

**APS Forum on Education  
Executive Committee Meeting  
May 3, 2004  
Adams Mark Hotel, Denver  
Notes by Ernie Malamud; revised 5/15**

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***Voting Members Present:*** Paula Heron, Ramon Lopez, Ernie Malamud, Gay Stewart, Pete Zimmerman

***Voting Members Absent:*** Wolfgang Christian, Karen Cummings, Robert Ehrlich, Paul Grant, Ken Krane, Richard Robinette, Michael Zeilik

***Non-voting Members Present:*** Charles Holbrow (AAPT), Tom Rossing (Newsletter Editor), Fred Stein (APS Director, Education and Outreach Programs)

***New Voting Members Present: (term began at Business Meeting that evening):*** Margaret McMahan, Larry Woolf

***Non-voting Members Absent:*** Beth Cunningham (CoE)

***Other Attendees:*** Alan Chodos (Associate Executive Officer of APS), Judy Franz (APS Executive Officer), Jack Hehn (Director, AIP Education Division), Ted Hodapp (NSF), John Layman (AAPT, PhysTEC Co-PI), Duncan McBride (NSF)

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**FEd by-laws specify a quorum of 6 voting members including 2 officers. This requirement was not met. Therefore this was not an official meeting of the FEd Executive Committee.**

The meeting was called to order by Gay Stewart, Acting Chair at 1:40.

#### **Treasurer's Report (Ernie)**

As of March 31, 2004 we have available funds from the APS of \$53,064.

My last report was made during our teleconference of October 25, 2003.

The only significant expense since then is the \$500 mini-grant to the Four Corners Section.

#### **Education Award**

The establishment of the Education Award is one of the most significant actions of the CoE and FEd in recent years and the Forum will devote a substantial portion of its resources to getting this Award "kick-started." An endowment of \$100,000 needs to be established in order for the award to begin.

Up to \$30,000 of FEd funds over the next two fiscal years will be used to match contributions. This was approved by the FEd Executive Committee in its October 25, 2003 meeting (teleconference) and subsequently confirmed by the APS Executive Board in their April 29, 2004 meeting.

Various upper limits on how much would be matched were proposed. The idea is to encourage many small contributions. However, the APS Executive Board decided to leave this out so we could be more flexible on using the match. There was no clear consensus on this issue. We have heard informally that \$7,000 has already been donated, which means with the match, \$14,000 towards the endowment.

If the \$100,000 endowment can be raised by June 2005, the award of \$5,000 could begin in 2006.

Charles commented that AAPT is raising money to endow the Oersted Medal and the Melba Newell Phillips award.

### **Councilor's Report (Pete)**

Pete relayed the discussion at the APS Executive Board of the new APS Education award. It must not compete with AAPT awards and prizes. The APS award can be given either to a group or an individual. However, to avoid conflict with AAPT, it will most often be awarded to a group and rarely to an individual.

Pete also relayed some of the discussion on professional ethics: guidelines for authorship of papers and references in papers to other work. I have copied the following from the APS web page:

SUPPLEMENTARY GUIDELINE ON REFERENCES IN PUBLICATIONS (Adopted by Council, April 30, 2004) Authors have an obligation to their colleagues and the physics community to include a set of references that communicates the precedents, sources, and context of the reported work. Proper referencing gives credit to those whose research has informed or led to the work in question, helps to avoid duplication of effort, and increases the value of a paper by guiding the reader to related materials. It is the responsibility of authors to have surveyed prior work in the area and to include relevant references. Proper and complete referencing is an essential part of any physics research publication. Deliberate omission of a pertinent author or reference is unethical and unacceptable.

### **NSF Division of Undergraduate Education (DUE) (Duncan McBride and Ted Hodapp)**

Duncan and Ted described the various programs they administer in DUE. The programs are aimed at various aspects of undergraduate education. DUE programs have influenced physics education and that in turn has influenced education in other fields. The programs are not well recognized or acknowledged. A program of prime interest for physics education is Course, Curriculum, and Laboratory Improvement (CCLI). <http://www.ehr.nsf.gov/duel/programs/ccli/>. CCLI has had a tremendous impact on PER. AAPT has sent a letter of support of CCLI to the NSF. They will share this letter with us so the Forum could also send such a letter.

### **PhysTEC (Fred)**

PhysTEC is "blossoming." The sites are taking a comprehensive look at enhancing teacher education. There are unexpected results, e.g. two sites are going to offer courses at the local community college. Funding is going well so it is clear the idea is growing and more sites are being added. In a majority of the sites, the number of teachers has exceeded expectations.

### **APS (Judy and Alan)**

Judy was asked if FEd could change the number of allocated sessions from April/March = 4/2 to 3/3. She said it was too late for 2005 but a request (from our Chair) could be made for 2006.

