

dRICH Readiness: Reconstruction

Two "modules" for reconstruction:

- Standalone Indirect Ray Tracing (IRT) library Ready!
- Bindings of IRT to Reconstruction Framework
 - Working well, but with "scaffolding":
 - Reliance on true photons → very large output files
 - Need to use reconstructed tracks, rather than MC truth
 - In Juggler, but is portable to EICRecon (Gaudi → JANA)

Reconstruction Readiness Readiness:

- In good shape for small-statistics studies and benchmarks
- For a full campaign, we need to take down the scaffolding, and bind to EICRecon

Digitization and Readout

- Readout "SimTrackerHit" and pixel encoding: finalized
- Adopt common digitization algorithm (?)
- Adopt common noise injection
 - Interest in integrating G4SiPM for the long term?



pfRICH

- ◆ To do (beyond common IRT reconstruction)
 - Rescale Geometry
 - Check all material properties
 - Update readout
 - Connect geometry and IRT code
 - Generalize our development helper scripts
- Need to balance priority with dRICH development
 - But, the pfRICH is helpful for debugging issues in the dRICH reconstruction
 - Need more people power for the future

