshments followed before the last part of the meeting – viewing the night sky with the 16-inch telescopes in the twin observatories at BCC. In groups of ten, they filtered into dome to get a good look at the moon, the M31 galaxy, and a double star system. Not only was this a thrill, but also the acoustics in the dome reminded more than a few of the phenomenon of focusing sound waves as they reflected off a curved surface.

Our thanks for a great day goes to Paul, Joe, Roger, John, and all the others who had a hand in making this a success. Needless to say, we will be back next year for a similar meeting.

(Photos of the event can be found on our website)

AAPT Winter in Baltimore

Jan. 19 -23, 2008

The AAPT's Winter Meeting is coming to Baltimore from January 19 – 23, 2008. There are many advantages due to the meeting being in our backyard and the opportunity to experience a national meeting is not to be missed.

There are many workshops on Saturday and Sunday that can enhance your physics teaching - not only do you get the chance to pick up information for use in the classroom, but you also can make some great contacts with teachers from different parts of the country. Then, of course, there are the exhibitors who open their booths Sunday night and continue through Tuesday afternoon. Posterboard sessions are scheduled from Sunday through Wednesday and you can speak to the individuals who come to share their research and ideas in an informal setting.

But of most interest to the membership should be Monday, January 21st. Even if you can't make the entire meeting or two or three days, this day is important to you. The registration if you choose to attend on that day is **FREE**. That's right, no charge for attending. It is being billed as Teacher Appreciation Day and it is the brainchild of John Layman to honor the physics teachers in the mid-Atlantic region. How can you beat the price? If you can attend the meeting for a few days, there is another bonus – as a regional educator your registration is **ONE HALF** the regular fee.

Why not take advantage of this bargain and visit with physics teachers of every level from around the country and beyond? Believe me, you'll have a great time. Look for the information about the free day in the newsletter and the reduced registration fee can be found on the AAPT's website, www.aapt.org.

Physics Olympics

Jan. 12, 2008

The Annual Physics Olympics is being held once again at Monmouth Regional High School and all expectations are that it will be another great competition among the numerous high school students who will be participating. Under the guidance of John Valente and Jessie Blair, this event has become a major competition and this year includes: Fermi questions, the catapult, the Cartesian diver, the marble coaster, long-lived gyroscope, and the wind power lifter.

To register, contact John Valente, John_Valente@mast.mcvsd.org, or call him at: 732 – 291 – 0995. Entrance fee is \$20.00 per team and the rules can be found at www.njaapt.org.

E & M Workshop at Monmouth Regional HS Nov. 3, 2008

Seven people attended. Anthony Lapinski started the program off by showing some demonstrations concerning light bulbs, insulators, and capacitor. Then John Valente took over with numerous demonstrations and materials for teachers to make motors, circuits, and electrostatics. Rich Urban sent 14 copper poles with magnets for each to take home and show the effect of a magnet. Before we began building things to take home, Erin Siebenmann gave a presentation on ISLE , a comprehensive learning system for Introductory Physics that engages students in experiences that mirror experiences of practicing scientists. Jessie was in charge of refreshments and preparing everything as needed.

It was such a great experience and there was so much sharing that instead of ending at 12 we ended at 1:30 p.m. We are looking forward to the next one after the Holidays.

Answers to Some Questions About the AAPT Winter Meeting

Here are a couple of questions I asked of John Layman regarding the registration for the AAPT Winter Meeting. If you have any other questions, email Ray Polomski at r7429@optonline.net.

John:

At a meeting of the NJ Science Teachers Association executive board last evening the following questions were raised regarding the registration which I hope you can answer.

1. On Jan. 21, is the free registration limited to only physics teachers from NJ or is it open to any science teacher who is interested in attending?

Monday is High School Physics Teachers Recognition Day, designed for high school physics teachers. Thus the no cost registration fee is for high school physics teachers from anywhere in the country, but we are advertising

it within the Sections in the geographical area of Baltimore. Members of the region's sections are eligible for a 50% reduction in fee, if they are not high school physics attending only the Monday program.

2. More difficult - the reduced registration rate for the meeting - does it only apply to currently active physics teachers or do retirees get lumped into the mix? The reason for asking is that an active teacher if a member would pay less to register than a retiree - my calculations about \$143 vs. \$200.

Attendees from the regions of the designated Sections, whether members of the sections or not are eligible for the 50% reduction in fees. I had not thought about a 50% reduction of regular fees vs. retiree fees.

I just consulted my Registration Confirmation, and see that I was given a 50% discount on the Retiree Fee as a Regional Educator. The phrase Regional Educator should apply to all categories for persons who qualify as a Regional Educator.

It looks to me as though a Regional Educator full registration would be \$142 while a Retiree full registration would be \$100. An active teacher eligible for the 50% discount would of course pay less than a retiree who was not eligible for the Regional Educator discount.

Seems complicated, but I think I have it right. Keep the questions coming until we agree.

2007 – 08 Schedule of Events

**Dec. 1 – Holiday Treats – Rutgers U – Physics Lecture Hall –
Registration: contact Dave Bandel at: DarandDave@optonline.net**

**Jan. 12 – Physics Olympics – Monmouth Regional HS
Contact: John Valente at: John_Valente@mast.mcvsd.org**

**Feb. 8 – Dave's Demo Nite – Rutgers U – Physics Lecture Hall - FREE
Contact: Dave Mauillo at: maiuillo@physics.rutgers.edu**

**Mar. 14-15 – NJAAPT Sectional Meeting – Princeton U.
Information to follow**

NJAAPT Participates at the NJSC

Once more the NJAAPT presented a number of sessions at the New Jersey Science Convention on October 10 – 11. We sponsored a roundtable session, workshops, demo dens and we also honored some members at the Awards Dinner.

Seventeen people attended the Physics Teachers Roundtable hosted by Ray Polomski and Joe Spaccavento. The vast majority of the time was spent discussing the problems faced teaching physics at the freshman level and its implication for the physics teaching community. Although no final conclusions were drawn, the participants exchanged a wide variety of thoughts on the subject.

Ray Polomski presented a workshop entitled: “Activities for the Physics Classroom.” This was meant to introduce the attendees with different types of activities that were developed or obtained from workshops over a thirty-five year teaching career.

Joe Spaccavento used his affiliation with QuarkNet to introduce the purpose of the project and to encourage individuals to participate in the summer program at Rutgers University with follow-up sessions during the school year.

Thanks to the organizational efforts of Borislav Bilash coordinated the Physics Demo Dens this year. The three sessions covered the concepts of electrostatics, the physics of sports, and work, power, and energy. Thanks to the efforts of Jay Waldstein, Tom Meyer, Benilda San Jose, Borislav, Dave Maiullo, Frank Oleksy, Ray Polomski the Demo Dens brought a wealth of information to the audience. Thanks for a great job.

On Wednesday evening at the conclusion of the NJSC, the Awards Banquet was held to honor individuals who have made contributions to science education. The NJAAPT has continued to honor members of the section that have made an impact in their classroom or in the functioning of the section. This year we have had the opportunity to honor the following for their contributions to Physics Education:

Jim Kovalcin – our webmaster and executive board member

Dick Hodson – retired Montclair State University Professor, workshop leader, and former executive board member

Dave Bandel – treasurer, executive board member, workshop leader

Joe Spaccavento – section rep, executive board member, workshop leader