

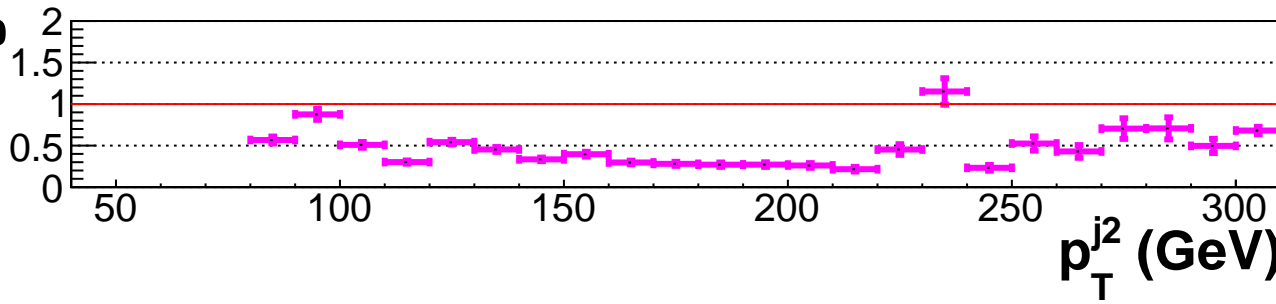
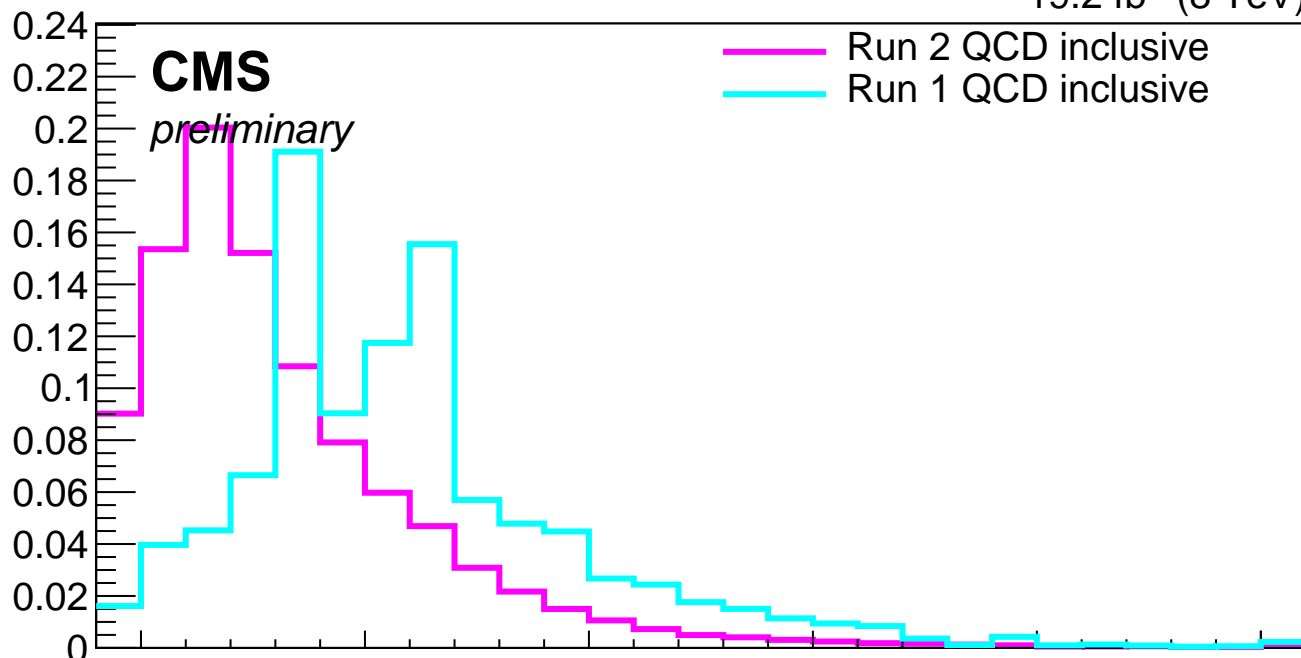
19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**



19.2 fb<sup>-1</sup> (8 TeV)

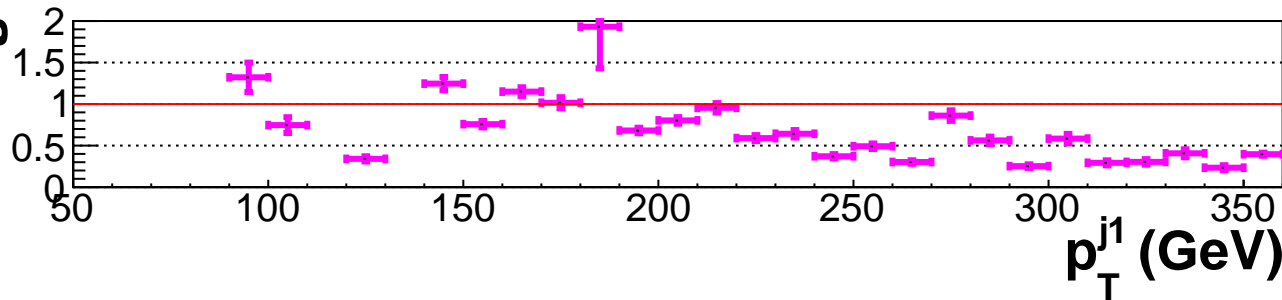
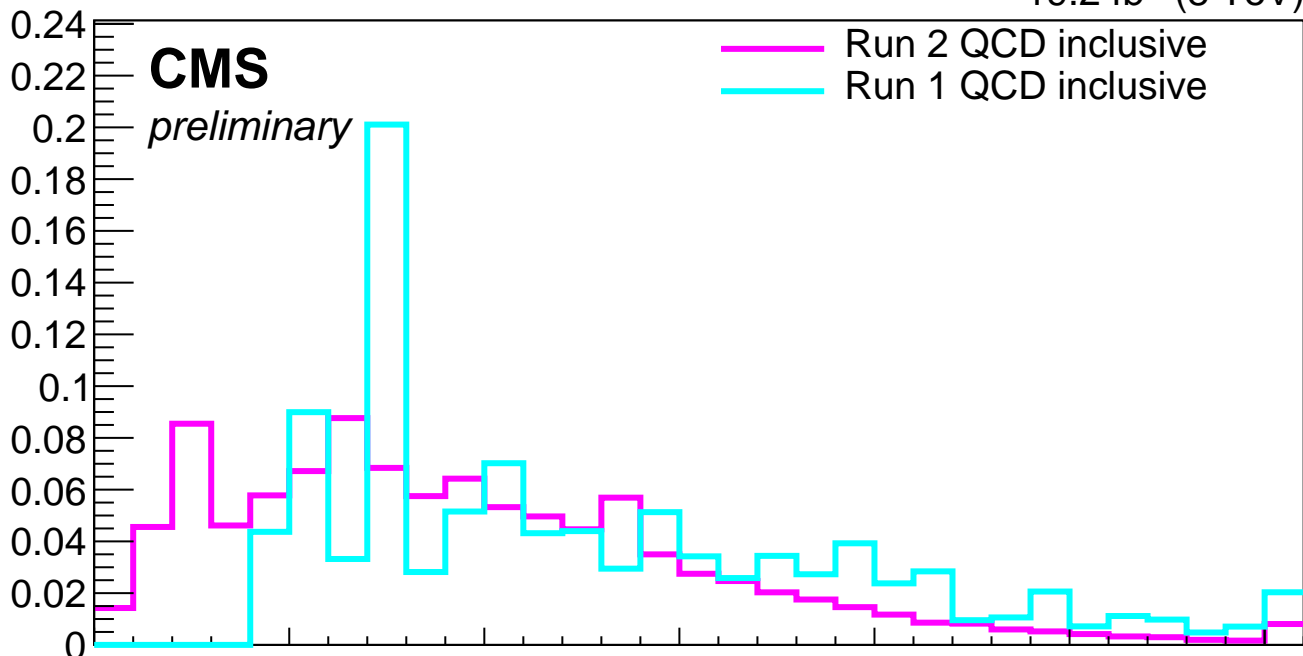
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

**p<sub>T</sub><sup>j1</sup> (GeV)**



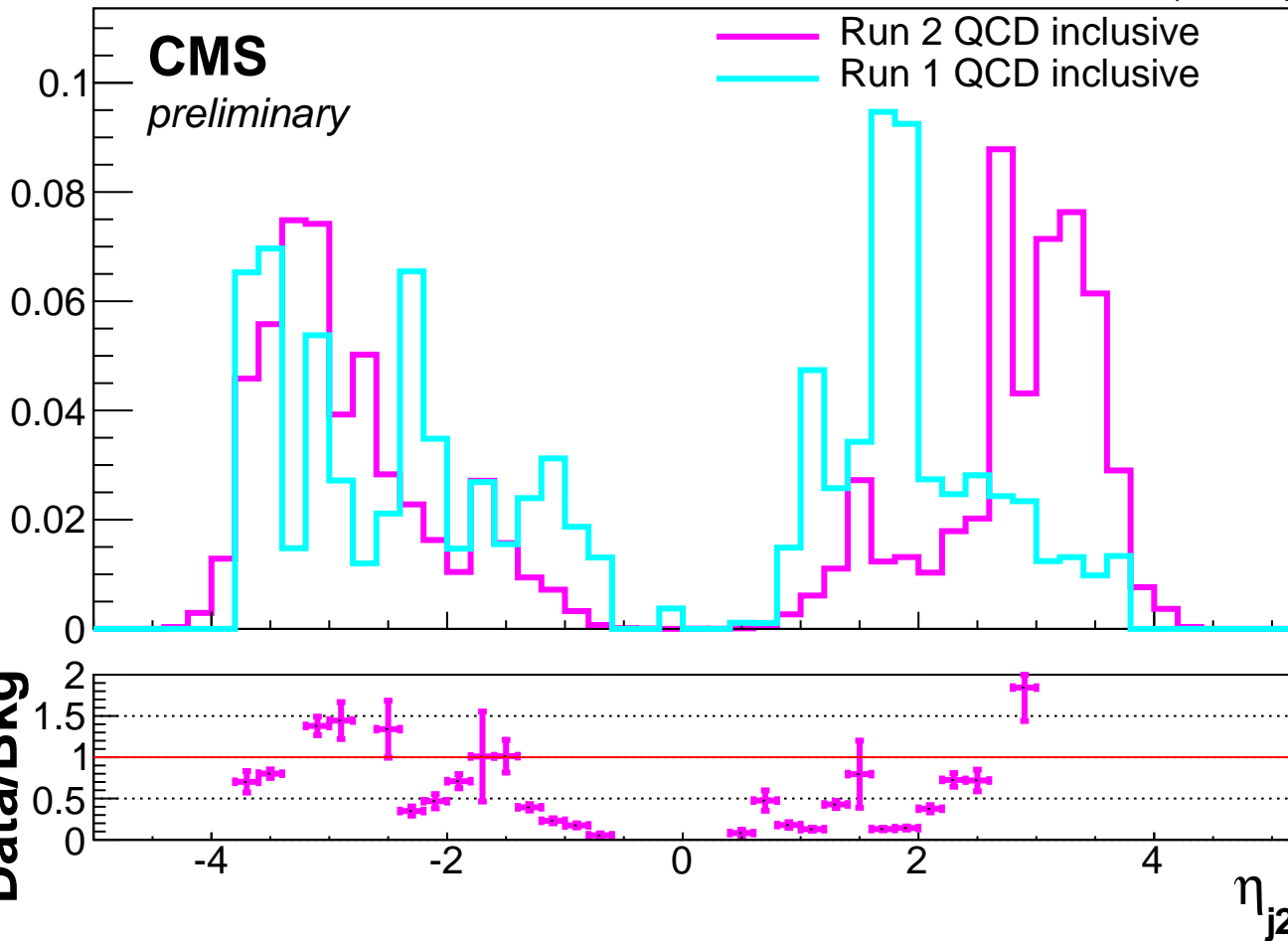
19.2 fb<sup>-1</sup> (8 TeV)

**CMS**  
*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

Data/Bkg

$\eta_{j2}$



19.2 fb<sup>-1</sup> (8 TeV)

