

EIC Detector 1 DAQ WG Kick-off meeting

April 26th 2022

Detector 1 interim DAQ WG

The overall goal of the detector WG's is to optimize the ECCE reference design towards a technical design within the constraints listed above. In working towards this goal, the DWG's should collaborate with existing detector consortia (EICSC, EEEMCAL, MPGD, DIRC, DRICH, AC-LGADs, etc.), all detector R&D efforts relevant for Detector-1, and any additional efforts within the EIC scientific community.

- All working groups will work closely with the Global detector / integration working group and the EIC project towards a technical design that optimizes the global detector performance, taking into account global integration and physics performance.
- Each joint WG should hold at least one kickoff meeting where the designs of each proposal are presented in detail. It is critically important that WG members understand the scientific and technical reasoning behind different design choices before engaging in optimization discussions.
- The WG conveners will lead a discussion to identify any non-trivial differences and/or aspects in need of further optimization.
- For each non-trivial difference working groups will then work to prepare a pro/con list accounting for technical performance, risk and cost. The resolution of non-trivial differences should be discussed in close consultation with the Global detector/integration WG, physics working groups, the EIC project, relevant detector consortia and R&D efforts.

Meeting time(s)

- Tuesdays 3 to 4 PM Eastern time
- Thursdays 9 AM to 10 AM Eastern
- Maybe bi-weekly

Indico, Wiki and mailing list

- [Indico](#)

[DAQ / Electronics / Readout · Indico \(bnl.gov\)](#)

- Wiki

<https://wiki.bnl.gov/eic-project-detector/index.php/DAQ>

- Mailing list

<https://lists.bnl.gov/mailman/admin/eic-projdet-daq-l>

Agenda

- Overview ATHENA DAQ
- Overview ECCE DAQ
- Discussion WG charge

DAQ WG additional charges

- evaluate expected data rates including possible backgrounds
- gather detectors and electronics associated requirements
- specify early data format and protocol to be commonly used
- Develop clock/time system for streaming readout and high resolution TOF (10 ps)
- update and refine cost estimate, work with project to finalize design with cost envelop
- Prepare for drafting DAQ preTDR