

# 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 next reco 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 ElCrecon 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.