

QCD at the LHeC

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The LHeC is a proposed upgrade of the LHC to study ep/eA collisions in the TeV regime, by adding a 60 GeV electron beam through an Energy Recovery Linac. In this talk the project will be briefly reviewed and its current status presented. Then the possibilities for QCD studies: precision proton and nucleus PDFs with complete flavour decomposition for use in hadron colliders, per mille accuracy determination of the strong coupling constant, and determination of the existence of a novel non-linear regime of QCD at small x through both inclusive and diffractive observables in ep and eA, will be addressed.

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