Judy also discussed Helen Quinn's long range planning initiative. This is a 10-year plan and one thing for us to think about is how we would like to see the Education component of the APS evolve over this time period. Gerald Mahan, APS Executive Board Member-at-Large is the person concerned with education issues in the long range planning process. He is encouraging us to give him input. PH: 814-865-6092, EMAIL: gmahan@psu.edu.

Judy suggested that we ask AAPT to sponsor some of our FED sessions. Paula, Karen and Michael Zeilik as the APS/AAPT members on the Executive Committee can look into this possibility.

### **World Year of Physics (Alan and Judy)**

The main item of discussion was the World Year of Physics 2005 (WYP). They would like to see us have sessions at the March 21-25, 2005 (Los Angeles) and April 16-19, 2005 (Tampa) meetings with WYP as a theme.

They are planning to have a teleconference of the unit Program Chairs to discuss how most effectively to celebrate WYP at meetings.

John Layman encouraged us to “brand” our newsletter and web page with the WYP logo.

We were encouraged to follow up on Wolfgang’s idea to approach MacDonald’s to do placemats. To use images of Einstein permission is required from the Albert Einstein Archives, Department of Manuscripts and Archives, The Jewish National and University Library (Jerusalem).

### **Teacher Licensure (Ted Hodapp)**

Ted pointed out a disturbing trend. In a growing number of states, because of the need for science teachers, the “All Sciences License” is becoming more common. This lowers the bar rather than training teachers in the disciplines they teach. It is better to have discipline-based licenses. Ted also discussed the kind of person and attitude required to influence the licensure process. He has proposed an action plan: needs to “buy” an APS staff person for two weeks. That person would contact all the states to find out in which ones licensure was being revised. That person would then contact FED members in those states and advise them how to get involved. Ted’s plan went to CoE and they in turn appointed a subcommittee. He will send his action plan to the FED officers; perhaps we can push it directly.

### **Nicholsen Medal**

The FED has been asked to nominate people.

### **Program Committee Report (Gay)**

Attendance at FED sessions has been very good at both the March and April meetings.

### **Budget Discussion (Ernie)**

The last time our budget subcommittee of Wolfgang, Ken Heller, Tom Rossing, Dean Zollman and Ernie met, we came up, as usual with a long list of worthwhile things to use our money on.

Let me run through the list and status:

1. **Kick start the Physics Education Prize.** Up to \$30,000 in 1:1 matches to contributions. This is approved
2. **Outreach Handbook.** Resource material for physicists to use to promote physics in K-12 schools and contribute to informal science education. It was generally agreed that such a handbook would be useful. However, we did not reach consensus on whether the resource guide should be hard copy or only on the web. Such a resource is of increasing relevance because of DOE and NSF emphasis on outreach in proposals. Research scientists need guidance. There is a continuum from the extensive programs at

Fermilab down to very simple ideas on how to give a tour to your legislator. Tom will prepare an outline. Ramon will track down the North Carolina booklet he described.

3. **Registration waiver for high school physics teachers for March and April meetings.** This is already happening in conjunction with Teacher's Day. Teachers who participate get free registration for the meeting so this doesn't use FEd funds.
4. **Awards at State Science Fairs.** This was to have been implemented from Fred's office. Fred looked into it and told us he didn't think it was feasible because of the vastly differing ways in which State Science Fairs are run.
5. **Print and mail one issue of the newsletter each year.** If this group agrees it could be the summer issue, of which I am the Editor, or the fall issue of which Tom is the Editor.
6. **Mini-grants.** Up to 8/year and up to \$500 each approved. We have awarded the first one. Need to advertise them. E.g. they could be used in some cases (e.g. to support CSWP) for colloquia.
7. **Pay the registration fee of new fellows at the meeting (this one) where they are presented with their certificates.** This is happening.
8. **Co-sponsorship with an APS Division of a special session at an AAPT national meeting.** Expenses will be the reception as well as reproduction of materials to be handed out by the speakers. This first of these will be at the 129<sup>th</sup> National AAPT meeting in Sacramento. We will have a better idea of how much this will cost afterwards, but I'm guessing between \$500 and \$1000.

Ramon feels the FEd needs to be more involved in undergraduate physics education. Would like to hold a conference, which would give strategic planning assistance to teams of Dean, Dept. Chair, Faculty from a few schools. (10 teams at most). Would like \$5K from FEd and will ask for matching funds from APS and AAPT.

Paula wants to have a PER conference in 05 with about 70 people. FEd can sponsor such a meeting a put some money into it.

### **Newsletter (Tom)**

Tom fears that our newsletter may not be considered as significant as it used to be. He says it is easy to get "show and tell" articles ("*What I did in my institution*"), but we're supposed to be a forum and there is little or no discussion in our newsletter. There are few letters to the Editor. He wonders how many members read it online.

There was a general feeling that it is time to have a member survey; some of the questions can deal with the newsletter.

### **Guidelines for Self-study and External Evaluation of Undergraduate Physics Programs**

This was sent to us by Ruth Howes for discussion at our meeting. We did not discuss it in any detail; copies can be obtained from Ruth (or me or Gay).