Contribution ID: **129** Type: **Oral**

ePIC at the upcoming EIC

The Electron-Ion Collider (EIC), scheduled to commission in the early 2030s, will be the world's first facility that collides a polarized electron beam with a polarized proton beam as well as ion beams. The collider will be built at the Brookhaven National Lab (BNL). The Electron-Proton/Ion Collider (ePIC) is a general purpose detector to be built at the six-o'clock interaction point (IP6) of the accelerator ring. With EIC's high luminosity beams and the 4π coverage of the detector setup, ePIC will be able to take large statistics polarized scattering measurements over a wide range of kinematics including regions that have not yet been explored. The detector is designed to answer many important and long-existing questions in nuclear physics, including the spin crisis of proton, origin of nucleon mass and gluon saturations. In this presentation, an overview of the ePIC detector system will be given, and highlights of the potential science programs will be discussed.

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Session Classification: Parallel

Track Classification: Future facilities and experiments