



Forum on Education

American Physical Society

Forum on Education Executive Committee Meeting Sunday May 3, 2009 Minutes

Voting Members Present: Peter Collings, David Haase, Laird Kramer, Sam Lightner, Ernie Malamud, Bruce Mason, Chandralekha Singh, Gay Stewart, Amber Stuver, Stamatis Vokos, Larry Woolf

Non-voting Members Present: Ted Hodapp, Jack Hehn
Guests: Tom Rossing, Judy Franz

Meeting Highlights:

- Support for the Advanced Labs Topical Conference at the AAPT Summer Meeting was tentatively approved, pending receiving more information from the organizers about other support and what would be funded.
- The Division of Plasma Physics will be co-hosting the AAPT Plenary.
- For the joint APS/AAPT meeting in February 2010, Larry Woolf will work on identifying AAPT sessions that should be co-sponsored, and listed, by the FEd. He is also collecting recommendations for APS Plenary speakers.
- Stamatis Vokos is organizing the AAPT Symposium on Physics Education at the joint meeting, focused on Teacher Preparation. He will look into having the APS as a joint sponsor of this session and avoiding conflicts with other education sessions.
- The FEd Executive Committee Meeting and Reception/Business Meeting will be during the February meeting.
- TeachSpin wishes to sponsor a prize for advanced laboratories. This needs to be discussed with Alan Chodos, the CoE, and the Awards Committee.
- Newsletter editors are Ernie Malamud and Carl Mungan (Summer 2009), Chandralekha Singh and Paula Heron (Fall 2009), and Amber Stuver (Spring 2010).
- A survey of members indicated that the FEd can play a role in encouraging volunteer efforts in education and more broadly disseminate information about APS efforts.
- APS reports included new grant funding, reports on Graduate Education, and ideas on improving diversity.
- The FGSA is drafting a statement on graduate student issues and would like to work with the FEd on this statement.
- The CoE has endorsed a statement on research experiences for undergraduates and PER as a research field in Phys Rev Letters.
- The efforts of Judy Franz, Tom Rossing, David Haase, and Ernie Malamud were recognized by the Executive Committee.

Meeting called to order: 12:11 pm MT

Review of the Agenda (Ernie Malamud)

The Executive Meeting overlaps other FEd events during the meeting. We should try to avoid this, if possible, in the future.

The Minutes from the 2/24 Teleconference were approved

Chair's Report:

This year the Forum has published 3 newsletters, held relatively well-attended sessions at the meetings, and sponsored a member survey to learn more about the interests of the members.

Secretary-Treasurer Report:

The budget for 2009 was presented. The FEd reserves continue to increase. There was a question of whether the APS might sweep funds from divisions or forums. Ted indicated they will not.

There was a discussion of the Advanced Labs Topical Conference. The APS is already supporting this through Ted Hodapp's budget. The conference organizers want to have at least 100 people. They have requested support from the FEd for travel or shipping of equipment. More information will be requested and a final vote on the level of support held soon. It was pointed out that re-granting of funds was a lower priority for the FEd.

Information about this conference should be made available through the Newsletter. An article from Jonathan Reichert has already been published.

Councilor's Report:

The Committee on Education has expanded to 12 members, 9 at-large plus 3 from the FEd. APS is pleased with what's happening with education. Continuing collaboration with the AAPT is important and meetings between the FEd and the AAPT should continue.

There was a question about the status of education with Ted's budget being cut. This is because everything is being cut and is not targeted at education. The board is working as best it can to keep the education budget going.

Program Chair Reports:

2009 Programs Report:

March Meeting: There were 10 sessions plus a workshop.

April Meeting: There were 10 sessions.

Attendance at these sessions has been fairly good, with 50 – 90 people in the invited sessions and 25 – 40 in the focus sessions.

The FEd is co-hosting, with the Division of Plasma Physics, a Plenary session at the Summer AAPT Meeting. The DPP is organizing the speakers.

This is an important effort and FEd program chairs and other members need to be aware and working on this.

There was a question as to which APS Unit might do the 2010 AAPT meeting Plenary, with Condensed Matter Physics suggested.

2010 Programs Report:

Planning for the 2010 meetings are in the preliminary stages, with the program committee being organized. The FEd has the same allocations of invited sessions as in past years.

The "April" meeting in 2010 will be the APS/AAPT Joint Meeting, February 2010 in Washington DC. The APS and AAPT meetings will be separate meetings held at the same time, with separate programs. This is mainly due to the work that would be necessary to integrate computer systems, more than is reasonable for a single meeting. Invited sessions will be independent, but they can be cross-sponsored between the two organizations. FEd can do this as we feel appropriate. For example, PER sessions fit naturally under FEd sponsorship. Pat Viele has requested co-sponsorship of an information literacy session.

