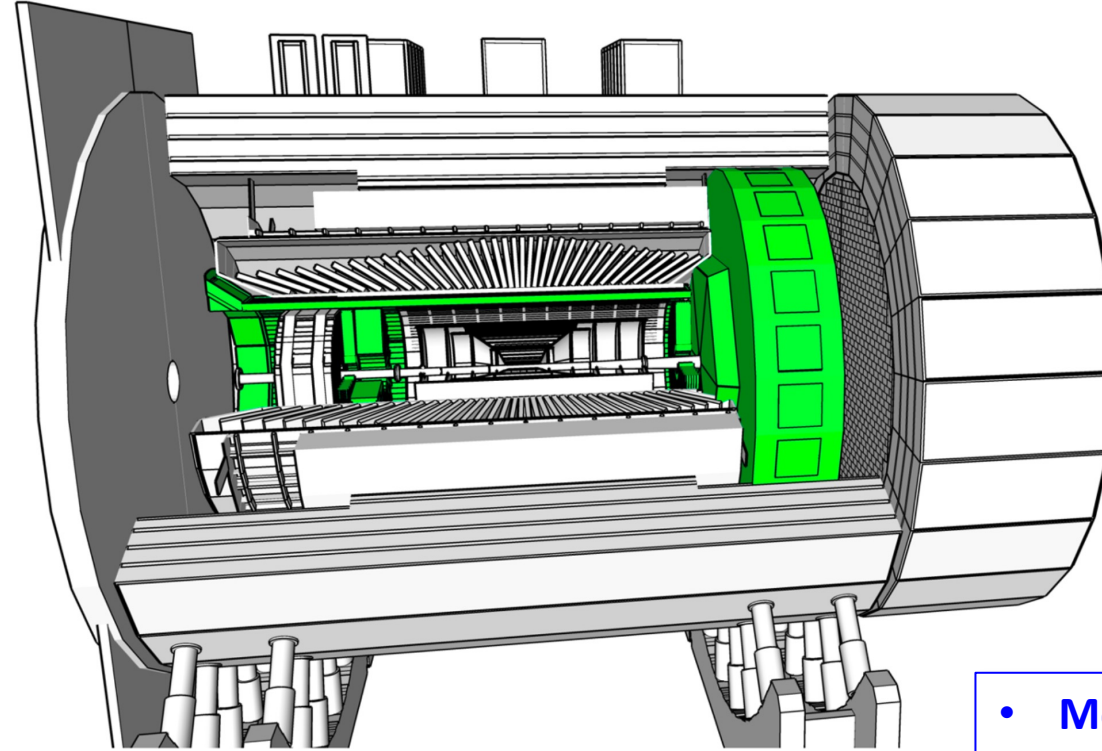


Cherenkov based PID for EIC Detector 1 kick off meeting



Greg Kalicy

Roberto Preghenella

Tom Hemmick

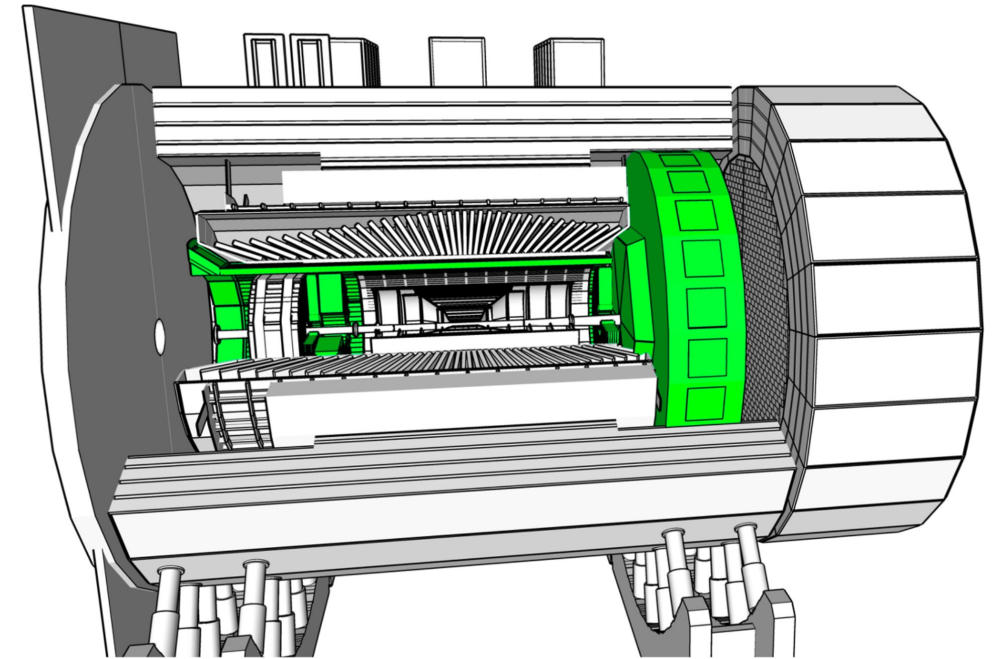
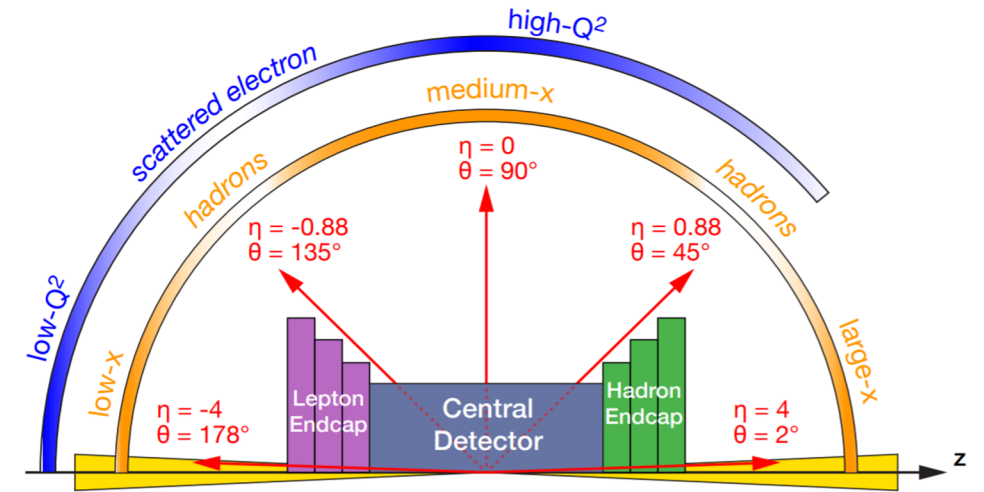
Xiaochun He

