

**APS Forum on Education
Executive Committee Virtual Meeting (teleconference)
October 19, 2002
Minutes and Notes by Ernie Malamud**

Voting Members Present: Wolfgang Christian, Karen Cummings, Paula Heron, Ken Krane, Ernie Malamud, Ramon Lopez, Richard Robinett, Gay Stewart, Dean Zollman

Non-voting Members Present: Stan Jones, Charles Holbrow (AAPT President Elect) Fred Stein (APS Director, Education and Outreach Programs), James Wynne

Voting Members Absent: Robert Ehrlich, Jack Wilson, Pete Zimmerman

Non-voting Members Absent: Thomas Rossing, Robert Clark (COE)

Ken called the meeting to order at 8:05 am, PDT. The agenda he sent on Oct. 15 was followed. (**attachment 1**).

HOUSEKEEPING ITEMS

Minutes of the Executive Committee meeting of April 21, 2002 (Albuquerque) were approved.

Treasurer's report for FY2002 (ending June 30, 2002) was approved.

Meetings

- The next virtual meeting was tentatively set for Saturday, January 4, 2003. Ken will poll the committee by email before finalizing this date. Later in the meeting we discussed using "Learn-Linc" or some similar product for the next virtual meeting. The consensus was negative. So we'll use old technology teleconferencing.
- The next face-to-face Executive Committee meeting (and the FEd Business meeting) will be during the April APS meeting in Philadelphia and probably both will be on Monday, April 7.
- A proposal was made to hold another face-to-face Executive Committee meeting during the AAPT meeting, followed by an open session and a reception. The next logical time and place for this would be at the AAPT National Meeting in Madison, Wisconsin, August 2-6. There was discussion (later in our meeting) on whether AAPT members would look favorably or unfavorably on such a presence in their meeting. No conclusion emerged. Charlie will discuss this idea with the AAPT Executive Board.

REPORTS

Fred Stein: Report from APS (attachment 2)

The new brochure from the Committee on the Status of Women in Physics is ready for distribution. Fred asked for distribution suggestions. The Minority Scholarship Program is currently funded through the "Campaign for Physics." This funding will last until the end of 2003.

Teacher days planned for both the March and April APS meetings; all are invited to participate.

"Physics on the Road" will bring together those who take experiments and exhibits out to schools (physics vans) aimed at grades 4-7. The conference will be held February 22-23, 2003 at Colorado State University in Fort Collins, Colorado. FEd Executive Committee members are invited to participate.

Details: attachment 3

The VIII InterAmerican Conference on Physics Education, in Havana, July 7-11 was discussed. <http://www.physics.ohio-state.edu/~aubrecht/IACPE.html>. Obtaining official permission to travel to Cuba may take a long time so applying early was advised. There will not be a “spousal group” although the APS is trying to get that changed.

PhysTEC. There are 6 schools enrolled and two more “in the wings.”

Wolfgang Christian: Program report (attachment 4)

It was agreed to combine the Business Meeting including the presentation of APS (FEd) fellows with the Open House. Ernie asked whether or not we should offer to pay travel for a fellow who would not normally be coming to the meeting. The consensus was negative.

Gay Stewart: Nominating committee

Gay has received a lot of nominations so far, but none from industry or the National labs. It is important that the Executive Committee represent the diversity of our FEd membership. Jim Wynne suggested we could seek nominations through FIAP. Gay will follow up on that idea. The deadline for nominations is 14 weeks before the April meeting. So the goal is to have a slate of candidates by late December and in time for a January teleconference.

Charlie Holbrow: AAPT report (attachment 5)

There was an extensive and productive discussion of ways to build bridges between AAPT and APS. Jim Wynne reminded us that historically the FEd was created in part to bridge this gap. Wolfgang suggested that FEd sponsored sessions at the April meeting be open at no charge to AAPT, and that this be tried at the Philadelphia meeting. Fred Stein followed up and his successful response is below:

(email from Fred Stein). Monday, Oct. 21.

Judy, Donna, and I have discussed and approved the following plan for the April meeting:

AAPT members will be allowed free admission to all four AP S FEd sessions at the April APS meeting, with the following conditions:

1. AAPT members attending the meeting must have their name on an up-to-date membership list that is provided to APS by AAPT just before the meeting.
2. AAPT members will then be issued a special badge at the conference booth good only for the FEd sessions (advance sign-up will not be an option).

