

Minutes of WP-meeting 198

Attendance:

DESY: Ralf Diener, Leif Jönsson, Felix Müller, Astrid Münnich, Volker Prah

Fuzebox: David Attie, Paul Colas, Takahiro Fusayasu, Serguei Ganjour, Philippe Gros, Katsuma Ikema, Jochen Kaminski, Shin-ichi Kawada, Takeshi Matsuda, Martin Rogowski, Ron Settles, Akira Sugiyama, Jan Timmermans

General News:

Jochen announced that a preliminary agenda for the collaboration meeting is on indico. The agenda was discussed and several suggestions were made. Leif is preparing an agenda for the CB meeting.

PCMAG/LP setup, test beam:

Ralf: PCMAG/TRACI/test beam area:

- It took the company 3 hours to change the cryo heads. The cryo heads have to be exchanged because of the ware in the pistons. Volker now knows how to do it and can change the cryo heads himself next time, which will be much cheaper.

LP:

- The shield and dummies will be mounted on Dan's end plate soon, so that the HV test can be done.
- Glues with different viscosities have been tested to check which will be the best for the construction of the second field cage.

News from the groups:

Takahiro showed some slides on considerations on the CO₂ cooling for SALTRO16 at T24/1. He reminded on the layout of the SALTRO-based modules and some simulation by Philippe on how the cooling could be done. Since the connectors do not create sufficient space between the padplane and the MCM boards, Takahiro has shown some ideas how more space could be created: With two BGA (ball grid array) boards, that will be bump bonded on the pad plane and will carry the connectors, an additional gap of e.g. 1.6 mm could be generated. This method is considered easier and cheaper than building trenches in the padplane. Alternatively, custom-made connectors could be produced, but this is considered to be more expensive. Takahiro also considers to introduce a sandwich of heat conducting and heat insulating foils to guide the heat of the SALTRO chips to the cooling pipes, but to block it from the padplane. He will test his ideas on a mockup by recording the temperature distribution and compare the result with simulations.

While looking for the best material he also found a very good heat insulating foil produced by nihon-shanetsu. This is an interesting possibility for a heat jacket of the fieldcage (to block the heat of the calorimeter and the silicon tracking detectors). Paul wondered if cooling pipes could be directly implemented in the TPG heat guide.

AOB:

There will be an analysis meeting on June 24th. Astrid plans to have plots from all three pads-based technologies with identical cuts, so that results can be compared more easily.

The next workpackage meeting will take place on June 19th.