Detector Team Update

11 April 2022

BaBar with all
outer HCal sectors

ECCE Detector Team Update

- See ECCE document database with links to Overleaf projects for all NIM drafts:
  - https://docs.google.com/spreadsheets/d/1Nuke_bu3tKajKQoNEF50UzSZk2IpTMqrs2Xk5KjaduE/edit#gid=0
- This session, status of 4 ECCE detector-focussed NIM Drafts:
- ecce-paper-det-2022-01: *Design of the (overall) ECCE Detector for the Electron Ion Collider*
  - Presentation at next opportunity. See next page.
- ecce-paper-det-2022-02: *Design and Simulated Performance of Calorimetry Systems for the ECCE Detector at the Electron Ion Collider*
  - Presentation Today for "approval" (i.e. ready for internal comments)
- ecce-paper-det-2022-03: *Design and Simulated Performance of Tracking Systems for the ECCE Detector at the Electron Ion Collider*
  - Status report later today
- Ecce-paper-det-2022-04: *Upgrades for the ECCE Detector at the Electron Ion Collider*
  - Started, in progress. Describes dual-readout calorimetry, muon identifier chambers, hadron arm high-rapidity tracking layer, backwards hadronic calorimeter

Status of Detector-focussed NIM Drafts

- ecce-paper-det-2022-01: Design of overall ECCE detector
  - Some figures will be replaced with publication quality versions.
  - Needs Wordsmithing! Those with write-access are very welcome to directly enter wordsmithing changes. Please don't worry, all changes are in git.
  - Please just ask if you wish read and/or write-access via Overleaf.
  - General comment & suggestions also welcome.
  - "Master" NIM alphabetical author & **affiliation** list still needs work.
  - Will present for "Approval" at the next available approval session.
- ecce-paper-det-2022-02: Presentation now….

PRESENTATION: ECCE-PAPER-DET-2022-02 ECCE Calorimetry Systems

Status of ECCE Tracking NIM

- ecce-paper-det-2022-03: Design and performance of ECCE tracking systems
  - Incorporating input from EIC Silicon Consortium
  - Small amount of additional prose from EICSC coming soon
  - Now acknowledges eRD16 (forward/backward silicon, eRD18 (barrel silicon), eRD25 (EIC Silicon Consortium), and will cite this within the text body.
  - Acknowledgements to prior work now improved.
  - Will soon add more details concerning AC-LGAD TOF layers.
  - Cites ecce-paper-comp-2022-2 (*AI Assisted Optimization of ECCE Tracking Systems*) which will be presented later today.
  - Comments?