

ePIC Detector design philosophy

Tuesday, 31 October 2023 16:00 (30 minutes)

Understanding the properties of nuclear matter and its emergence through the underlying partonic structure and dynamics of quarks and gluons requires a new experimental facility in hadronic physics known as the Electron-Ion Collider (EIC).

The EIC will address some of the most profound questions concerning the emergence of nuclear properties by precisely imaging gluons and quarks inside protons and nuclei, such as the distribution of gluons and quarks in space and momentum, their role in building the nucleon spin and the properties of gluons in nuclei at high energies.

A new detector collaboration has been formed around one of two possible interaction regions, the ePIC collaboration. This presentation will present the requirements for the ePIC detector, present in detail its design philosophy, and discuss the overall status and plans.

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