

# **Minutes of the DPF Executive Committee Meeting**

## **Crockett Room, Hyatt Regency Dallas**

### **8-10pm, April 21, 2006**

**Present:** Bob Cahn, Andrew Cohen (phone), Sarah Eno, John Jaros, Joe Lykken, Hitoshi Murayama (phone), Jack Ritchie, Natalie Roe, Mike Tuts (secretary). Judy Franz, Ricahrd Milner, Bob Garisto, Tom McIlrath, Mike Lubell

#### **AGENDA**

- 8:00 - 8:20 Future of April Meeting (Andy Cohen by phone).
- 8:20 - 8:40 Joint DPF/DNP QCD Study (Bob Cahn).
- 8:40 - 8:50 Status of DPF 2006.
- 8:50 - 9:00 Nominate new HEPAP University reps
- 9:00 - 9:10 Judy Franz
- 9:10 - 9:20 Richard Milner, QCD study
- 9:20 - 9:30 Bob Garisto, PRL
- 9:30 - 9:35 Tom McIlrath, APS finances
- 9:35 - 9:40 Education and Outreach ( Hitoshi Murayama)
- 9:40 - 9:50 DPF role in APS lobbying
- 9:50 - 10:00 Other business, discussion

#### **The Future of the April Meeting**

Andy Cohen reported on the deliberations of an APS committee chaired by Chris Quigg that has been charged with studying the future of the APS April meeting and gathering ideas from the respective divisions. This led to a long discussion within the Executive Committee with many ideas, options and comments were raised. They included holding the meeting in Washington DC where it could be coupled with visits to congress; noting that the meeting might not be doing as good a job on inter-divisional mixing (although others noted that this was not the primary reason that people attended the meeting); some speculated that some of the negatives included a lack of effectiveness of the job fair, lack of participation by the leaders in the field, lack of outreach activities and not as scientifically important as other meetings in the field; it was noted that participation by DPF was important for the success of the meeting, without DPF the meeting could not be sustained. The task force came up with a set of five goals: (1) the need for excellent scientific content (colloquium style talks); (2) encourage graduate student talks; (3) lobbying activities; (4) public outreach activities; (5) bringing physics communities together. Further discussion noted that it is difficult to get people to view this as a premier meeting – despite the fact that one has first rate speakers. The 10min talks were posited to be a problem now, whereas in the past they were used as a forum in which to find postdoc candidates. It was suggested that poster sessions might help solve that problem. This discussion ended with some suggestions for the task force: the meeting the Executive Committee felt unanimously that the meeting should be returned to Washington DC; consider changing the organization to reflect that of an international

meeting with an organizing committee (although it was not clear whether the structure needed to be changed or just improved); consider moving the meeting earlier to February because it would be better for lobbying activities, it might be cheaper and it is better suited for those searching for jobs. More ideas could be sent directly to Andy Cohen.

### **Joint DPF/DNP QCD Study**

Joe reported that the DNP is enthusiastic about such a study and that Milner would be in later to talk to the Executive Committee. Bob commented that while he was initially cool to the idea he has warmed to it and that we should not isolate ourselves – QCD is part of our field. It was suggested that Lattice QCD should be included, and that CTEQ would be strong advocates for such a study – it was emphasized that in order for this study to be balanced and serve the DPF community it would require a strong and passionate advocate from the HEP community (a few names were suggested).

### **Status of DPF 2006**

It was noted that Sarah and Daniella are on the program committee. DPF has been given time in which to hold a town meeting. The Executive Committee will encourage the DPF 2006 organizers to apply to the NSF for travel grants for graduate students (if they have not already done so).

### **Nomination of new HEPAP University representatives**

Joe noted that the representatives serve for three years and that two new representatives are needed. Joe said he would send out the current and past HEPAP list and solicit suggestions by email. He noted that Joe Kroll is a continuing member.

### **Report by Judy Franz**

Judy reported on a number of APS activities.

