Contribution ID: **192** Type: **Parallel**

Low-x physics at LHCb

Thursday 10 July 2025 08:30 (17 minutes)

The LHCb detector, with its unique forward geometry, provides unprecedented kinematic coverage at low Bjorken-x values, down to 10^-6. LHCb's excellent momentum resolution, vertex reconstruction and particle identification allow precision measurements down to very low hadron transverse momentum. In this talk, recent studies of exclusive vector boson production in proton-proton and heavy ion collisions will be presented. These studies include the central exclusive production (CEP) of charmonium vector mesons in pp collisions, as well as their production in ultraperipheral Lead-Lead collisions (UPC). Additionally, the production of exotic meson candidates in diffractive proton-proton collisions, previously observed only in B to J/ψϕK decays, is reported. Future prospects for further investigations into low-x phenomena with the LHCb detector in Run 3 are also explored.

Secondary track

Author: MEYER GARCIA, Lucas (University of Maryland)

Presenter: MEYER GARCIA, Lucas (University of Maryland)

Session Classification: T05

Track Classification: T05 - QCD and Hadronic Physics