

Minutes of WP-meeting 268

Attendance:

DESY: Ralf Diener, Ulrich Einhaus, Claus Kleinwort, Uwe Krämer, Paul Malek, Oliver Schäfer, Dimitra Tsionou

Vidyo: Paul Colas, Keisuke Fujii, Qi Huirong, Jochen Kaminski, Kees Ligtenberg, Tomohisa Ogawa, Amir Shirazi, Ron Settles, Akira Sugiyama

General News:

Ron and Keisuke reported that there will be a town hall meeting at KEK on the coming weekend to discuss and prove that the energy staging of the ILC is a good choice.

News from the groups:

Dimitra reported on the final DD4HEP model which will be used in the preproduction next week. All changes as discussed in the last months have been implemented. Dimitra pointed out, however, that the current implementation of the spatial resolution gives for the first ~ 1.2 m (close to endcap) a significantly better spatial resolution than anything we measured and extrapolated so far. This is, because we are assuming a $\sigma_0=50$ μm in simulation and no pad effect. Most measurement show $\sigma_0=70$ μm and the best measurements $\sigma_0=55$ μm . It was therefore agreed to change the 50 μm to 55 μm . In addition Frank Gaede has implemented the 1 mm wide gaps between the modules in the radial direction. It was discussed that 1 mm is quite optimistic, and that 3 mm would be more realistic. However, it is feared, that the reconstruction algorithm at this stage can not deal with too many missing hits, and it is expected that the performance of the TPC would degrade significantly. To avoid any complications for the upcoming mass production it is therefore better to stay with 1 mm gaps. But, it is absolutely necessary that the impact of the gap sizes will be studied as soon as possible.

Dimitra also pointed out, that we have to prepare an integration document. It should be ready by LCWS2017 – if possible even some weeks before. There will be one document requested from each subdetector describing the interfaces and impacts to other subdetectors and to outside infrastructure. Examples are cables, pipes, heat load, cooling. A layout and a draft version of the ECAL will be available shortly and we can then see, what we will have to write about.

Kees reported shortly on the first test beam with a Timepix3 based GridPix detector at the ELSA accelerator at Bonn. The data taking went smoothly and also the interface to the EUDET telescope worked. The reconstruction and analysis will be based on the GBL-algorithm in MarlinTPC, where also hit merging and splitting is possible.

Akira mentioned, that the grant application of the Japanese TPC group was rejected after the final presentation (out of 2 remaining proposals).

AOB:

The next workpackage meeting will take place on August 10th shared by Akira.