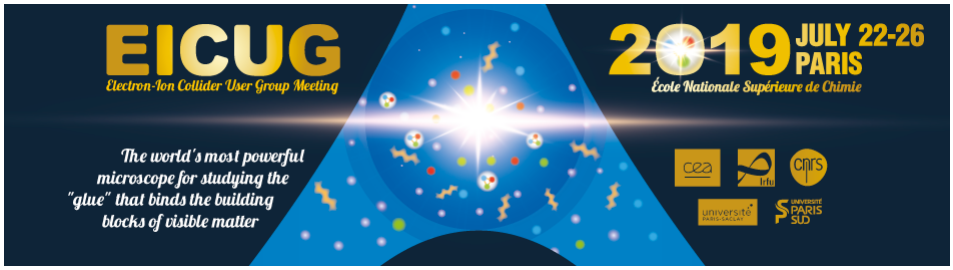

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Tracking Detector Possibilities for the EIC Based on Micro-Pattern Gas Detector Technologies

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The Electron-Ion Collider (EIC) will cover a broad range in pseudorapidity,$-4.5 \leq \eta \leq 4.5$. 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 ($|\eta| \leq 1.0$) regions. The EIC handbook recommends tracking detectors capable of achieving momentum resolutions from $\sigma p/p \sim (0.05\%)\, p + 1.0\%$ in the central region, to $\sigma p/p \sim (0.1\%)\, p + 2.0\%$ 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.

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