## Instrumental FTAG light-tag Eigenvar. 11 light-tag Eigenvar. 10 light-tag Eigenvar. 9 light-tag Eigenvar. 8 light-tag Eigenvar. 7 light-tag Eigenvar. 3 light-tag Eigenvar. 1 light-tag Eigenvar. 0 c-tag Eigenvar. 17 c-tag Eigenvar. 8 c-tag Eigenvar. 5 Instrumental JESR c-tag Eigenvar. 4 c-tag Eigenvar. 3 JES effective NP stat. 6 c-tag Eigenvar. 2 JES effective NP stat. 5 c-tag Eigenvar. 1 JES effective NP stat. 4 c-tag Eigenvar 0 JES effective NP stat. 2 b-tag Eigenvar. 6 JES effective NP stat. 1 b-tag Eigenvar. 5 b-tag Eigenvar. 2 b-tag Eigenvar. 1 b-tag Eigenvar. 0 0 -2 -1 2 JES effective NP mixed 3 JES effective NP mixed 2 Instrumental JES effective NP mixed 1 Tau fake shape Tau fake norm. Lepton fake leading JES pileup ρ topology Luminosity JES pileup pT term Forward Jet-Vertex-Tagger (fJVT) Tau energy scale (physicslist)

Tau energy scale (model closure)

Tau energy scale (insitu fit)

Tau energy scale (insitu exp.)

Tau energy scale (detector)

RNN Tau ID syst.

Tau reconstruction

Muon isol. eff. (syst)

Muon energy scale

Pile-up rew.

Tau electron veto (tot.)

Muon sagitta ρ topology

MET soft reso (parp.)

MET soft reso (para.)

Electron reco. eff.

Electron ID eff.

0

 $(\theta - \theta_0)/\Delta\theta$ 

\_1

2

-2

Jet-Vertex-Tagger (JVT)

Electron isol. eff. (syst)

Electron isol. eff. (stat)

Electron energy scale

Electron energy resolution

Muon energy resolution (MS)

Muon energy resolution (ID)