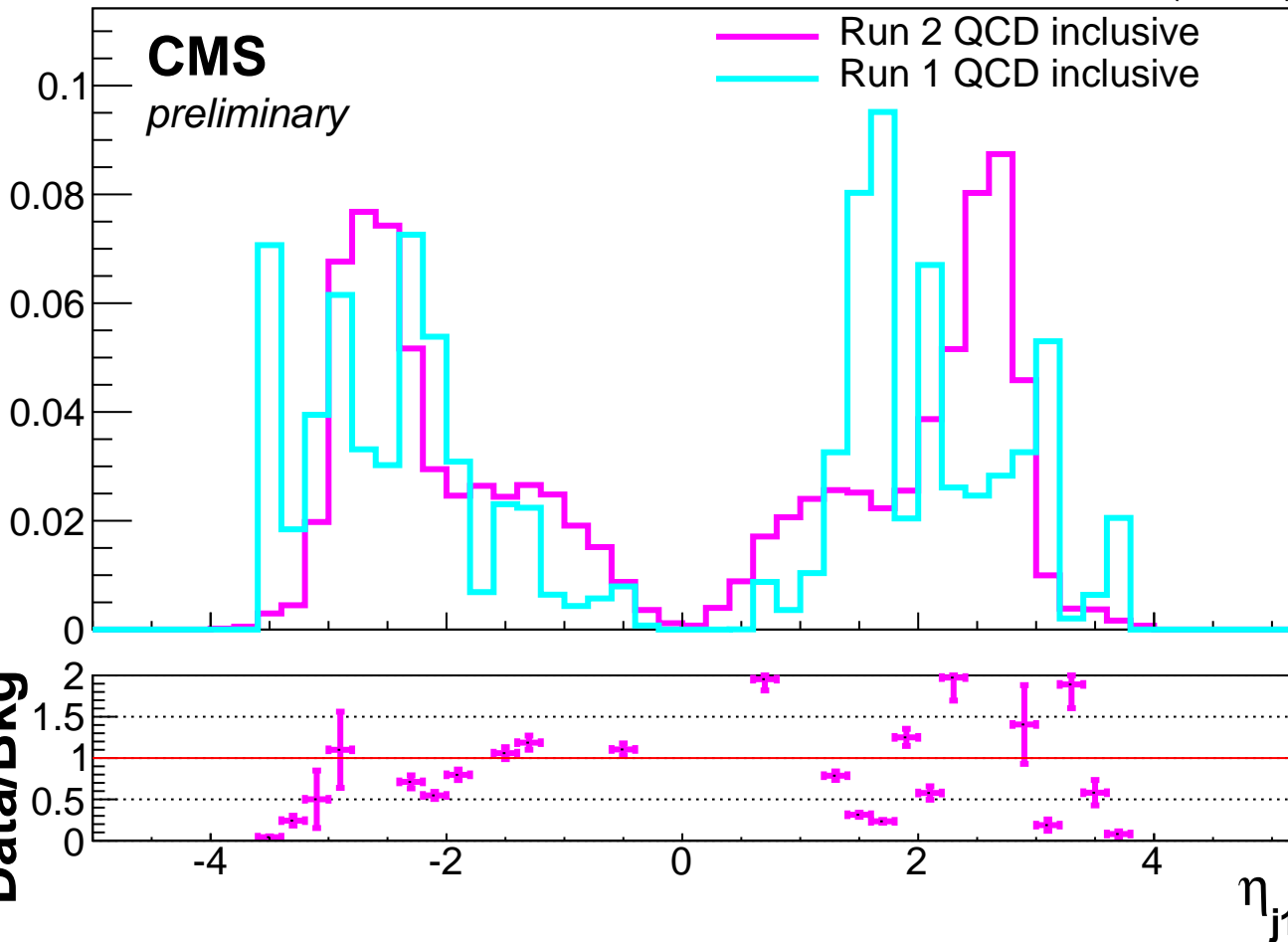
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

Data/Bkg

$\eta_{j1}$



19.2 fb<sup>-1</sup> (8 TeV)

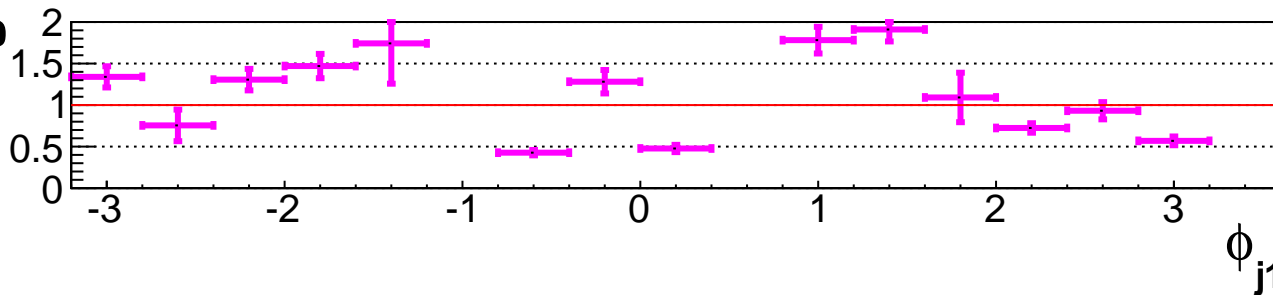
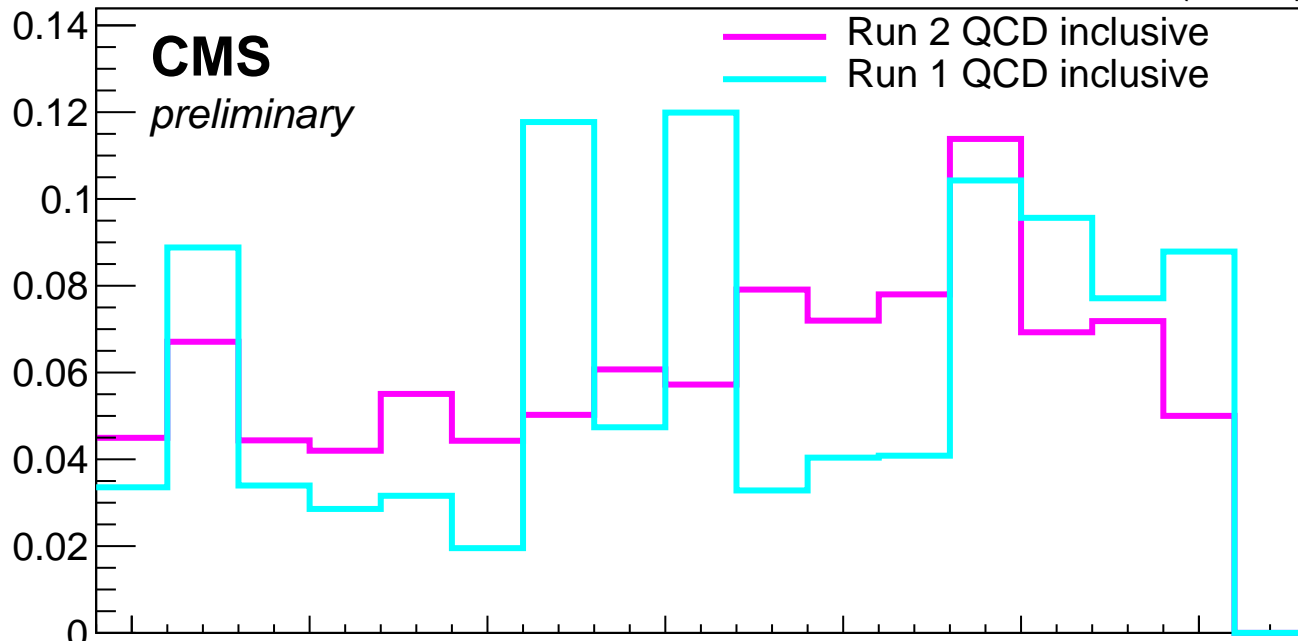
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

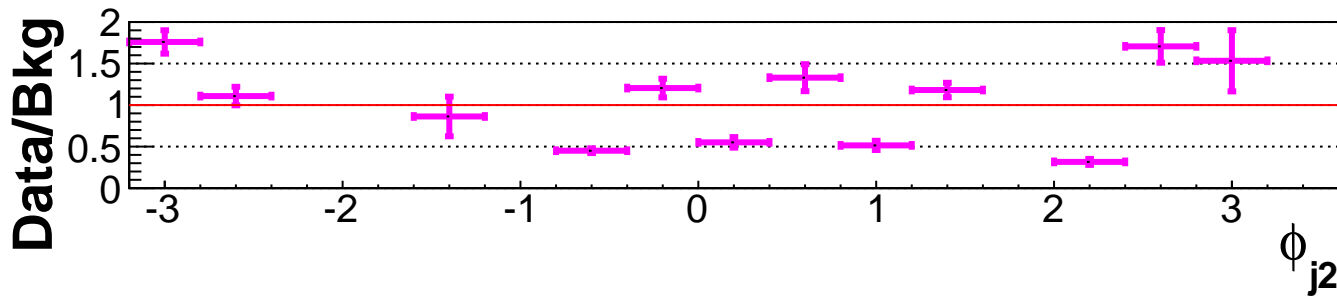
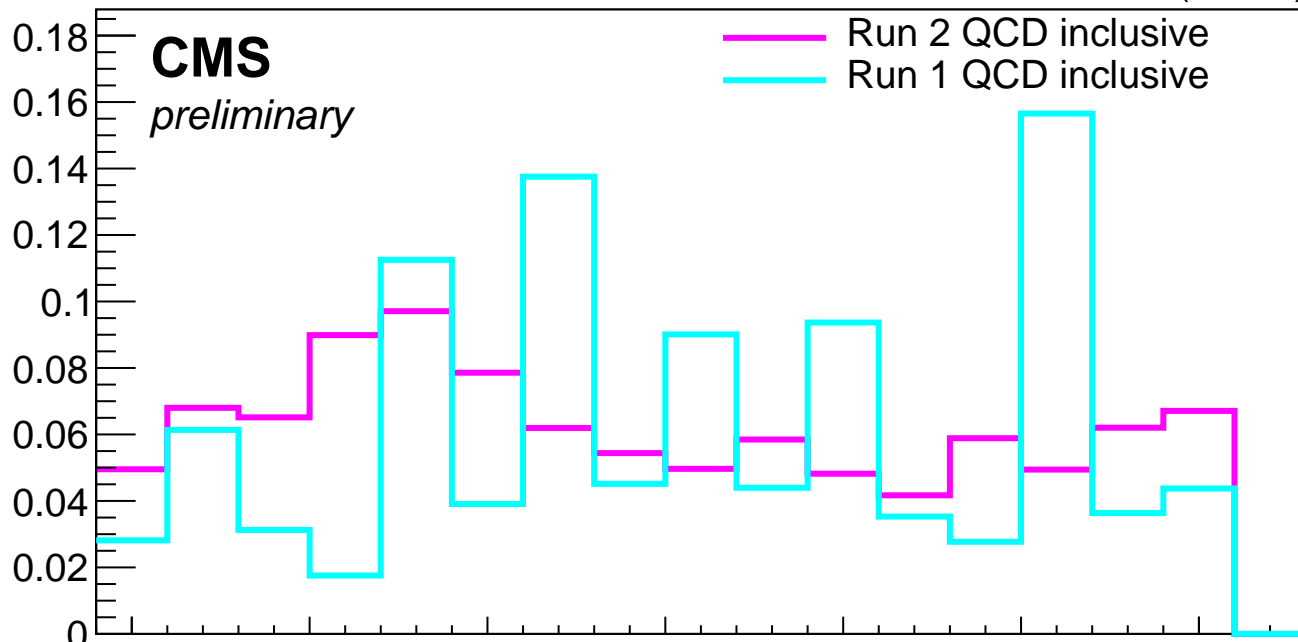
$\phi_{j1}$



19.2 fb<sup>-1</sup> (8 TeV)

**CMS**  
*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

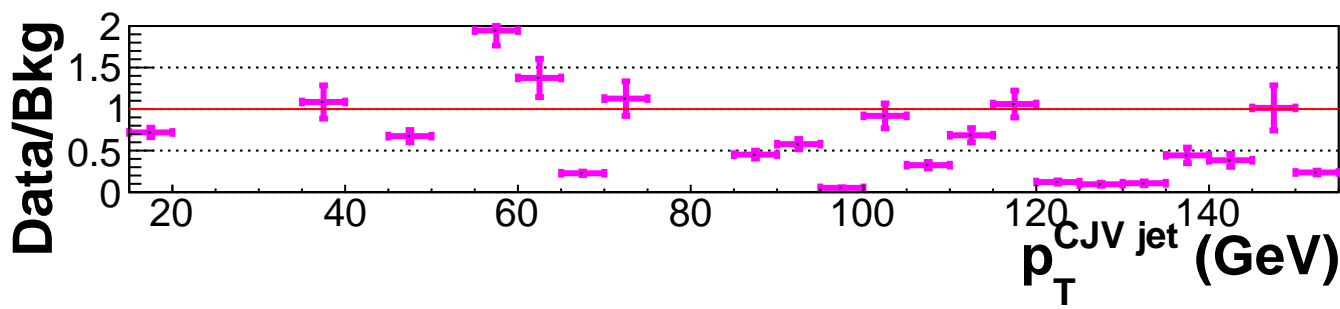


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive



19.2 fb<sup>-1</sup> (8 TeV)

