

The EIC project and the ePIC experiment

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The Electron-Ion Collider (EIC) will be the only new high-energy collider world-wide in the next twenty-thirty years. Electrons and ions, from p up to U, will collide at high luminosity to explore hadronic physics and making the ultimate understanding of QCD possible. Electron and light nucleus beams will be polarized to address fundamental questions as the origin of the nucleon spin. Other key questions addressed by the project are the origin of the hadron masses and the exploration of high-density gluonic matter. The approved project is successfully progressing at Brookhaven National Laboratory (BNL) in USA. The project includes the ePIC experiment designed to cover the whole physics case at EIC.

The main characteristics of the EIC project and of its accelerator process as well as of the design of the ePIC experiment are discussed. The status of the project is also presented.