

Upgrade of the ATLAS Monitored Drift Tube detector for the HL-LHC

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To cope with the large amount of data and high event rate expected from the planned High-Luminosity LHC (HL-LHC) upgrade, the ATLAS monitored drift tube (MDT) readout electronics will be replaced. In addition, the MDT detector will be used at the first-level trigger to improve the muon transverse momentum resolution and reduce the trigger rate. About 100 small-radius MDT chambers have been built to replace the current MDT chambers in the innermost barrel region. A new trigger and readout system will be used. Designs for two frontend ASICs and a data transmission board have been finished and detailed standalone and joint tests have been performed. We will present the construction of sMDT chambers and latest studies of the new trigger and readout system.

Alternate track

I read the instructions above

Yes

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