- **Motivation**
- **Schedule**
- **Review of detector designs**
- **Review of simulation status**
- **Establishing workforce**

April 29th 2022

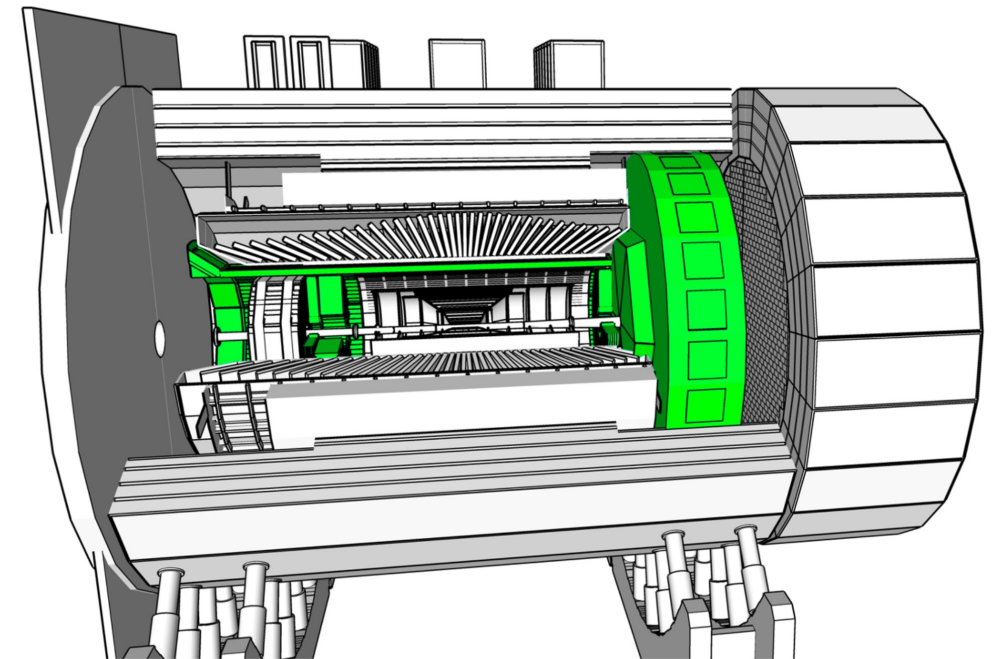
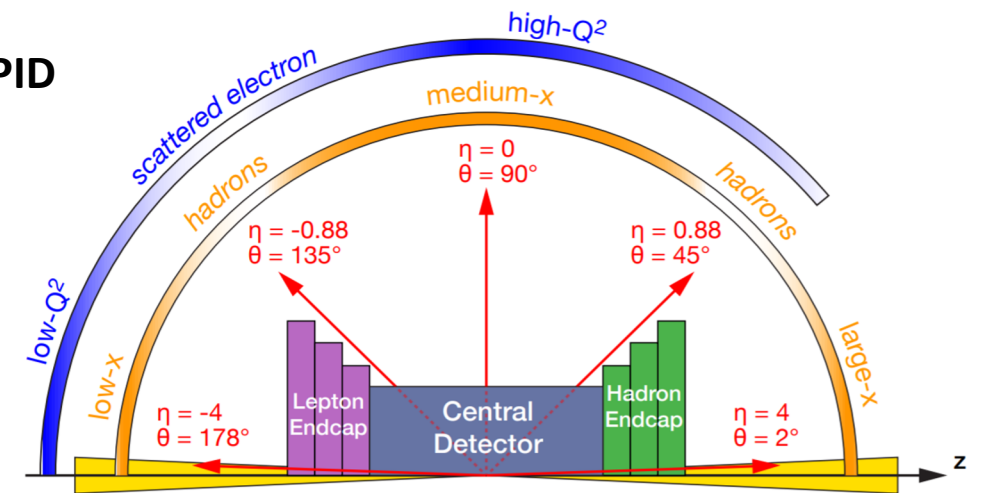
CHARGED PARTICLE IDENTIFICATION

