

13000 GeV pp

 $t\bar{t}$ Particle-level $t\bar{t}$ invariant mass, $|y^{t,1}| \in [1,2]$ $1/\sigma \# \text{cdot} \# d^2\sigma / d|y^{t,1}| dm^{t\bar{t}} \# \{\text{TeV}\}^{-1}$ Rivet 4.1.0, $\geq 100k$ events

mcplots.cern.ch [arXiv:2401.10621]

ATLAS

Pythia 8.315 default

Pythia 8.315 tune-AU2

Pythia 8.315 tune-AU2lox

Pythia 8.315 tune-AU2loxx

Pythia 8.315 tune-AU2m

(ATLAS_2022_I2077575)

Ratio to ATLAS

2

1

0.5

 $m^{t\bar{t}} \# \{\text{TeV}\}$ 