

CMS Simulation Preliminary

Mis-ID probability

$p_T^{\tau_h} > 20 \text{ GeV}, |\eta_{\tau_h}| < 2.3$
13 TeV, 20 pileup at 25ns

10^{-2}

10^{-3}

10^{-4}

0.4

0.5

0.6

0.7

τ_h identification efficiency

- Run1, $\Delta\beta = 0.46$
- Run1, $\Delta\beta = 0.46, p_T^{\text{strip, outer}}$
- ▲ Run1, $\Delta\beta = 0.2, p_T^{\text{strip, outer}}$
- ▼ Run2, $\Delta\beta = 0.2, p_T^{\text{strip, outer}}$

Efficiency : $Z' (2\text{TeV}) \rightarrow \tau\tau$ MC

Fake rate : QCD multi-jet MC ($20 < p_T < 1000 \text{ GeV}$)

