



# Forum on Education

American Physical Society

**Minutes**  
**Forum on Education Executive Committee Phone Conference**  
**Tuesday, October 17, 2006**

**Present:** Mary Creason, Karen Cummings, Noah Finkelstein, David Haase, Paula Heron, Ted Hodapp, Larry Woolf, Ernie Malamud, Bruce Mason, David Meltzer, Peggy McMahon, Dick Peterson, Tom Rossing

The meeting as called to order at 1:05 pm CT

**Minutes – Bruce**

The committee needed more time to look through the minutes.

Dick – AAPT is in the process of negotiating with other associations about joint meetings.

The final approval of the minutes will be done by electronic vote.

**Treasurer’s Report – Bruce**

Item	Rev/Exp	Total	Balance	2005
<b>Balance Jan 1, 2006</b>		16,717.61	16,717.61	40,313.51
Revenue				
Dues	16,312.00			
April Meeting	1,199.00			
March Meeting	774.00			
Investment Income	931.43			
<b>Revenue</b>		19,216.43	35,934.04	56,844.60
<b>Meeting Expenses</b>				
March Travel (Heron, Lopez, Mason, Malamud, Zimmerman)	(8,284.07)			
March A/V Expense	(784.25)			
Decorator Expense	(39.00)			
March Ex. Comm. Meeting	(744.20)			
March FEd Reception	(5,517.39)			
March Newsletter Printing	(406.59)			
Sorting Travel (Norris)	(441.61)			
Fee Waivers (Rogers, Paoletti, Christian)	(900.00)			
AAPT Travel (Schatz)	(648.87)			

AAPT Newsletter Printing	(725.05)			
<b>Meeting Expenses</b>		(18,491.03)		
<b>Supplies/Postage/Phone</b>		(73.99)		
<b>Gordon Conference</b>		(3,025.00)		
<b>Excellence in Teaching Award</b>		(4,059.40)		(18,940.60)
<b>Total Expenses</b>		(25,649.42)		
<b>Balance</b>			10,284.62	

**Projected Revenue/Expenses 2006**

Item	Rev/Exp	Total	Balance	2005
<b>Balance</b>		10,284.62	10,284.62	
Estimated Meeting Expenses				
Sorter Travel	(500.00)			
AAPT Reception	(3,422.00)			
<b>Meeting Expenses</b>		(3,922.00)	6,362.62	
<b>Projected Balance</b>			6,362.62	

**Excellence in Teaching Award**

**Assets:** \$115,222.00

David M. – How are the funds from meetings determined? Is it from number of members attending or number of sessions? Do we get more from the March or April meeting?

Ted – Funds are divided by sessions, session types, and number of members at the meetings. Not much money is made at APS meetings.

Dick – The AAPT reception after the FEd session is expensive. The sessions are very successful and have good visibility, but price is an issue.

Peggy – There was no bill from the previous two years. This year the reception was larger because it was right before lunch.

David H. – There were lots of people at the AAPT reception.

Peggy – The FEd reception at the March meeting was more expensive because it was in the hotel. We had to guess the number of people at the reception.

Ernie – It would be good to have the receptions near the talks.

Peggy – This year the reception will be in the same room as the session or right outside. The invited session for the Education award is 2:30 – 5:30 and the reception is immediately after.

Bruce – The FEd reception in 2005 cost \$2,000

**Nominating Committee - Peggy**

The Nominating Committee is being formed for Ernie. We need a name from the APS. We have names from the AAPT and the FEd. There are four people total. There will be the positions on the ballot: Paula and Larry are rotating off the committee, and there is an election for the presidential chain.

Karen – Karen's service dates on the web site are incorrect. She was re-elected so 3 years need to be added.

**Programs - David H**

The March meeting has a very good schedule. (PER, Undergraduate Physics Research, Electricity and Magnetism from the GRC, PSSC, Physics Education & Outreach, Non-equilibrium Statistical Mechanics)

There are 5 sessions planned for the April meeting. Bob Beichner will do a session on PER & the Phys Rev Special Topics - PER. Outreach from National Labs, HS Physics research, ½ with Physics & Society about popularizations, 1 more PER that David M. and Karen are planning. ½ session left. Perhaps we will co-sponsor a session with the Forum on Physics & Society on American competitiveness initiative?

David will be going to all the sorting meetings.

**Education Award – Ernie**

The awards have been announced, but letters may not have gone out yet. Seven different, very nice letters were written. All 7 awardees have been invited to travel on the award money. Because there isn't any single entity to receive the award, there is plenty of travel money available.