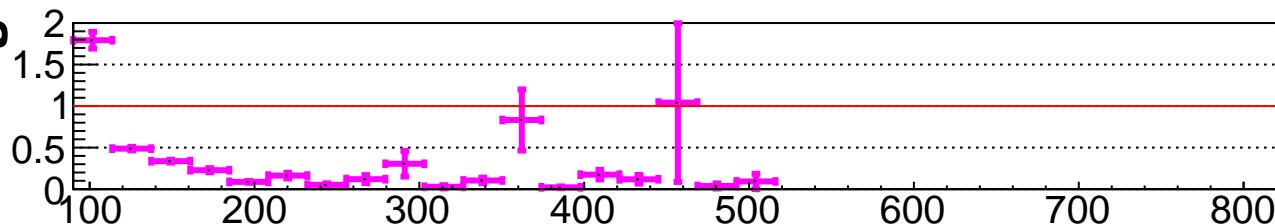
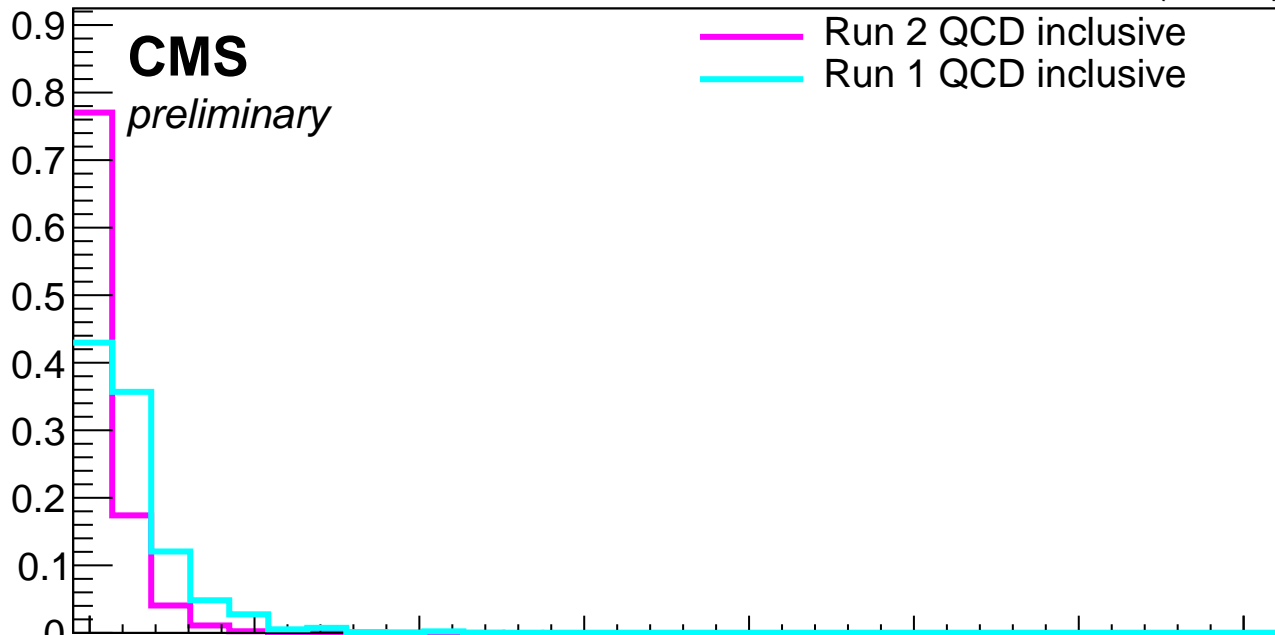
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

**Missing transverse energy (GeV)**

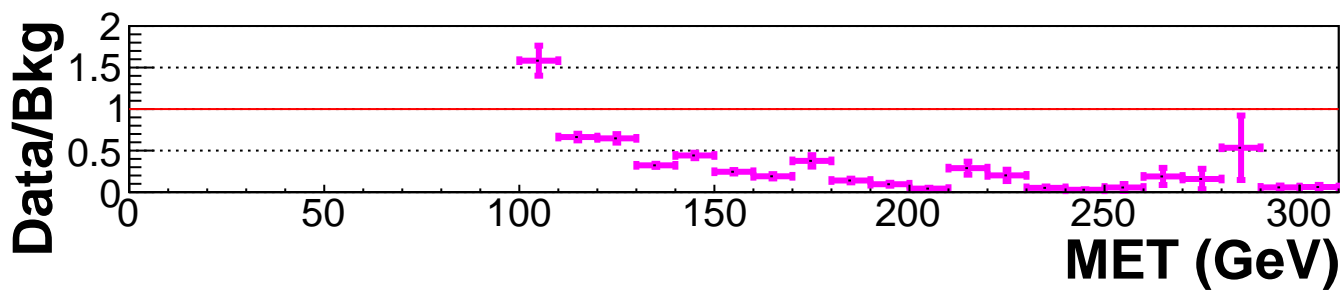




19.2 fb<sup>-1</sup> (8 TeV)

**CMS**  
*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive



19.2 fb<sup>-1</sup> (8 TeV)

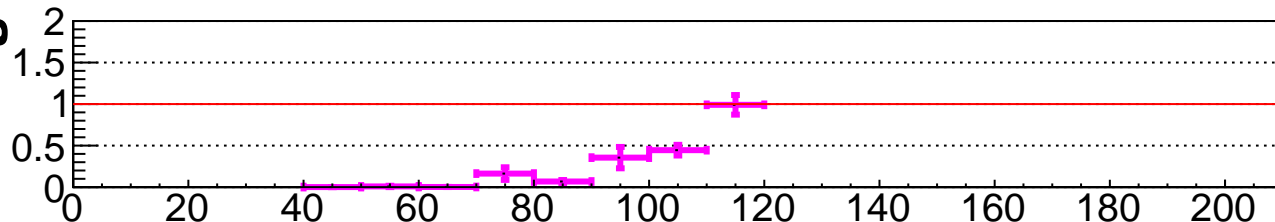
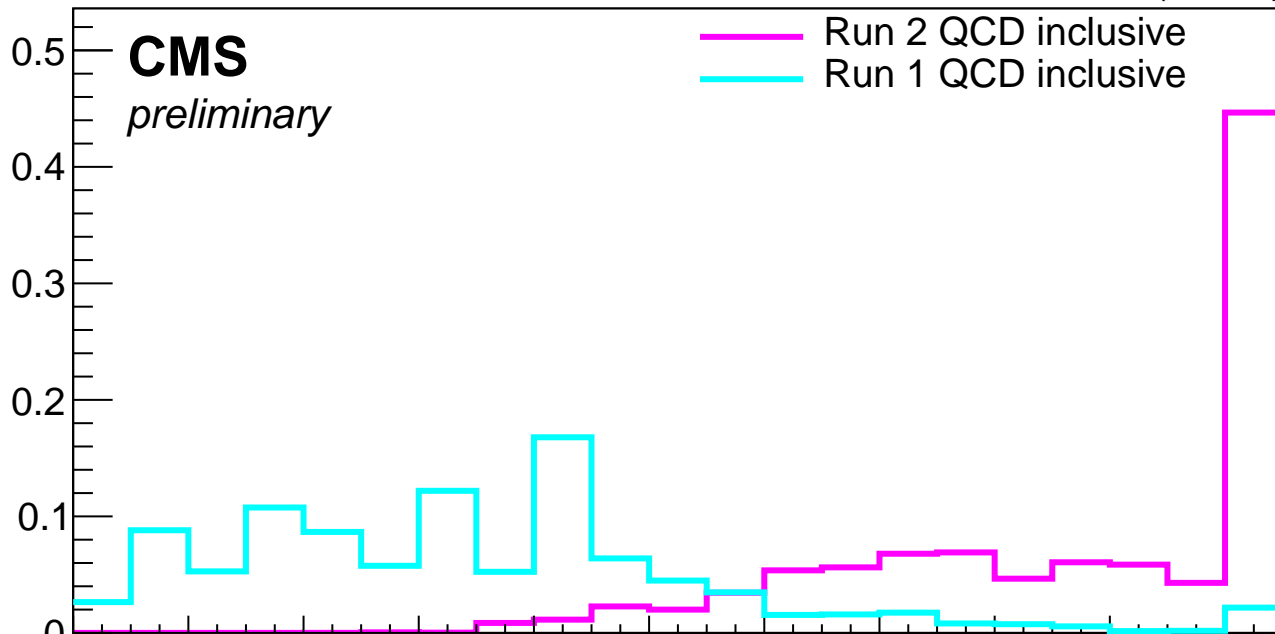
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

