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eRHIC, the BNL design for a future Electron-Ion Collider

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With the addition of a 20 GeV polarized electron accelerator to the existing Brookhaven Relativistic Heavy Ion Collider (RHIC), the world's only high energy heavy ion and polarized proton collider, a future eRHIC facility will be able to produce polarized electron-nucleon collisions at center-of-mass energies of up to 145 GeV and cover the whole science case as outlined in the Electron-Ion Collider White Paper and endorsed by the 2015 Nuclear Physics Long Range Plan with high luminosity. The presentation will describe the eRHIC design concepts and recent efforts to reduce the technical risks of the project.