Calibration of the ATLAS Tile Calorimeter

Thursday 18 July 2024 20:40 (20 minutes)

The ATLAS Tile Calorimeter (TileCal) is a sampling hadronic calorimeter covering the central region of the ATLAS detector at the Large Hadron Collider. It performs the precise measurement of hadrons, jets, hadronically decaying tau-leptons, missing transverse momentum as well as provides input signal to the Level-1 Calo Trigger. The calorimeter consists of thin steel plates and about 460,000 scintillating tiles configured into more than 4900 cells, each viewed by two photomultipliers. The calorimeter response is monitored using radioactive source, laser and charge injection systems. This poster presents the TileCal calibration systems as well as the latest results on their performance in terms of calibration factors, linearity and stability.

Alternate track

I read the instructions above

Yes

Authors: BOGAVAC, Danijela (CERN); ZHU, Junjie (University of Michigan (US))

Presenter: BOGAVAC, Danijela (CERN)

Session Classification: Poster Session 1

Track Classification: 12. Operation, Performance and Upgrade (incl. HL-LHC) of Present Detectors