

ATLAS Tile Calorimeter time calibration, monitoring and performance

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The Tile Calorimeter (TileCal) is the hadronic calorimeter covering the central region of the ATLAS experiment at the LHC. This sampling device is made of plastic scintillating tiles alternated with iron plates and its response is calibrated to electromagnetic scale by means of several dedicated systems. The accurate time calibration is important for the energy reconstruction, non-collision background removal as well as for specific physics analyses. Every year, the time calibration is performed with first physics collisions and fine-tuned with subsequent data. The stability of the time calibration is monitored with laser system and physics collision data. Recent developments in the monitoring tools are shown and the corrections for various observed problems are discussed. Finally, the time resolution as measured with jets are presented separately in individual radial layers of the calorimeter.

Alternate track

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