

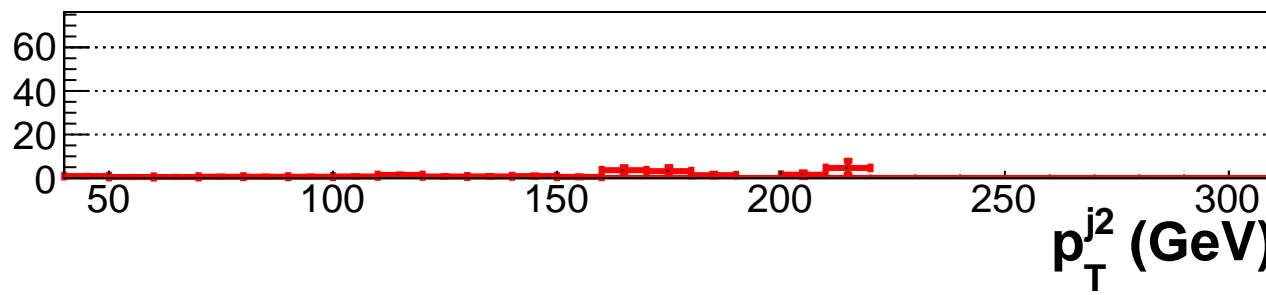
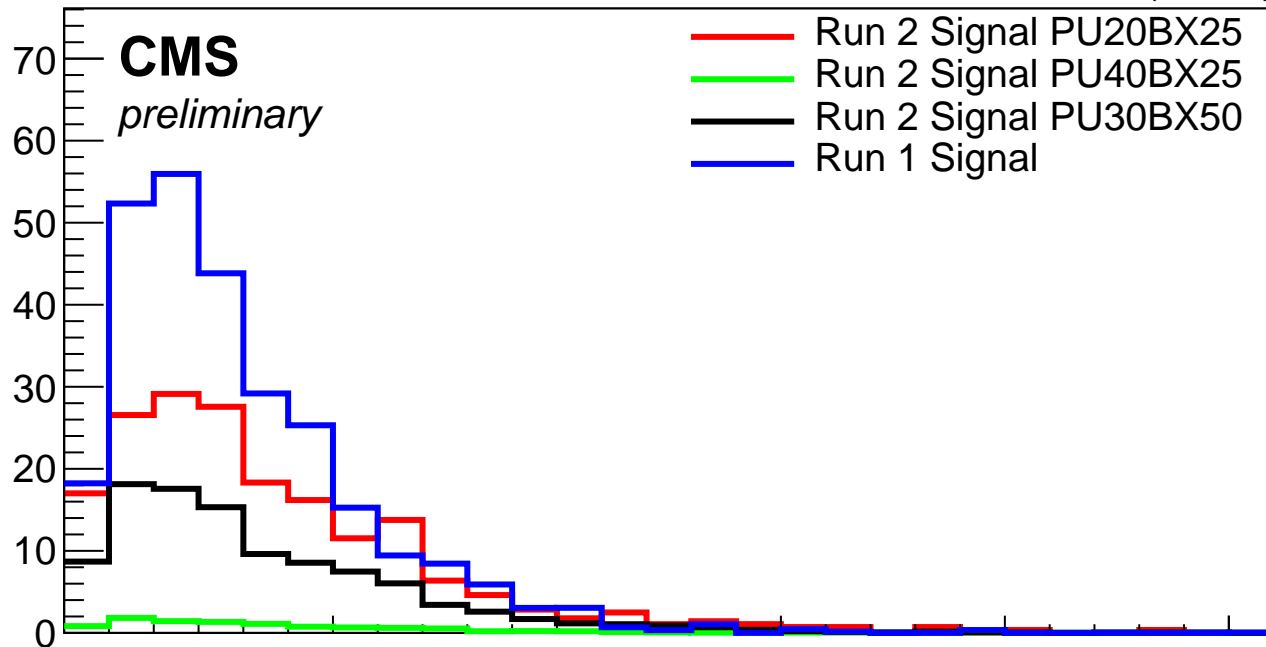
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg

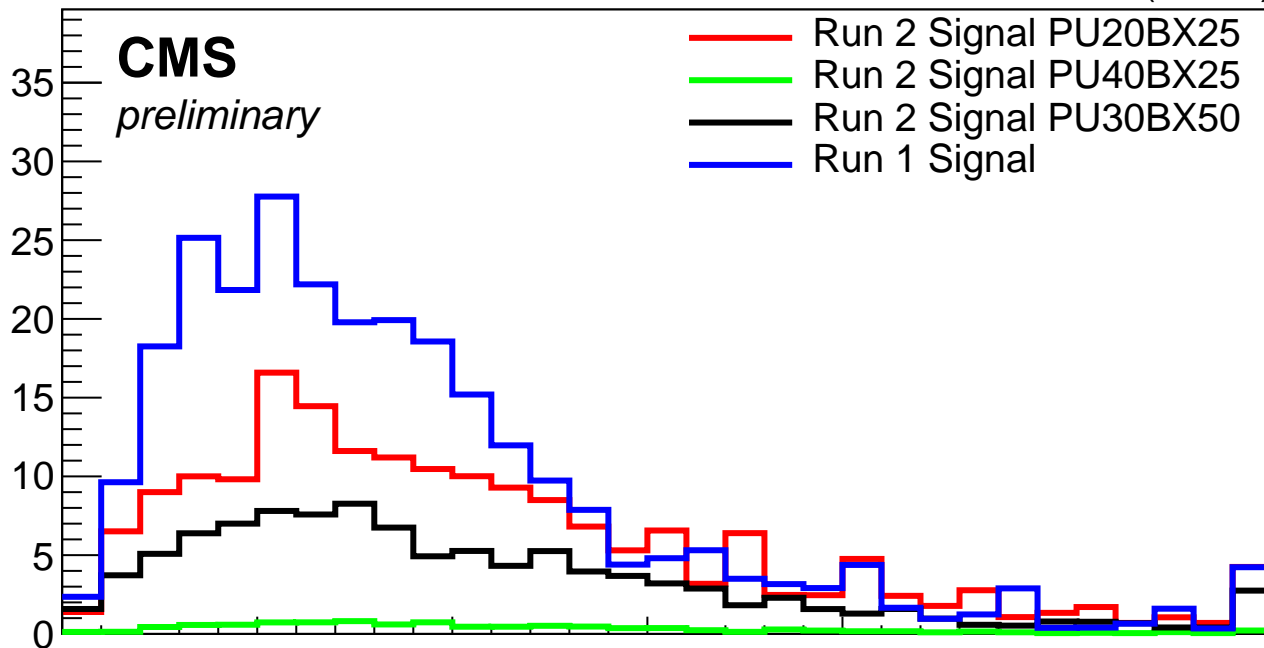


19.2 fb⁻¹ (8 TeV)

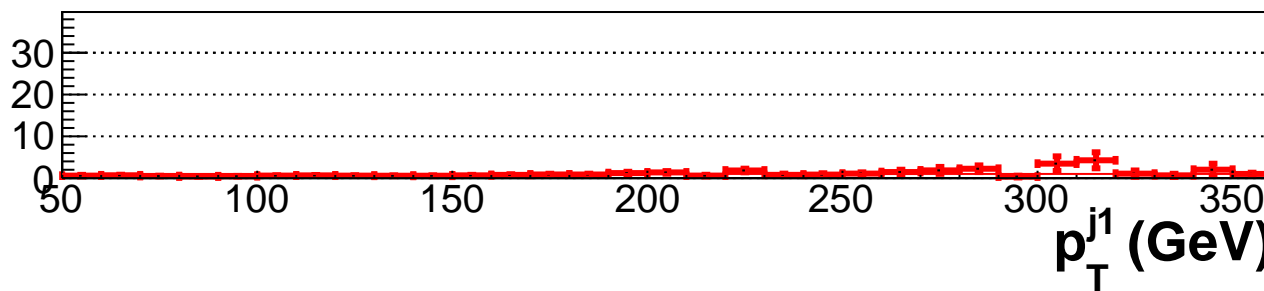
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



