

A slide from Markus

Status of PID LUT Implementation in ePIC Software and Simulations

Remaining Tasks on PID LUTs:

- **dRICH LUTs:** dRICH LUTs unavailable in agreed-upon format. Finalize discussion on how to properly combine LUTs.
- **Update to epic-data repository:** Add LUTs, including binning metadata in their headers, to repository (pending on 'dRICH LUTs').

Remaining Task on Integration in Large-Scale Simulation Campaigns:

- **Scalable Distribution Mechanisms for LUTs:** Decided to reuse the same mechanism as for the geometry and implemented it. The remaining step is to test this mechanism with all LUTs (pending on 'Remaining Tasks on PID LUTs').

Remaining Tasks on ElCrecon:

- **Algorithm Requirements:** The algorithm needs to ingest ReconstructedParticles and ReconstructedParticleAssociations, and emit ReconstructedParticles and ReconstructedParticleAssociations.
- **Interaction with PID Detectors:** Ensure that ReconstructedParticles in input have actually interacted with PID detectors.
- **Writing Probabilities and Particle ID:**
 - Write all probabilities to edm4hep::ParticleID particleIDs.
 - Write the particleID that is being used for the particle to edm4hep::ParticleID particleIDUsed.
 - Ensure consistency of PDG Code and particle charge.