Peggy – The FEd will pay for other invited travel and the reception afterwards. McLarin Smith-Williams and Charlie Holbrow will be supported.

Ernie – There has been discussion to create another award certificate because award is going to Israel. Perhaps this can be displayed at the APS. Bruce will ask about the APS or the award paying for this.

Peggy – We'll pay for the certificate if necessary. We want to hold the costs to about \$5k for the reception and travel?

**General discussion –**

It was agreed that the reception should not be extravagant, but nice. It was suggested that we do tickets to pay for some of the drinks. This will be in the Convention Center right after the talks, a time for people to socialize. It is also an opportunity to recruit members to the FEd. Costs for the reception will held to around \$3k. This includes posters to display information about the PSSC and perhaps the FEd. There is also discussion of creating a DVD to distribute, and perhaps sell, with some of the PSSC classics.

**Meeting Planning – Peggy**

We need to know who will need support to come to the FEd events at the meetings. David M., Paula, and Ernie responded that they will need some support.

Because the Executive Committee Meeting is in March, we probably won't support travel to the April meeting.

David M – I will need some help to get to the April meeting for FEd sponsored events.

Ernie – To save money, the Executive Committee meeting should be as close as possible to other events.

David H. – The FEd sessions start at 11 on Tues.

Peggy – We can do this as a whole day, with a breakfast FEd meeting and then sessions and reception for the rest of the day.

Ernie – This will save money. There are also FEd sessions on Monday, as well as the Awards Ceremony.

David H. - Thursday is the joint session with Non-Linear Stat Mech.

**APS Report – Ted**

There is a New Teacher Prep editor for the newsletter, John Stewart from the University of Arkansas.

Statistics from the NTFUP are being pulled together. Ken Krane & Marty Johnston are working with Roman Czujko at the AIP.

PhysTEC is expanding the number of sites in the coalition. The desire is to spread this out to other institutions. Mailings are going out, in particular to signees of the AAPT/APS statement to teacher preparation. The FIPSE request for 3 years of PTEC was not funded. This will scale back PTEC a little.

A proposal to the NSF is being prepared from the COE for a Graduate Education Conference (Tate, Singh, Tennyson, Hodapp). The request will be about \$72k and the event will be in July of 2007. This is a follow up on Grad Ed Task Force. The goal is to bring directors of graduate studies together, probably at the ACP.

A Gender Equity workshop, mostly with chairs of departments, is being planned for May 7-9. Partial DOE funding and funding from NSF is likely. Arthur Bienenstock, and Nora Berra (WMU) are organizing this. The proposal not yet been submitted. It will probably be at the ACP by invitation.

PoPA is processing a statement on Careers and Professional development. It states that students have a wide range of opportunities so preparation should go beyond traditional skills to communication, ethics, etc. This statement will go to APS Executive Board and Council.

An Education Initiative from the APS board, in parallel with AAPT, has been discussed. The question is “If we raise ½ million dollars, how would this be spent on education?” What else should we do? Teacher preparation is a large piece of this.

Another issue is to increase the number of undergrad majors. The number of graduating students has gone from 3,800 to 5,200. Is it possible to reach 10,000? How can this be done? Options include targeting minorities, the number being about ¼ of what it could be, and women, reach ½ of majors. Smaller colleges and Universities only have 3-5 majors per year so there may be a way to impact smaller programs.

This idea is not meant to increase the number PhD’s, but number of undergrads. Of course, this will increase the quality and number of applications to PhD programs.

How can we address this issue? How can the FEd support this?

Ernie – This is very interesting, but it would be good to have something to read outlining all of these ideas.

Ted – I will write this up in a few weeks.

David H – This seems like a worthwhile effort. The COE has discussed this and are generating ideas. The FEd needs something in hand to look at and discuss.

Mary – Are we setting up to raid other departments? Isn’t this a zero sum game?

Ted – Physics is only 2% of the total STEM pool, so doubling our majors will not have a large impact. There should also be ways to pull students from outside STEM.

Paula – There is also the possibility of increasing the number of double majors.

Mary – We don’t need to produce more Masters and PhD’s.

Ted – Yes. This is not about the PhD.

Mary – Where are these people going? Are we doing to turn them into something other than traditional physicists? We’ll need to look at REU’s and internships outside of physics. This will help with training for where they might end up.

Noah – To play devil’s advocate, why should we do this? Traditionally what we have wanted are grad students. If we consider this some sort of training process, is this really what we want physics education to look like?

Ted – CoE talked about the quality of the programs.

Noah – We should encourage the funding of programs that improve education. It should be made explicit that the quality will be improved. To increase the numbers of students and access we need to also work at large research universities. The physics programs are disproportionate to the engineering programs.

