

Minutes of WP-meeting 256

Attendance:

DESY: Ralf Diener, Ulrich Einhaus, Claus Kleinwort, Uwe Krämer, Felix Müller, Dimitra TSIONOU
Vidyo: Paul Colas, Keisuke Fujii, Jochen Kaminski, Huirong Qi, Ron Settles, Jan Timmermans

General News:

Ralf mentioned, that the abstracts for INSTR17 are due in a few days and that we had not yet announced the speaker. Paul will go to INSTR17 and is willing to present the LCTPC talk.

Yearly short summary of ongoing projects from the groups:

Jochen reported that the Bonn group concentrates on building a GridPix detector with Timepix-3 now. A Spidr readout system has been bought from Nikhef and first tests are being undertaken. Soon a first chip bonded in Bonn will be tested. The GridPixes are already produced on the ASIC. One has been tested at Nikhef.

Huirong said that last year a lot of progress in the simulation of the experiment (CECP) and the TPC in particular had been done. The event rates and ion backflow restrictions because of the field distortions are better known now. Now the group is focusing again more on R&D of the GEM + MM gas amplification stage. They hope to finish a first module in one year and have a test beam at the LP.

Ralf gave a short overview over the DESY activities. Maintenance work at the LP setup is continuing and several improvements have been done. Larger projects are the external silicon reference tracker and the second LP. At the end of last year a new set of GEM modules had been built and had been used in a test beam. Despite the analysis of this data the characterization of the new gluing procedure will continue. Besides, more studies on stability measures (such as the oxidization layer) will continue. In another project it is studied, if pixel chips can be bump bonded to a PCB and used as a readout electronics of a pad-based charge collection. Finally, several software tasks are pursued, among which are ILD simulations, work on double track and double hit resolution and on various pixel-based algorithms.

Keisuke explained, that the data of the last test beam campaign is being analyzed. Many corrections for example regarding environmental parameters are being done in advance. Basic studies on the characterization of the gating GEM and gas gain fluctuations are ongoing. A student has already submitted a Master thesis on the analysis. Soon the next budget request will be due and the KEK group will apply for money for building a new module.

Ron said that the work on the addendum 2016 has been finished and he will start with the addendum 2017 soon. Besides, he will stay involved in several ILD/TPC groups and task forces.

Jan reported that a new group (LepCol) was formed at Nikhef for research at Lepton Colliders. It will continue the GridPix module development, Jan has always worked on. Collaborating closely with Bonn, a 100 chip module is planned with Timepix3-based GridPixes. Also, a new more advanced design of the modules is being done now. The GridPixes will be placed more tightly and with higher precision. Besides, work on analyzing data and simulation of a large TPC with pixel readout is ongoing.

Paul said that Saclay is lacking fund at the moment, but is heavily involved in other projects (e.g.

HARPO), where the MM-TPC is developed further. Some tests of the gating GEMs had taken place and additional tests are planned. Paul thinks about building a new set of modules and ideas are being discussed in the MM group. Paul is also involved in the ILD tracking group there a new document on the interfaces between subdetectors (cables, heat exchange etc.) will be started soon under the leadership of Roman Pöschl.

AOB:

The next workpackage meeting will take place on January 26th.