# Minutes of WP-meeting 328

#### Attendance:

Vidyo: Yumi Aoki, Paul Colas, Ulrich Einhaus, Keisuke Fujii, Serguei Ganjour, Qi Huirong, Shivam Joshi, Jochen Kaminski, Uwe Krämer, Peter Kluit, Paul Malek, Jurina Nakajima, Tomohisa Ogawa, Oliver Schäfer, Ron Settles, Jan Timmermans, Maxim Titov, Keita Yumino

### General News:

Maxim was asked about the European Strategy process and responded that it is still feasible that the Strategy document will be publicly released after the June 16/17 Council meeting.

Paul announced that there will be a virtual RD51 meeting from June 22<sup>nd</sup> to June 26<sup>th</sup> with lectures in the afternoon. The in-person collaboration meeting in Santiago might take place at the beginning of October in combination with a TPC workshop.

A few days ago, there was a French FCC meeting. Maxim gave a nice presentation on the ILC and many people start realizing that the ILC is also good for the FCC as the detector development can be done in symbiosis. Many people across Europe are now trying to form a successor project of AIDA2020.

## News from the groups:

Huirong presented the TPC + laser setup at IHEP. The laser setup consists of one input, where a fiber from the external laser can be coupled in. The light is distributed over 4 bars around the TPC chamber. Each bar has mirrors at 9 different z-positions and at each position 1-2 different laser beams are decoupled from the main laser beam with partially reflecting mirrors. These four laser beams have a difference of 15°, 25° and 32.5° in the  $\phi$ -direction, a diameter of 0.75 mm and a Gaussian profile. Huirong showed pictures of the laser setup, where a green laser(532 nm) replaced the UV laser (266 nm), so that the laser tracks were visible. The whole setup is placed on a table with an internal gas flow to buffer any vibrations.

After HV tests the TPC was placed into the laser setup. The endcap has an area of 200 cm<sup>2</sup>, but is covered only partially with 1280 pads. The pads have a size of  $0.95 \times 5.9 \text{ mm}^2$  and are connected to electronics channels of a readout system developed at Tsinghua University and given to IHEP. The pads are arranged, so that 6 pads form a pad row perpendicular to each laser track. When using the laser beam, 3 adjacent pads show a signal in 92% of the cases. A preliminary analysis showed a spatial resolution of 66.64  $\mu$ m. Huirong has also tested T2K gas mixtures from different gas suppliers and has found little differences in the performance of the detector when the 266nm laser beam. Currently, Huirong and a technician are still working on the setup alone. The student is expected back on 26<sup>th</sup> of June, as there is still a travel ban.

Keisuke said that the emergency state has been lifted all over Japan and activities start to recover. KEK is almost in a normal operation state, except that home office still is recommended, but not enforced. JPARC is also preparing to restart. In Iwate there are still no infections.

Paul reported that in Saclay research is starting slowly. A first complete cooling plate 3D printed in Aluminum was delivered. It has the correct size for an LP module and is being pressure tested now. Sofar, 2 bar have been reached successfully and higher values will soon be done.

Oliver announced that the test beam is restarting next week with two users: CMS pixel and a telescope

tests. There should be still some users in June before the summer shutdown start. Because of travel restrictions these users will all come from Germany. The schedule is online. However, there are no plans yet, how the beam time will be distributed after the summer shutdown.

Peter said that Nikhef is gradually ramping up again, but scientists should preferentially work from home still.

Ron said there are no changes at the MPI.

## <u>AOB:</u>

The next workpackage meeting will take place on June 18<sup>th</sup>.