Minutes of WP-meeting 304

Attendance:
DESY: Leif Jönsson, Uwe Krämer, Oliver Schäfer
Vidyo: Paul Colas, Jochen Kaminski, Ron Settles, Akira Sugiyama, Jan Timmermans, Keita Yumino

General News:
Jan summarized the Lausanne meeting, which took place earlier this week (8.-9.4.). There were only 90-100 people attending this interesting meeting, which was characterized by a lot of discussions. The main aim was to formulate a 1-2 page common statement of the linear collider community for the European Strategy update. The physics benefits were undebated and easily drafted. However, the benefits of the different designs (ILC vs. CLIC) were under discussion and no clear preference was determined. So, the final Lausanne statement is still not finished, but worked on and it will probably not contain a prioritization of the two accelerators. It will state, that we will need a linear collider, which can go down in energy to the Z and up to the top-pair production and that the project should start in 5 to 7 years. Important contributions were from Masa Yamauchi the DG of KEK (see slides https://indico.cern.ch/event/789524/timetable/#20190408.detailed) stating the situation in Japan. Several people think that the result of the March 7th statement was badly presented and that many thought that the ILC was dead, while it looks more like the opposite now. Fabiola sketched the position of CERN: CERN can at most support the R&D program of only one future project, so either CLIC or FCC, and she needs input from the community, which project should be chosen. It is however very important, that the decision finding process in Japan has finished before the Bad Honnef meeting, where the European Strategy will be drafted next year, and that a clear statement in interest is available from Japan.

PCMAG/LP setup, test beam:
Oliver: PCMAG/TRACI/test beam area:

- PCMAG is being cooled now, because Uwe will have a test beam in three weeks to test Lycoris.

News from the groups:
Leif gave an update on the SALTRO-16 electronics development. The slides were prepared for the AIDA2020 meeting last week and, therefore, they contain an overview of the previous developments. After the two preseries 682 SALTRO-16 ASICS were packaged and delivered to Lund awaiting the final testing. The packaging of the ASICs and the selection of a new CPLD have made it necessary to redesign the MCM boards. This opened the possibility to redesign also the low voltage supply. Sofar, 7 different voltage levels were necessary. In the new design this could be reduced to 2 or 3 different voltage levels. This simplifies not only the LV distribution on the MCM, but also the design of the LV board. The designs of the two boards are finalized now, then soldering tests of empty SALTRO16-packages on the MCM boards are done to check the quality of the connections. For the final tests still a FPGA programmer is badly needed, without him the project can not be completed.

Besides the SALTRO-16 electronics Leif has looked into cooling possibilities. The microchannel cooling is very interesting and can be done in collaboration with Filippo Bosi from Pisa. The microchannels are made of carbon fibers with an outer diameter of 700µm and an inner diameter of 300 µm. They can be glued together to form a thin broad net module of many pipes, through which water or a different coolant (also 2pCO2) can flow. The radiation length is minimal (0.28% of X_0) and

the coolant can flow in alternating direction in the different tubes, so that no temperature gradient will develop.

AOB:
Oliver mentioned that DESY will host the EDIT school in February 2020. The FLC group is responsible for organizing some lab courses and is looking for both experiments and people, who are willing to tutor the experiments. If you are willing to help, please contact Ralf. Sofar the plan for sees a measurement of gas gain with GEMs, an experiment based on ROPPERI, where the difference between pads and pixels is studied, a setup with Micromegas and one with GridPixes for in depth studies of tracking. There are also all 3 beam lines of the DESY test beam reserved for this period.

The next workpackage meeting will take place on April 25th.