News

• TOF DSC organization

- Collect interests in R&D and construction query
- Connect institutions with working groups <u>list</u>

ePIC Simulation (next campaign starts on June 1, next next one on July 1)

- TOF in tracking Nicolas: fix the issue with full forward TOF geometry in tracking
- TOF PID in reconstruction Oskar/Zhenyu: reconstruction, validation plots
- TOF digitization Adam/Souvik: charge sharing and detector noise
- TOF service in simulation TBD: implement the missing material for mechanical support structure, cooling and cabling

• EIC Project Detector R&D (eRD112/109)

- Latest updates: Indico pages May 16 and June 6
- FY23 report and FY24 proposal due on July 7 (internal deadline June 20): Overleaf view link (for editing, please contact Zhenyu)

• EIC Project Engineering Design (TOF PED)

- Presentation on updated mechanical engineering proposal by Andy et al. next week (May 30)
- Meeting on integration with project engineer team tentatively in the week of June 5

• EIC Project Review on ePIC PID detectors on July 5-6 or 6-7

- To assess the current state of all PID detectors, serve as a status report for Project Management and DOE
- EIC Project Technical Review of the calorimeters in 12/2022: https://indico.bnl.gov/event/17721/ (PC: TR2022ECalHCal)

• EIC User Group Meeting @ Warsaw on July 23-31 https://indico.cern.ch/event/1238718/

5/23/23 Zhenyu Ye @ UIC

Internal Structure

Barrel TOF

- Sensor: sensor, sensor-ASIC integration
- Frontend electronics: ASIC, service hybrid
- Detector Module: module structure, module assembly

Forward TOF

- Sensor: sensor, sensor-ASIC integration
- Frontend electronics: ASIC, service hybrid
- Detector Module: module structure, module assembly

Common systems

- Backend Electronics: power supplies, DAQ system
- Mechanics: support structure, cooling system
- Alignment system

• DPG:

• Simulation and reconstruction, Physics cases, Database, ...

Call for FY24 R&D Proposals

Dear current and future R&D participants,

It is time to discuss the next steps in our path, i.e., the FY24 projects. We are trying to get the R&D program fully in sync with the FY boundaries.

Proposals

- 1. Please submit your proposals and progress reports (where applicable) to us by July 7, 2023. We aspire to have a DAC meeting well in time to prepare for contracts at the beginning of FY24.
- 2. We expect progress report from all ongoing projects eRD101 to eRD113. What milestones were achieved. How did our understanding improve. What is left to do?
- 3. eRD102, eRD103, eRD104, eRD106, eRD107, eRD108, eRD109, eRD110, eRD111, eRD112, and eRD113 may submit continuation proposals if and only if technical risk milestones remain.

These new proposals should be relatively straightforward to write. Keep them short and concise. List whatever technical risks remain, the milestones, deliverables, and two money matrices showing cost/item and funding/institution to close those remaining risks. Also list the representatives for each institution. List all participating members and institutions on the front page. Please also give, if applicable, an outlook for the years past FY24.

Be aware that R&D should not be mixed with PED. If you are not sure, talk to us. The proposals should concentrate on detector R&D tasks that mitigate project detector technical, risk.

DAC Review Meeting

With the project detector R&D expected to dwindle down at CD-2, we will limit the meeting to a two-day review meeting in the July-August period. The FY24 proposal goals of all continuation projects should be presented as well as a short status report of all FY22/FY23 proposals. More details on this meeting will be announced soon.

Best regards, Elke, Rolf, and Thomas

EIC Project Technical Review of calorimeters in 12/2022

You are asked to address the following questions:

- Are the technical performance requirements appropriately defined and complete for this stage of the project?
- 2. Are the plans for achieving detector performance and construction sufficiently developed and documented for the present phase of the project?
- 3. Are the current designs and plans for detector and electronics readout likely to achieve the performance requirements with a low risk of cost increases, schedule delays, and technical problems?
- 4. Are the calorimeter fabrication and assembly plans consistent with the overall project and detector schedule?
- 5. Are the plans for detector integration in the EIC detector appropriately developed for the present phase of the project?
- 6. Have ES&H and QA considerations been adequately incorporated into the designs at their present stage?