Analysis Coordination Reconstruction Thoughts

Rosi Reed

LEHIGH
UNIVERSITY

Salvatore Fazio

UNIVERSITÀ DELLA CALABRIA

Dipartimento di FISICA

INFN
Gruppo Collegato
di Cosenza
Istituto Nazionale di Fisica Nucleare

High-level analysis priorities for 2025

❖ **Priority 1: Increase Analysis engagement —> Need to include analysis "module" attached to SCC landing page so people can go from learning to make histos to real analysis**

❖ **Priority 2: Increase realism for physics observables —> Multiple issues - need more "physics objects", need PID/eID**

- **Work with SCC to develop a boundary between what is in the data model and what is under analysis macros/scripts**

❖ **Priority 3: Efficiently connect tasks with workforce – improve onboarding**

❖ **Priority 4: Determine the "best" observables for the early science case and what is needed for impactful measurements**

❖ **Priority 5: Develop a results validation scheme for talks/reviews/documentation**

Priority 1 (engagement) mini-tasks (~ 1 Month)

Priority 3 – Improve onboarding

To increase engagement, we need analysis tutorials – decided these should be based on analysis technique rather than PWG. At the previous AC meeting, we decided the first tutorials should be:

- Electron ID - Tyler
- Hadron ID – Ralf (tutorial at the SIDIS working group)
- Jets - Rongrong/Olga
- Heavy Flavor - Rongrong
- Muon ID - EW/BSM group
- Using Far Forward Detectors – Kong/Alex

- One tutorial on backward (u-channel) $\rho \to \pi + \pi$ from the physics benchmark push exists (Zack Sweger)

Detector Requirements

Priorities 2 + 4

- Which physics studies are needed for the detector requirements?
  - Needed for pTDR/CD2 and beyond
- Action item: ACs and PWG conveners reach out to the DSCs to survey the need for new studies that cannot be reused from the YR
  - Help set priorities for the PWGs and S&C
  - Identify and then address any gaps in the software and simulations
- Create benchmarks, etc of YR plots in order to have updated and more realistic versions of key observables

Meetings

- Previous meeting and notes: Indico
- Next Meeting – Tuesday Feb 18th at 830 am ET
  - Indico
  - Update on PWG status
  - All are welcome!