The AAPT “Announcer” will advertise these sessions.

Paula asked if AAPT could do something reciprocal, e.g. at the AAPT National Meeting in Austin January 11-15, 2003, to allow APS members to attend at no charge. Charlie agreed to bring this up at the next AAPT Executive Board meeting. Ramon Lopez pointed out that there are a lot of APS members in industry in the Austin area. So, assuming that APS members are encouraged to attend the AAPT meeting in Austin an email “blast” informing them of the meeting can be done.

Wolfgang suggested that there be one APS Forum session in each AAPT meeting.

Karen asked how much overlap there is between FEd and AAPT in membership. Charlie responded that there was very little at the Ph.D. granting institution; most of the faculty members are in the APS and not in AAPT. AAPT membership is around 10,000 compared to 4,000 in FEd (out of 40,000 in APS). Of the 10,000 AAPT members, 28% are High School teachers. 3000 AAPT members are also members of the APS.

There was a request to see the AAPT statement on Physics First. **(attachment 6)**

APS Council (Pete Zimmerman). No Report.

Ken Krane: COE report (attachment 7)

Mike Lubell, in his statement at our April Executive Committee meeting encouraged FED and COE members to meet with appropriate staff in the funding agencies to discuss the FY '04 funding for education. An appropriate time to organize such a visit would be before or after the APS Unit Convocation, scheduled for Saturday, February 1, 2003.

There was a great deal of discussion of a proposed APS Education Award. Originally it was to be given to an individual and Ken Heller distributed a draft wording at the April meeting. Ken's wording seemed to exclude Physics Education Research. The difficulty is finding a language that is unique to APS and not just a duplicate of already existing AAPT awards and prizes.

So the idea has been proposed to make the award to a department rather than an individual. Many expressed the opinion that this would be too difficult – to really know that a department was exemplary, site visits would be required, and these would be costly and time consuming. Wolfgang felt there could be criteria (not involving site visits), e.g. the number of papers co-authored by undergrads, or letters from undergrad alumni, that could narrow the selection down to a “short list” that would be manageable with site visits. Ken feels that preparing the nomination package (self-nomination) will be useful a useful process benefiting the departments themselves. Karen made the interesting suggestion that each year the selection could be regional, both for the departments and the site visit committee. This would reduce the burden of the site visits. Executive Committee members are invited to send comments to Wolfgang, Chair of the COE Subcommittee considering this award.

Ken Krane: NTFUP and NFW reports (attachment 8)

Ken encouraged us to look at the site visit reports. <http://www.bsu.edu/csh/physics/spinup.htm>

Jim Wynne: Website report

Jim will remove the obsolete link to the summer database. He discussed recent hit statistics. Ernie will send him information and suggestions on “meta words.” **(attachment 9)**

DISCUSSION ITEMS

Newsletter

We discussed the mechanics of newsletter layouts. Producing the html and the pdf for individual articles is fairly easy. Producing a pdf version of the entire newsletter, in the “classic” 2-column format, suitable for printing, distribution at meetings etc. is fairly time consuming. Using Microsoft Publisher it takes 10-20 hours per issue. Both Ernie and Stan have done this now. Approaches have been made to the APS to take over this function but they have not been enthusiastic. Wolfgang will investigate asking them again, and this time seeing if they could charge us for the work. In the meantime, Stan will see if there is a student who can do the forthcoming Fall 2002 issue.

The consensus was negative on the proposal to mail the Table of Contents of first 6 electronic issues to all members.

The consensus on the proposal to mail the current issue to all Physics Department Chairs was less clear but there was not much support for this idea.

Everyone was in favor of distributing our FED newsletters at APS Topical, Sectional, Divisional Meetings and AAPT meetings. We need to find a mechanism. Dean Zollman said he would distribute newsletters at AAPT meetings.

Ernie strongly urged members of the Executive Committee to write at least one newsletter article during their 3-year term. They can also be most helpful in suggestions topics and “volunteering” others (colleagues) to write articles.

Budget

We briefly discussed meeting costs. In general we do not pay for speakers at our invited sessions, but are flexible when we bring in speakers from outside the APS community (e.g. high school teachers, science museum people etc.).

There was little discussion of the ½ year transition budget (July 1 – Dec. 31, 2002). There needs to be a budget subcommittee to work on a budget for FY2003. These items are important and will be dealt with “off-line.”

