Contribution ID: **74** Type: **not specified**

Design Study of the Options for the ATLAS Muon Drift Tube (MDT) Electronics for Phase-II

Thursday, 6 August 2015 16:15 (15 minutes)

To reduce the Level-1 muon trigger rate and sharpen the trigger threshold, the ATLAS Muon Drift Tube (MDT) detector will be used at Level-1 after the Phase-II upgrade. The increase of incoming data rate and the long readout time of MDT impose great challenges for the design of the readout electronics. We propose to transmit both low precision trigger data and high precision readout data together. A Verilog simulation of the data capture, multiplexing, and serialization, and transmission of all data completely off detector will be shown. In addition, the distribution of latencies from the crossing to the transmission along the output fiber will be exhibited to confirm that all data will be in place prior to the trigger generation.

Oral or Poster Presentation

Oral

Author: CHAPMAN, Jay (High Energy Physics)

Presenter: CHAPMAN, Jay (High Energy Physics)

Session Classification: Accelerators, Detectors, Computing

Track Classification: Detectors