

Minutes of WP-meeting 284

Attendance:

DESY: Ulrich Einhaus, Paul Malek

Vidyo: Paul Colas, Keisuke Fujii, Jochen Kaminski, Claus Kleinwort, Kees Ligtenberg, Tomohisa Ogawa, Oliver Schäfer, Ron Settles, Jan Timmermans

General News:

Jochen and Paul C. reminded everyone of the upcoming ALCW2018 in Fukuoka at the end of May. Claude Vallee will give the plenary talk on the detector R&D TPC. Besides, there is a TPC session of 2 hours, which can be filled by about 6 talks. Everyone who wants to give a presentation (also via vidyo) is asked to contact Paul C..

PCMAG/LP setup, test beam:

Paul/Uli: PCMAG/TRACI/test beam area:

- The tracking telescope is experiencing some delays. The problem is that currently the readout software cannot communicate with multiple KPix chips. It is estimated, that the telescope is ready in January 2019.
- The mounting of the new Micromegas modules on the new endplate was in principle successful, but the procedure showed, that a few changes on the mounting tool are necessary.

News from the groups:

Uli gave a short update on his dE/dx study. He studied the error, i.e. the width, of the dE/dx distribution. The current formula implemented in ILCsoft was doubted during the last workpackage meeting, because it contained only the track length L and the number of hits N as independent input parameters with exponents. Uli therefore rearranged the formula so that the factors represent the number of hits along the track and the fraction of hits compared to a complete track (220 hits). The correlation of dE/dx and $\Delta dE/dx$ is with the new formula 5 % at best and has a longer tail to higher errors, which is expected. The previous formula is however always better than 5%, which is not reasonable. Uli tried to verify the exponents (-0.35 and -0.45) with simulation data (ILCSoft, based on Geant ionization), but got significantly lower values. In the testbeam data, Paul M. could confirm the components of 0.45, while the second component is very difficult to check. More studies are needed to understand the systematic influence of other parameters. For now the software coordinators decided to keep the old formula.

Oliver has started to look into the MarlinTPC code. Since the last compiler update to C++ 11 there are about 3000 compiler warnings. Oliver is now going through the 150,000 lines of code trying to understand it and fixing the warnings. Since many warnings have very similar reasons he tries to fix a major fraction of the warnings with the help of scripts.

AOB:

The next workpackage meeting will take place on May 17th (on the 10th there is a holiday).