

Particle Identification with the ePIC detector at the EIC

Tuesday, 31 October 2023 17:30 (30 minutes)

The ePIC detector is being designed as a general-purpose detector for the Electron-Ion Collider (EIC) to deliver the full physics program. One of the key challenges at the EIC is particle identification (PID), which requires excellent separation of pions, kaons, and protons over a wide phase space with significant pion/electron suppression. To address this challenge, ePIC utilises multiple advanced particle identification technologies.

The talk will cover the PID subsystems of the ePIC detector, which comprise a time-of-flight (TOF) detector for low-momentum PID and several high-momentum particle-identification systems that use DIRC and RICH techniques to exploit Cherenkov light emission from charged particles.

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