**L1MET (GeV)**

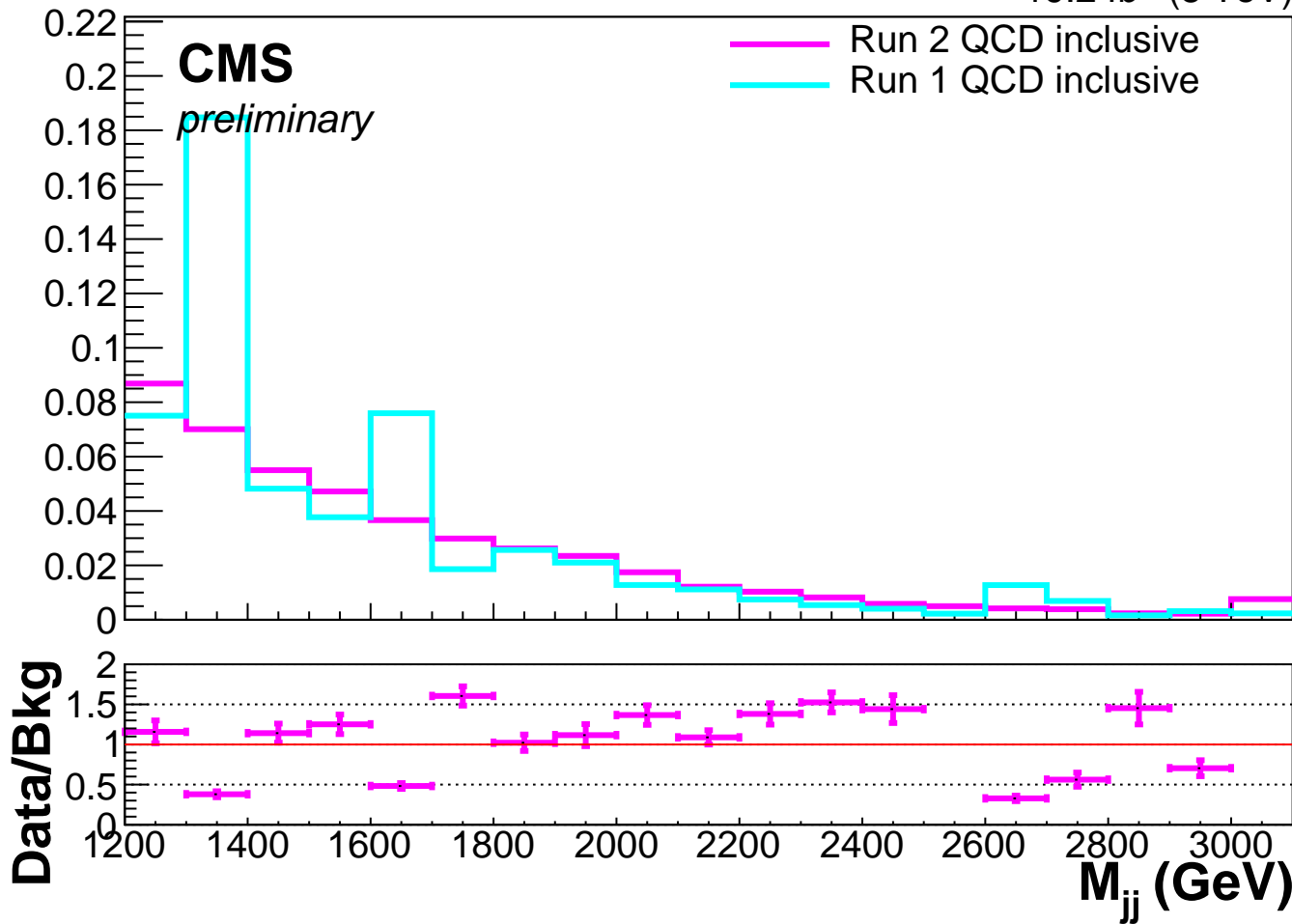


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive



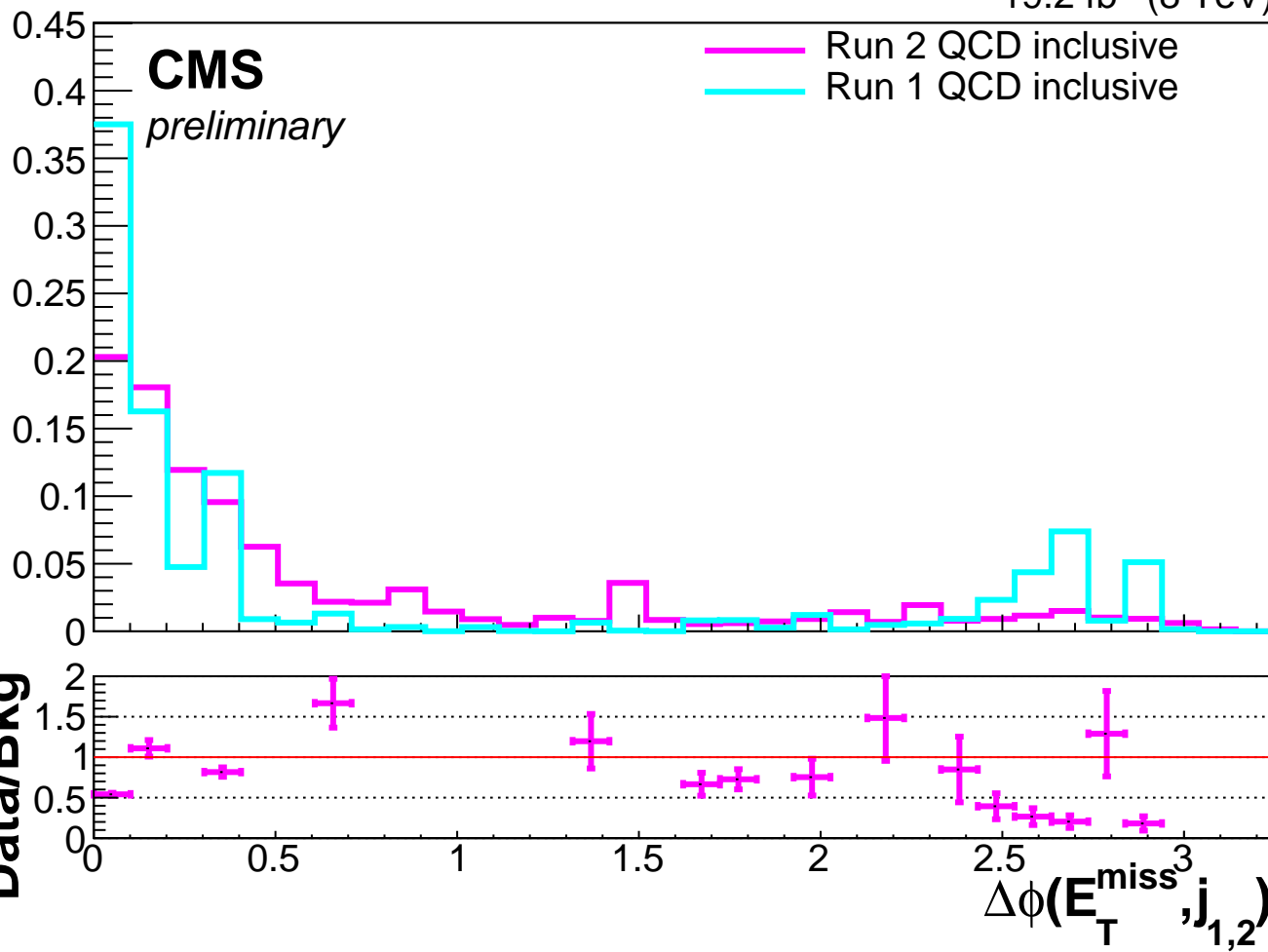
19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**



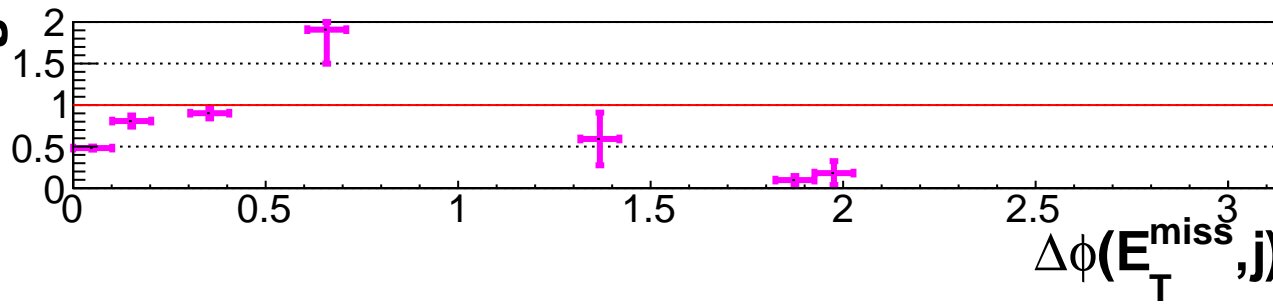
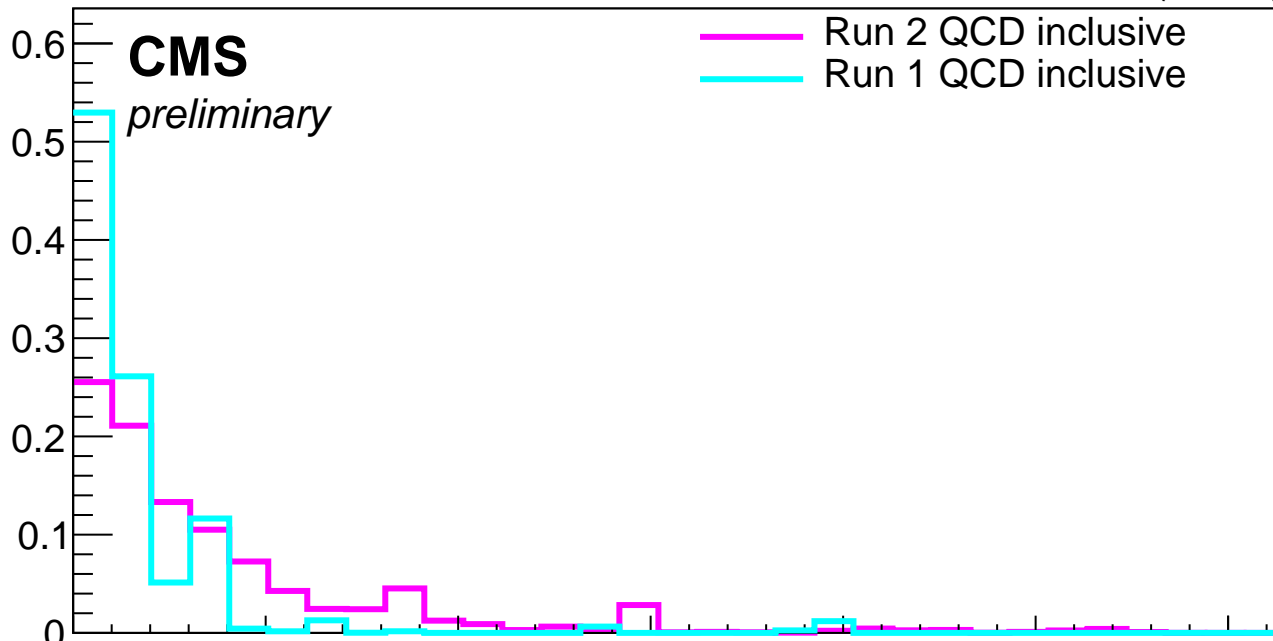
19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

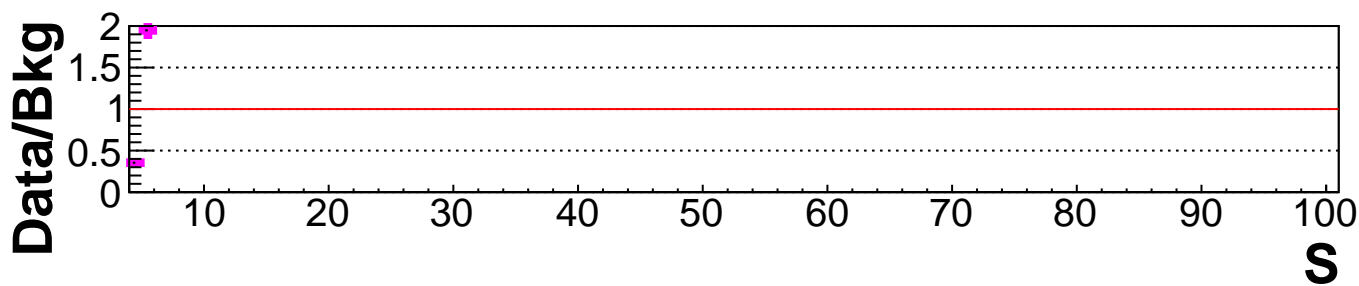


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

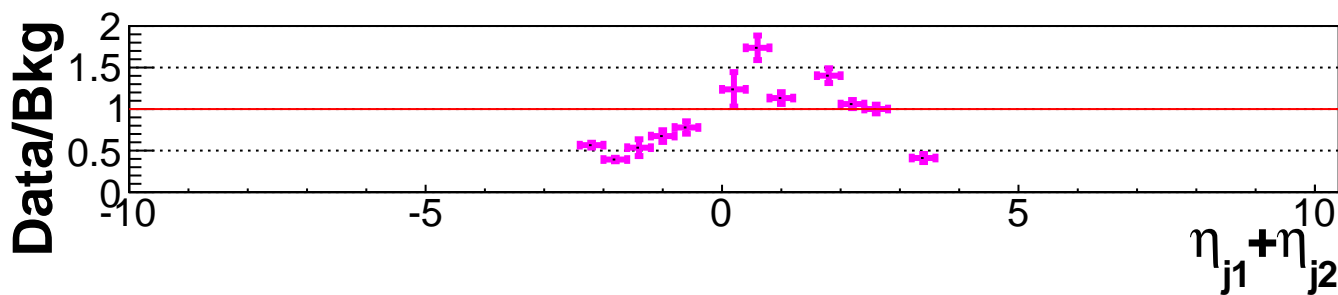


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive



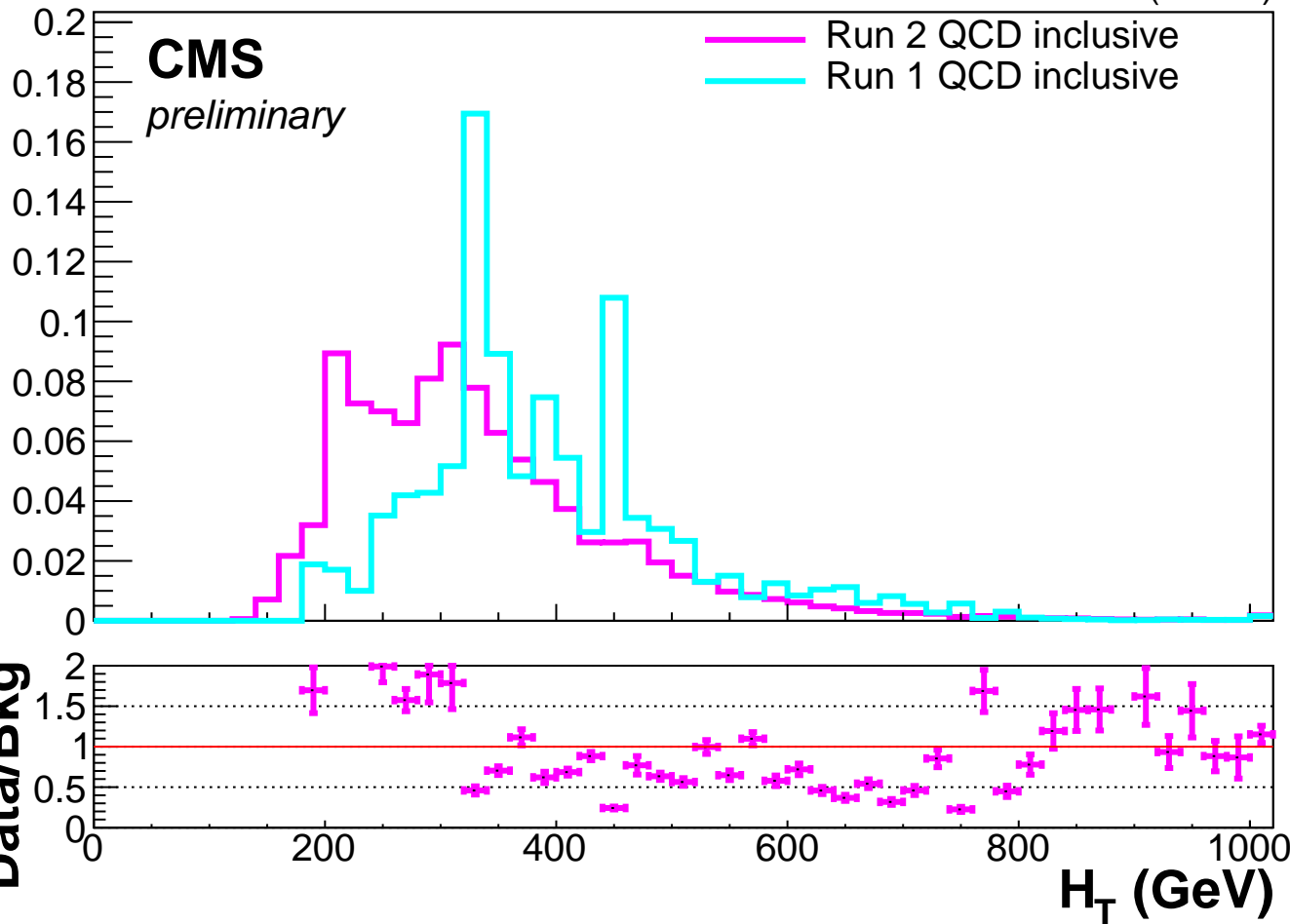
19.2 fb<sup>-1</sup> (8 TeV)

**CMS**  
*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

Data/Bkg

H<sub>T</sub> (GeV)





19.2 fb<sup>-1</sup> (8 TeV)

