

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

—▼— **cut-based**

—■— **MVA-based**

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

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

