

## The Electron Ion Collider User Group Meeting



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### BeAST Detector

*Friday, 8 July 2016 13:55 (25 minutes)*

The 2015 Long Range Plan for Nuclear Science in the US recommended a high-energy high-luminosity polarized Electron-Ion Collider as the highest priority for new facility construction following the completion of presently ongoing projects. The main physics topics to be explored at this new facility are (i) the polarized sea quark and gluon distributions in the nucleon, (ii) QCD dynamics of the low- $x$ , high density gluon regime, (iii) hadronization in the vacuum and the nuclear medium. One of the considered construction options is the addition of a high-energy polarized electron beam to the existing RHIC hadron machine, converting it into an Electron-Ion Collider (eRHIC). An eRHIC detector, designed to efficiently register and identify deep inelastic electron scattering (DIS) processes in a wide range of center-of-mass energies available with the new collider is one of the key elements of such an upgrade. The current status of the detector design work will be presented, with an emphasis on studies done since the first EIC User Group meeting in Berkeley.

**Presenter:** KISELEV, Alexander

**Session Classification:** Novel Technical Advancements (Detector / Experiment)