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Charged particle pseudorapidity density in proton-proton collisions at $\sqrt{s}$ = 900 GeV with the ALICE MFT

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Charged-particle pseudorapidity measurements help in understanding particle production mechanisms in high-energy hadronic collisions, from proton-proton to heavy-ion systems. Performing such measurements at forward rapidity, in particular, allows one to access the details of the phenomena associated with particle production in the fragmentation region. In ALICE, this measurement will be performed in LHC Run 3 exploiting the Muon Forward Tracker (MFT), a newly installed detector extending the inner tracking pseudorapidity coverage of ALICE in the range $-3.6 < \eta < -2.5$.

The performance of the pseudorapidity density measurement in the forward region with the ALICE MFT will be presented for the pilot beam data taking of October 2021 for proton-proton collisions at $\sqrt{s}$ = 900 GeV. The MFT detector behaviour and response will also be compared to Monte Carlo simulations and raw data.

In-person participation

Yes

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