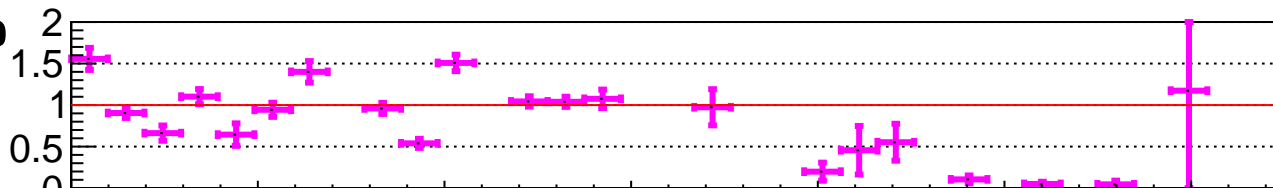
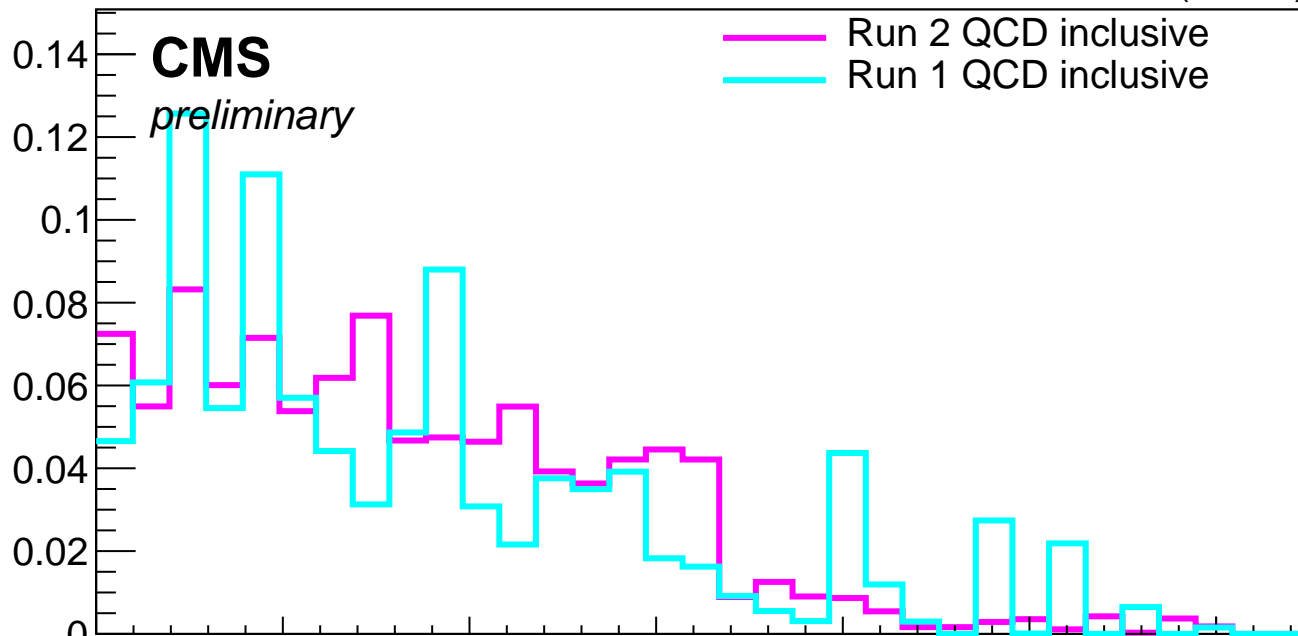
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

**min  $\Delta\phi(j, E_T^{\text{unchl}})$**



19.2 fb<sup>-1</sup> (8 TeV)

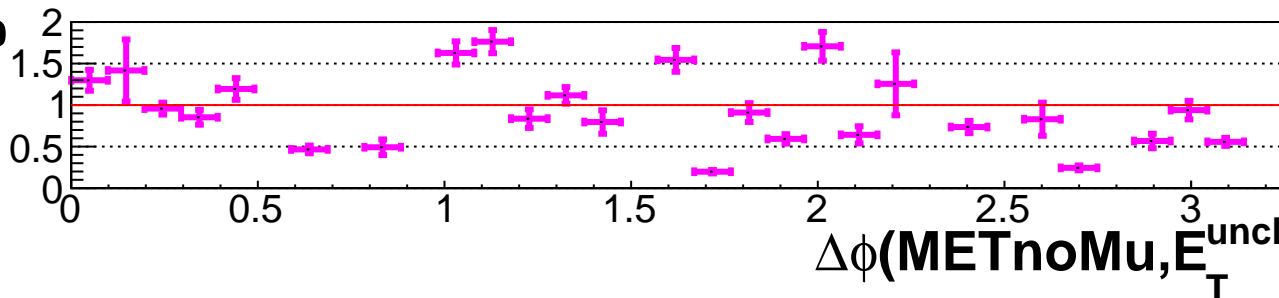
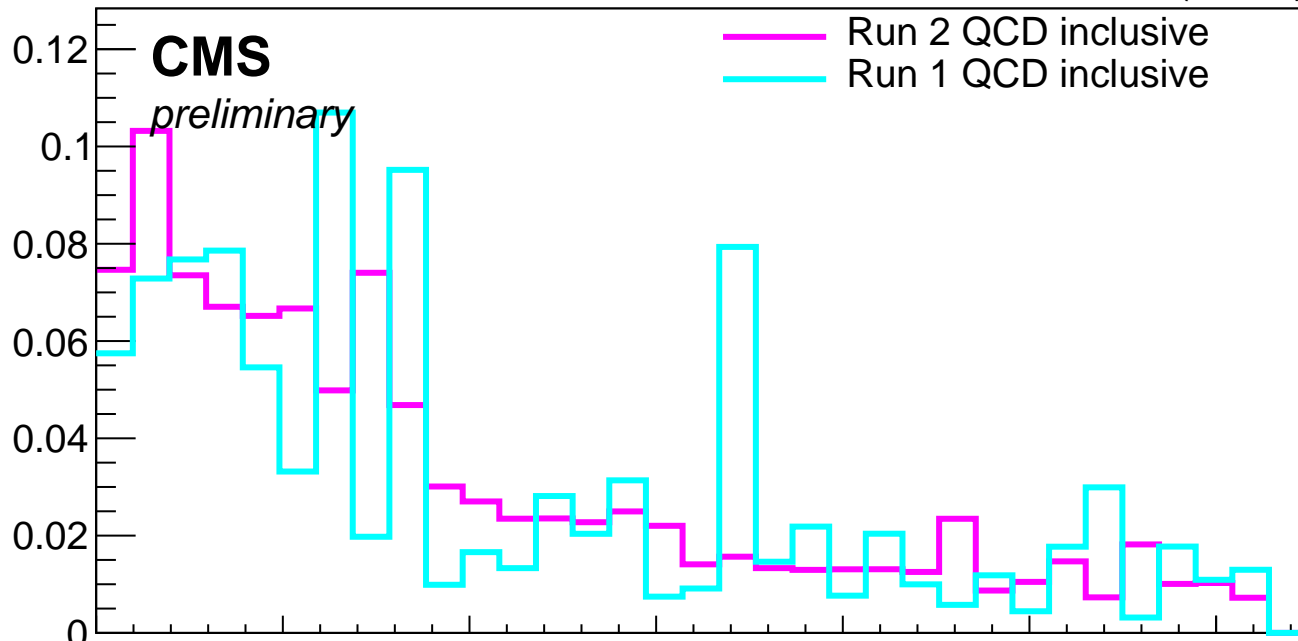
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

$\Delta\phi(\text{METnoMu}, E_{\text{T}}^{\text{uncl}})$

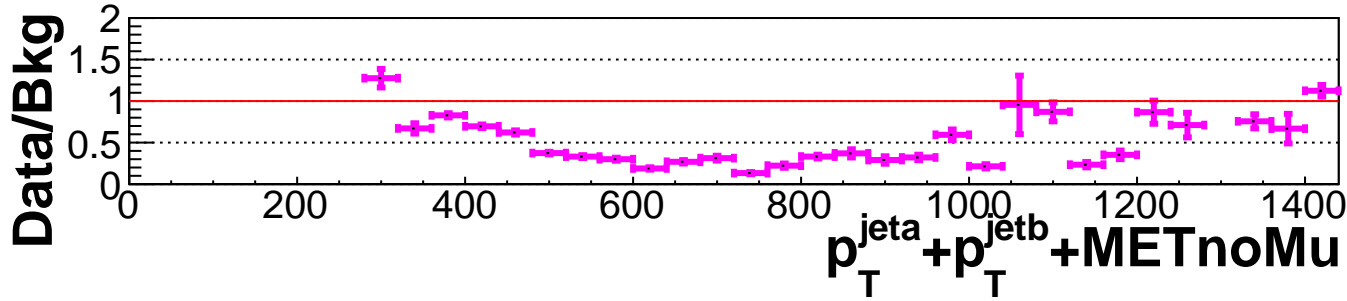


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive



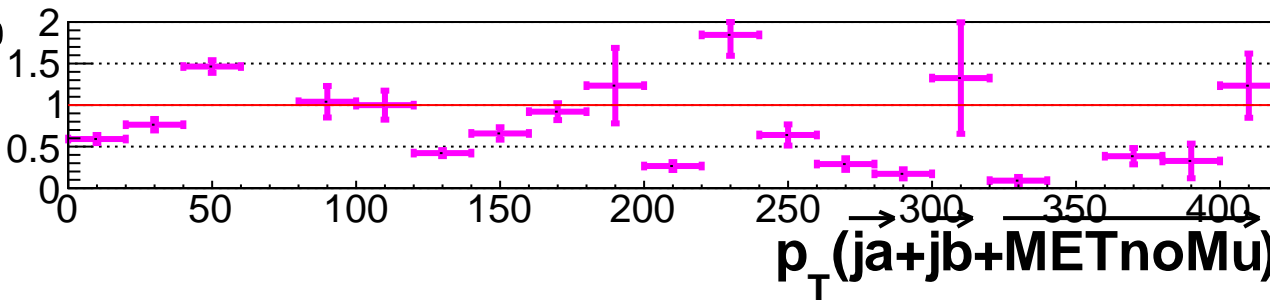
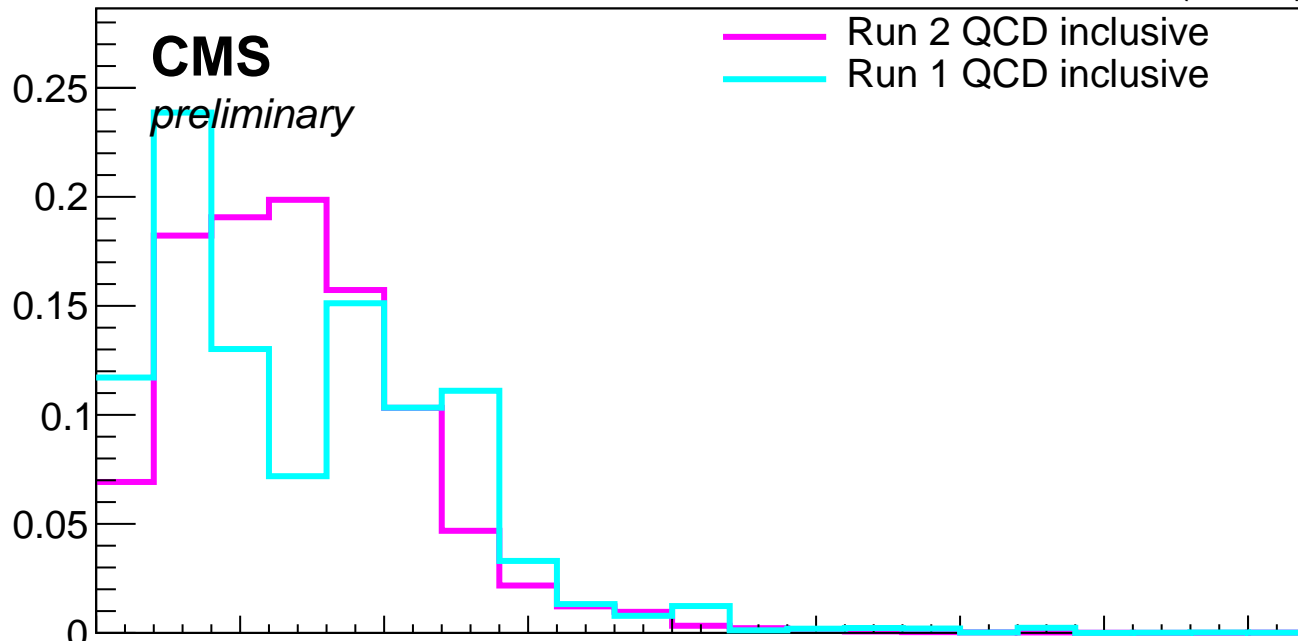
19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**



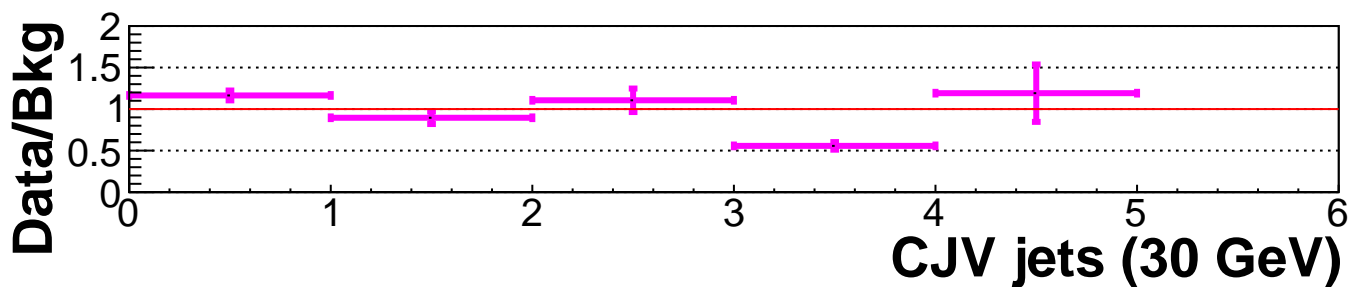
19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive

Run 1 QCD inclusive



19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

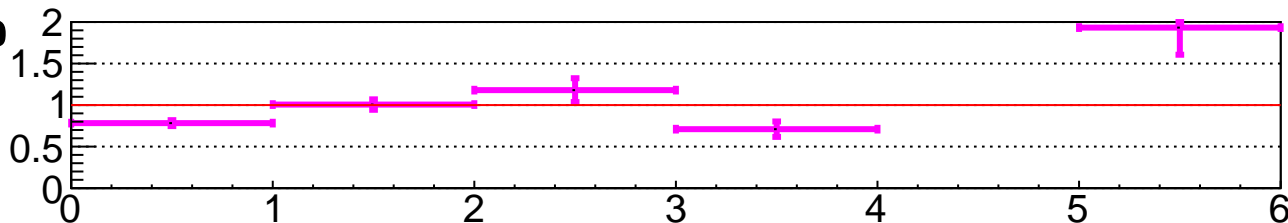
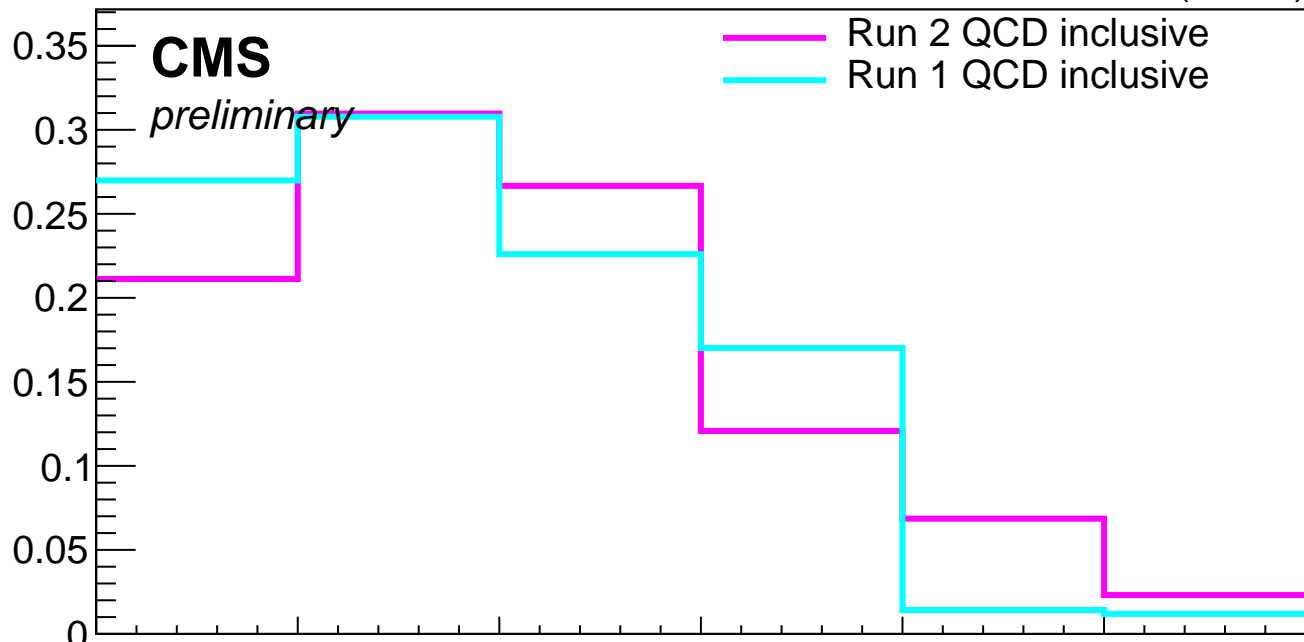
*preliminary*

Run 2 QCD inclusive

Run 1 QCD inclusive

**Data/Bkg**

**CJV jets (20 GeV EB, 30 GeV EE)**



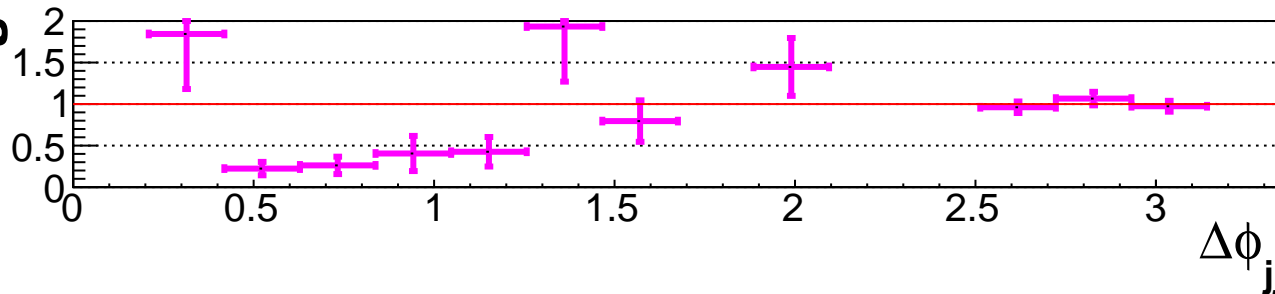
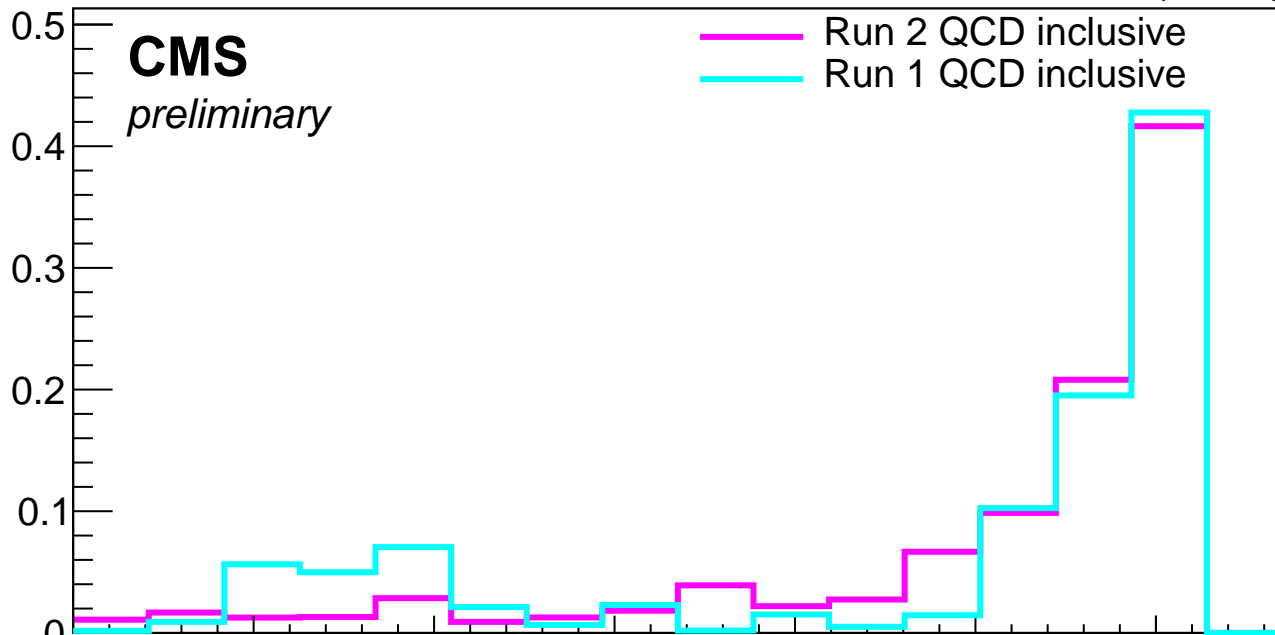
19.2 fb<sup>-1</sup> (8 TeV)

**CMS**  
*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

Data/Bkg

$\Delta\phi_{jj}$

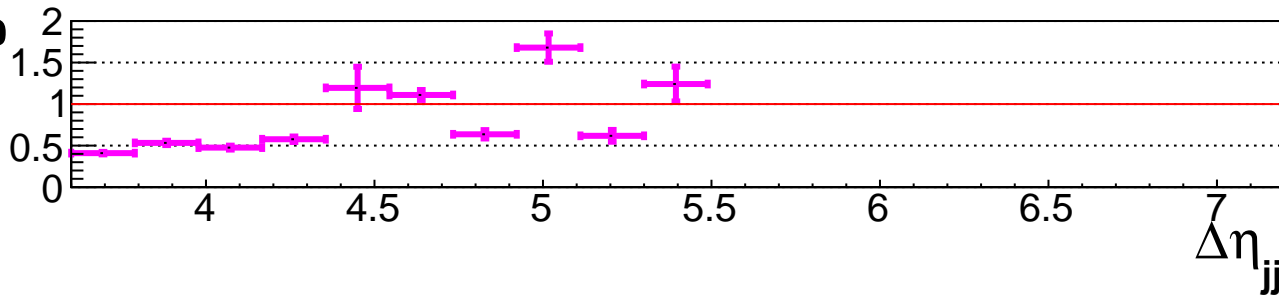
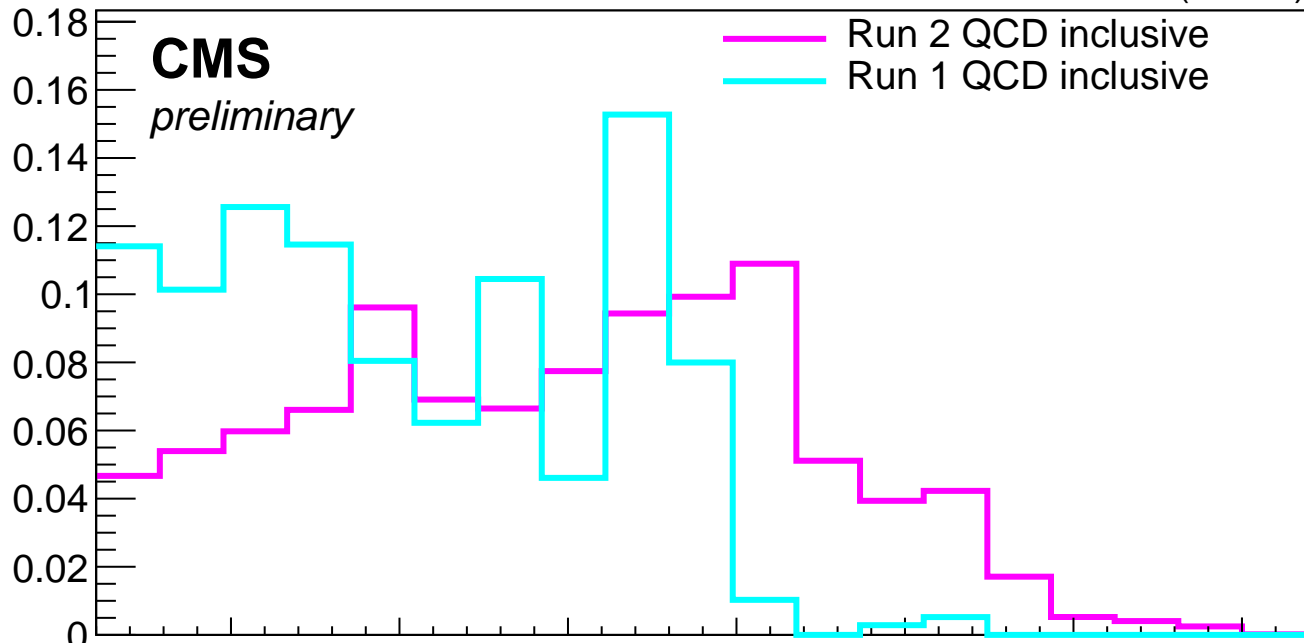


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**  
*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