Data/Bkg

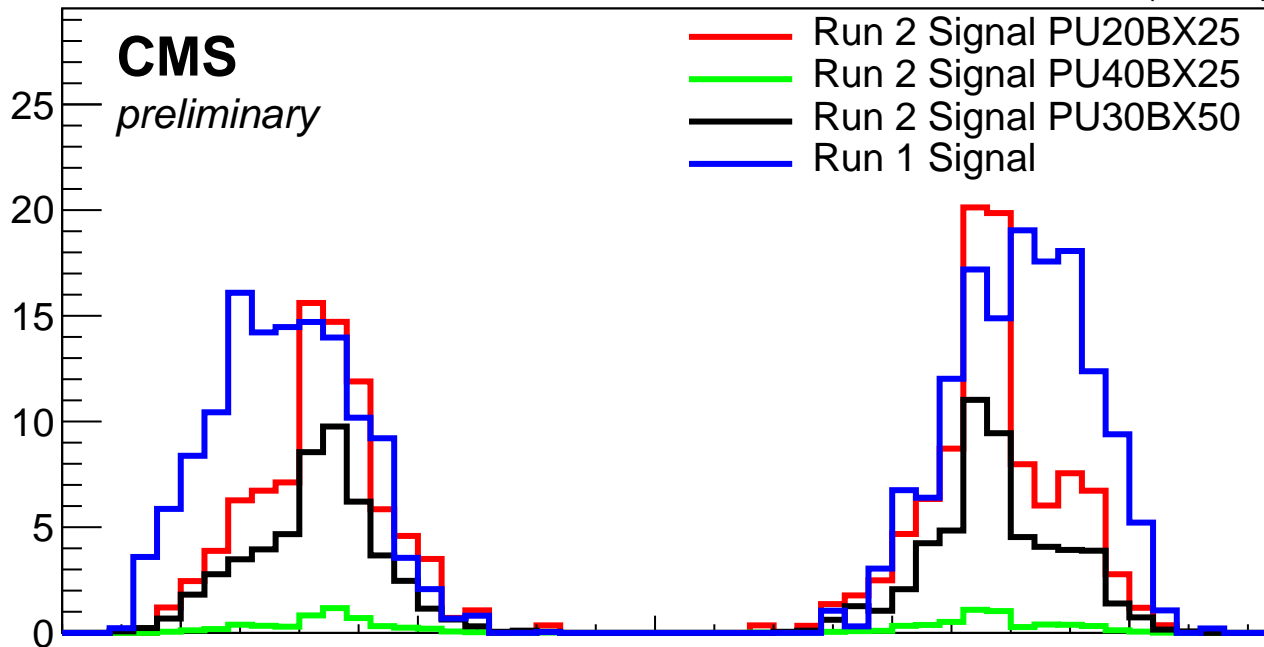


19.2 fb⁻¹ (8 TeV)

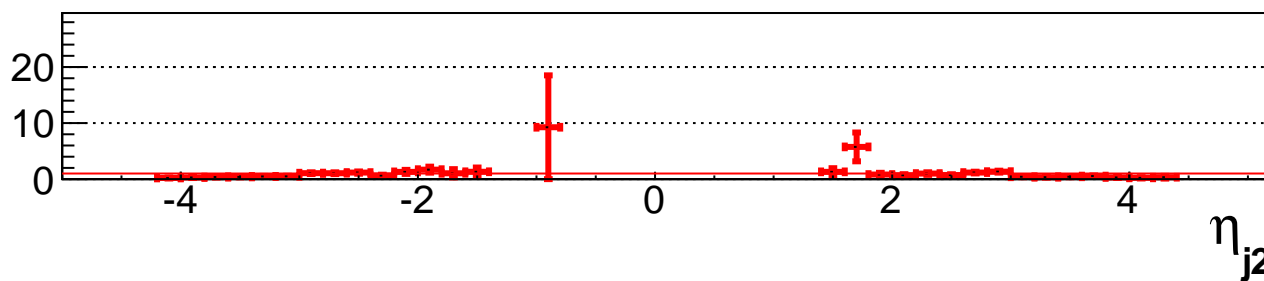
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



Data/Bkg



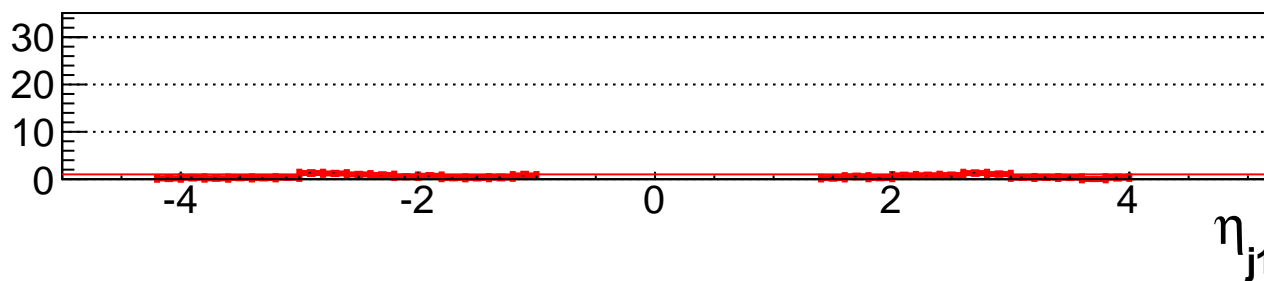
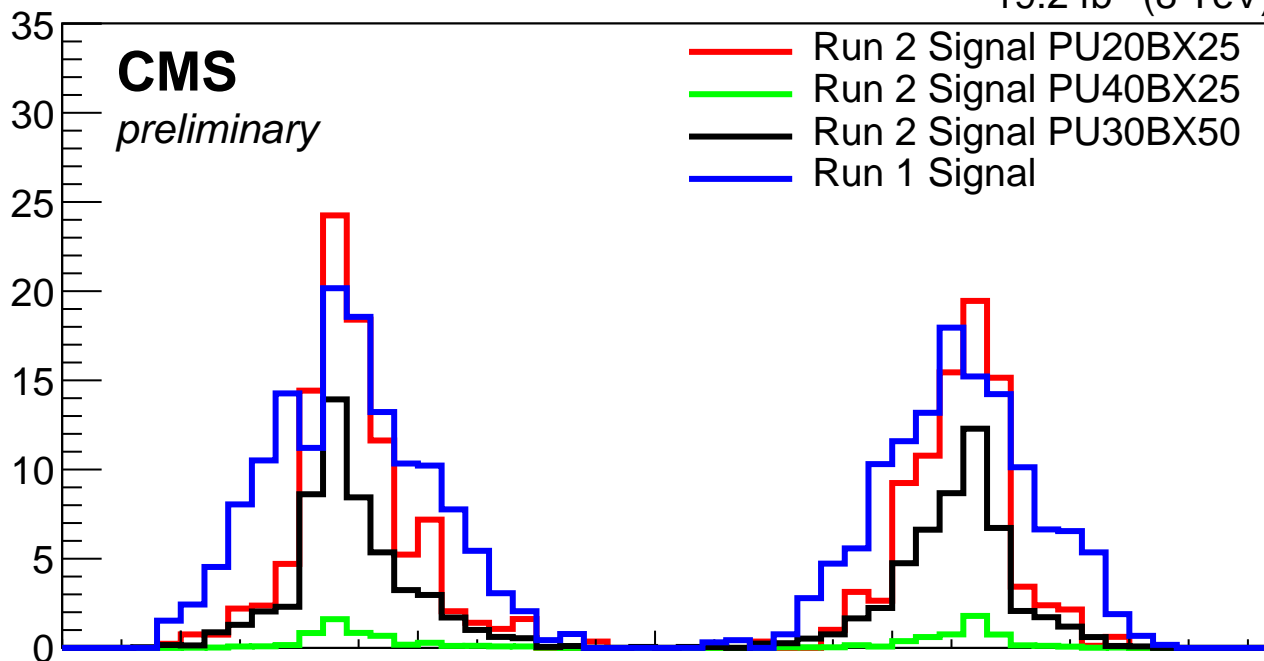
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg

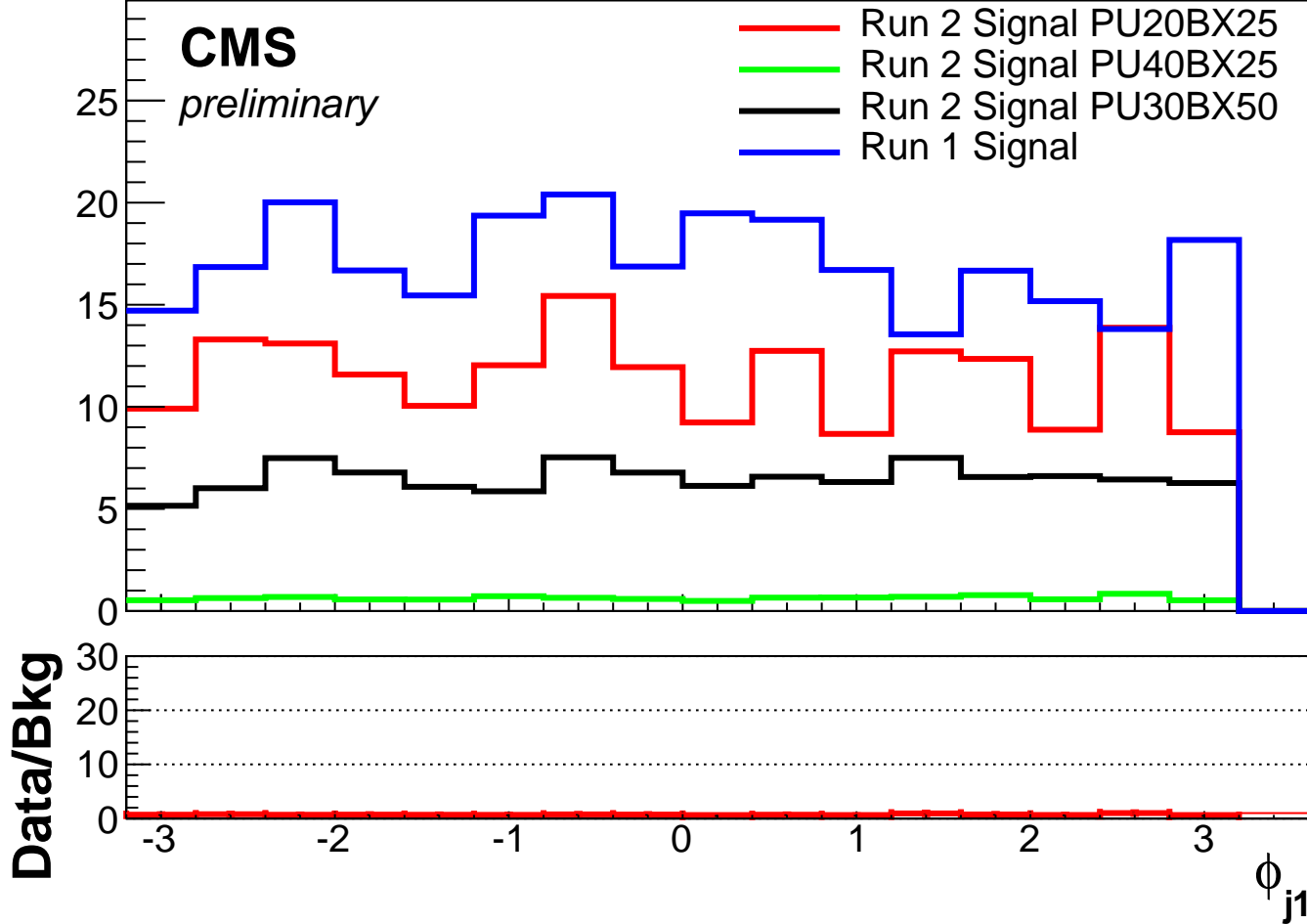


19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

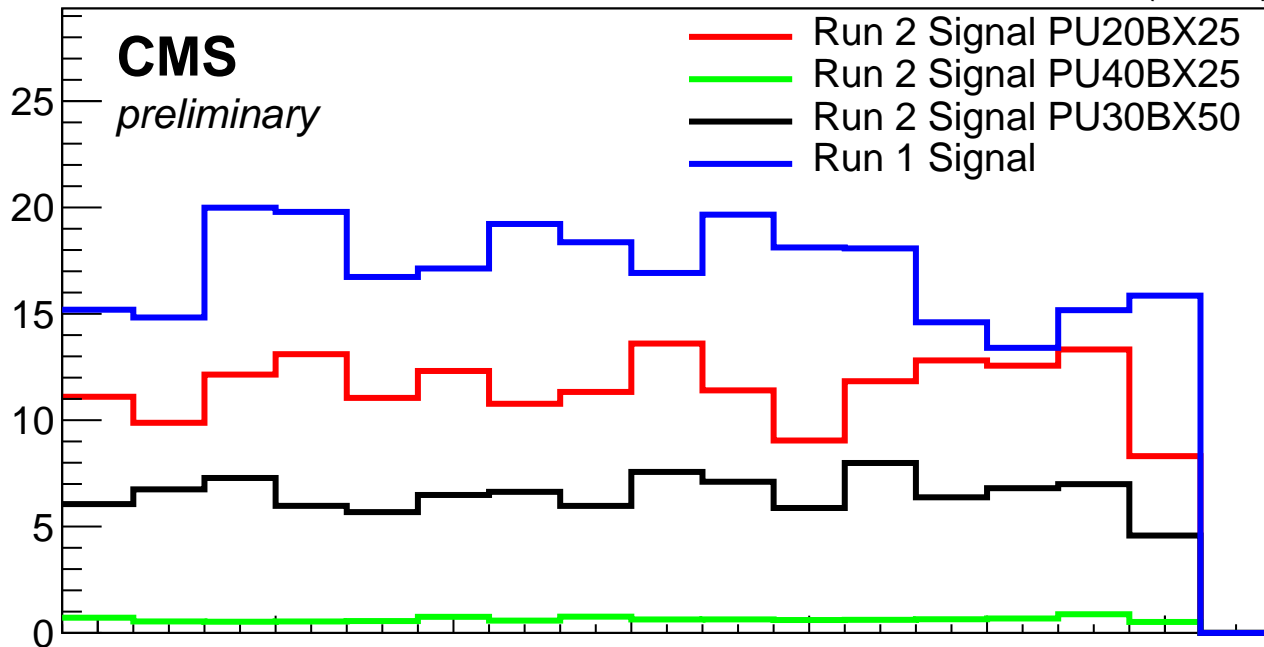


19.2 fb⁻¹ (8 TeV)

