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# Tau identification performance measurements in data

Complete:

Structured Offline Guide common to all pages in this guide

## Contacts

- **Conveners:** Sébastien Greder
- **Hypernews forum:** <https://hypernews.cern.ch/HyperNews/CMS/get/xxx.html>

## Introduction

This task force is aimed at providing and optimizing measurement of tau identification efficiencies in real data. As the identification path consists of several steps including triggering, cuts and selection, it can split down into different topics such as:

- energy response/resolution
- isolation cuts (charged/neutral)
- jet shapes (energy dependant)
- distinction of low/high-pT regimes
- trigger
- conversions
- ...

Optimization procedures (esp. isolations) should involve a luminosity dependence approach

## Tutorials

## Algorithms and Software Architecture

## Analysis and Validation

- Measurement of tau-identification efficiency from  $Z \rightarrow e\bar{e}/Z \rightarrow \tau\bar{\tau}$  events. K. Petridis and S. Greder. Based on CMS NOTE 2006/074
- Measurement of tau-identification efficiency from  $Z \rightarrow e\bar{e}/Z \rightarrow \mu\bar{\mu}$  events. ????? (needs urgently someone)

## To-do

## Meetings

- Tau plans
- Tau Coffee meeting 2007-30-08

## Documents

(see also presentations in Meetings section)

### CMS Notes:

- CMS NOTE 2006/074, "Measurement of the  $Z \rightarrow \mu\mu$  tag efficiency using the  $Z \rightarrow \mu\mu + \text{hadrons} + X$  events"

### Other

- D0, "Measurement of  $\sigma(\text{Br}(Z \rightarrow \mu\mu))$  at D0" and D0 NOTE 4550
- CDF, "Measurement of  $\sigma(\text{ppbar} \rightarrow Z) \cdot \text{Br}(Z \rightarrow \mu\mu)$  in ppbar collisions at  $\sqrt{s}=1.96 \text{ TeV}$ ", Phys. Rev. D 75, 092004 (2007)

## Subgroups/Activities

## Related Topics

## Review status

Reviewer/Editor and Date (copy from screen)	Comments
KatiLassilaPerini - 29 Jan 2007	created template page
SebastienGreder - 06 Sep 2007	update

Responsible: SebastienGreder

Last reviewed by: SebastienGreder - 06 Sep 2007

This topic: CMSPublic > SWGuidePFTauIDPerformance

Topic revision: r6 - 2007-09-17 - JennyWilliams



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