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## Higgs physics at the LHeC and the FCC-eh

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The Large Hadron-electron Collider (LHeC) is a proposed upgrade of the LHC at CERN. An ERL will provide electrons to collide with the HL-LHC, HE-LHC and the FCC-hh proton beams to achieve centre-of-mass energies 1.3-3.5 TeV and luminosities  $\sim 10^{34} \text{ cm}^{-2}\text{s}^{-1}$ . These large luminosities and the corresponding CC and NC cross sections for Higgs production make the LHeC a Higgs factory. In this talk we present the latest results on the determination of Higgs couplings, both in DIS at the LHeC and the FCC-eh, and in combination with their hadronic counterparts HL-LHC/FCC-hh, pointing out the strong synergies. We also show the implication that a precise determination of PDFs at the LHeC and FCC-eh has on Higgs physics.

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