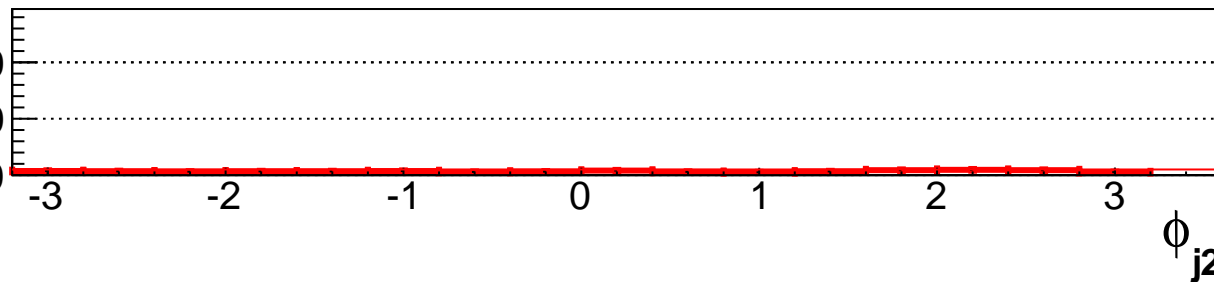
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



Data/Bkg

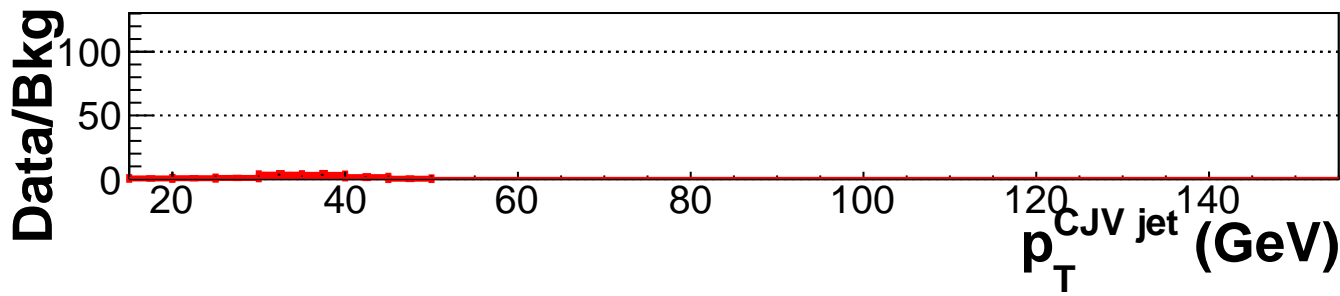
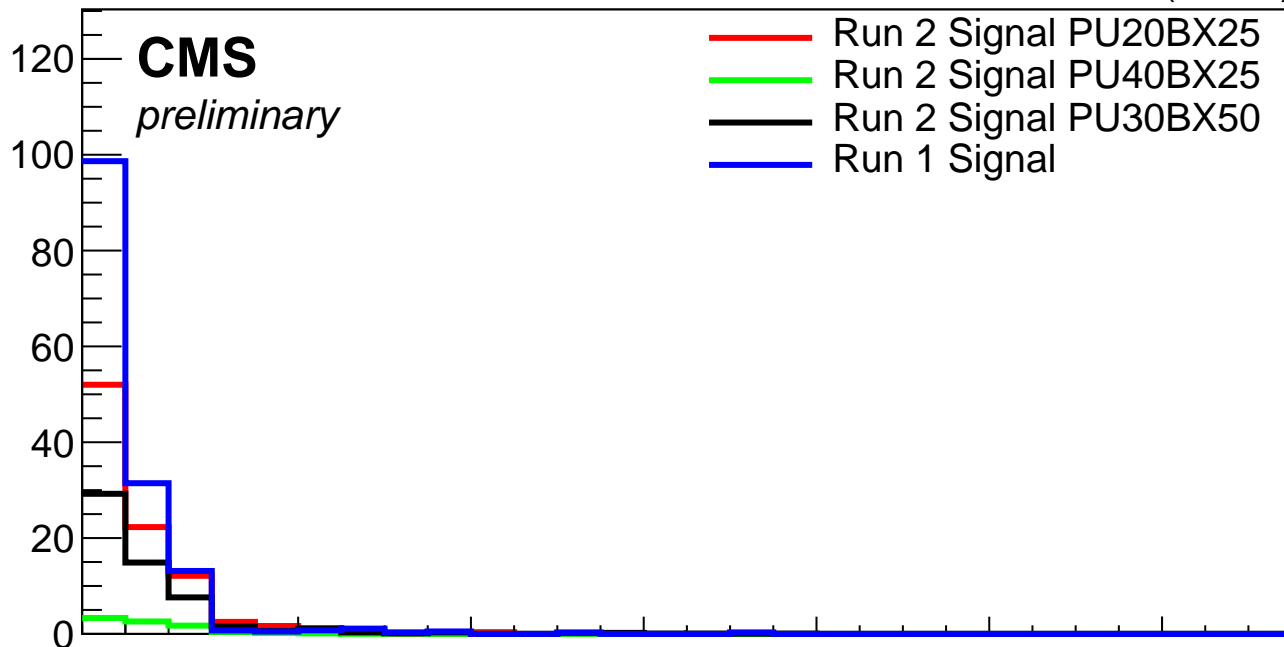


