

Energy Frontier DIS at CERN: the LHeC and the FCC-eh

Thursday, July 30, 2020 8:20 AM (20 minutes)

The Large Hadron-electron Collider (LHeC) at CERN is the project to upgrade the HL-LHC to study electron-proton/nucleus collisions with centre-of-mass energies in the TeV regime and luminosities $\mathcal{O}(10^{34}) \text{ cm}^{-2} \text{ s}^{-1}$. It implies the construction of an energy recovery linac in racetrack configuration to provide an intense 50 GeV electron beam to collide with the HL-LHC hadron beams. Such energy recovery racetrack could also be used at the Future Circular Collider, the FCC-eh, with even higher centre-of-mass energies and similar luminosities. In this talk we will review and introduce to the status of the project with focus on the accelerator design progress, based on the updated thorough LHeC design report to be published in March 2020.

I read the instructions

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Primary author: HOLZER, Bernhard (CERN)

Presenter: HOLZER, Bernhard (CERN)

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