

13000 GeV pp

 $t\bar{t}$  $\Delta\phi(t\bar{t}b\bar{a})$  (ATLAS semileptonic  $t\bar{t}b\bar{a}$ )

0.12

0.1

0.08

0.06

0.04

0.02

0

2

1

0.5



ATLAS



Pythia 6.428 345



Pythia 6.428 346



Pythia 6.428 370



Pythia 6.428 default



Pythia 8.210 default

(ATLAS\_2019\_I1750330)

Rivet 4.1.0,  $\geq 100k$  events

mcplots.cern.ch [arXiv:1306.3436]

2

1

0.5

Ratio to ATLAS

0

1

2

3