



## Minutes of the Fermilab UEC Meeting on May 11, 2012

### Attending:

Todd Adams (remote), Michael Cooke, Dick Gustafson, Sergo Jindariani, Daniel Kaplan, Jonathan Lewis, Ryan Patterson, Greg Pawloski, Brian Rebel, Nikos Varelas, Lisa Whitehead

GSA officers: Chris Prokop, Alex Radovic, Joseph Zennamo

### Guest:

Rob Roser

### **GSA Report – Joe Zennamo**

GSA held productive town-hall meeting to discuss inclusion of postdocs. Suggestion of 1 year terms with 6 month stagger. Board would have 3 grad students and 2 postdocs. Previous officers suggested expanding beyond students and postdocs to others working at Lab on temporary basis, e.g., visiting scientists, engineering co-ops. Summer students might not have time to contribute to GSA, but would benefit from GSA activities. Officers drafting revised by-laws to define roles and responsibilities. Drafting letter to Directorate about plans will want UEC endorsement. Hope to have by-laws ready for presentation at Users' Meeting. Therefore, aim to present plan to Directorate before then. UEC consensus to do all we can to support young scientists at Lab. A problem: GSA historically dominated by Tevatron experiments - harder to communicate with people in current, smaller experiments.

### **News from the Chair – Dan Kaplan**

Next meeting: June 14. (There are many of conflicts for members, however.) The FRA Board is meeting then as well. May need an alternate to represent UEC for part of that meeting.

Letter to Bill Brinkman about LBNE has been iterated with SLUO and USLUO, ready to be sent.

Should make effort to recruit new members to run for UEC - especially women, who are under-represented.

### **View from the Directorate – Young-Kee Kim**

Current state of projects at Lab:

Accelerators shut down for improvements with goal of doubling NuMI beam power - part of NOvA project. Accelerator Division receiving help from all divisions. NOvA construction going well. MicroBooNE has CD3b approval from DOE. Hoping to take data with both in

about a year. Recent NOvA dedication ceremony at Ash River. Muon Campus program also going well. Mu2e CD1 review first week of June. Now an integrated accelerator and experimental program for Mu2e and g-2 (the Muon Campus) with strong support from DOE. Getting good support from DOE Office of High Energy Physics for g-2, but budgets tight, construction timeline will likely get somewhat stretched.

Young-Kee looking forward to Tevatron Impact Symposium, appreciates piggy-backing on Users' Meeting. Suggests some VIPs coming for Symposium could perhaps address Users' Meeting.

LBNE steering committee formed early April to address DOE request for staging. April 24 workshop had good turnout, ~200 participants, with only 3 weeks' advance notice - 1 West was standing-room-only. A main goal was to hear voice of community - widely disparate opinions expressed. Phase 1 price cap about \$650M. \$750M a threshold above which a higher level of scrutiny, and approval by deputy secretary needed. Bigger issue: per OMB guidance, project must be completed within OHEP budget, competing with other OHEP needs such as LHC upgrades, Dark Matter, Dark Energy. Also significant contribution to Dark Matter and Dark Energy from NSF.

Two primary options under consideration: beam to Soudan with >15 kT surface detector or new beamline to Homestake with 10 kT surface detector. With similar budget, could build 15 kT underground at Homestake without beamline. Cost estimates not yet complete. Committee needs to understand uncertainties on estimates given that consideration of Soudan is new. Soudan option would include work on accelerators for extended running with low-energy beam at 700 kW and also work to ensure no issues with water (possible tritium production). Underlying need, beyond direct charge from Brinkman, to have long-term plan for Fermilab - committee to address.

Young-Kee informed of our plans to join with Argonne for Career Fair. She was supportive and looks forward to the proposal.

YK informed of plans to include postdocs in GSA - has always found it odd that we lack program for postdocs. She was very supportive: "we care about postdocs."

