

The Alignment of the ATLAS Forward Proton Detector

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The ATLAS Forward Proton detectors consists of four horizontal precision trackers, two stations located at 210 m on each side of the ATLAS interaction region. We describe the relative alignment of the four tracker planes in each station and the relative alignment of the stations in each arm. The absolute alignment is done with exclusive di-lepton events and cross-checked with data from survey data and Beam Position Monitors. The absolute position resolution per arm is about 200 μm per proton at 210 m in the horizontal coordinate which is directly correlated with the relative energy loss of the proton.

I read the instructions

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