Data/Bkg



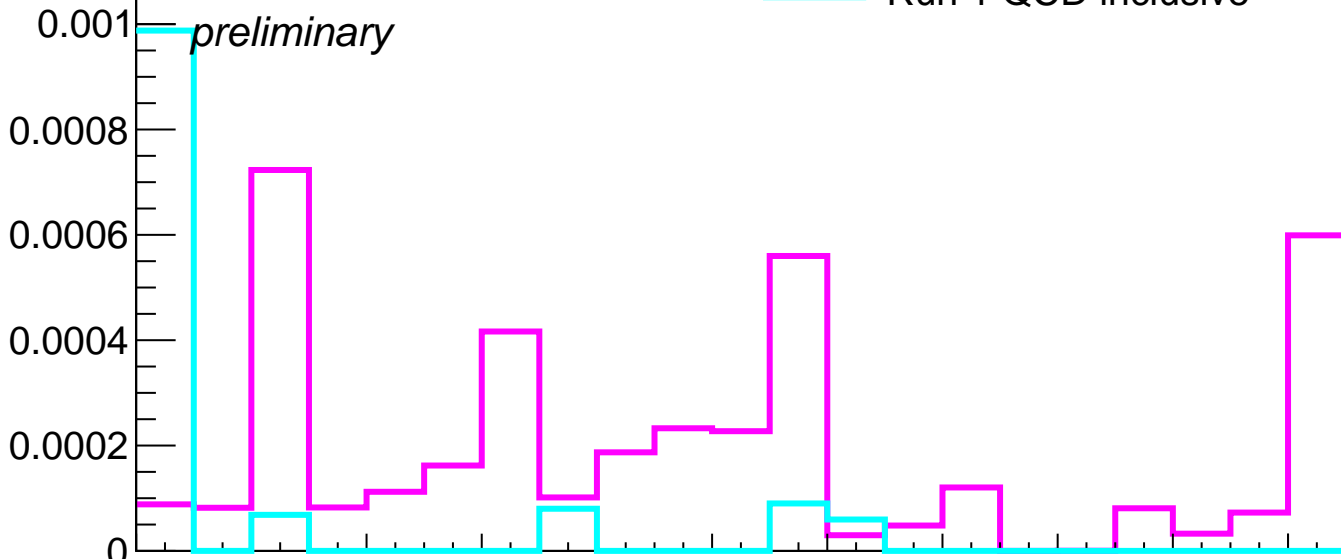


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

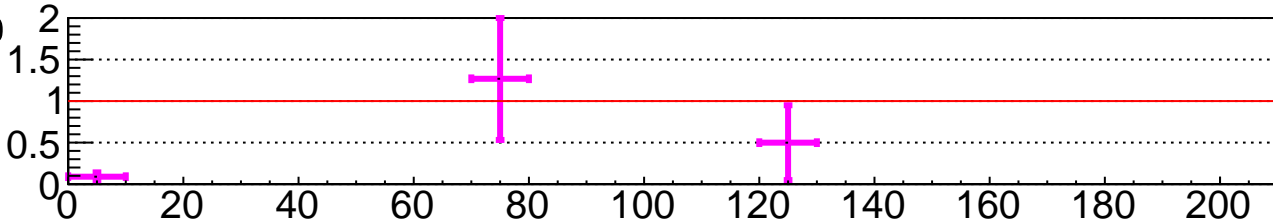
Run 2 QCD inclusive  
Run 1 QCD inclusive

preliminary



**Data/Bkg**

$m_T(\text{lepton}+\text{MET})$  (GeV)

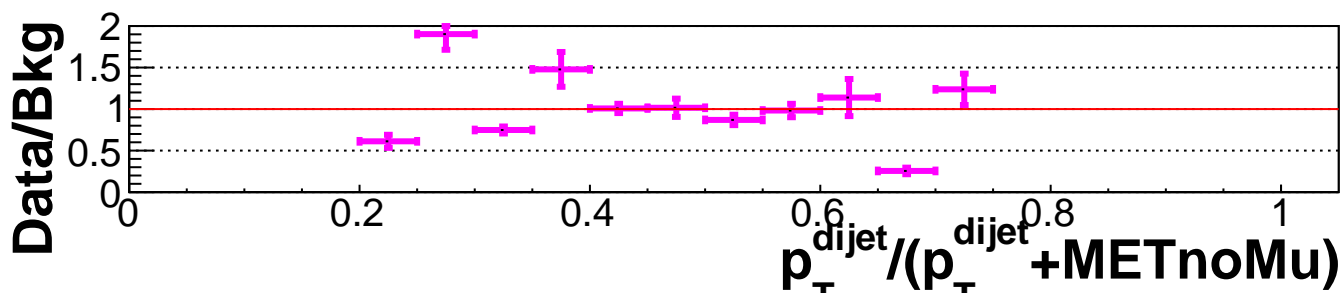


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive



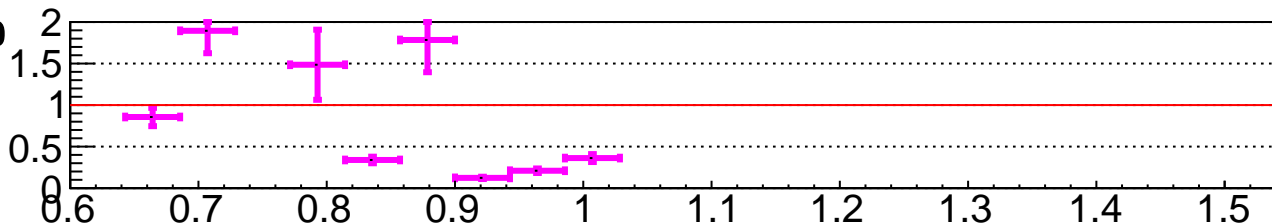
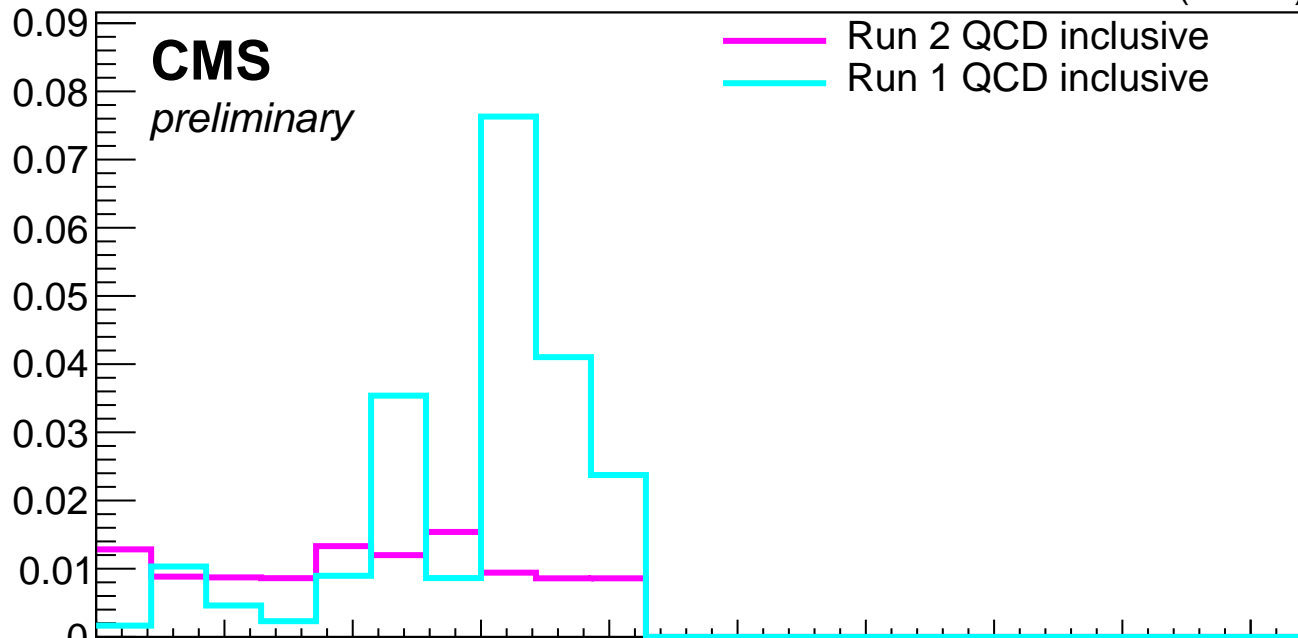
19.2 fb<sup>-1</sup> (8 TeV)

**CMS**  
*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

Data/Bkg

**Jet 1 CSV**

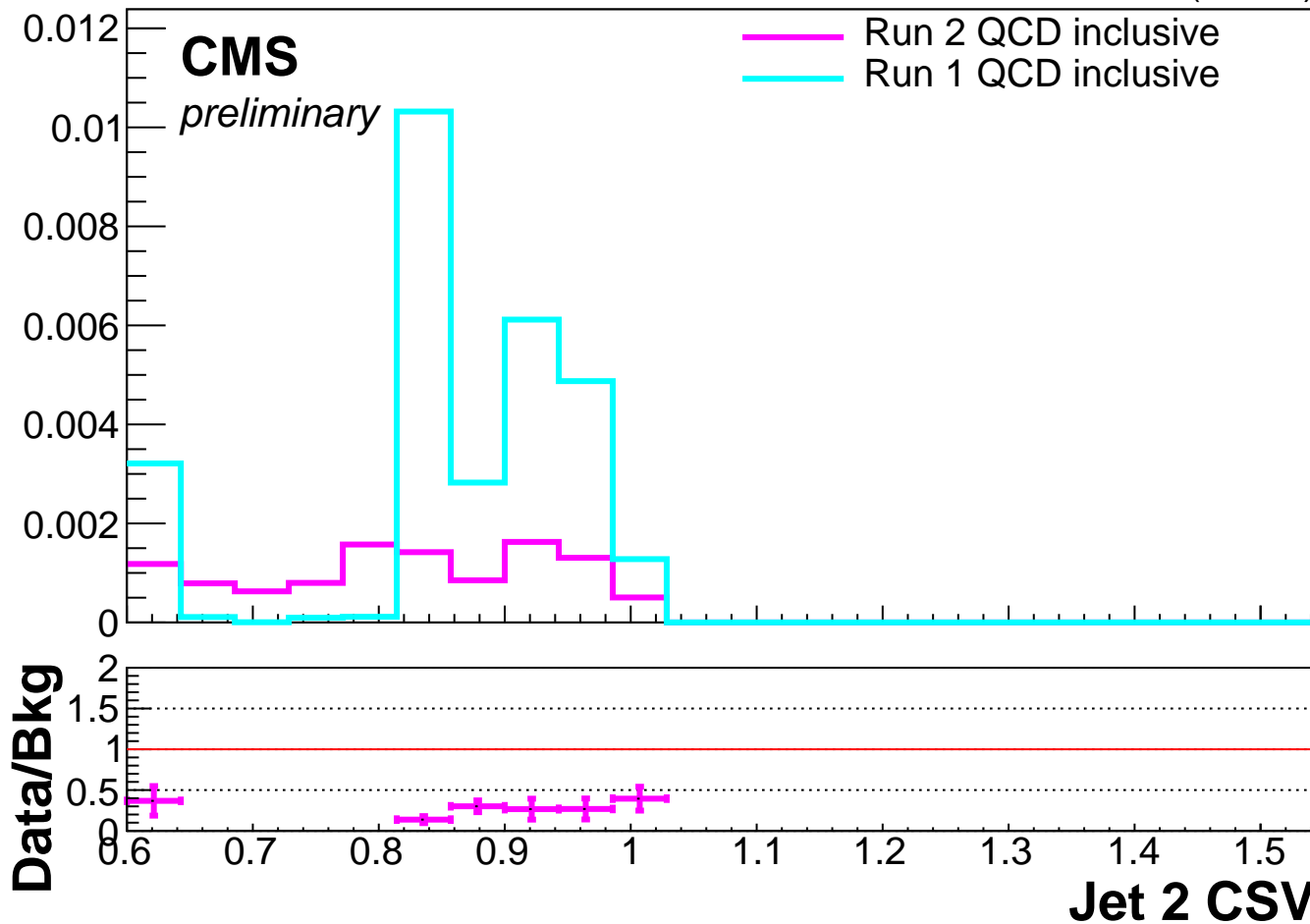


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive



19.2 fb<sup>-1</sup> (8 TeV)

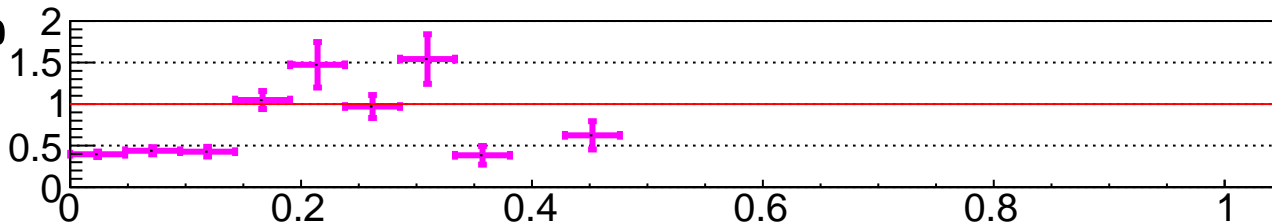
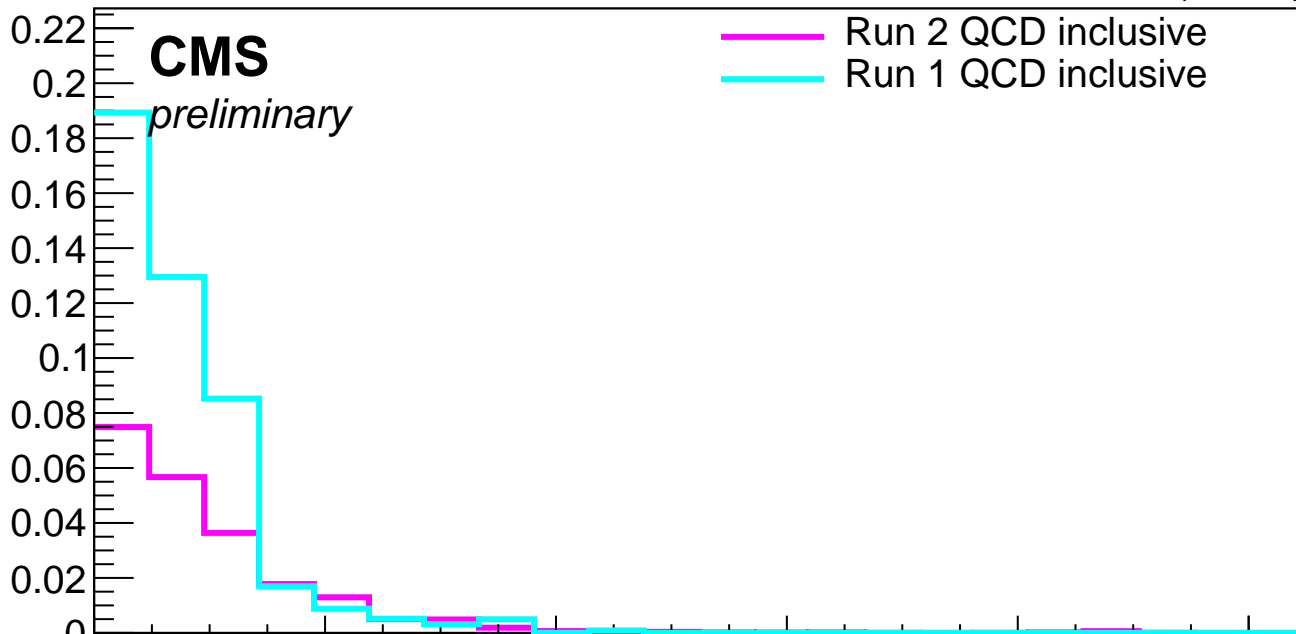
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

