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## Identification of hadronically decaying tau leptons with the ATLAS experiment

The offline identification algorithm employed for hadronic decays of tau leptons for the data collected in 2012 with the ATLAS detector at the LHC operating at a center-of-mass energy of 8 TeV is described. It consists of two Boosted Decision Trees including both tracking and calorimetric information to discriminate hadronically decaying tau leptons from hadronic jets and electrons. The performance of this algorithms is measured in most cases with Z decays to tau leptons.

The offline tau identification efficiency is measured with a precision of (2-3)% for hadronically decaying tau leptons with one associated track, and of (4-5)% for the case of three associated tracks, inclusive in and for a visible transverse momentum greater than 20 GeV. Stability of the performance and through the data taking period is observed with respect to the number of concurrent proton-proton interactions.

### Summary

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