


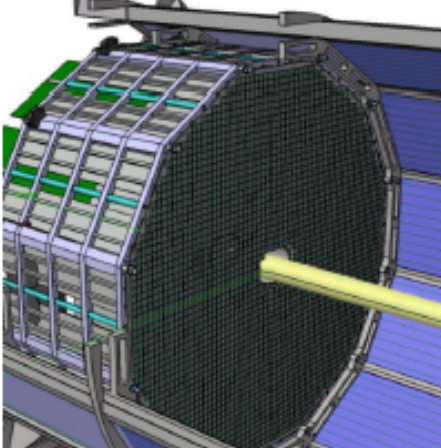
Reminder : TDR Status/plans

- Carlos presentation in February

Justin Frantz, Carlos Munoz, Tanja Horn, and the rest of the EEEMcal group



Backward ECal TDR planning



- **Detector design**
 - Overview
 - Detector requirements
 - Radiation requirements
 - Radiator (PWO)
 - Test beam results
- **Performance**
 - Single particle studies w/ & w/o material
 - Clusterization
 - Full event reconstruction (including background)
- **Mechanics**
 - Stacking layout
 - Support frame
 - Stress simulation
- **Read-out**
 - SiPM choice
 - Radiation tests
 - SiPM boards
 - FEB
- **Cooling**
 - Heat load simulations
 - Prototype measurements
- **Monitoring systems**
 - LED
 - Temperature
- **Integration**

"from previous work"
"ready to write up"
"partially ready to write up"
"lots to do"

02/21/2024 ePIC Calorimetry meeting 1

Backward Ecal Timeline for “Red” TDR Summary Items

○ Detector design

➤ Test beam results – these are for integrated performance and full readout chain

- Crystal+SiPM readout module tests planned for Fall’24 (DESY, JLab)
 - Funding needs for production of siPM adapter boards/FEB prototyping
 - Modest funding needs for travel?
- Results: Oct-Nov 2024

○ Read-out

➤ Radiation tests – these are for the SiPMs

- Some tests ongoing (collaboration with U. Giessen) hadron beam facility
- Initial results: June 2024 (more later in the year)
- Coordination with other subsystems for ~August UC Davis irradiation expected, final SiPM performance/noise characterization by mid-Sept.
- If needed, and funding can be found, an earlier irradiation test at UMass Lowell mail-in service may be possible (have been in contact with them) -- probably May/June timeframe.

➤ FEB

- Summer 2024
 - Probable funding needs also for COTS/Discrete-Gerard IU engineering specific to Bkwd Ecal
- Tests: Fall 2024