Ted - Very few Universities give out more than 20 degrees per year. In Biology it is common to have 100 degrees per year.

Larry – This effort needs to be student centered and not department centered. How is physics a better choice for students? This should not be to revitalize physics departments, but to give a better life for the students.

David M – Groups have worked on this issue in the past. I'm not sure if reports exist.

Ted – I will talk with David M about what has happened in the past. This is a collaboration with AAPT. "Above the Gathering Storm" also mentions this. This will also help with the number of physics-trained teachers. It will pull in larger piece of undergrad market.

Peggy – If Ted writes something up, we can have a phone conference to further this discussion.

**AAPT report** – Dick

There is not much more than what has been previously discussed. The AAPT board is meeting in 1 ½ weeks and would like some further information on the ideas on increasing majors just discussed.

Starting January, Ken Heller will be on the FEd Executive Committee.

**Newsletters** – All

Paula – The Fall Newsletter is still missing a couple of articles. The topic is Biophysics and physics for biology. We could use short notes on how to do this. The names for the Teacher Prep articles are in. Can I get some help with formatting?

David H/Peggy – We have some cost estimates, between \$700 and \$900 for a Newsletter of about 40 pages. There are probably lots of people who can do this. It will help the editors quite a bit.

Ernie – Tom has used students in the past. That cost about \$400. This allows the Editor to oversee the processing directly. It is time consuming.

The APS does the online version. Templates have been created for both print and web versions.

David H – Is the online version an issue? Can we use just use the pdf version created directly from Word?

Ernie – We don't know what the users want. The pdf version is harder to create than the web version. Taking care of the pictures, sizing, and pagination is a problem. This is all defined in the templates, including the headers, text, and references.

Paula/Peggy – Should the formatting be done locally or should one person always be responsible for it?

Ernie – What is the length of Fall issue?

Paula – I don't know yet. The authors were given a suggestion about length. It will probably be shorter than recent newsletters.

Ernie – We need to include information about the award.

Peggy – I will put this in the Chair's Report. There will also be something about the March/April sessions, to advertise what's going on.

Peggy – For the Spring Newsletter we should use Karen's suggestion for Education & Outreach at research centers.

Tom – I will be happy to edit a newsletter. I would prefer the summer.

Peggy – Tom will do the summer newsletter and we will give help to editors for formatting. Perhaps we should do a newsletter without a theme?

Larry – Perhaps we could do something on K-12 education and curriculum?

Tom – There have been quite a few articles on this in the past.

Paula – We could consider K-12 teacher prep, but that's a different topic.

Larry – The newsletter could cover what is out there and the training available.

Paula – This might connect to the PSSC effort?

Peggy – Perhaps Charlie can write something up?

Larry – Could we cover the Instructional Materials Development efforts at NSF. I will help with this, perhaps as a guest editor.

Tom – Have we short changed the industrial members?

Ernie – There were several of these efforts included last summer. There were some complaints from the national labs that they aren't being included.

Peggy – In particular, Quarknet didn't go in.

Ernie – We could put in a few more national lab articles.

Larry – This will fit into the Spring Newsletter on physics education and outreach at research centers.

Peggy – We should also include Interdisciplinary Frontier Centers, MRSEC's, etc.

Anyone with ideas should email Karen. The summer newsletter will be K-12 curriculum with Larry as a guest editor.

Larry – This could include middle school and high school curriculum reform efforts.

#### **Newsletter Index – Larry & David M**

Larry – David M and Larry are doing the index. Larry has finished the 1990's, David needs to do the 2000's. We should post what has already been done.

Tom – Will the editor have input on the index?

Larry – We'll send this around to everyone to look at.

#### **Newsletter Subcommittee**

Ernie – There is no chair, so one needs to be appointed. I will move forward with this.

Peggy – Will it be possible to have something by March?

Ernie – We should do a ballot-like interactive form to ask members what they want from the newsletter. We can use the APS election tools, but it should be separate from the Executive Committee election.

#### **PER Foundations Conference – Paula**

The Forum supported the previous Foundations Conference. They are again requesting funds for graduate students. This will be in August of 2007.

Peggy – We should have another conference call in a few weeks. The focus will be on new education initiatives and Ted’s report. We might add a few other items to the agenda.

Tom – Is anyone going to the AIP research frontiers in San Francisco? The theme is Nanotech.

Peggy – I might go.

Tom – The registration is expensive. There might be material there that can be shared with the FEd.

Peggy – I’m still looking at this.

The meeting was adjourned 2:27 pm CT.