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## The electron-ion collider –A collider to unravel the mysteries of hadron structure

*Friday, 7 June 2019 12:15 (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. Two facility concepts have been presented to address these conditions, at Brookhaven National Laboratory and Jefferson Laboratory taking advantage of existing accelerator infrastructure and accelerator expertise. This presentation will highlight the capabilities of an EIC and discuss its status.

### Summary

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