19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



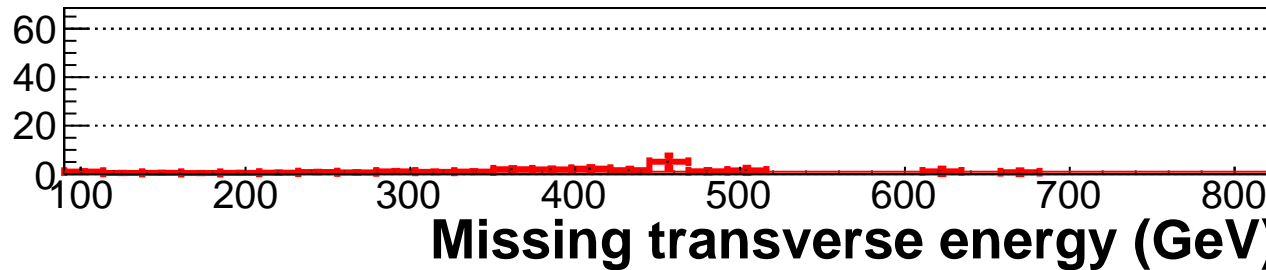
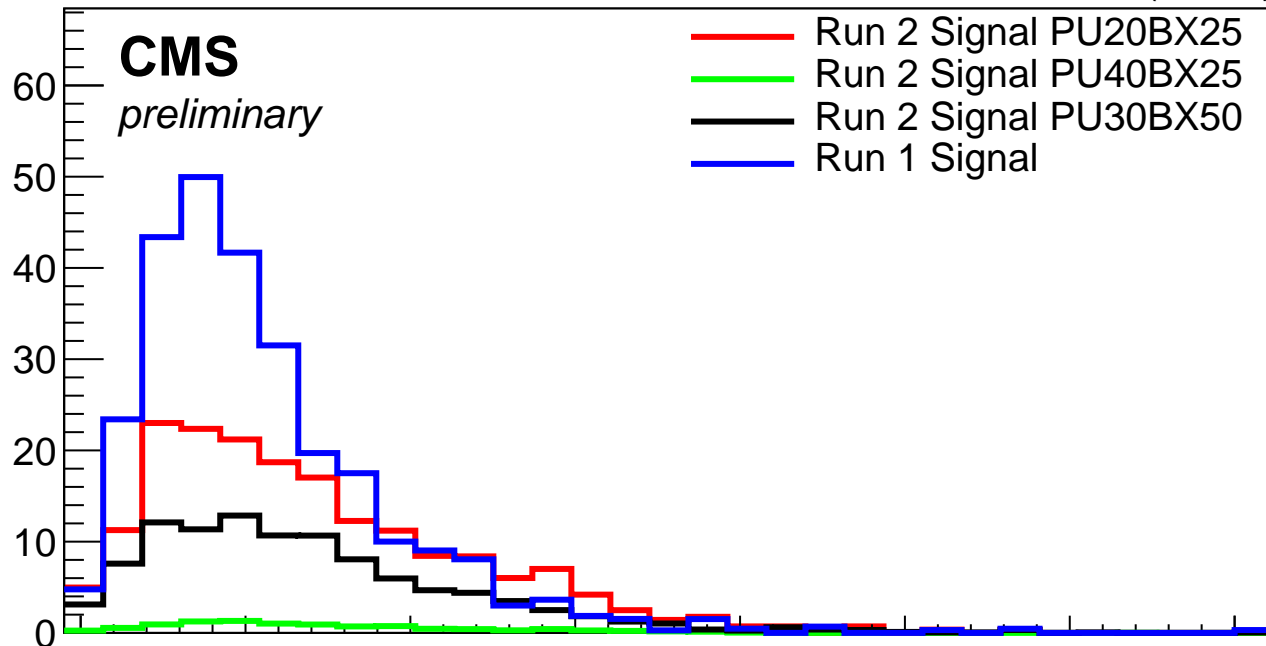
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg



19.2 fb⁻¹ (8 TeV)

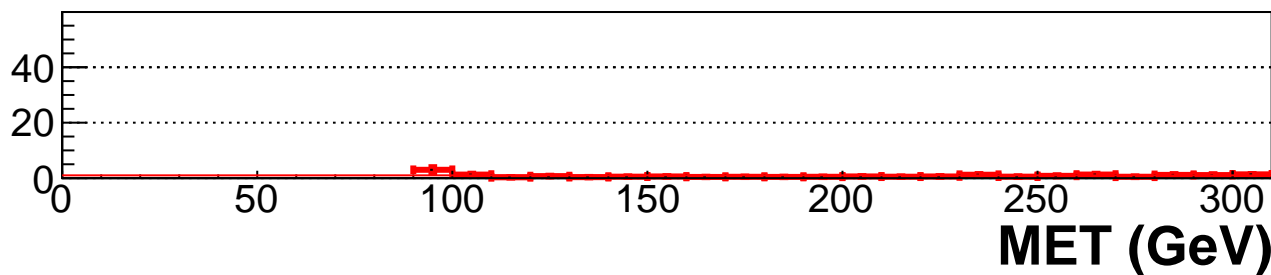
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

50
40
30
20
10
0

Data/Bkg



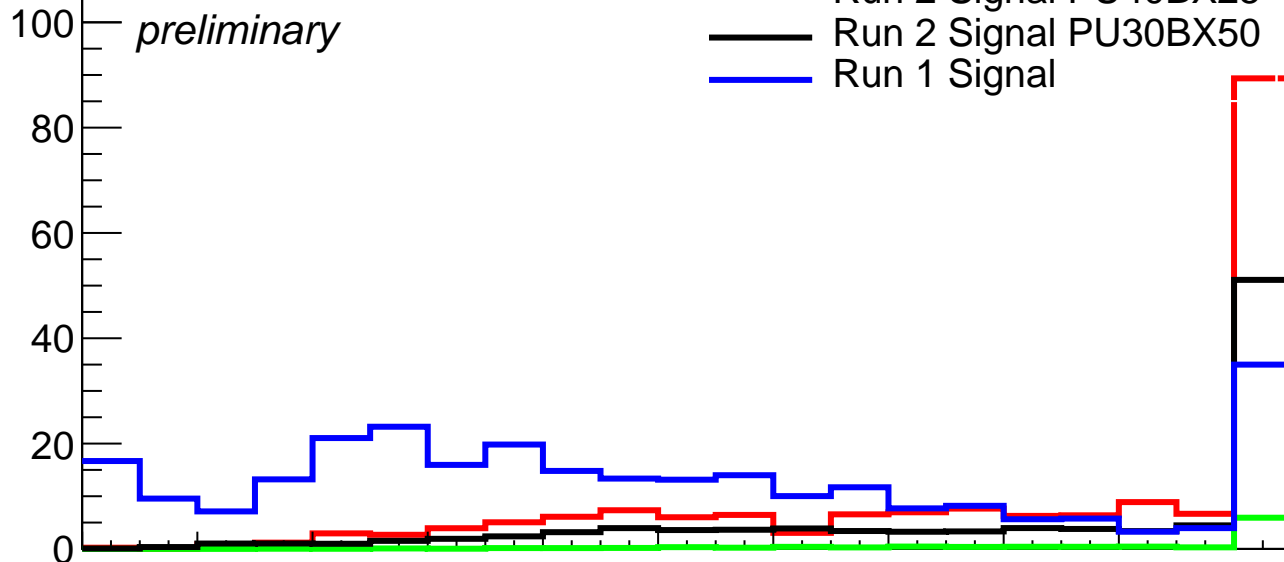
MET (GeV)

19.2 fb⁻¹ (8 TeV)

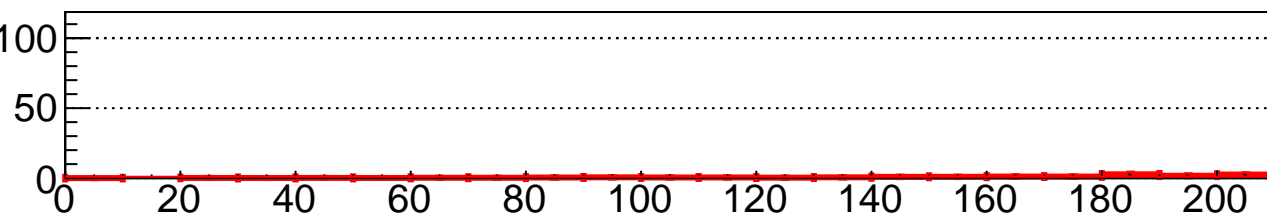
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



Data/Bkg



L1MET (GeV)

