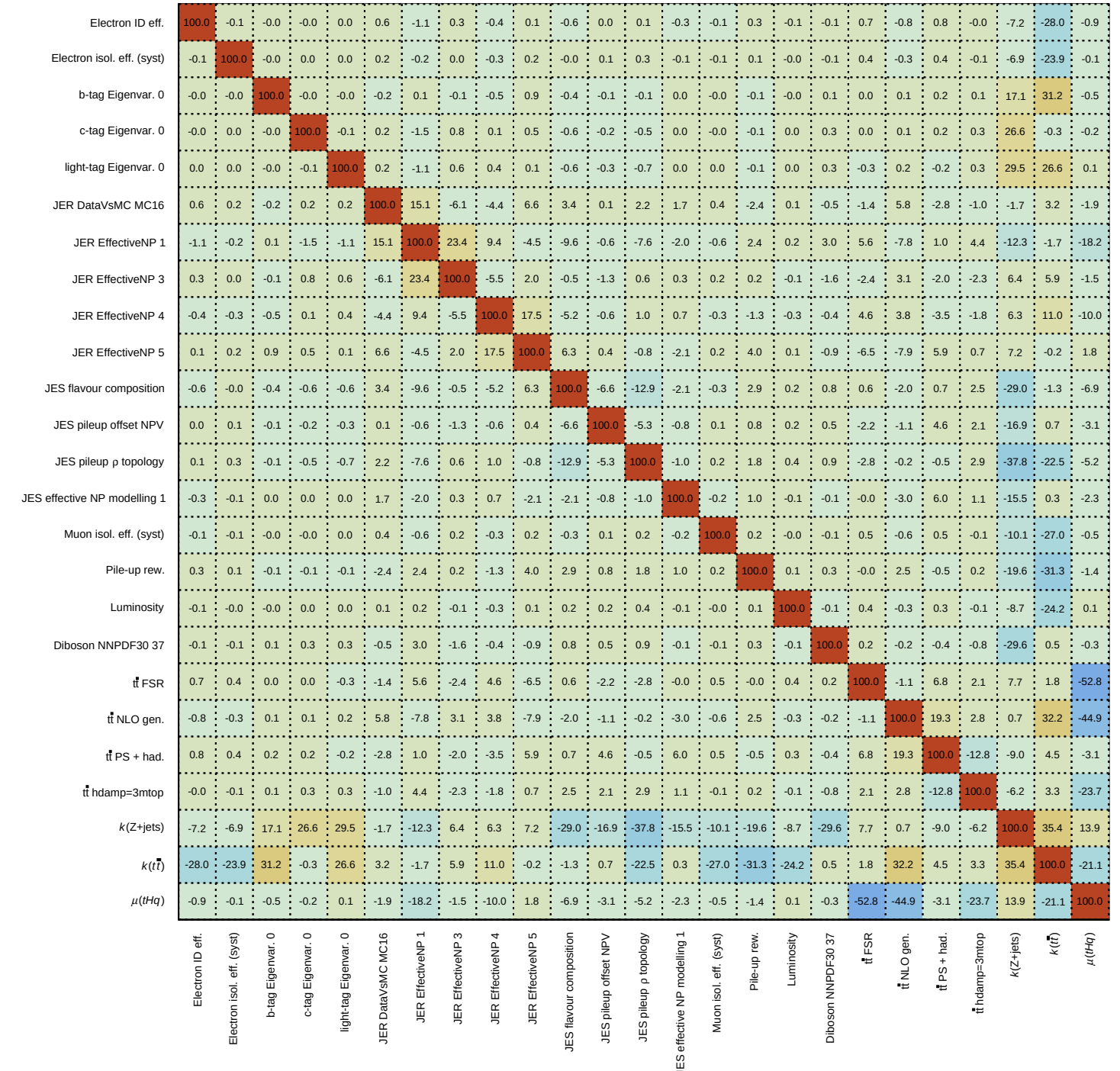
Electron ID eff. 100.0 -0.1 -0.0 -0.0 0.0 0.6 -1.1 0.3 -0.4 0.1 -0.6 0.0 0.1 -0.3 -0.1 0.3 -0.1 -0.1 0.7 -0.8 0.8 -0.0 -7.2 -28.0 -0.9
Electron isol. eff. (syst) -0.1 100.0 -0.0 0.0 0.0 0.2 -0.2 0.0 -0.3 0.2 -0.0 0.1 0.3 -0.1 -0.1 0.1 -0.0 -0.1 0.4 -0.3 0.4 -0.1 -6.9 -23.9 -0.1
b-tag Eigenvar. 0 -0.0 -0.0 100.0 -0.0 -0.0 -0.2 0.1 -0.1 -0.5 0.9 -0.4 -0.1 -0.1 0.0 -0.0 -0.1 -0.0 0.1 0.0 0.1 0.2 0.1 17.1 31.2 -0.5
c-tag Eigenvar. 0 -0.0 0.0 -0.0 100.0 -0.1 0.2 -1.5 0.8 0.1 0.5 -0.6 -0.2 -0.5 0.0 -0.0 -0.1 0.0 0.3 0.0 0.1 0.2 0.3 26.6 -0.3 -0.2
light-tag Eigenvar. 0 0.0 0.0 -0.0 -0.1 100.0 0.2 -1.1 0.6 0.4 0.1 -0.6 -0.3 -0.7 0.0 0.0 -0.1 0.0 0.3 -0.3 0.2 -0.2 0.3 29.5 26.6 0.1
JER DataVsMC MC16 0.6 0.2 -0.2 0.2 0.2 100.0 15.1 -6.1 -4.4 6.6 3.4 0.1 2.2 1.7 0.4 -2.4 0.1 -0.5 -1.4 5.8 -2.8 -1.0 -1.7 3.2 -1.9
JER EffectiveNP 1 -1.1 -0.2 0.1 -1.5 -1.1 15.1 100.0 23.4 9.4 -4.5 -9.6 -0.6 -7.6 -2.0 -0.6 2.4 0.2 3.0 5.6 -7.8 1.0 4.4 -12.3 -1.7 -18.2
JER EffectiveNP 3 0.3 0.0 -0.1 0.8 0.6 -6.1 23.4 100.0 -5.5 2.0 -0.5 -1.3 0.6 0.3 0.2 0.2 -0.1 -1.6 -2.4 3.1 -2.0 -2.3 6.4 5.9 -1.5
JER EffectiveNP 4 -0.4 -0.3 -0.5 0.1 0.4 -4.4 9.4 -5.5 100.0 17.5 -5.2 -0.6 1.0 0.7 -0.3 -1.3 -0.3 -0.4 4.6 3.8 -3.5 -1.8 6.3 11.0 -10.0