Membership

In the past a letter was sent to “lapsed members.” APS can produce a list for us. Ernie has samples and will send them to Ken.

People like the idea of producing a flyer/poster that could be distributed at meetings. Ken volunteered to make one. Ernie said that several years ago there was some work done on it and will mail that information to Ken.

Balloting

It was agreed that we will use the APS service for Electronic Balloting in our next election.

Education programs at APS meetings

Ken is preparing a letter to the Chairs of all APS units offering to work with their Education Committees. The goal is to encourage more discussion of physics education at Divisional and Sectional Meetings.

Ernie: Can we begin a tradition that at least one session at the April meeting has joint sponsorship with AAPT, and at least one session at the major AAPT meeting has joint sponsorship with FEd?

Teacher Licensure Issues

Ken presented an idea for the Forum to actively participate in this crucial issue. First of all there needs to be a “heads up” state by state of the schedule when teacher licensure criteria are being reviewed. Then working with Fred’s office and using the database of FEd members in each state, a team would be formed to get involved in the discussion early enough to influence the discussions. Ken appointed a subcommittee (Rick, Karen) to propose procedures for accomplishing this.

The meeting was adjourned at 11:03 am PDT.

ATTACHMENTS

1. **Agenda**
2. **Fred Stein: Report from the APS**
3. **“Physics on the Road” Conference details**
4. **Wolfgang Christian: Program report**
5. **Charlie Holbrow: AAPT report**
6. **AAPT statement on “Physics First”**
7. **Ken Krane: COE report**
8. **Ken Krane: NTFUP and NFW reports**
9. **Jim Wynne: Website report**

Date: Sat, 19 Oct 2002 14:38:56 -0400
From: James J Wynne <jjwynne@us.ibm.com>
To: malamud@fnal.gov
Subject: Re: Number of "hits" on Forum on Education web page

Ernie,
As promised, here is the information on FEd web site hits that was supplied to me by Joanne Fincham. This constitutes my report to the FEd ExCom.

Jim

Hits on specific Forum on Education web pages for September, 2002, prior to the email announcement to FEd members that the Summer 2002 newsletter was now available on the web: to the email announcement to FEd members that the Summer 2002 newsletter was now available on the web:

160: /units/fed/summer2002/
1263: /units/fed/spring2002/
2441: /units/fed/

Hits on specific Forum on Education web pages for October, 2002, through Oct. 17, following the announcement of the Summer 2002 newsletter:

2168: /units/fed/summer2002/
803: /units/fed/spring2002/
4891: /units/fed/

James J. Wynne, Ph. D.
Office of Research Headquarters

**American Physical Society
Education and Outreach Programs
Report to Fed
October 2002**

Overview

The APS Director of Education and Outreach works with all units through four APS standing committees: the Committee on Education, the Committee on Careers and Professional Development, the Committee on Minorities, and the Committee on the Status of Women in Physics. The APS/Education web site contains descriptions of programs, committees and links to current innovations in undergraduate education. <http://www.aps.org/educ/>.

Committees

- **The Committee on the Status of Women in Physics (CSWP)** continues an active site visit program (originally started with NSF funding) to universities and, more recently, national labs. Members from corporate partners raised funds to create a new brochure *Physics in Your Future* to encourage middle school girls to consider physics as a career. COE also coordinates the APS/IBM research Internships and has launch the listserve *Friends of CWSP*.
- **The Committee on Minorities (COM)** continues its program to award 20-30 two-year university scholarships each year to minority students majoring in physics. An email Mentor program was initiated. An evaluation of this program is on-going. COM has also launched a survey to determine the number of minority Ph.D. physicists employed at the DOE national labs. COM has also produced a new poster.
- **The Committee on Education (COE)** has endorsed the statement on the web, *Why Study Physics*. It has also approved submitting the statement *Physics for Everyone* to POPA and the APS Council. COE has discussed the APS role in promoting digital libraries for science education.
- **The Committee on Careers & Professional Development (CCPD)** has created the Web Site Bulletin Board to post announcements and inquiries about jobs and professional development activities for faculty and their students.