She noted with pleasure that she had just come from a graduate student reception which was very international.

She commented that they had had the first meeting of the task force considering the fate of the April meeting, with many issues put on the table. She reported that there was agreement that the meeting should be continued. There was concern that since there are many experimental talks from just a few experiments, then what is the purpose of attending the meeting for those graduate students; and what is their motivation for attending. Some suggestions and comments were made, such as: establishing a prize for the best student talk; noting that a Washington DC venue might encourage more senior people to attend. Judy noted that there were only two hotel choices in Washington that would be suitable; the Hilton which is expensive and Marriott Wardman Park Hotel that is less expensive. The issue of the time of the meeting was discussed. The Committee asked about holding it in October – the problem with that is a DNP meeting in the Fall (DNP

holds two meetings per year). The AAPT holds meetings in January and the Summer, so one could consider a February meeting in 2010. Judy noted that DNP thought that the invited talks were important to get people to attend. She asked whether the balance between plenary and invited talks was correct.

Judy told the Committee that the APS website is being redesigned (with a new look and feel) in order to reach out to a wider audience. She noted that the website consultant was aghast at the diversity of the unit websites. It was asked if they had considered adding more physics content and Judy responded that they did not want to add more staff for that purpose, but that there would be more physics content and that the units could supply more content. However it was decided to proceed with the website as is and consider this physics content issue as a “phase 2”.

### **QCD Study, Richard Miler**

Richard Milner met with the Executive Committee on the subject of a joint APS study on QCD. He discussed the many aspects of QCD and indicated that since the field has recently come under pressure, a high level study across APS by a committee of top scientists presenting a balanced view would be very helpful. It would be modeled after the recently completed joint study of neutrinos. The current thinking was to have co-chairs from DPF and DNP, hold workshops and plan on completing the study on about a 9 month timescale. The motivations from the DNP perspective included upgrades of Jefferson Lab and RHIC as well as lattice QCD studies. When it was suggested that for the neutrino study the programs in the various divisions were intimately intertwined, and that maybe it was not so much the case for a QCD study, Milner agreed that the connections were somewhat different but that nevertheless there were strong intellectual connections. That led to some discussion as to whether they were simply “joined at the Langrangian” but less so elsewhere – although the lattice connection was strong. We concluded by noting that we should find someone appropriate to be a liaison with DNP.

### **Physical Review Letters update, Bob Garisto**

Bob Garisto noted that in terms of publication, particle physics is flat while other fields are growing significantly. He noted that there is a new editor. He then talked about what is going on at Physical Review. They are moving in the direction to make the office all electronic, without any paper folders.

PRL has about 70-80 papers per week and they are experimenting with a system that would identify certain papers as more readable (he talked of three categories – important, intriguing, clear). They have carried out this “marking” experiment and then assembled a group of 30 distinguished people to evaluate how they did. They concluded that it was difficult to have three categories and that there should only be one. They would choose about 10% of the papers to be identified in this way. The discussion that ensued was positive – it might encourage people to read papers outside their filed, and it was suggested that perhaps the choice of name was important (“editor’s choices” was one suggestion).

Garisto was asked by the Committee on the Physical Review policy for “observation”, “measurement” and “discovery” – the issue being whether the guidelines were too rigid, and thereby distorts the practice of science. It was suggested that a group made up of the major experiments get together to discuss this.

