

Minutes of WP-meeting 344

Attendance:

Zoom: Ralf Diener, Leif Jönsson, Jochen Kaminski, Uwe Krämer, Shinya Narita, Tomohisa Ogawa, Huirong Qi, Oliver Schäfer, Ron Settles, Jan Timmermans, Maxim Titov

General News:

Maxim reported news from IDT. ILC has become (since 2020) the purpose of a general and broad effort in Japan involving several Ministries as well as the Parliament, in close connection with Industry, Academia and the Tohoku region. This progress has been summarized in the JAHEP ILC Steering Committee document, published early 2021:

http://www.jahep-ilc.org/files/ILC_JP_update_20210116_E.pdf.

Besides the progress achieved in Japan, 2020 also saw the emergence and focused effort of the ILC International Development Team (IDT), towards defining the ILC Pre-lab programme, the structures and processes needed to start it. The IDT WG2 on accelerators, involving laboratories world-wide, have prepared a work-package based plan for the Pre-lab phase:

[https://agenda.linearcollider.org/event/9103/attachments/36328/56651/](https://agenda.linearcollider.org/event/9103/attachments/36328/56651/Technical_preparation_Ver4K.pdf)

[Technical_preparation_Ver4K.pdf](https://agenda.linearcollider.org/event/9103/attachments/36328/56651/Technical_preparation_Ver4K.pdf), which is currently undergoing an international review.

The IDT is preparing an interim report on the ILC Pre-lab, to clarify its main scientific and technical goals and content, schedule, organization, and its legal and governance structures. It is intended to be used as a supplementary documentation for MEXT budget request for the ILC Pre-lab in FY2022, and also as input for further consideration and planning by national laboratories interested in providing in-kind contributions to the ILC Pre-Lab activities. More information will be available at the recently created IDT website: <http://linearcollider.org>.

PCMAG/LP setup, test beam:

Ralf: Test beam schedule:

- Ralf said there is no new version of the test beam schedule. The German government will meet and decide on further COVID-19 measures on March 3rd. Then the DESY directorate will meet on March 4th to decide the next steps for DESY. The maintenance work of the test beam infrastructure is continuing.

News from the groups:

Huirong gave a status report on the IHEP activities. The TPC prototype is commissioned and working well. Pictures of the detector were shown and the main parameters were discussed by Huirong. The electronics is developed by Tsinghua University and is based on the CASAGEM ASIC. It has 16 channels per chip, a gain of 20 mV/fC and a variable shaping time, set to 120 ns currently. Zero suppression is included as well a triggered and a triggerless mode. First data was taken and the analysis is still ongoing, but first results were already presented. In particular the PRFs of the pads with a pitch of 1 mm were explained in detail and the measured distributions were shown. With these the spatial resolutions for different drift distances were calculated. Also, the drift velocity in depend of time was shown at $E_{\text{drift}} = 150 \text{ V/cm}$. It has the expected dependence on the temperature, but also additional effects probably from the gas pressure must influence the behavior. Finally, Huirong also pointed out, that a second version of the electronics with improved features is being produced. This chip is optimized for a TPC readout and has very low energy consumption of 2.33 mW/channel including ADC function. First tests have been done and the chip seems to work according to specifications.

AOB:

The next workpackage meeting will take place on March 11th.