

Minutes of WP-meeting 206

Attendance:

DESY: Ralf Diener, Oleksiy Fedorchuk, Leif Jönsson, Claus Kleinwort, Felix Müller, Volker Prah
Fuzebox: Alain Bellerive, Paul Colas, Serguei Ganjour, Jochen Kaminski, Michael Lupberger, Takeshi Matsuda, Rashid Mehdiyev, Amir Shirazi, Ron Settles, Jan Timmermans

General News:

Jan reported shortly on the LCWS2014: The tracking session on gaseous tracking was very short. Only Felix and Junping gave a presentation and there were no critical questions. Besides, there was an interesting talk by Mikael Berggren on the tracking. It underlined the necessity of an SET together with the TPC to reach the momentum resolution. He hasn't studied different radii yet, but that should be easy, since SVG is set up. The advantage of the TPC was mentioned to have a higher efficiency for low momentum tracks, the dE/dx helps in vertex finding, and better K_0 and K_s identification. In addition Jan pointed out, that to his surprise the presentation by Jia Gao was rather open, in that he declared that the current beam parameters wouldn't work and had to be refined. In the summary talk there was a mistake since it described the field distortion as a problem of the GEM modules and not of all modules. This may be because only GEM presentations were given, but it also shows, that we have to be careful of what to show in public.

After the summary a discussion on the benefits of a TPC followed and how these benefits could be best demonstrated. Since the only important benchmark is a physics analysis we have to get in closer contact to the analysis and simulation group. Alain will take a lead in this and contact Jenny, Mikael and Ties and see if we can invite them to our next WP meeting. Rashid is a new postdoc in Carleton and he will have a look from a physics analysis point of view at the TPC. He will go to DESY for some time soon, to be in closer contact with the DESY group.

Paul also mentioned that the LCC is asking everyone to make a 1 min. video and thus show his/her support of the ILC in Japan. The LCC seems to be afraid that MEXT has for whatever reason the impression that the ILC has only little support in the international community. Therefore, a large number of videos would help the LCC to influence MEXT. Paul has sent the link to the LCTPC list. There were however also some objections to this video, since some people thought the signature list of CDR and DBD sufficient to demonstrate the significant support of the project and the video promotion only a sign of the LCC frustration of not having any influence on the Japanese internal discussion, in particular MEXT.

PCMAG/LP setup, test beam:

Volker: PCMAG/TRACI/test beam area:

- The support structure of the TPC was installed in PCMAG and it was measured with a weight corresponding to the LP. The weight was placed at 3 different places (at the entrance of PCMAG, at 30 cm and 60 cm). The measurements were done with a laser and it showed some small deflection with maximum of 0.6 mm. However a linear behavior of the deflection was expected, but a S-curve behavior was measured. This has not been understood and therefore it will be remeasured.
- Also the other parts of the setup (lifting stage, axis of the magnetic field, etc.) have been remeasured with an absolute reference to the floor.

Test beam schedule:

- There are rumors, that the test beam could start as early as the second half of December.

News from the groups:

Takeshi said that the electron transmission measurements by Katsuma Ikemat seem to have been successful. The analysis shows no deviations from the simulations anymore and gives a transmission of more than 80% in $B = 1$ T. But some more simulations are planned. Ikemat will give a report during the next WP meeting. These were the laser drilled GEMs. The wet etched GEMs of Latek have a lower insulation resistance between the two electrodes ($< 1G\Omega$) and therefore have to be tested in Saga without a magnetic field. The next step will be to scale the sample sizes from $10 \times 10 \text{cm}^2$ to a LP modules size.

Takeshi has also talked with Frank Gaede at the LCWS and Frank agreed to implement dead regions (at the module boundaries) of the current modules designs. Frank thinks that this has a non-negligible effect on the TPC performance. But we have to help Frank with the implementation.

Alain reported, that the 2010 MM data are now converted to lcio and are available on the grid. Rashid and Serguei are working on various aspects of the analysis.

AOB:

The next workpackage meeting will take place on October 30th.