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Time stability of the response of gap/crack scintillators of the Tile Calorimeter of the ATLAS detector to isolated muons.

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The Tile Calorimeter of the ATLAS experiment at the Large Hadron Collider is a hadronic sampling calorimeter that is designed for the reconstruction of hadrons, jets, tau-particles and missing transverse energy. In this study, the response of the gap/crack scintillators of Tile calorimeter is measured using isolated muons from $W \rightarrow \mu\nu$ events. The response of the scintillating cells is quantified by measuring the amount of energy deposited per unit length in both data and Monte Carlo simulation to evaluate the stability of the response over time to quantify how well the calibration compensates for time-dependent effects of the calorimeter.

Apply to be considered for a student ; award (Yes / No)?

Yes

Level for award;(Hons, MSc, PhD, N/A)?

PhD

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