

COMMISSIONING OF THE MUON TEST AREA BEAMLINE AT FERMILAB

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Abstract

A new experimental area, the Muon Test Area, has been constructed to develop, test, and verify muon ionization apparatus using the 400-MeV proton beam from the Fermilab Linac. Since muon-cooling apparatus is being developed for facilities that involve the capture, collection and cooling of $\sim 10^{13}$ muons at a repetition rate of 15 Hz, conclusive tests require full Linac beam, or $\sim 10^{13}$ protons/pulse at 15 Hz. A beamline has been designed which includes specialized insertions for linac beam diagnostics and beam measurements, greatly enhancing the functionality of the line in addition to providing beam for MTA experiments. Installation of the beamline is complete and first beam was achieved in November, 2008. The design, operational flexibility, and characteristics of the MTA beamline will be presented.

**CONTRIBUTION NOT
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