

## **Physics and Experiment Board Meeting**

September 29 (1330 Central European Summer Time), 2011

Minutes (prepared by J. Brau)

**Present:** Ties Behnke, Jim Brau, Karsten Buesser, Catherine Clerc, Juan Fuster, Akiya Miyamoto, Marco Oriunno, Michael Peskin, Yasuhiro Sugimoto, Harry Weerts, Andy White, Sakue Yamada, Hitoshi Yamamoto.

**Guest:** Michel Davier, IDAG Chair

### **PAC**

The PAC will meet in Prague November 14-15. Each detector group will send a representative to give a report, Phil Burrows for SiD and someone to be named by ILD. Karsten will give an MDI report and Juan will report on CLIC-ILC cooperation.

### **ILCSC**

The ILCSC will meet in Oxford next February.

### **Interim Report**

Management met with the communicators in Granada on Wednesday to discuss the interim report. Editing should be finished in about one week.

The proposed title is:

International Linear Collider Physics and Detectors  
2011 Status Report

This title was agreed to.

The editors will be listed at the front of the interim report. They are the four members of RD management and the ILC communicators. At the back of the report there will be a list of the contributing authors to the various chapters of the report. There will also be lists of the authors of two validated LOIs at the back of the report.

It was decided to acknowledge the funding agencies at the back of the report.

Various cover designs have been considered. The PEB favored a cover with isometric images of each detector, with an event display on the back.

Sakue proposed a DBD schedule:

End of February, 2012 - outline with written summaries of each chapter (no more than 10 pages). IDAG would comment on these outlines at the ACFA workshop in March or April 2012.

End of September, 2012 - a complete draft of the report of 100-150 pages. IDAG will read and comment at the LCWS at UTA in October

### **Physics Chapter of the Interim Report - Michael**

The physics landscape could change with LHC discoveries. The conveners for the physics have agreed to start writing based on latest physics results after the ICHEP meeting the 1<sup>st</sup> week of July with drafts by the end of July. The drafts will then be edited and commented on during August, and finished by the first week of September, in time for the Orsay-type meeting for the European study in September, 2012. The drafts will be made available to the PEB during the August review period.

Some topics will start earlier. For example, K. Fujii will produce a draft by Christmas of the implications of a Higgs discovery with nothing else.

### **IDAG - Michel**

The IDAG was pleased by the good presentations from the concept groups on Tuesday. There were some concerns. For SiD they noted that testing of all prototypes might not be achieved. Ideally it would be good to see that. For example, a tested silicon tracker prototype would be good to have. However, it is not seen as a serious problem. For ILD they were concerned about what is defined as the baseline, since ILD is trying to keep options open as much as possible. The IDAG warned that the group should be careful not to have too many options in the ILD DBD, since it could blur the main message of feasibility.

The IDAG was very impressed by the level of collaborative preparation for benchmark studies, and gained a better appreciation for how much work is involved.

### **ILD - Ties**

ILD has started to notice an increase of material in the detector as the simulation model has become more realistic. This will be reported tomorrow in Ties' talk.

### **SiD - Andy**

There has been more development on the alternative PFA, improving shower reconstruction and tuning for 1 TeV. Results from R&D are coming out. This and other progress will be reported in tomorrow's plenary session.

### **MDI - Karsten**

The MDI group has been concentrating on common issues. In Eugene there was an agreement on the push-pull system based on a platform, and in Granada an agreement on

the outline of the detector hall is being developed. The MDI group is planning a one day meeting just before the SiD meeting at SLAC in December to meet with CFS people.

### **Engineering Tools – Catherine/Marco**

The EDMS task is essentially completed. The CTG is asking if there are other tasks. Sakue asked the detector concepts groups to consider whether there are any other common engineering tasks that they would like this CTG to take on now.

### **Detector R&D**

Marcel is not here in Granada and a representative has not been sent. He did make a nice presentation on ILC Detector R&D spin-offs to the IDAG. The 20-page report has been completed, and a publication has been considered. However, a printing of this report would be quite expensive.

### **Software – Akiya**

The Software CTG is essentially ready to start generating events when the 1 TeV parameters are fixed. A plan has been developed to set up a common effort with the CLIC group to manage resources in the labs. A workshop in February is being planned to further cooperation.