

Charged-particle pseudorapidity density in proton-proton collisions in ALICE Run 3 using MFT

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Charged-particle pseudorapidity density measurements help to understand the 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 close to the fragmentation region of the colliding nuclei. In ALICE, these measurements are performed in the 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 ALICE MFT will be presented for the pilot beam data taking of October 2021 for proton-proton collisions at $\sqrt{s} = 900$ GeV, together with a preliminary MFT result for the charged-particle pseudorapidity density.

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