The Committee empowered Larry Woolf to make decisions about sponsoring AAPT sessions, with feedback from the program committee. The APS and AAPT program chairs will be working to minimize time conflicts between sessions.

It was also suggested that the FEd put together, or push for the creation of a booklet containing educational talks. The suggestion was also made that the FEd should urge that these meetings become a regular event. Ted Hodapp said that this has been discussed. This is all part of continuing refinements of the April Meeting, which consistently loses money.

Stamatis Vokos is organizing a session at the February meeting on teacher education. It will be based on a report from a task force on this topic. This will be a continuation of the AAPT Symposia on Physics Education that have occurred over the past few meetings. This is an ideal topic for a Joint AAPT/APS session. The organization will be through AAPT, but APS should endorse this. This should be discussed with Judy Franz to minimize conflicts with APS events. Stamatis will pursue this with Judy and copy Ted, Larry, and Peter.

Because of the joint nature of the February meeting, suggestions for Plenary speakers on Education would be very appropriate. Suggestions should be forwarded to Larry.

The February meeting will also overlap one day with the NSBP/NSHP conference. There is a plan for a large Saturday Plenary involving all four societies. Mel Sabella is involved in the organization of this session.

The FEd Business and Executive Committee meetings should probably be at the February meeting because of the larger attendance of the people

involved. The only problem is that the schedule will already be very busy, so finding a suitable time will be difficult.

One request that has come from the APS is that more women speakers are invited. Currently women represent only 11% of speakers.

The deadlines for the submitting session requests for the meetings are as follows: February Meeting - July 1, sorting Categories, July 31 invited sessions; March Meeting – July 10, focus sessions, July 24 tutorials, Oct invited sessions.

A focus session has been suggested for the March meeting involving Mathematics Education Research.

Jonathan Reichert from TeachSpin has requested that the FEd sponsor a Special Invited/Contributed session each year on advanced laboratories. He would also like to sponsor an award each year for the best presentation from the previous year. Due to the limited number of allowed FEd sessions, we can't commit to this. However, we could consider doing this one year to see the interest and participation.

The idea of a prize or equipment competition will need to be discussed with Alan Chodos. If it is recognized by the APS, it will need to be approved by the Council. The Committee on Education needs to consider it as well.

A possible alternative approach to this was to put together focus sessions around any award winners. There was also the suggestion that this fits better with existing competitions held by the AAPT.

Newsletter Reports:

A motion was made and approved unanimously to express the FEd's gratitude to Tom Rossing for his many years of service as an editor and writing the Browsing section. All members of the committee were thankful for his efforts for the FEd.

Summer 2009 (Ernie Malamud)

Carl Mungan from Naval Academy has agreed to work with Ernie on the Summer newsletter, and to become an editor in the future. This is a return to a previous structure of the FEd with editors as non-voting members of the Executive Committee. Ernie is collecting materials and URLs for the talks from the March and April meetings for the Newsletter. This takes a lot of effort and may not be worth the time.

Print copies of this newsletter will be distributed at the summer AAPT meeting.

Fall 2009 (Chandralekha Singh)

Chandralekha Singh and Paula Heron will co-edit the Fall Newsletter. This will include reports from the Foundations and Frontiers in PER Conference, summer 2009. Themes will include Challenges of collaboration, Defining terms, Textbooks for PER, and Resources and theoretical frameworks for PER. The goal is to have this together by November.

Spring 2010 (Editor Needed)

An Editor for the Spring and Summer 2010 Newsletters is needed.

Amber Stuver is interested in editing the Spring 2010 Newsletter. Topics might include outreach and education programs with graduate students, and GK12 programs. Announcements of this Newsletter could be sent to the FGSA as well as the FEd.

Ernie noted the timing for publication of newsletters so that they are available for meetings. This would mean the Spring 2010 newsletter should be completed early for the APS/AAPT meeting in February.

There was a discussion of further topics for newsletters. These included the Advanced Lab conference, regular columns for or by Graduate students, and Browsing/Browsing the Web columns from Carl Mungan.

Membership Survey Discussion:

Survey Report and Discussion (Ernie Malamud)

The results of the FEd membership survey were discussed. This was a project that Gay Stewart and John Thompson helped put together. There was a 17% response rate. The survey included 5 open-answer questions.