Programs

- **Teachers' Day** at the APS March and April meetings brings 50-100 high school teachers from the local area in contact with conference scientists for a day of hands-on workshops and cutting-edge talks and discussions.
- APS is helping to **organize a conference in Colorado in February 2003, to promote Mobile** Physics Outreach.
- APS is helping to plan the VII Interamerican Conference on **Physics Education** to be held in Cuba July 4-7, 2003.
- APS is a partner in the **National Task Force on Undergraduate Physics** and their current project of college and university site visits.
- APS is a partner in the annual **New Faculty Workshops** and in the **Conferences for Physics Department Heads and Chairs** held annually at ACP.

- APS is an active, registered **lobbyist** informing and assisting the U.S. Congress to consider policies that will ensure a high level of resources for science research and science education at all levels.

Physics Teacher Education Coalition: A Grant Supported Program

- PhysTEC is a program to improve the science preparation of future K-12 teachers. It aims to help physics and education faculty work together to provide an education for future teachers that emphasizes a student-centered, hands-on approach to Learning science. APS, in partnership with AIP and AAPT recently hired a full-time PhysTEC Coordinator, Kevin Aylesworth to manage the project. <http://www.phystec.org>

For additional information, contact:

Dr. Fredrick M. Stein

Director of Education and Outreach

American Physical Society

(301) 209-3263

stein@aps.org

Mobile Physics Outreach

Physics on the Road

APS Conference on traveling physics experiments and exhibits

The American Physical Society is organizing a two-day Conference on Physics on the Road on February 22-23, 2003 at Colorado State University in Fort Collins, Colorado. The goal of the Conference is to bring physics faculty and staff together to demonstrate, promote, and disseminate the many approaches to producing traveling physics experiments and exhibits. Leaders of several of the top traveling physics programs in the country will tell what they do, and how and why they do it. We anticipate that this will encourage others to initiate their own programs. The Conference will begin with a visit to the annual Little Shop of Physics Open House at Colorado State where participants will be able to view a very large number of hands-on experiments that are taken on the road in Colorado.

The participants in the Conference will consist of ten people who are experts in the field of Mobile Physics Outreach and at least 15-30 people who want to learn more about activities that they can initiate on their home campus. We anticipate that most attendees will pay their own way, but we will be able to offer partial support to approximately 25 participants. As a member of the FEd executive board, you are invited to attend. As we discussed by phone, it would be very helpful (since our budget is small) if FEd supported the travel for you and others you may recommend. I would be very pleased to ensure a FEd presence at the meeting with posters and materials.

After the Conference, APS will develop a database of traveling physics outreach programs across the country. In order to foster increased communication, cooperation and sharing of ideas among different programs, we plan to build a website on traveling physics programs. This conference will also begin the planning activities for The International Year of Physics 2005. We will assist departments that want to initiate new programs.

Dr. Fredrick M. Stein
Director of Education and Outreach
American Physical Society

Program Committee

Report to Fed

October 2002

APS March Meeting. FEd Sessions

Science Education Outreach from Science and Technology Centers (1 Slot)

Organizer: David Haase

Speakers: David Haase, Stephen Thornton, Ramon Lopez, Lisa Hunter, Fiona Goodchild

Career Transitions: Physics in Africa (1/2 slot with FIP)

Organizer: Henry Glyde

Speakers: Abebe Kebede, Lebohang Moleko, Mulugeta Bekele, Edmund Zingu, A. Wague

APS April Meeting. FEd Sessions

Teaching Quantum Mechanics (1 Slot) Monday @ 10:45

Organizer: Peter Shaffer

Speakers: Mario Belloni, Joe Redish, Richard Robinett, Chandralekha Singh

Physics Demonstrations in the 21st Century (1 Slot) Sunday @ 10:45

Organizer: Richard Berg

Speakers: Richard Berg, Louis Bloomfield, Clint Sprott, Catherine Crouch

The Impact of Advanced Placement and teacher preparation on
Students, High Schools, and Colleges (1 slot) Saturday @ 12:00

Organizer: Jerry P. Gollub

Speakers: Jerry Gollub, Robin Spital, Fred Stein, David Hammer, Penny Moore

History of Physics in Physics Education (1/2 slot with FHP) Saturday @ 2:30

Organizer:

Speakers: Steve Brush, Dave Cassidy, Peter Galison, Bob March

Research and Education Outreach (1/2 slot with FPS) Tuesday @ 8:00

Organizers: Al Saperstein and/or Andrew Post Zwicker

Speakers: (TBA by FPS)

APS April Meeting Events

Physics Education Showcase and Open House

Tentative date/time: Monday 5:00-7:00 PM

FEd Executive Committee Meeting

Tentative date/time: Monday after Teaching QM session.