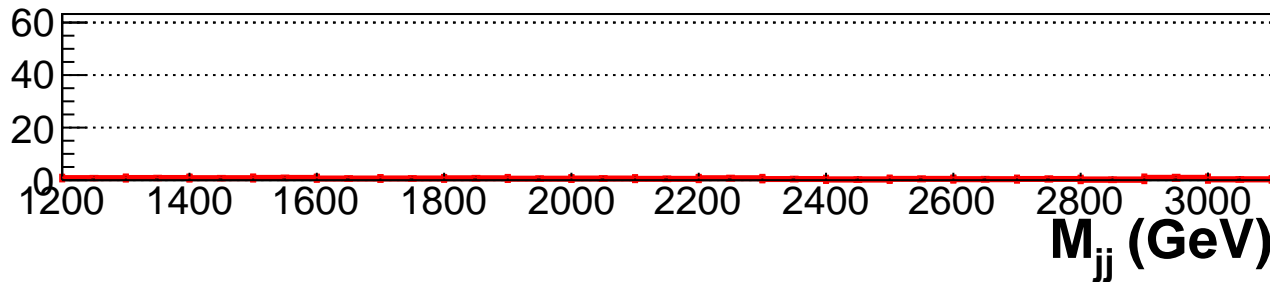
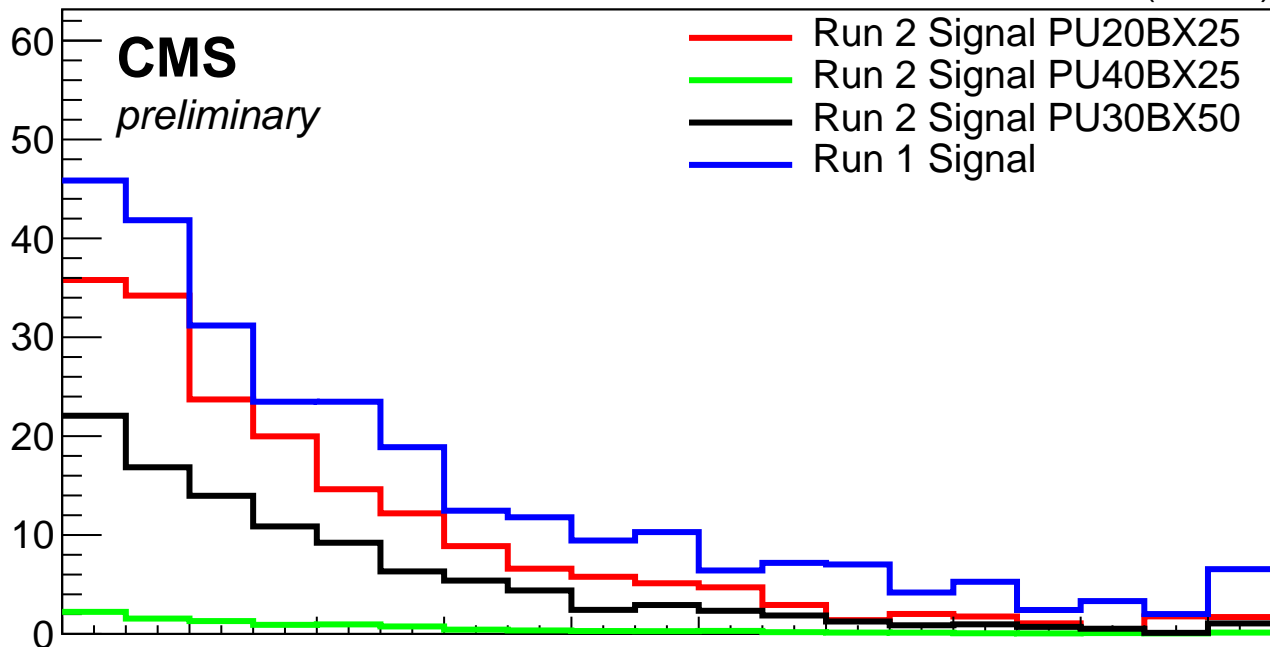
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg



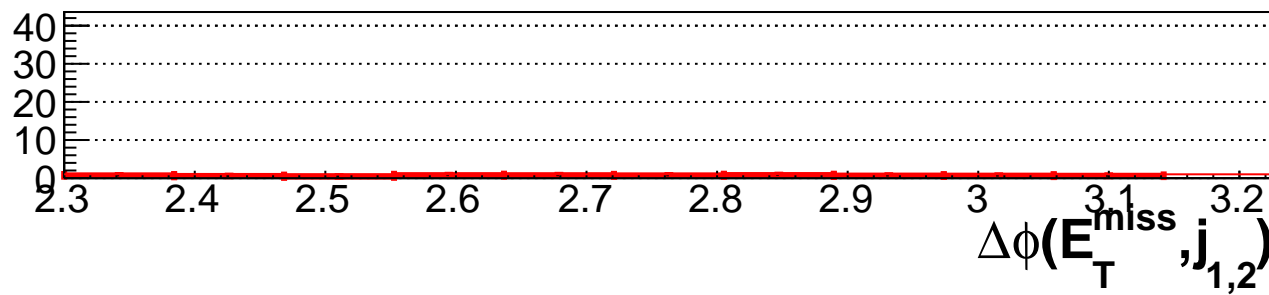
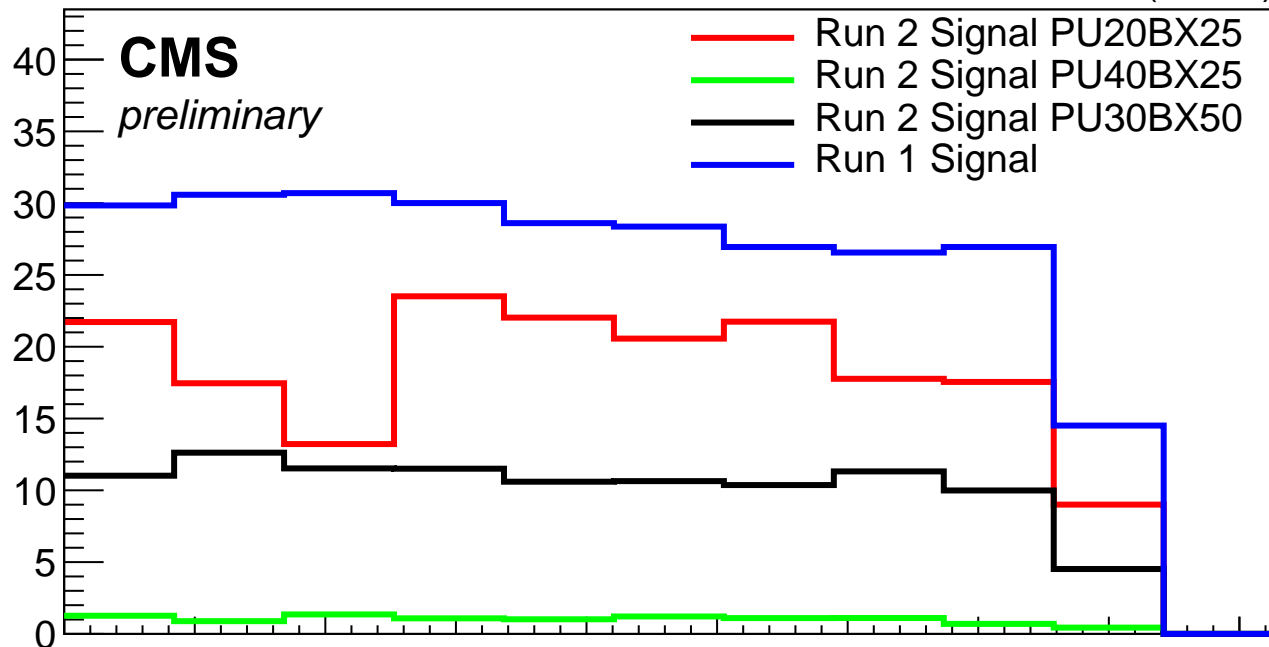
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg



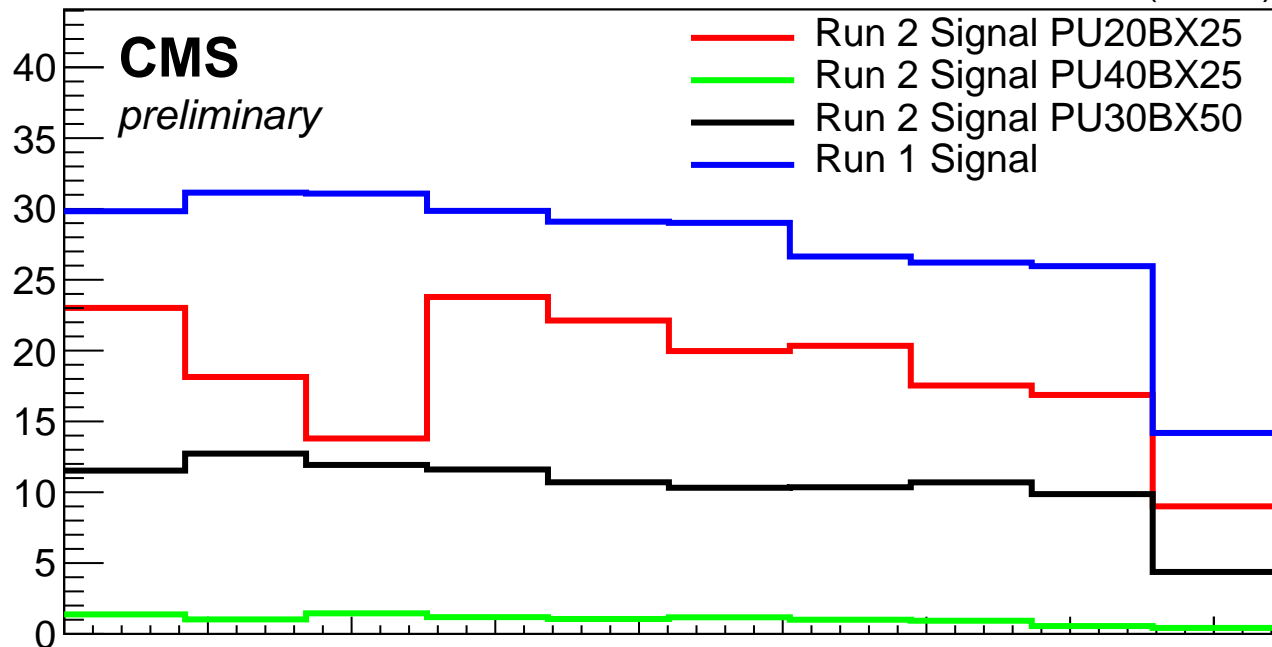
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg



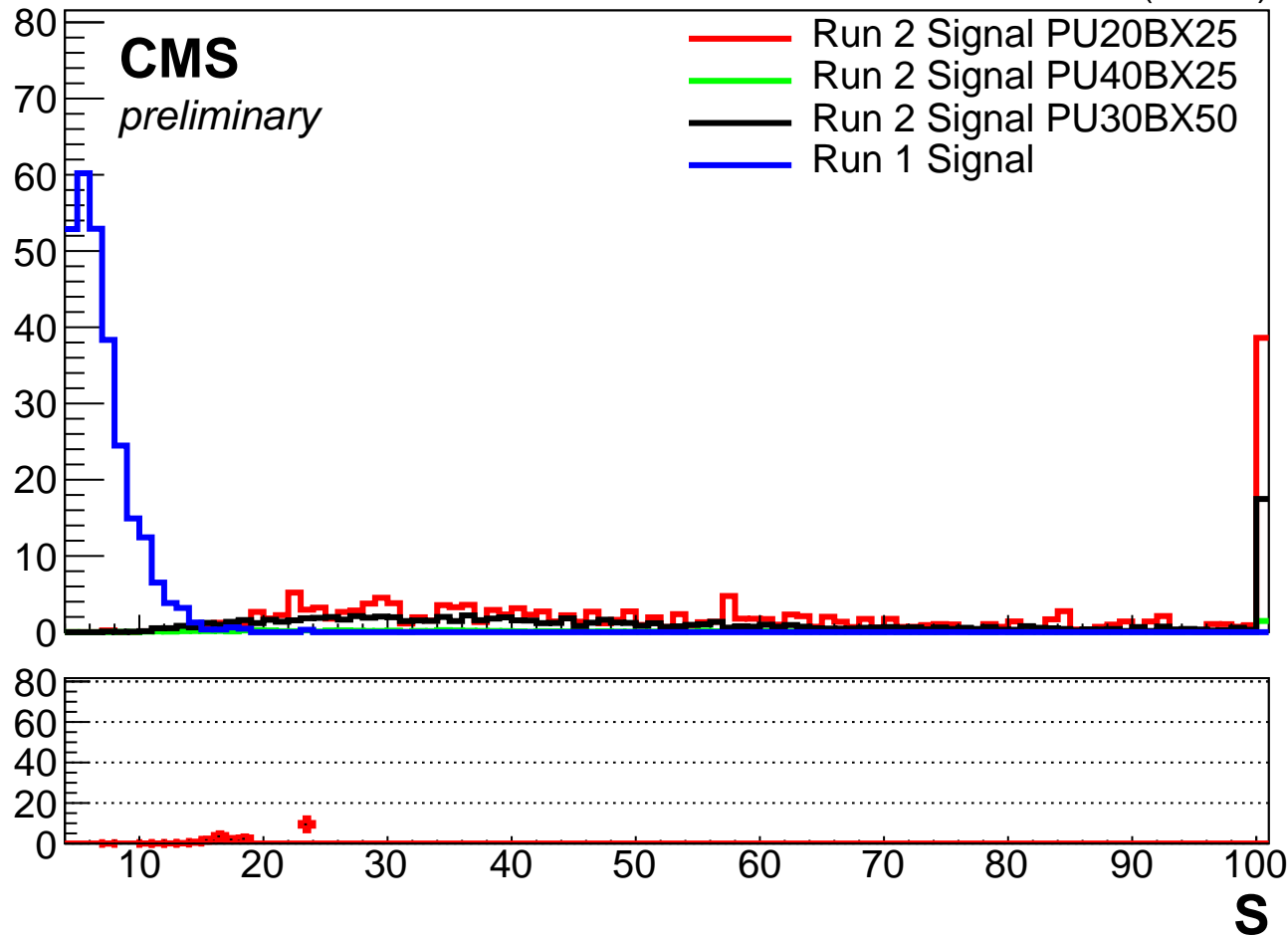
$\Delta\phi(E_T^{\text{miss}}, j)$

19.2 fb⁻¹ (8 TeV)

CMS
preliminary

— Run 2 Signal PU20BX25
— Run 2 Signal PU40BX25
— Run 2 Signal PU30BX50
— Run 1 Signal