The basic outcome of the survey is that the FEd members are interested in working on education-related efforts, but need help and guidance from the FEd and the APS. They are interested in having specific tasks and initiatives on which to contribute. There was also an interest in working locally, perhaps with APS or AAPT sections or other local physics education alliances. However, about 1/3 of the respondents suggested that the FEd just continue with its traditional efforts sponsoring sessions and publishing newsletters.

There was quite a bit of discussion of the role of the FEd relative to APS initiatives. The APS is doing things in education, teacher preparation, and public outreach. The FEd can advertise and sponsor, perhaps even fund, some of these efforts. The Forum can be a conduit for this information and to stimulate interest and activity. To be useful, this should be very clear and specific information of immediate use to Forum members. Jack recommended Science360.gov as an example of providing this information.

The efforts mentioned included providing information and resources on:

- New curricula for various physics courses

- Studies of educational reform
- PTEC
- AAPT collaborations
- Collaborations with FGSA and other APS units
- Outreach efforts and resources from the APS
- Videos of famous physicists on teaching
- Broader Impact efforts on grants
- Information suitable for scientists in industry

Chandralekha suggested the creation of a sub-committee of FEd to take a leadership role in this.

Ernie asked for recommendations for next steps in this effort. Informing the membership about the survey through an article in the newsletter was recommended. This might be discussed at the Summer AAPT meeting.

There was a discussion of how these sorts of activities fit into the history of the FEd. During the creation of the FEd there were concerns about overlaps with the AAPT. Things have worked out well but discussion, collaboration, and joint planning is important. Judy Franz also noted that the FEd was meant to reach out to all APS members including those not directly involved in education.

APS Reports and Discussions:

Ernie read a thank you letter for Judy Franz recognizing her strong support for and leadership of educational efforts of the APS. He then presented a present thanking her for her work. Judy noted that this is not the type of letter she usually gets.

Judy Franz feels that the sessions organized by the FEd are excellent and the Forum is providing a very good service. She is pleased to hear ideas about the FEd extending its efforts beyond planning sessions at meetings. She noted that because of the number of units and the limited APS staff, much of the efforts of the units will require the work of volunteers.

Stamatis asked about the report of the Task force on Teacher Education in Physics. The AAPT will use the symposium at the joint APS/AAPT meeting to present the report. The hope is that this is sponsored by the APS as well as the AAPT and AIP and will not overlap with APS education-related sessions. It would be good if a broader audience, including policy makers, would come to this event. The difficulty in doing this was noted. The report and recommendations should be sent to physics departments, school systems, and policy makers. APS can help with this.

The listing of education sessions from both the APS and AAPT at the February meeting was discussed with Judy. She recommended a sub-set of AAPT talks be selected by the FEd for inclusion in the APS program. Larry Woolf will work on such a list with the AAPT.

Ted Hodapp reported several education news items from the APS:

- Bo Hammer has been appointed the Assoc. Exec. Officer of AAPT. He has strong ties to the APS. There are several co-branded efforts in the works between the APS and AAPT, such as the "Partners in Physics" web site. There was a question about collaboration with others such as the NSBP, NSHP, and MentorNet.
- A new APS staff person, Crystal Bailey, will be starting in July. She will start by working on Careers and Marketing the Physics Degree.
- The PhysTEC II grant has not yet been funded, but the APS has received positive responses from the proposal. This is a \$7M grant submitted in 2007.
- A Noyce Grant for \$750K has been funded. This will help PhysTEC Legacy Sites support Teachers in Residence.
- The report from the Conference on Graduate Education in Physics has been completed. It includes issues of mentoring, diversity, departmental climate, etc. Janet Tate, Chandralekha Singh, and Michael Thoennessen were in charge of the conference. Copies of the conference report will be sent to departmental chairs and national labs. The report is available on the web.
- The new APS Executive Officer will be announced within a week.

Issues relating to diversity and minorities in physics were discussed. Although representation of minorities in college is about the same as in the general public, it is less than 10% for physics bachelors, 5% for physics PhDs, and 4% for physics Associate Professors. Minority PhD's are level at about 30 per year. This is in contrast to women with increases of about 4% per decade.

There was a question about the FEd's role in increasing these numbers, perhaps through promoting mentoring efforts. One possible solution is bridging programs between undergraduate and graduate schools. This could be encouraged through APS scholarships, if there were external funds available. Example programs are at Vanderbilt and University of Maryland, Baltimore County. The APS Board is interested in this. This should be a broad program covering African Americans, Hispanics, and Native Americans.