Two other topics were raised in this discussion. One was a suggestion by George Trilling that PRL mandate a footnote for each paper with a contact person for that paper. The Committee felt that this would end up always being the physics convener and hence not that useful. The second point made was the hope that some CERN experiments would submit to PRL

### **Tom McIlrath, APS Treasurer**

Tom reported that most areas are doing well. Revenue above budget expectations added \$6M to the reserves. The Journals revenues are the same as last year. They are growing by 6-10% in the number of pages. He reported that Marty Blume is thinking about “open access”. He said that often open access journals are small operations with university support – they are most passionate in the medical and biological fields that it should be open. CERN has been championing to make articles open access, and Marty has been communicating with CERN on this (he notes that PR articles are already “open access” in that they can be posted on archives). They have told CERN that for PRD to be open access would cost \$3.5M/yr (about \$1500 per article). They want to get something in place by next summer. For example CERN could pay for the articles to be made open access at \$1500/article. It was asked whether PR can put the final article on the archive. The answer was they are concerned about a loss of subscriptions. Bob Garisto asked why subscriptions have not dropped since articles are already put on the archives. He said they don’t want to require authors to pay a charge, although it might be a reasonable option that if you want it to be open access then you pay for it. It was noted that Elsevier is expensive and that is a problem.

### **Education and Outreach**

Hitoshi distributed notes to the Committee (attached at the end of these minutes). He then discussed those topics. He asked what the E&O committee should be doing as it has not been pro-active or organizing activities on its own. He reported that other divisions have had sessions at AAPT meetings. The DPF has not done this yet, and he suggested that they should. The Executive Committee agreed. He then reported on a discussion with Michael Barnett with regard to raising the visibility of LHC physics over the next few years in anticipation of the start of LHC data taking. Based on NASA experience, the time to implement such a program is now and DPF and APS should be involved. A model for possible activities is provided by a detailed PPARC proposal. The possible ways that DPF could become involved were discussed and included briefings to the DPF Executive Committee by Michael Barnett, Judy Jackson, Neil Calder and possibly others; a separate workshop at the DPF meeting possibly involving PPARC representatives. We concluded that Hitoshi would contact the DPF 2006 outreach organizers to suggest a

LHC physics outreach workshop. The education and Outreach Committee would like to have an E&O plenary talk at future DPF meetings (it is too late for the Hawaii meeting)

### **DPF Role in APS Lobbying**

Mike Lubell reported that this year Physics has an extraordinary opportunity because of the American Competitiveness Initiative (ACI). It is key for HEP with targeted increases of 14% for DOE Office of Science and 8% for NSF. Although Jack Marburger has said that the ACI does not focus on HEP/Nuclear because it does not have a direct impact on the economy, Lubell disagrees, citing many areas such as the World Wide Web, accelerators, training students, etc where HEP has had a direct impact. He suggested that this should be conveyed to Marburger and the White House. He speculated that the prospects for the Office of Science budget is very good (with Domenici and Hobson in the House) and with the strong support of DOE Secretary Bodman. He noted that NSF would be more problematic because in the Senate, Shelby supports NASA and NIST advanced technology program, which may eat into the NSF budget. The Senate is likely not as generous as the House. Whereas in the Senate science has bipartisan support, it is different in the House where democrats have been urged not to participate in bipartisan efforts, although one can refer to democratic science initiatives which are similar to the ACI. Lubell discouraged university presidents from taking advantage of any earmarks as damaging to science. When asked about where we are in the budget process, he noted that the 302b' are not done, although appropriators are expected to act on their own by mid May – any lobbying needs to be done in the next few weeks. In response to a question about NASA science, he noted that NASA had much on its plate and needed to come forward with a realistic plan; he expects that space science funding will be hurt.

### **Other Business**

John Jaros reported that the APS tried to coordinate congressional visits at the March meeting but the Divisions did not supply adequate information leading to some confusion and conflict. Based on that, they concluded that there should be some guiding principles that Divisions should follow. These are currently under discussion, but one is that any Division that wants to participate in lobbying activities should submit their requests three months in advance.

Judy talked about the April and March meetings. There have been attempts to make the April meeting more cross-disciplinary; this is less so at the March meeting. She suggest keeping the dialogue open and including some particle physics at the March meeting and vice versa for condensed matter. There was significant discussion on whether those talks should focus on results or future plans. The issue of implementation of these ideas came up and it was suggested that the March meeting chair should be encouraged to talk to the April meeting chair.

