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## Top and EW physics at the LHeC and the FCC-eh

Saturday, 8 July 2017 12:30 (15 minutes)

The Large Hadron-electron Collider LHeC and the Future Circular Collider in electron-hadron mode FCC-eh will provide electron-proton collisions with center-of-mass energies in the range 1.3-3.5 TeV and instantaneous luminosities larger than  $10^{34}$  cm<sup>-2</sup>s<sup>-1</sup>. The talk presents an overview on novel and unique top physics through single and pair production in ep collisions, including prospects for measurements of top quantum numbers, anomalous and CKM couplings, as well as prospects to measure the parton momentum fraction carried by the top when the proton is probed at very high momenta. We also show results on top+Higgs production. Finally, new results on the determination of EW parameters through a combined NC+CC fit of inclusive DIS data are presented.

## **Experimental Collaboration**

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