

Tau Identification at CMS in LHC Run-2

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Since Run-1 of the LHC, CMS has taken the opportunity to improve further particle reconstruction. A number of improvements were made to the Hadronic Tau reconstruction and Identification algorithms. In particular, electromagnetic strip reconstruction of the Hadron plus Strips (HPS) algorithm was improved to better model signal of π^0 from tau decays. This modification improves energy response and removes the tau footprint from isolation area. In addition to this, improvement to discriminators combining isolation and tau life time variables, and anti-electron in MultiVariate Analysis technique was also developed. The results of these improvements using 13 TeV data at LHC Run-2 are presented and validation of Tau Identification using a variety of techniques is shown.

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