- Since the Forum shares some common goals with the AAPT, the AAPT Board has expressed interest in finding more ways for the two organizations to cooperate.
 - might the Board like to co sponsor a meeting with the Forum in the future. He noted that the AAPT and APS Forum on Education had co-sponsored a paper session at a NSTA meeting. The Board responded favorably to this suggestion
 - might AAPT reprint in the *Announcer* articles published in the FED news letter and vice versa?
 - offer AAPT membership on APS application forms and vice versa?
- AAPT continues to be interested in the status and formulation of the proposed APS Award in Physics Education. Holbrow expressed belief that the APS is sensitive to our concerns
- The AAPT Board approved the following statement to be sent to members of the US Congress in conjunction with the public recognition of the US Physics Team in the International Physics Olympiad.

As Congress approves funds for education for the 2003 fiscal year, we urge you to support K-12 science and math education, particularly programs that enable pre- and in-service professional development for teachers. Congress can do this by funding the Math and Science Partnership Programs within the Department of Education and the National Science Foundation at the levels called for in the relevant authorizing legislation: \$450 million for the Education Department Partnerships in P.L. 107-110 and \$200 million for the NSF Partnerships in the House passed H.R. 1858.

- AAPT is cooperating reported with the NSTA to organize a paper session at the NSTA meeting in Albuquerque, similar to the one organized by the AAPT at the NSTA meeting in Baltimore. Essentially the session was a strand of one-hour long papers.
- Khoury summarized recent funding awards received from the NSF:
 - for Rural PTRAs
 - for SPIN-UP/TYC proposals;
 - for New Faculty Workshops
 - for the Introductory Calculus-Based Physics Conference;
 - for ComPADRE (Community for Physics and Astronomy Digital Resources for Education).
- Planning Initiatives. AAPT has adopted two additional initiatives for the coming year:
 - Assist Cross-Over Teachers,
 - Promote Outreach to Other Disciplines.
- ComPADRE: Bruce Mason, Director of the PSRC, reported that NSF will fund the ComPADRE (Communities for Physics and Astronomy Digital Resources in Education) proposal in the amount of \$900 K. The proposal is a collaboration of the AAPT, the APS, the AAS and the AIP Society of Physics Students to develop a physics digital library that will provide physics and astronomy communities with electronic access to materials that enhance learning. The AAPT serves as the fiscal organization for the grant.

Charles Holbrow, AAPT President-Elect

AAPT and PHYSICS FIRST

PREAMBLE

The Executive Board of the American Association of Physics Teachers (AAPT) recognizes that teaching physics to students early in their high school education is an important and useful way to bring physics to a significantly larger number of students than has been customary. This approach – which we call “Physics First” – has the potential to advance more substantially the AAPT’s goal of Physics for All, as well as to lay the foundation for more advanced high school courses in chemistry, biology or physics.

We believe the following actions are necessary to have useful and successful Physics First programs:

- *consultation between administrators and teachers in choosing the content and level of Physics First courses. In this way, the choices can be guided by the teachers’ familiarity with their students’ capabilities.*
- *development of materials and pedagogy appropriate to the mathematical preparation and cognitive development of Physics First students. They will be appreciably younger than students in traditional high school physics courses.*
- *discussion of the level, content, and purposes of Physics First with parents and other concerned members of the local community.*
- *provision of training and workshops to help teachers develop and teach Physics First.*
- *development of a Physics First curriculum that provides students an intellectual foundation for the study of chemistry and biology later in their high school education. To this end teachers of these different disciplines need to work together and coordinate their curricula.*

The introduction of Physics First programs will create two especially pressing needs: a need for new teaching materials – textbooks, laboratories, assessment tools, etc. – suitable for Physics First students – and a need to recruit teachers to teach Physics First. These people will need in-service training and support to help them become skilled and comfortable teaching Physics First curricula. Because in any given school sufficient teachers for mounting a Physics First program are likely to be obtained only by recruiting teachers from other science disciplines, it is urgent to provide these “cross-over” teachers training and support for the teaching of physics in general and the teaching of Physics First in particular.