JER EffectiveNP 5 0.1 0.2 0.9 0.5 0.1 6.6 -4.5 2.0 17.5 100.0 6.3 0.4 -0.8 -2.1 0.2 4.0 0.1 -0.9 -6.5 -7.9 5.9 0.7 7.2 -0.2 1.8
JES flavour composition -0.6 -0.0 -0.4 -0.6 -0.6 3.4 -9.6 -0.5 -5.2 6.3 100.0 -6.6 -12.9 -2.1 -0.3 2.9 0.2 0.8 0.6 -2.0 0.7 2.5 -29.0 -1.3 -6.9
JES pileup offset NPV 0.0 0.1 -0.1 -0.2 -0.3 0.1 -0.6 -1.3 -0.6 0.4 -6.6 100.0 -5.3 -0.8 0.1 0.8 0.2 0.5 -2.2 -1.1 4.6 2.1 -16.9 0.7 -3.1
JES pileup ρ topology 0.1 0.3 -0.1 -0.5 -0.7 2.2 -7.6 0.6 1.0 -0.8 -12.9 -5.3 100.0 -1.0 0.2 1.8 0.4 0.9 -2.8 -0.2 -0.5 2.9 -37.8 -22.5 -5.2
JES effective NP modelling 1 -0.3 -0.1 0.0 0.0 0.0 1.7 -2.0 0.3 0.7 -2.1 -2.1 -0.8 -1.0 100.0 -0.2 1.0 -0.1 -0.1 -0.0 -3.0 6.0 1.1 -15.5 0.3 -2.3
Muon isol. eff. (syst) -0.1 -0.1 -0.0 -0.0 0.0 0.4 -0.6 0.2 -0.3 0.2 -0.3 0.1 0.2 -0.2 100.0 0.2 -0.0 -0.1 0.5 -0.6 0.5 -0.1 -10.1 -27.0 -0.5
Pile-up rew. 0.3 0.1 -0.1 -0.1 -0.1 -2.4 2.4 0.2 -1.3 4.0 2.9 0.8 1.8 1.0 0.2 100.0 0.1 0.3 -0.0 2.5 -0.5 0.2 -19.6 -31.3 -1.4
Luminosity -0.1 -0.0 -0.0 0.0 0.0 0.1 0.2 -0.1 -0.3 0.1 0.2 0.2 0.4 -0.1 -0.0 0.1 100.0 -0.1 0.4 -0.3 0.3 -0.1 -8.7 -24.2 0.1
Diboson NNPDF30 37 -0.1 -0.1 0.1 0.3 0.3 -0.5 3.0 -1.6 -0.4 -0.9 0.8 0.5 0.9 -0.1 -0.1 0.3 -0.1 100.0 0.2 -0.2 -0.4 -0.8 -29.6 0.5 -0.3
tt̄ FSR 0.7 0.4 0.0 0.0 -0.3 -1.4 5.6 -2.4 4.6 -6.5 0.6 -2.2 -2.8 -0.0 0.5 -0.0 0.4 0.2 100.0 -1.1 6.8 2.1 7.7 1.8 -52.8
