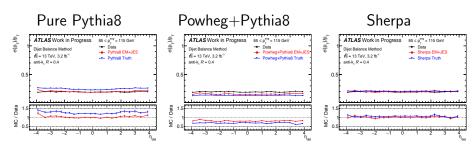
# Jet Energy Resolution for the Dijet Balance Method

Rebecca Pickles, Darren Price

March 10, 2016

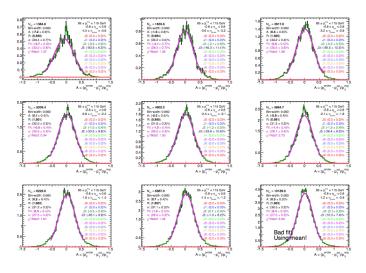


## JER vs Eta: 85 < pTavg < 115

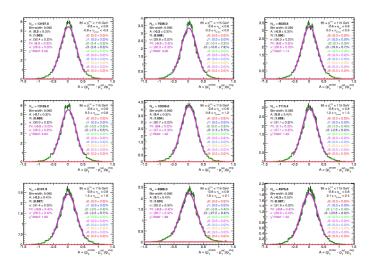


 Pure Pythia8 and Sherpa have the a larger Truth resolution than Reco.

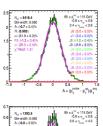
#### JER vs Eta: 85 < pTavg < 115: Pythia8 EM+JES fits

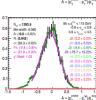


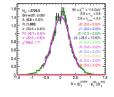
#### JER vs Eta: 85 < pTavg < 115: Pythia8 EM+JES fits

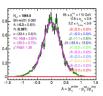


#### JER vs Eta: 85 < pTavg < 115: Pythia8 EM+JES fits

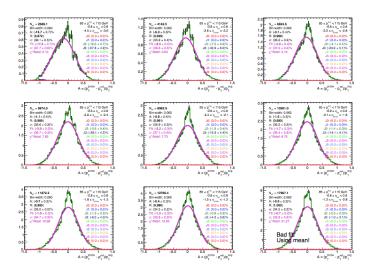




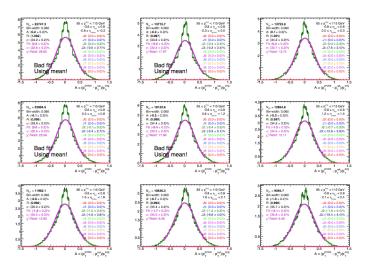




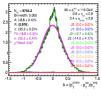
#### JER vs Eta: 85 < pTavg < 115: Pythia8 Truth fits

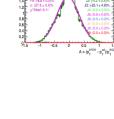


#### JER vs Eta: 85 < pTavg < 115: Pythia8 Truth fits



#### JER vs Eta: 85 < pTavg < 115: Pythia8 Truth fits





N . = 6947.5

R: (0.968)

1.4 Fit: (-5.0 ± 0.4)%

Bin-width: 0.060

A: (-3.2 = 0.47%

σ: (36.3 ± 0.3)%

85 s p<sup>m</sup> < 115 GeV

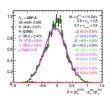
0.8 s n < 0.8

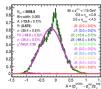
28 = 1 < 3.2

JO: (0.0 ± 0.0)%

J1: (0.0 ± 0.0)%

J2: (-4.2 ± 0.4)% -





### Pythia8: Problematic bins