The travel grant program organized by Amy Flatten has requested DPF support. The DPF already agreed to support this at the last meeting.

The ethics committee has produced a report, and intends to create a website about ethical standards. It needs to be gotten out to the APS membership.

## **Appendix**

### **Education and Outreach Commiteee Activities**

#### **Elizabeth Simmons**

This year, I've been working with colleagues and a student to develop some new hands-on materials for use in different local outreach settings and have tested them with three different audiences so far. I've given several colloquia on outreach and am co-organizing the outreach parallel session for the APS meeting in Hawaii in fall 2006. Also, Chris Quigg and I tried to get DPF interested in helping to publicize the new arXiv subjects related to outreach.. don't know if that ever ended up happening.

#### **Inga Karliner**

As you may know, Physics Department at the Uof Illinois at Urbana-Champaign has a Physics Education Research Group (PERG) <http://www.physics.uiuc.edu/Research/PER/> led by Prof. Gary Gladding who has been in particle physics. The group has 4 PhDs. In addition to Gary, Prof. Tim Stelzer is very active both in theoretical particle physics, and in the physics education research. This year Prof. Jose Mestre joined us, from U Mass. I have also been working with the group. This fall we will add two post-docs. We have two doctoral students in physics, and other graduate students whose research span physics, education and educational psychology.

In Physics Outreach, we continue our program, with the leadership from Particle Physics: Prof. Mats Selen leads the Physics Van program, Prof. Kevin Pitts directs our Saturday Physics Lecture Series which completed its thirteenth (13th! ) year. Kevin is working on making videos of the lectures which could be used by schools and general public. I serve as the Outreach Chair for the Department. I also participate in organizing the Saturday Lectures. For the last 5 years Mats Selen also appears weekly on the local CBS affiliate's TV news with science experiments. Videos of his segments are available from <http://www.hep.uiuc.edu/home/mats/whysguy.html>. Mats's TV anchor-colleagues comment that they'd have liked science if they had a teacher like Mats. Mats also directs the web site "Ask a Physicist", <http://van.hep.uiuc.edu/van/qa/qaform.htm>.

Mats Selen also is in his 3rd year of offering very successful course Physics123 for the Elementary Education majors <http://online.physics.uiuc.edu/courses/phys123/spring06>. He developed the course at the request of our College of Education, and it is full. The course is hands-on and students love it. I hope that the couple of hundreds of school teachers who took the course will yield thousands of school children who also will think of science and physics as fun.

#### **Marge Bardeen**

Since last summer, we finished the celebration of the **World Year of Physics** including:

*October 8 – Symposium:* Roughly 300 people attended, including participants in Saturday Morning Physics and QuarkNet. Attendees came from as far away as Florida and New York, and QuarkNet teachers came from 12 states including Hawaii and Puerto Rico. Joining Pier Oddone and Leon Lederman were the following speakers: John Rigden (Washington University in St. Louis), Alex Filippenko (University of California, Berkeley), Niki Saoulidou (PPD), Sean Carroll (University of Chicago), Randy Hulet (Rice University), and Chris Quigg (PPD). Website: [www-ed.fnal.gov/wyop](http://www-ed.fnal.gov/wyop)

*December 1 – Webcast:* On December 1, the Lab participated in CERN's *Beyond Einstein* World Wide Webcast. Fermilab presented "The Late Show with Leon Lederman," featuring, along with Leon, Chris White (NuMI/IIT), Peter Skands (Theory Group), Anna Goussiou (DZero/Notre Dame), Jason Nielsen (CDF/Berkeley), and the CDF Orchestra (Greg Field, Steve Hahn, Andy Hocker, Ulrich Husemann, Ben Kilminster, Larry Nodulman, Aron Soha, Randy Thurman-Keup, and Jared Yamaoka). Website: [www-ed.fnal.gov/wyop/latenight.html](http://www-ed.fnal.gov/wyop/latenight.html)

