

Subject: TIC meeting 9/18, 2023 - main outcome

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Dear Colleagues,

the TIC meeting on September 11, 2023, has been dedicated to an update on MPGDs for ePIC.

A reference conceptual configuration for these tracking components was worked-out in June 2023. The definition of the tracking specifications is work in progress.

We can group the open questions around 3 main points.

1 - Outer MPGD

There are different ingredients:

- studies of the MPGD options that can provide very fine space resolution even when the track impinges at large angles; considering this aspect, thin-gap MPGDs are proposed (Kondo Gnanvo's report) either using heavy gasses where the actual Xe shortage represents a potential problem (Brian Eng' report) or by introducing a preamplification GEM layer in front of the microR-WELL detector;
- the needed space resolution is not yet determined, even if the question is correctly address by on-going simulation studies; the simulation status has been presented (Matt Posik's report);

the final outcome of these studies is the key ingredient on which the decision will be made.

2 - Disk MPGD

Less critical respect to the track angular distribution. The option that will be adopted for the barrel can be assumed also here.

3 - Layout of the cylindrical MICROMEAS taking into account integration constrains and construction and assembly challenges. The work is progressing via the study of some different layout arrangements (Francesco Bossu's report).

The update has been effective thanks to the careful and informative reports presented at the meeting.

Best greetings, Silvia