

Minutes of the 6 Feb. 2009 UEC Meeting

Users Executive Committee members attending:

Karen Gibson
Mike Hildreth
Dan Hooper
Matthew Jones
Ashutosh Kotwal
Ron Moore
Kevin Pitts
Lee Sawyer
Mitch Soderberg
Tricia Vahle

Discussion with Director Pier Oddone and Deputy Director Young-Kee Kim

Fermilab Director Pier Oddone and Deputy Director Young-Kee Kim met with members of the UEC.

(UEC) How is the FNAL mentoring program going? Is there any news on the diversity program?

Kim: The FNAL mentoring program has about 10 participants now. There have not been so many requests for mentors yet, but many people have volunteered to be mentors. As for the diversity issues, things are going well. Some policy changes may take place based on recent focus group results. Approximately 20 of these focus meetings have already occurred.

(UEC) How is the search for Hugh Montgomery's replacement proceeding?

Oddone: The search is going well. We are making some changes to the information-technology (IT) structure of the laboratory, so that computing will get its own Associate Director. The changes are part of an effort to make IT infrastructure more uniform across the laboratory. We have a name for Montgomery's replacement in mind, and will make an announcement soon.

(UEC) Do you have any budget news you can share?

Oddone: As is well known, the two big issues are the FY09 budget and the stimulus package. There is a big differences between the Senate and the House on money for the DoE Office of Science. We are trying to convince Washington that money for HEP would be used right away for projects (e.g. Nova) that are ready to start immediately.

(UEC) Could stimulus money be construed as creating jobs within HEP (money for more postdocs and students, and temporary help)?

Oddone: We don't want to put too much emphasis on stimulus money that can impact future budget years.

(UEC) Do you think Senator Burris is aware of Fermilab?

Oddone: I have a meeting with him next month, and I talked to him at the Illinois Inaugural Ball. I am pursuing all opportunities to promote the laboratory.

(UEC) Can you tell us about your trip to India tomorrow?

Oddone: We've had good interactions with India in the past. We are currently trying to sign an MOU with 5 Indian laboratories to build superconducting infrastructure. If we build a new project at Fermilab, it would be great to have a partner like India.

(UEC) Are other international partnerships being considered?

Oddone: Yes, Italian groups are interested in collaborating on liquid-argon neutrino detectors. They may wish to collaborate on MicroBooNE or a larger detector (LAr5).

(UEC) Any comment on the laboratory's report card?

Oddone: Overall we did well. Mostly A's and a few B's.

(UEC) Fermilab and Argonne got a "B" in their Managing Body category. Is that fair?

Oddone: I think FRA has done everything they were supposed to do.

Presentation by Bob Bernstein on the Mu2E Experiment at Fermilab

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"A New Charged Lepton Flavor Violation Experiment: Muon-Electron Conversion at FNAL"

Following the presentation, Bob discussed the experiment with the UEC. He said that the Mu2E experiment should be able to push well beyond the current limits from the MEG experiment (muon \rightarrow electron + gamma decay experiment at PSI). Data taking for Mu2E would start in the beginning of FY16. The critical path item is the construction of solenoids. The overall project cost estimate is \$190M in FY09 dollars.

(UEC) If the LHC sees evidence of supersymmetry, are you guaranteed to see mu \rightarrow e conversion?

Bernstein: We should see a signal if the LHC sees a supersymmetry signal.

(UEC) Are there models of supersymmetry which won't allow mu \rightarrow e conversion?

Bernstein: Not to my knowledge, unless the model is fine-tuned. (***) see below

(UEC) Does the \$190M cost estimate include everything (building, beamline, etc...)?

Bernstein: Yes, it includes everything, per the DOE rules.

(UEC) On the technical side...what's the biggest potential showstopper?

Bernstein: Solenoids are known technology, so there shouldn't be any showstoppers.

(UEC) Can you study "extinction rate" down to 10^{-9} ?

Bernstein: Yes, by placing a Cerenkov detector in the beamline, we hope to achieve this level of sensitivity.

*** Post-meeting discussion between Bernstein and Andre de Gouvea resulted in the following quote from de Gouvea:

"In SUSY models, $\mu \rightarrow e$ conversion can be very small. It depends on how SUSY gets broken and on how neutrinos get a mass. For example, the SUSY contributions you have seen many times before are proportional to the square of the neutrino Yukawa couplings and the latter are assumed to be "large" in standard estimates. A modestly small neutrino Yukawa coupling can make the SUSY contributions to $\mu \rightarrow e$ conversion very small. A separate question is whether the SUSY contribution can be zero. The answer is, barring fine-tuning, no."

Dan Hooper - Washington DC Trip Update

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Planning meeting for the Washington, DC Trip will take place February 7, 2009, between UEC/USLUO/SLUO. About 20 people will participate, including Pier Oddone. Persis Drell from SLAC will be on the phone.

FRA lobbyist Carol McGuire and Stanford lobbyist Ryan Adesnik will also be on the phone. APS lobbyist Jodi Leiberman will attend in person.

One-pager "ask" is under discussion. It is not yet possible to define a specific "ask" since the budget scenarios in Washington, DC are in constant flux.

Karen Gibson - Outreach Subcommittee Update

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Outreach subcommittee is considering public lecture series and/or outreach workshop.

The public lectures would take place around the country, and would be held in conjunction with the premiere of the motion picture "Angels and Demons" (May 15).

- The US LHC group would like to follow the model of university groups organizing meetings with students and the press, similar to the "September 10, 2008 CERN event".

- The Public Lecture Organizing Committee will distribute a template talk so that those interested in holding a public lecture can use the material.
- Venue/speakers/format/etc... are still under discussion.
- The movie is being premiered (or at least a clip of it) at CERN in the coming weeks.

The outreach workshop would follow the Fermilab Annual Users' Meeting (6/5)

- both panel discussion format and lecture format have been proposed.
- we should advertise this not only to the Fermilab users, but also to Illinois High School teachers (physics) unions.

Lee Sawyer - Annual Users' Meeting update

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Dignitary invitations have been sent out. We have already received a few replies. Joe Dehmer, Dennis Kovar and Mike Holland have confirmed that they will attend.

Neil DeGrasse Tyson is unavailable for the public lecture.

One idea for the public lecture is to invite the production of Copenhagen (from Wheaton) to perform, preceded by someone who knew Bohr etc. who can share some memories. Lee will pursue this idea, along with additional speaker options.

Another round of dignitary invitations (e.g. - Steven Chu, Secretary of Energy) have gone out.

Ron Moore - Quality of Life issues

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The contract for the swimming pool maintenance is being worked on. We will have additional updates as they become available.

Minutes submitted by Mitch Soderberg and Ashutosh Kotwal