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Studies of low-x phenomena with the LHCb detector

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With a unique geometry covering the forward rapidity region, the LHCb detector provides unprecedented kinematic coverage at low Bjorken-x down to $x \sim 10^{-5}$ or lower. The excellent momentum resolution, vertex reconstruction and particle identification allow precision measurements down to very low hadron transverse momentum. In this contribution, we present the latest studies of the relatively unknown low-x region using the LHCb detector, including recent measurements of charged and neutral hadron production, as well as direct photon and hadron correlations in proton-proton and proton-lead collisions. Comparisons to various theoretical model calculations are also discussed.

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