

## Minutes of WP-meeting 359

### Attendance:

Zoom: Paul Colas, Ulrich Einhaus, Serguei Ganjour, Jochen Kaminski, Claus Kleinwort, Jurina Nakajima, Tomohisa Ogawa, Oliver Schäfer, Ron Settles, Akira Sugiyama, Jan Timmermans, Maxim Titov, Keita Yumino

### General News:

Paul gave a list of upcoming meetings and workshops related to LCTPC topics: ILCX (26.-29.10.), RD51-CM (15.-19.11.), FCC-France (30.11.-2.12), TPCs for low-energy rare events (15.-17.12.). He also started the discussion on the next collaboration meeting. A majority of the people present agreed to have the next CM online again, since the Corona situation in the upcoming winter is still unclear and traveling restrictions in Japan are still quite severe (e.g. for people returning to Japan). Maxim mentioned, that he has submitted an abstract and a summary to the VCI 2022 in Vienna. The conference will be in person only. So, he is looking for someone to volunteer to attend the conference and give the presentation if accepted.

Last Friday there was a multilateral meeting of MEXT with funding agencies / ministry authorities of the US, France, Germany and UK. All parties have agreed that the outcome would be kept among the meeting participants. MEXT would prepare a summary that collectively can be shared with the public. Therefore, at the moment, the discussions are being kept closed and await MEXT's draft summary.

### PCMAG/LP setup, test beam:

Oliver: Test beam schedule:

- Test beam is running again after one week of maintenance. The call for next years beam time is still open and everyone interested in using the test beam should submit a proposal.

### News from the groups:

Paul showed some pictures and first results of the cooling unit test last week. He and Serguei were at DESY with a completely assembled MM module including readout electronics. This was connected to TRACI. Paul showed a T diagram of a few hours. At the beginning the electronics was off and the cooling reduced the temperature to about 19°C. Then the cooling was off and the electronics was operated and continuously read out, so that it heated up to more than 50°C. When the cooling was switched on again, the temperature settled at roughly 25 °C within minutes. The temperature reading was then stable within 0.1°C. The mezzanine board with the FPGA heated up to 32°C (black line in T diagram), because the FPGA consumed more power than the readout electronics. Paul also gave several reasons for the 2pCO<sub>2</sub> cooling. The benefit of the 3D printed cooling units is the higher flexibility in design and the geometry can be optimized easier to cool the complete surface of the module than with pipes.

Jan mentioned again the trigger scintillators at the test beam. He has found slides of Rio Yonamine, which he attached to the WPmtg358. In these slides Rio explained the setup and also showed the initial performance of the 5 scintillators, when they were delivered to DESY. The efficiency of all of them was almost equal. The question arose, where the 5<sup>th</sup> scintillator is now.

### AOB:

The next workpackage meeting will take place on November 4<sup>th</sup>.