Subject: TIC meeting, June 3, 2024 (TDR effort, progress (tracking); detector integration, an

update; hpDIRC news) - main outcome

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Date: 6/4/2024, 8:05 PM

Dear Colleagues,

this e-mail is to underline the main outcomes of the June 3 TIC meeting, dedicated to (i) TDR effort, progress (tracking), (ii) detector integration and (iii) hpDIRC news.

The careful reports by the speakers have been appreciated.

(i) TDR effort, progress (tracking)

The abundant progress in the tracking sector is reported.

Various steps forward in the software reconstruction have been implemented in ElCrecon.

In particular, good progress is registered in the ambiguity resolution solver.

The performance studies are continued and the next step will be obtained attempting reconstruction of events where background contribution is included.

SVT:

The service model is progressing as well as its inclusion in the simulation software.

Very recently, a telescope of ITS3

ER1 "baby-MOSS" sensors has been studies in a testbeam at FNAL.

The preparations for lpGBT and VTRx+ final design review next week is in progress.

MPGDs:

The envelopes and dimensions have been recently revisited.

The geometry and the services have been updated in the simulation.

(ii) Detector integration

The detector model updates concern:

- The RDO Placements: now, the favoured option is externally to the sensor setup.
- Endcap Update: lighter and better manufacturability steel arrangement.
- Flux return Updates: the re-use of 30 steel bars from STAR is foreseen; 2 more bars will be produced and added.
- Barrel EMCAL Interferences: at the level of some cm, interferences with DIRC and dRICH; contributions to the discussion seem to indicate that the interference is not really there; this will be

understood in detail in a dedicated meeting with EMCAL DSC.

- Ring Magnet Installations: a (non-favored option) would require to have magnet installation introducing them in the ring from IP6; this would require a complete displacement of the ePIC detector,

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which would not be accessible during the installation of the ring magnets; alternative options, which would

not interfere with the ePIC detector, are under consideration.

(iii) hpDIRC news

The annual hpDIRC meeting and workshop was successful and a report about will be presented at the coming general meeting.

The BaBar DIRC bars have been transported from SLAC to JLab. This delicate operation has been performed with dedicated care (following a previous transportation for GlueX), using shock absorbing devices and monitoring the force acting on the boxes during the whole operation.

QA DIRC lab is close to ready for commissioning; QA

includes three parts: Cleaning/inspection station, Dark room with laser setup to measure the quality of DIRC bars and the long term storage.

The disassembly and validation of the optical quality is scheduled in Summer 2024, followed by the decision on the reuse of the BaBar bars expected by late Fall 2024.

If this notes need corrections/integration, please, write me back. Thank you.

Best greetings, Silvia

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