- **Backward (< 10 GeV/c)**
 - aerogel RICH (mRICH, pfRICH)
- **Central (< 6 GeV/c)**
 - high-performance DIRC (hpDIRC)
- **Forward (< 50 GeV/c)**
 - gaseous + aerogel RICH (dRICH)

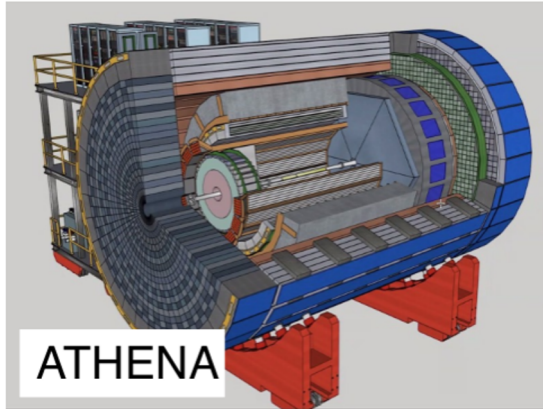


Cherenkov based PID for EIC Detector 1 meetings

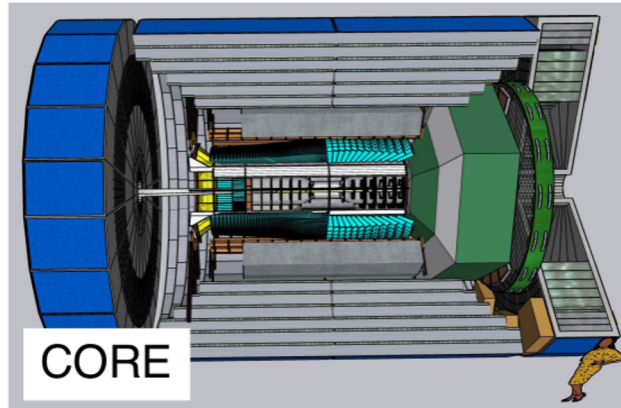
- INDICO space: <https://indico.bnl.gov/category/412/>
- WIKI: <https://wiki.bnl.gov/eic-project-detector/index.php/CherenkovPID>
- April 29: 1st kickoff meeting (<https://indico.bnl.gov/event/15503/>)
 - General matters, workforce (clear need of software developers), and brief review of the technologies
- May 6: 2nd meeting
 - Discussion of envelopes of the Detector envelopes within the BABAR magnet limitations.
 - hpDIRC presentation: design, current and future efforts
- May 13: 3rd meeting
 - Presentations of the electron-side Cherenkov PID detectors (pfRICH and mRICH): design, performance, status and future R&D
- May 20: 4th meeting
 - Presentations of dRICH detectors: design, similarities and differences, most efficient path moving forward
- dRICH Simulation meeting on May 4th (<https://indico.bnl.gov/category/412/>)



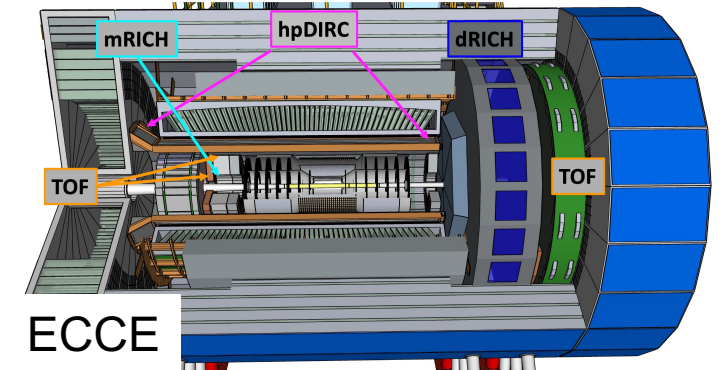
CHARGED PARTICLE IDENTIFICATION



- **Backward**
proximity-focus RICH
- **Central**
high-performance
DIRC
AC-LGAD TOF
- **Forward**
dual-radiator RICH



- **Backward**
AC-LGAD TOF
- **Central**
high-performance
DIRC
- **Forward**
dual-radiator RICH



- **Backward**
modular RICH
AC-LGAD TOF
- **Central**
high-performance
DIRC
AC-LGAD TOF
- **Forward**
dual-radiator RICH
AC-LGAD TOF