

**Subject:** TIC meeting , August 26, 2024 (CMS Detector DB and tools; pfRICH prototype) - main outcome

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Dear Colleagues,

this e-mail is to underline the main outcomes of the August 26 TIC meeting, dedicated to the pfRICH prototype by a clear and comprehensive report, greatly appreciated. The foreseen report illustrating "CMS Detector DB and tools" by professor Jeremiah Mans could not take place and it will be rescheduled at a later TIC meeting.

#### **Communications on August 26:**

- from TC-office: TIC should take in charge the question posed at the previous TIC meeting by the Gaseous Trakers DSC about the time resolution requirements for MPGD devices; a google document where the DSCs can anticipate their communication has been created: [https://docs.google.com/document/d/1TI1D3ie\\_TK1q0e2Fs7MpgmQf1t8BDGBoBVIP0yHMxeM/edit](https://docs.google.com/document/d/1TI1D3ie_TK1q0e2Fs7MpgmQf1t8BDGBoBVIP0yHMxeM/edit).

#### **pfRICH prototype**

The pfRICH prototype is designed to both prove the detector principle and also to anticipate a number of technical elements required by the final device.

The prototype is expected ready for the Spring 2025 testbeam.

The report discusses fabrication items (shell, end-rings, sensor enclosure and the coupling between HRPPDs and

the enclosing frames and the mirror fabrication) and complementary activities including exercises of mirror coating

and reflectivity tests, HRPPD QE scans, aerogel evaluation exercises and the design of a laser monitoring system

to monitor HRPPD timing performance, signal amplitude, QE, and mirror reflectivity over the lifetime of the experiment.

This last topic trigger a discussion of how to introduce in the ePIC DAQ model these monitoring data that require a trigger.

**An action item** has been identified: pfRICH DSC and Electr/r-o/DAQ WG will discuss the matter further and identify

how to include the data from this monitoring system in the ePIC DAQ model. This effort will be a guidance for other monitoring systems with similar requirements.

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

Thank you.

Best greetings, Silvia

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