*Throughout the Year – Classroom Visits:* We embarked on a program to bring the World Year of Physics to schools by visiting 10,000 students. We expanded our classroom program to include nine programs, purchased demo supplies including a couple of cosmic ray detectors, trained speakers, sent out brochures to the schools and matched requests with speakers. We have achieved our goal! ... and look forward to continuing the program next year. Website: [www-ed.fnal.gov/trc/demos/](http://www-ed.fnal.gov/trc/demos/)

And also had the following special activities in addition to running *QuarkNet* (Website: [quarknet.fnal.gov](http://quarknet.fnal.gov)) and a new NSF program *Interactions in Understanding the Universe* (Website: [www-ed.fnal.gov/uueo/i2u2.html](http://www-ed.fnal.gov/uueo/i2u2.html)) that supports the development of new e-Labs for CMS, ATLAS, LIGO, and heavy ion data from STAR and a cosmic ray i-Lab (I for informal) at the Adler Planetarium.

*Open House:* On February 18, Fermilab hosted its second annual Family Open House. An estimated 1,500 people attended. The open house featured presentations by Mr. Freeze (Jerry Zimmerman), Ben Franklin (Todd Johnson), Mike Albrow, Don Lincoln, Jean Slaughter, and Linda Valerio, plus Ask-a-Scientist, hands-on exhibits in the atrium, "make-and-take" sessions, a story hour for young children, and The Late Show with Leon Lederman, featuring Chris White as Albert Einstein and special guests Jason Nielsen, Anna Goussiou, and Peter Skands, along with the CDF Orchestra. Along with all of the volunteers, special thanks are due to docents Karen Bass, Felicia Svoboda, and Mary Ann Stowell for their event organization. The Family Open House was supported by funds from an anonymous donor to Fermilab Friends for Science Education.

*LCWS06 Education Workshop:* Two of us attended the Linear Collider Workshop in Bangalore where we presented a two-day workshop for 20 teachers on the Cosmic Ray e-Lab. We took a detector that remains in India so that the students and teachers will be able to collaborate with U.S. students in QuarkNet and *I2U2*. The workshop was

sponsored by the Indian Academy of Sciences and supported in part by NSF and DOE. Participants attended lectures by two members of the Tata Institute for Theoretical Physics in Mumbai, learned how to set up and operate the detectors and assemble scintillator paddles, and how to use the Cosmic Ray e-Lab to upload and analyze data, post results and collaborate with other students. The workshop was a smashing success! Teachers were uniformly enthusiastic about giving students a project like this. A few commented that this would change teaching., "They got it!" The detector will be located at the Jawaharlal Nehru Planetarium where the Bangalore Association for Science Education is located. We visited with the staff to set up the detector in their classroom area. It began taking data right away. Mr. Madhusudana was already organizing a meeting with the teachers to develop a plan for the coming year, which begins in July.

### **Hitoshi Murayama**

Chaired the education & outreach program of Snowmass 2005. It involved (1) display of Quantum Universe panels in Snowmass mall, (2) cosmic ray demos in Aspen mall, (3) two public lectures, one in Aspen (Young-Kee Kim) and the other in Snowmass (HM), (4) QuarkNet teacher workshop (HM gave a lecture on dark matter and its connection to accelerators), (5) hands-on science event in Carbondale.

I was involved in "Physics BBQ for Kids" at Aspen Center for Physics. The lectures aired on local TV and attracted a wide audience.

As a part of HEPAP LHC/ILC subpanel, had a small press conference in DC about the report.

I gave an LBNL summer lecture, aired on UCTV:  
[http://webcast.ucsd.edu:8080/ramgen/UCSD\\_TV/11026.rm](http://webcast.ucsd.edu:8080/ramgen/UCSD_TV/11026.rm)

Four colloquia since fall promoting the field.