

## Minutes of WP-meeting 397

### Attendance:

Zoom: Paul Colas, Ralf Diener, Jochen Kaminski, Peter Kluit, Huirong Qi, Oliver Schäfer, Ron Settles, Jan Timmermans

### General News:

Jochen and Paul shortly reported on the DRD1 formation process: The extended proposal is finished, the summary version is written by Maxim and Anna. On last Monday there was a TPC community meeting, where questions on the DRD1 structure, Working groups and Work packages were discussed. Work packages are an additional instrument of DRD1 (not existing in RD51) which is to accommodate the ECFA wish for resource loaded MoUs, which have to/could be signed by funding agencies to make them commit for long time scales and secure funding for longer term R&D projects. Work package will be listed and described in the addendum of the DRD1-MoU and can therefore be added, changed or deleted at any time. Any group can join a work package by signing the WP-specific MoU in addition to the DRD1-MoU. There are two workpackages planned for TPCs: WP4 is for collider TPCs, WP8 is for rare event TPCs, active target TPCs and nuclear TPCs. Currently they are commonly convened by Esther Ferrer Riba, Diego Gonzalez Diaz, Francisco Garzia and Jochen. If you have any questions please contact them. For the finalization of the WP-proposals we still need institutes who give feedback to the WP proposals and consider to join. No final commitment is required now.

The web page with gas properties generated in Japan and now being hosted at Stony Brook was discussed again. The original page is not accessible at the moment, but Prakhar has sent Jan a link where the complete zip file with all the original data and pictures can be downloaded. It has 60 GByte. Oliver is investigating where this web page could be hosted for long term accessibility. The current Stony Brook web page contains additional gas mixtures, many of the original graphs are only with very low resolution available, therefore the original version is preferred.

Huirong mentioned, that there was the European CEPC-WS last week in Edinburgh (<https://indico.ph.ed.ac.uk/event/259/>), where he had given an update on the CEPC-TPC activities in China. The next CEPC-WS will take place in Nanjing from 23. to 27.10.2023 (<https://indico.ihep.ac.cn/event/19316/>) Travel funds are available. If you want to attend the meeting, please contact Huirong.

### News from the groups:

Huirong showed the results of a simulation with a pixelTPC for the CEPC. He first introduced the aim of the study, that is to study the benefit of cluster counting for PID and then described the study itself. Garfield++ was used to simulate the primary interaction, diffusion and gas amplification of the signal. He showed that the number of primary interactions per pixel depends on the pixel size and is about 1 for 300 $\mu$ m $\times$ 300 $\mu$ m pixels. The simulation was done with B=2T, T2K gas and both length and radii identical to the large ILD TPC. He then showed event pictures of tracks after a drift of 30cm and 200cm where the effect of the diffusion is visible. To check the results also the MC truth is used. The analysis is still ongoing and results will be presented later.

Peter reported that there are delays for the EIC test beam because of money allocation. The detector will be sent at the end of the summer. Test beam will take place not before September, possibly later.

There will be a new proposal for another test beam with magnet and cooling tests. Huirong wants to join the test beam.

AOB:

The next workpackage meeting will take place on July 27<sup>th</sup>.