RESOLUTION

Recognizing that Physics First has the potential to foster greater scientific literacy and to help integrate physics, chemistry, and biology syllabi into a more rational sequence in high school education American society, AAPT resolves

- *to encourage Physics First programs developed taking the actions described above.*
- *to encourage the development of teaching materials that are useful and effective in teaching Physics First with particular attention to the need for cooperation and coordination of Physics First with chemistry and biology courses.*
- *to foster the development of workshops, in-service training and in-service support that will help teachers at all stages of their careers develop, implement and teach Physics First programs effectively. Particular attention will be given to encouraging and assisting teachers of other disciplines who become involved in teaching Physics First.*

COE report
Forum on Education Executive Committee
October 19, 2002

1. COE has endorsed the proposal to make 2005 the International Year of Physics, organized around the theme "Einstein in the 21st Century."
2. COE continues to consider the possibility of an annual APS award in physics education. In addition to a possible award to an individual, the possibility was discussed to offer an annual award to a physics department. A subcommittee was set up to prepare a draft of an award proposal for the next COE meeting.
3. "Physics for Everyone": COE approved the following statement, which has been forwarded to POPA:

The American Physical Society was founded to support "the advancement and diffusion of the knowledge of physics." In keeping with this goal, the Society supports the aim of having all students study physics. In the elementary and middle school grades, physical principles and ideas should be an integral part of science learning and should be approached through activities intended to help students appreciate these ideas at a level appropriate to their development. At the high school level, every student should take a program of laboratory science courses that includes physics. A primary goal of the teacher should be that all students understand the central ideas of the subject and appreciate the role these ideas play in the world around them. The knowledge of physics is fundamental for the understanding of chemical and biological processes and is essential for decision-making in a technological society. Demonstrated success in increasing the number of students studying physics has been shown in schools that have implemented a program placing physics at the beginning of a three-year science program. The improvement of the teaching and learning of physics requires programs that support teachers, offering opportunities for them to improve their knowledge and skill in teaching this subject area and providing them with teaching materials and resources appropriate for this task.

NTFUP and NFW Reports
Forum on Education Executive Committee
October 19, 2002

1. National Task Force on Undergraduate Physics
(<http://www.aapt.org/programs/ntfup/index.html>)

Project SPIN-UP (Strategic Programs for Innovations in Undergraduate Physics) conducted site visits to 23 departments in 2002. Reports of the site visits have been distilled into a set of “case studies” which are available on-line at <http://www.bsu.edu/csh/physics/spinup.htm>. An article appeared in the Summer 2002 FEd newsletter and an article is forthcoming in APS News. A survey document designed to elicit details of undergraduate programs was sent to all 750 U.S. institutions offering undergraduate degrees during the summer of 2002. A 74% response rate was received. Information from the survey is currently being processed. A final report based on the site visits and the survey will be available later this year.

Because the site visits did not include any institutions with large minority populations, NTFUP will hold a workshop on recruiting and retaining minorities in physics at its next meeting in December 2002.

SPIN-UP/TYC (Two-Year Colleges) has been funded by the NSF.

NTFUP will organize a conference on the calculus-based introductory course later this year. Ramon Lopez and Bob Beichner are chairs.

2. Workshop for New Physics and Astronomy Faculty
(<http://www.aapt.org/programs/npaf.html>)

A new 5-year grant has been received from NSF to continue the workshops. The 7th workshop in the series will be held November 7-10 at ACP. Co-sponsors are AAPT, APS, and AAS. Nearly 100 nominations were received this year for 70 openings; about 80 were accepted. A follow-up session is being planned for the March 2003 APS meeting. Other follow-up sessions will be planned for other APS divisional and sectional meetings and AAPT meetings.

Forum on Education Executive Committee
October 19, 2002
11 a.m. – 2 p.m. EDT
8 a.m. – 11 a.m. PDT

AGENDA

Housekeeping items (20 minutes):

1. Approval of minutes of meeting of April 21, 2002
2. Treasurer's report
3. Set date of next meeting

Reports (40 minutes; reports should be submitted to membership in advance of meeting):

4. Report from APS (Fred Stein)
5. Program report (Wolfgang Christian)
6. Nominating committee (Gay Stewart)
7. AAPT report (Charlie Holbrow)
8. APS Council (Pete Zimmerman)
9. COE report (Ken Krane)
10. NTFUP and NFW reports (Ken Krane)

Discussion items (2 hours)

11. Newsletter
12. Budget
13. Membership
14. Balloting
15. Education programs at APS meetings