

Abstract Submitted
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Correlations between cosmic muon tracks in the ATLAS inner detector and the muon spectrometer LASHKAR KASHIF, Harvard University, ATLAS COLLABORATION — Installation of the ATLAS detector at the CERN Large Hadron Collider is now complete and it is ready to take data. A substantial amount of cosmic muon data was collected in September-October 2008. To verify that all components of the detector are working properly, it is important to establish that we see the same tracks in all subdetectors. I will present a study of the correlations between cosmic tracks seen in the ATLAS inner detector and the muon spectrometer. I will discuss differences in track reconstruction in the two subdetectors, and show track parameter distributions in each. The main result is the correlation between track momentum and track phi and theta coordinates measured in the inner detector and the muon spectrometer. We see a high degree of correlation for all three parameters. Additionally, I will discuss the efficiency of the muon spectrometer with respect to the inner detector for cosmic muon tracks.

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