tt̄ NLO gen. -0.8 -0.3 0.1 0.1 0.2 5.8 -7.8 3.1 3.8 -7.9 -2.0 -1.1 -0.2 -3.0 -0.6 2.5 -0.3 -0.2 -1.1 100.0 19.3 2.8 0.7 32.2 -44.9
tt̄ PS + had. 0.8 0.4 0.2 0.2 -0.2 -2.8 1.0 -2.0 -3.5 5.9 0.7 4.6 -0.5 6.0 0.5 -0.5 0.3 -0.4 6.8 19.3 100.0 -12.8 -9.0 4.5 -3.1
tt̄ hdamp=3mtop -0.0 -0.1 0.1 0.3 0.3 -1.0 4.4 -2.3 -1.8 0.7 2.5 2.1 2.9 1.1 -0.1 0.2 -0.1 -0.8 2.1 2.8 -12.8 100.0 -6.2 3.3 -23.7
k(Z+jets) -7.2 -6.9 17.1 26.6 29.5 -1.7 -12.3 6.4 6.3 7.2 -29.0 -16.9 -37.8 -15.5 -10.1 -19.6 -8.7 -29.6 7.7 0.7 -9.0 -6.2 100.0 35.4 13.9
k(tt̄) -28.0 -23.9 31.2 -0.3 26.6 3.2 -1.7 5.9 11.0 -0.2 -1.3 0.7 -22.5 0.3 -27.0 -31.3 -24.2 0.5 1.8 32.2 4.5 3.3 35.4 100.0 -21.1
μ(tHq) -0.9 -0.1 -0.5 -0.2 0.1 -1.9 -18.2 -1.5 -10.0 1.8 -6.9 -3.1 -5.2 -2.3 -0.5 -1.4 0.1 -0.3 -52.8 -44.9 -3.1 -23.7 13.9 -21.1 100.0
Electron ID eff.
Electron isol. eff. (syst)
b-tag Eigenvar. 0
c-tag Eigenvar. 0
light-tag Eigenvar. 0
JER DataVsMC MC16
JER EffectiveNP 1
JER EffectiveNP 3
JER EffectiveNP 4
JER EffectiveNP 5
JES flavour composition
JES pileup offset NPV
JES pileup ρ topology
JES effective NP modelling 1
Muon isol. eff. (syst)
Pile-up rew.
Luminosity
Diboson NNPDF30 37
tt̄ FSR
tt̄ NLO gen.
tt̄ PS + had.
tt̄ hdamp=3mtop
k(Z+jets)
k(tt̄)
μ(tHq)