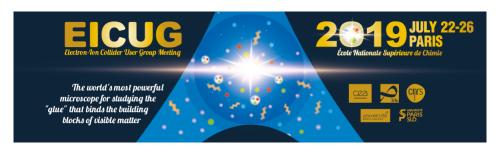
2019 EIC User Group Meeting



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Tracking Detector Possibilities for the EIC Based on Micro-Pattern Gas Detector Technologies

lundi 22 juillet 2019 18:00 (15 minutes)

The Electron-Ion Collider (EIC) will cover a broad range in pseudorapidity,–4.5 $\leq\eta\leq4.5$. To reconstruct particle tracks and momenta at all η values, gas tracking detectors with good momentum resolution will be needed in the forward ($\eta>1.0$), backward ($\eta<-1.0$), and central ($|\eta|\leq1.0$) regions. The EIC handbook recommends tracking detectors capable of achieving momentum resolutions from σ p /p ~ (0.05%) p + 1.0% in the central region, to σ p /p ~ (0.1%) p + 2.0% for the forward/backward regions. Additionally, gas based tracking detectors can also be used for particle ID. Presented in this poster is a brief summary of selected tracking detectors which are being investigated for use at an EIC in the central and forward/backward η regions that are based on micro-pattern gas detector technologies.

Author: POSIK, Matt (Temple University)Orateur: POSIK, Matt (Temple University)Classification de Session: Poster session

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