**Jet 3 CSV**

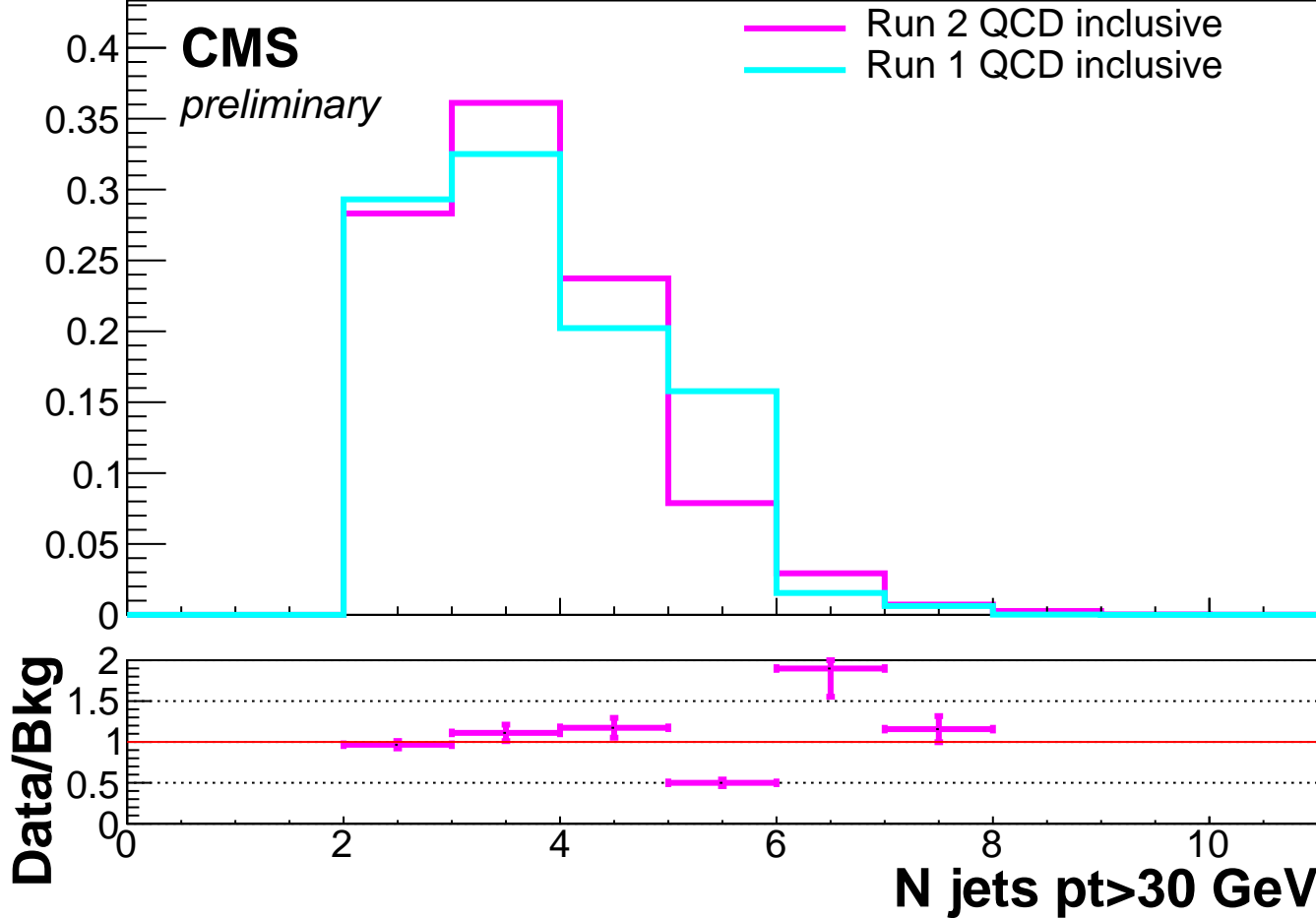


19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive



19.2 fb<sup>-1</sup> (8 TeV)

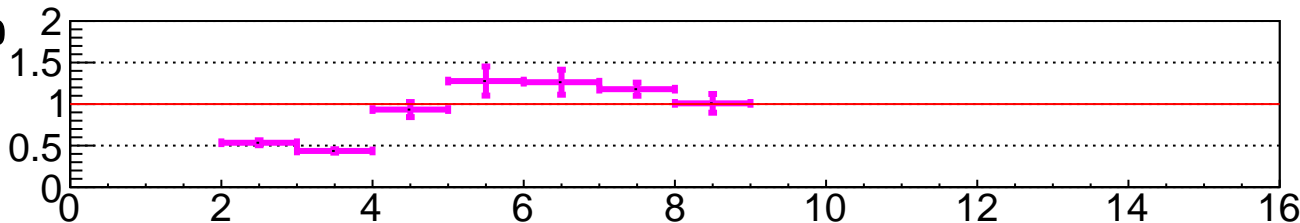
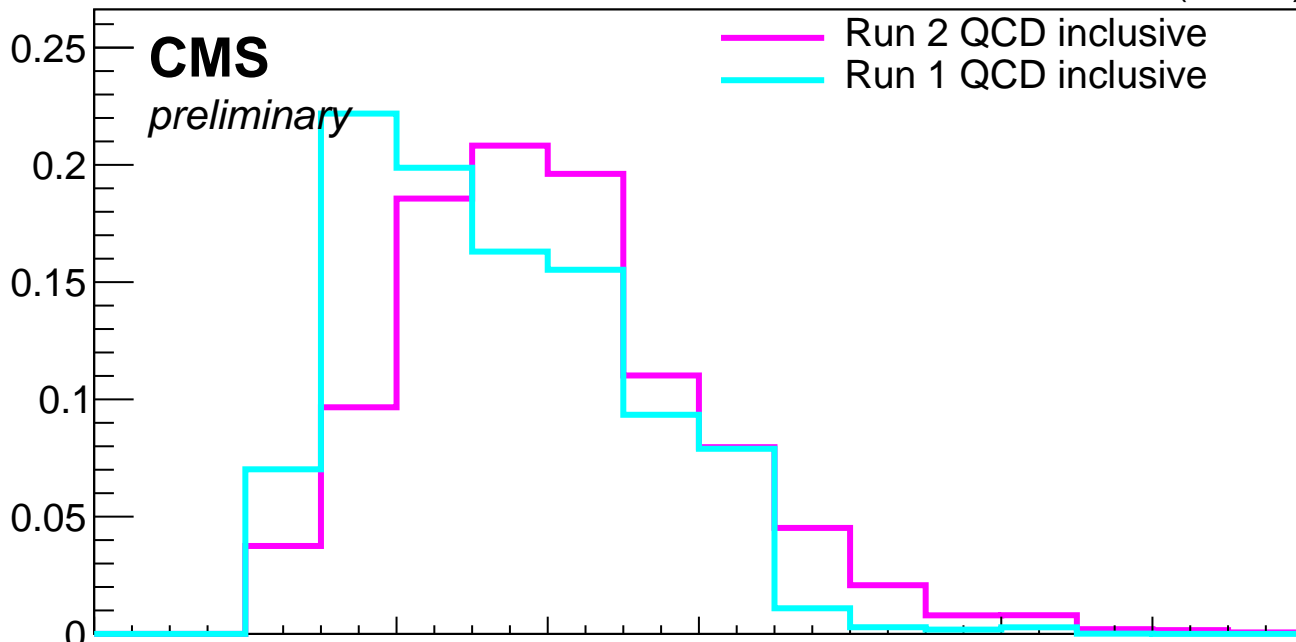
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

**N jets pt>15 GeV**



19.2 fb<sup>-1</sup> (8 TeV)

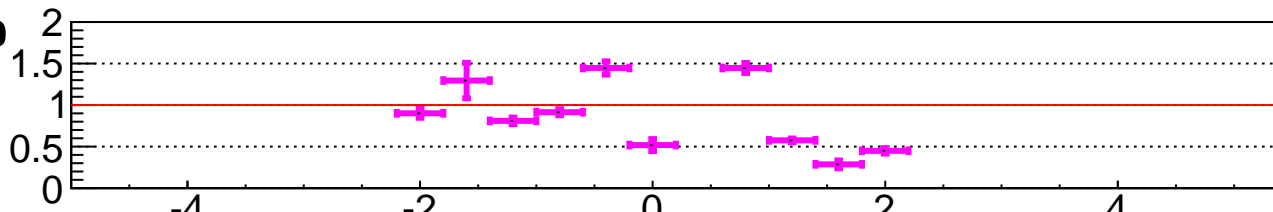
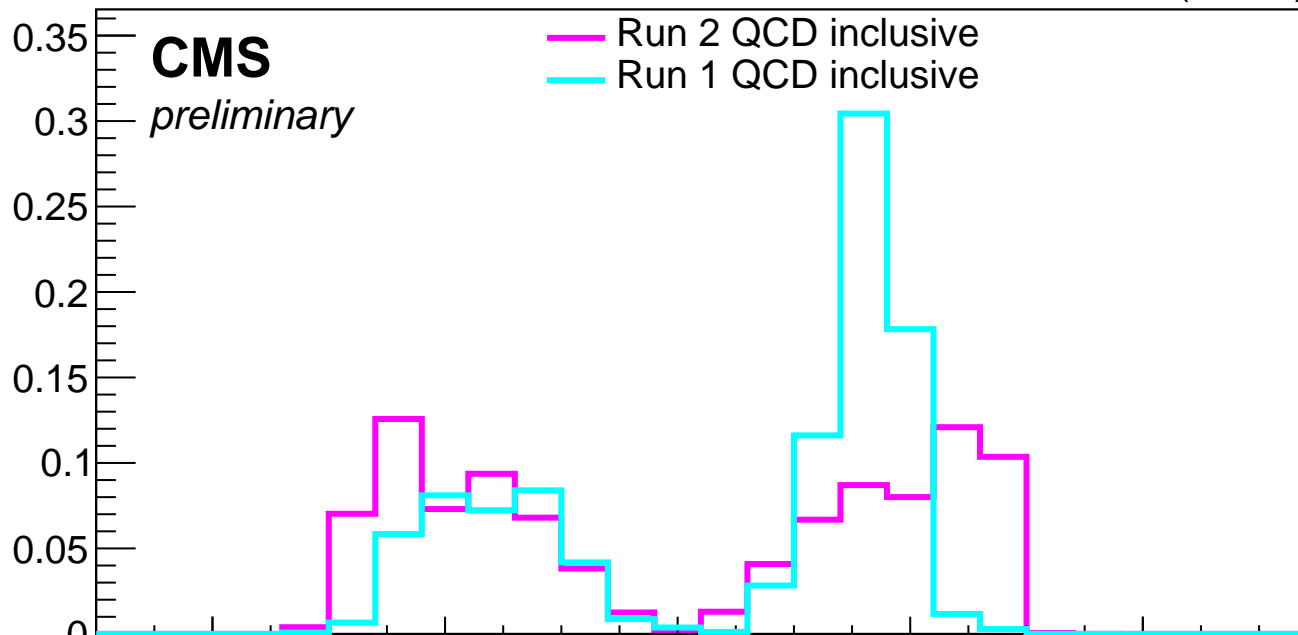
**CMS**

*preliminary*

Run 2 QCD inclusive  
Run 1 QCD inclusive

**Data/Bkg**

**Central tag jet  $\eta$**





19.2 fb<sup>-1</sup> (8 TeV)

**CMS**

*preliminary*

— Run 2 QCD inclusive  
— Run 1 QCD inclusive

**Data/Bkg**

**Forward tag jet  $\eta$**

