

The ALICE Muon Forward Tracker project: status and expected performances

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The ALICE Muon Spectrometer (MS) has produced, during the LHC Run 1 and Run 2, a wealth of precise and remarkable results on single muon and dimuon observables, despite the absence of a dedicated vertex detector in the rapidity region of interest. To overcome this limitation, a completely new all-pixel Si detector, the Muon Forward Tracker (MFT), has recently been installed at forward rapidity, close to the interaction point. The MFT is part of the ALICE detector upgrade for the LHC Long Shutdown 2 in view of the LHC Run 3 and Run 4. Composed of 936 CMOS pixel sensors, the MFT shares the same technology employed for the new ALICE Inner Tracking System. Covering almost the full acceptance of the MS, these sensors are arranged around the beam pipe in 5 vertically positioned disks made of light carbon composite materials. The technical aspects of the MFT project will be discussed, together with the main highlights from the present commissioning and expected physics performance.

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No, this is an entirely new submission.

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