Selected News from ePIC Software & Computing

Production Liaisons: We are looking for liaisons between the PWGs and the Production WG to support the monthly simulation campaigns. Liaisons will help coordinate simulation requests, ensuring that the needs of the PWGs meet the requirements for reproducibility and can be realized within the available compute and storage resources. They will also assist with preparing simulations for their respective PWGs.

Tutorial by Alex: Getting Started with a Physics Analysis

This tutorial will focus on utilizing the techniques of analyzing reconstruction output, covered in earlier tutorials, in a slightly more advanced way. The types of plots, studies and checks utilized in a "full" physics analysis will be covered. As usual, this tutorial will be recorded.

- **Date and time**: Tuesday, March 18, at 10:00 a.m. EDT (GMT -4)
- **Indico**: https://indico.bnl.gov/event/27123/
- **Mattermost channel**: https://chat.epic-eic.org/main/channels/software-tutorials
- **Zoom connection**: https://york-ac-uk.zoom.us/j/93839003960?pwd=6uWEQxPF391Yagg7qbb1aZ5Y6r2cQx.1

Reconstruction Tasks: Shared Priorities with PWGs

Finalized: Electron Finder, Low Q^2, Primary Vertexing.

Hadron Identification (tbd): PID algorithms for heavy flavor physics and SIDIS studies.

- **Overall status**: Ongoing work on IRT 2.0 implementation and validation for dRICH and pfRICH. Update in recent Reconstruction WG meeting. Dedicated effort to finalize reconstruction for hpDRIC.
- **Next Steps**: Ongoing discussion on how to strengthen development of hadron identification.

Particle Flow (Derek): Improving the jet reconstruction using particle flow information.

- **Overall status**: Good progress on calorimeter reconstruction. Development of particle flow algorithm for jet reconstruction identified as 2025 priority. Additional workforce identified.
- **Update**: Derek's talk in this meeting.

Secondary Vertexing (tbd): Enhancing the vertexing capabilities to study heavy flavor physics.

- **Overall status**: Xin et al. are implementing the helix method for two-track DCA algorithm. Further tests of KFParticle package foreseen. Others efforts ongoing in collaboration.
- **Next Steps**: Identify someone closely coordinating these efforts within the Reconstruction WG.

Kinematics (Charlotte, Rachel): Establishing an initial dictionary of kinematics for physics processes and supporting physics analyses. Linked to discussion what should be provided in EICrecon and which calculations should be performed in the analysis scripts.

- **Overall status**: Finalizing cross check for the reconstruction of the SIDIS variables. Exclusive PWG has agreed upon two initial methods for t-reconstruction. Implementation started. More method added later.
- **Next Steps**: Following the plan described in the last joint meetings.