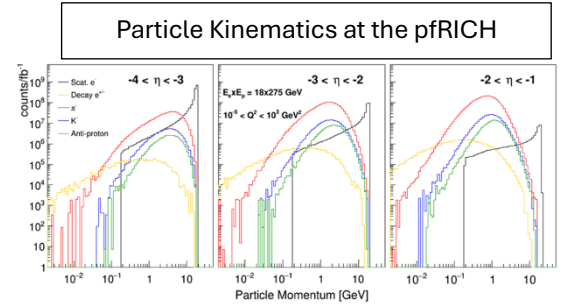


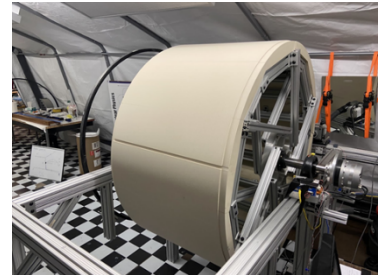
# A Proximity-Focusing RICH Detector for the ePIC Experiment at the EIC

## Presentation Outline:

- Introduction to ePIC and the EIC
  - Overall placement of the pfRICH within ePIC
  - Particle kinematics in region covered by pfRICH
  - pfRICH design overview

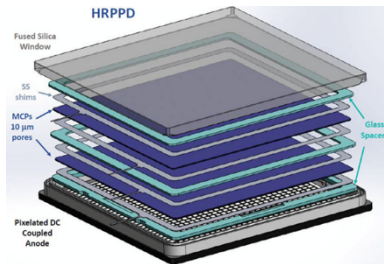


- pfRICH Construction
  - Overview of pfRICH structural components
    - Cylindrical vessel and end-rings
    - Sensor and aerogel planes
  - Update on fabrication/construction status

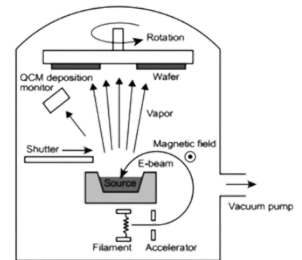


Vessel Construction

- Overview of pfRICH Components
  - Photosensors (HRPPDs)
  - Mirrors
  - Aerogel
  - Services
    - HV/LV
    - Cooling
    - Gas
  - Light Monitoring System
  - Readout electronics

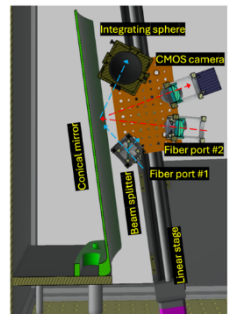
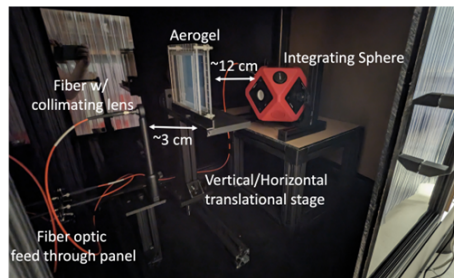


HRPPD Schematic



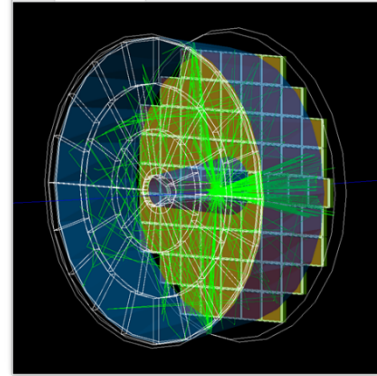
Mirror Coating

- Component QA and Testing
  - HRPPD test stands
    - Performance characterization, B-field performance, aging
  - Mirror test stands
  - Aerogel test stands

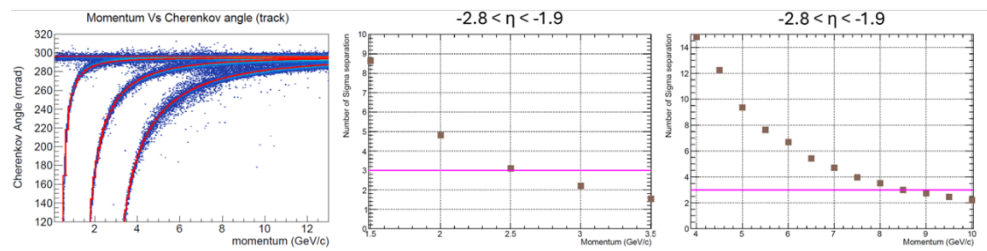


Aerogel and Mirror Test Stands

- Simulation and Software
  - Performance evaluation using standalone GEANT model
  - Integration into ePIC framework
- Summary



pFRICH GEANT Model



Simulated pFRICH Performance Metrics