The Gender Equity report has resulted in continuing conversations. It has promoted discussions about the climate for women at all levels of physics.

Graduate Student Issues:

Amber Stuver discussed the interests of the Forum on Graduate Student Affairs and issues with graduate students. The FGSA is, of course, very interested in education efforts and improving the climate for students. They are working on communication with other forums and societies, with a focus on the FEd and AAPT Grad Education committee. Helping Directors of Graduate studies and graduate instructors connect with these educational issues could be a joint effort.

The FGSA is drafting a statement about the ethical the treatment of graduate students. This is meant as recommended best practices. The Forum would like input into this development and support in bringing this through the APS for adoption. Chandralekha noted that the Graduate Studies Report and the report from the Graduate Education Conference includes some of this information. Ted recommended case studies assembled by the Ethics working group.

Committee on Education:

Peter Collings is Chair of the CoE and is just starting as Chair of the FEd. This is unusual. As a reminder, the CoE is a policy arm of the APS and reports to the Council and APS Board. The CoE advises on outreach, lobbying, and educational activities of the APS. The FEd is an interest group serving its membership.

The CoE recently endorsed a statement encouraging research opportunities for undergraduates. The rationale is well documented. The purpose is to provide some incentive for departments to make research a priority and to encourage funding choices. This does not mean every program should be required to provide the opportunities. Much of this may be done off camps, in the summer or even as part of a laboratory course. This statement has been endorsed by the SPS Council and may be sent to the APS Council. The AAPT is considering this as well.

In a CoE discussion with the editor of Phys Rev it was recommended that PER articles be published in Phys Rev Letters. This is happening in "Physics", Science, and Nature. The editor is willing to consider this change.

The status of PER Research as a research area was discussed in relation to the statement encouraging research for undergraduates. This is becoming accepted. For example, REU programs have PER students. There are PhD programs in more than 12 universities, so it should available for undergraduates as well. There may be questions about the desire to encourage a laboratory experience. The CoE will consider this issue.

The CoE endorsed the statement on Graduate Education.

The FEd received a request from Carl Wieman and Bob Biechner to support a survey of Physics Department Chairs on the diffusion of educational innovations. It was felt that the CoE is more appropriate for this, but some communication with the FEd membership would be good.

Outgoing Chair's Statement:

Ernie expressed his appreciation to the FEd Executive Committee members, those incoming, those leaving, and the continuing members.

In his role as Past Chair he is gathering suggestions for APS Fellows. He currently has 10 nominations and a good committee working on this.

Ernie turned over the gavel to Peter.

Incoming Chair:

Peter thanked Ernie for doing a great job and David Haase for four years of energy in helping to run the FEd.

Peter noted that the FEd By-Laws outline the Forum's role to encourage APS discussion and involvement. Meeting sessions and newsletters provide the discussions but we need to encourage more involvement. The survey results showing that members want to get more involved is important. The FEd must link to more local groups and provide APS members access to educational resources.

More Business:

Sam moved the formal appreciation of the efforts of Ernie and David.

Chandralekha noted the information from the unit convocation that $\frac{3}{4}$ of the FGSA members are not in other forums. (FGSA has about 3700 members and the FEd has about 4900 members). In fact many APS members are not on any forums although membership in two is free. We might want to consider this to increase FEd membership. FEd had been growing steadily, but had a small dip in membership this year. Perhaps marketing, including a 1 page flyer and more information on the web is needed.

The meeting adjourned at 3:07 pm MT.

**APS Forum on Education
Budget Projection, FY 2009**

Item	Rev/Exp	Total	Balance
Balance Jan 1, 2008		19,711.08	19,711.08
Projected Revenue			
Dues	19,325.00		
Meeting Revenue, March	1,000.00		
Meeting Revenue, April	1,200.00		
Investment Income	1,200.00		
Revenue		22,725.00	42,436.08
Meeting Expenses			
Fee Waivers & Participant Support	(1,500.00)		
Reception	(800.00)		
A/V	(150.00)		
Committee Meal	(600.00)		
		(3,050.00)	
FEd Exec Comm. Travel			
		(6,000.00)	
Program/Sorting Travel			
		(800.00)	
FFPER Conference			
		(3,000.00)	
Topical Conf. on Adv. Labs			
		(2,000.00)	
Mini-Grants			
		(1,000.00)	
Supplies			
		(100.00)	
Postage			
		(100.00)	
Phone			
		(600.00)	
Newsletter Printing			
		(700.00)	
Total Expenses		(17,350.00)	
Balance			25,086.08