### **The Scientific Computing Division – Rob Roser**

Rob started in January, so still learning his role. Scientific Computing is what scientists think when we talk about computing. It excludes e-mail, networking, business services. 160 people in division in such areas as scientific tools, farms, engineering. A diverse group of technically skilled people: sys admins, programmers, facilities people, engineers. Funding from many pots. Does not want division to be job shop. Rather, should take on projects that are strategic for Lab's science program - not just to be programmers for other people's projects. Should have roles and responsibilities appropriate for national lab, i.e., not something that could be done at university.

Geant4 workshop this week in Washington, DC - included scientists as well as DOE Office of Advanced Scientific Computing Research (ASCR) staff. Goal to develop a plan for moving Geant4 to parallel-computing architectures: multicore, GPU, etc.

Also Initiative on Big Data. Rob will speak at meeting at House of Representatives about Particle Physics, Computing and Big Data. Will remind them we've dealt with Big Data for a long time.

Other new initiatives include proposals with ASCR for LQCD, etc. Also looking to establish joint FNAL-Argonne efforts. Argonne expert at high throughput computing. We are expert at data handling.

Rob seeking funding for 2 FTEs for Tevatron-data preservation - would be term positions. Goal to be capable of a complete analysis at any future time. Need to preserve data as well as analysis and Monte Carlo code. Need to define test jobs to be sure things work as software ported to new platforms.

Q: How might we open access to data? NSF pushing that for their experiments. Now data are property of experiments which are international groups.

A: Currently no push to open access for Tevatron data. To do this well would require substantial effort for which we are not funded.

Q: Are there efforts in SCD that can be exported to industry?

A: Working on framework for software for new experiments usable for many experiments - it could be used outside. Geant4 now used for aerospace and medical industries. Enthusiasm in DOE for SBIRs - SCD looking for things in software that might attract that money.

PREP currently in mediocre shape. Nearly all the techs have retired. Lab considering being repository for national program. A lot of equipment at SLAC, etc. All think it a good idea in principal, but need to identify funding.

Q: Data parking for CMS? New concept for LHC experiments (applied by CDF in Run 1) to increase trigger bandwidth by lowering thresholds and saving data to process during shutdown, thereby doing more physics than if processing only at data-taking rate.

### **Lewis-Burke report – Carole McGuire**

Little change since last UEC meeting. House may debate Energy and Water bill next week. No new information about budget end-game. Still expect completion during lame-duck session. House markups across-the-board much lower than Senate, so will be difficult process. Given House and Senate both have proposals, unlikely to change before the end. Process being driven by external factors such as prospect of sequestration. Other facilities looking at personnel cuts as well - expecting flat or reduced budgets.

Q: Some talk in Congress about reducing administrative overhead on labs.

A: Oversight committees suggesting agencies reduce paperwork requirements, increase transparency. Congress may give directives, but details have to come from agencies. Lab directors' council that meets with Sec'y Chu has discussed this issue. A concerted effort to make government work more efficiently - may be some hope for improvement in situation.

### **Subcommittee Reports:**

#### **Quality of Life – Mike Cooke**

Career Fair at Argonne September 20-21, 2012. Have drafted letter to Directorate proposing FNAL support. Will request money for travel to ANL for 2012 fair, funding for seminars and workshops, use of Atrium for 2013 fair and beyond, and Users' Office help to work with ANL to organize fair.

Lab still working with Zipcar on whether they can be a solution to our issues given their licensing requirements.

Suggested to set up Linked-In group for FNAL alumni in context of Career Fair - may help us contact resource: people who've left the field.

Meeting next week with Dave Carlson to discuss after-hours shuttle and review usage and how program will be run in future.

#### **Outreach – Mike Cooke (for Nikos Varelas)**

University profiles are back in Fermilab Today on Wednesdays.

#### **Users' Meeting – Lisa Whitehead**

Most speakers have confirmed. There is a complete draft agenda. May be some rearrangement to accommodate VIPs. Logistics all planned. GSA seeking 6 poster judges - will have three teams of two each review a sample, then all 6 will review finalists. Talk planned during New Perspectives on how to get jobs outside HEP. Suggested to add reports on MAP, accelerator collaboration with India, and INFN to Users' Meeting program; however, schedule tight so probably not all suggestions doable.

Next UEC meeting: June 14, 2012, in the morning

Scribe: Jonathan Lewis