Data/Bkg



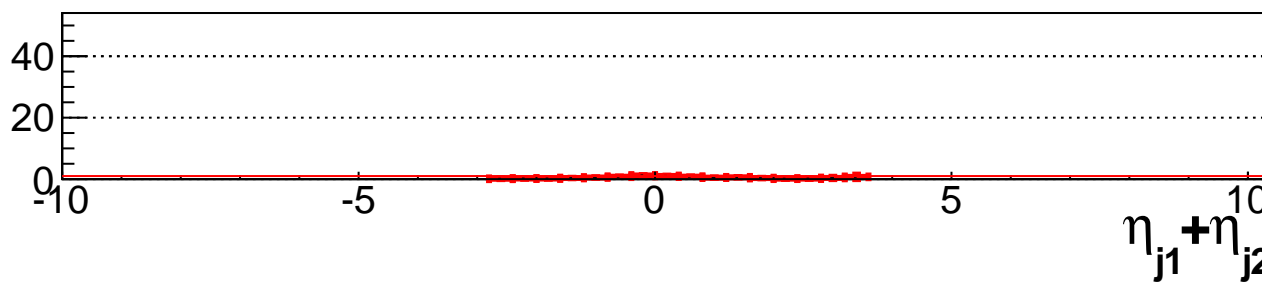
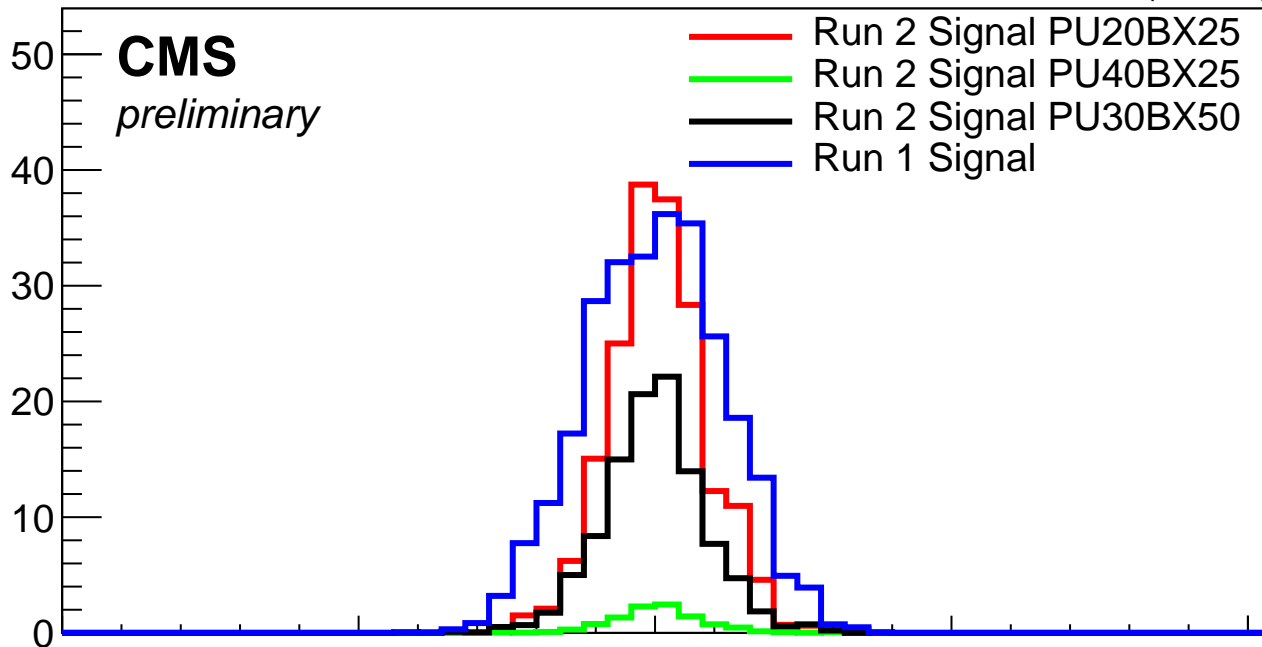
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg



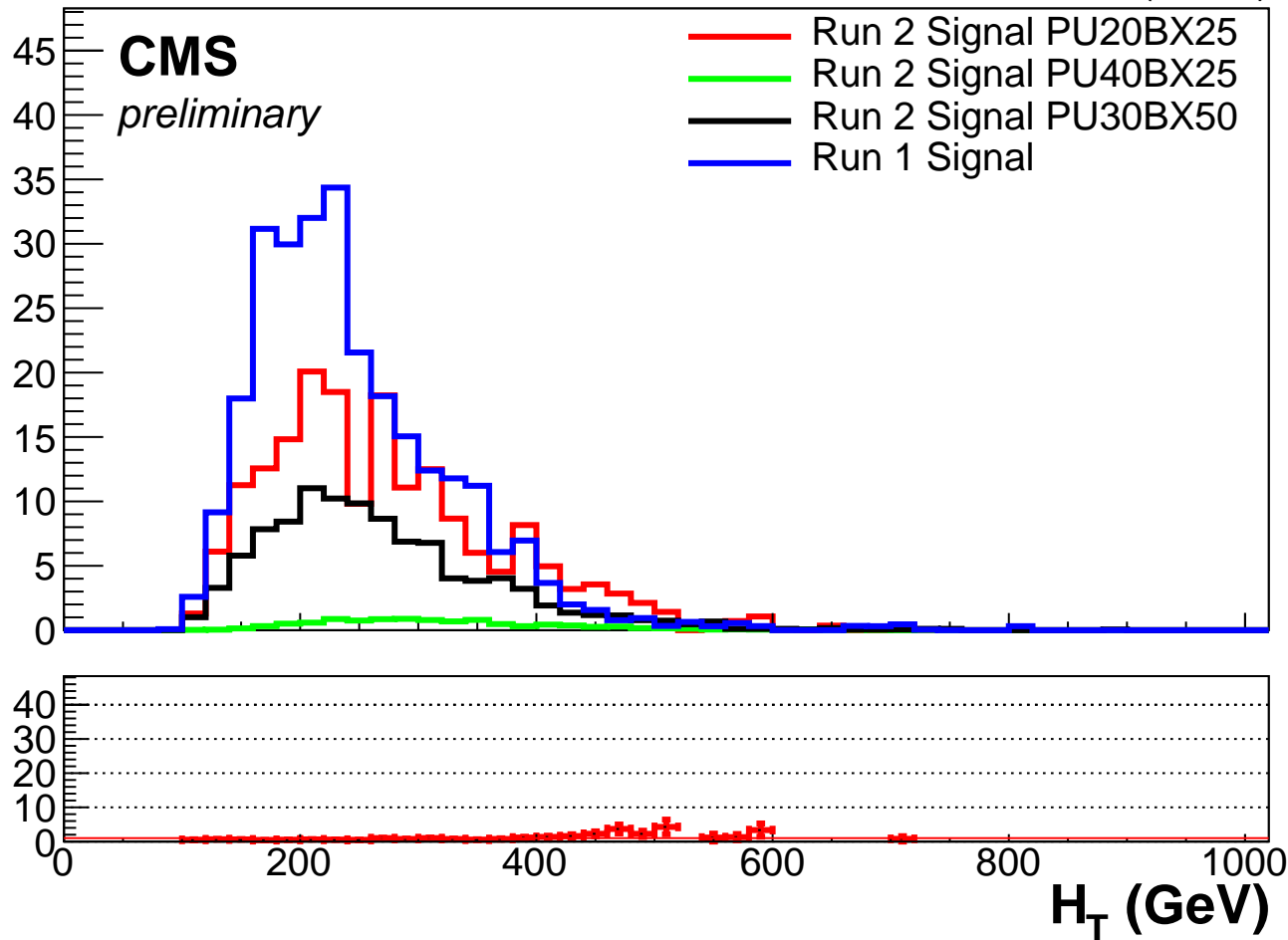
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg



19.2 fb⁻¹ (8 TeV)

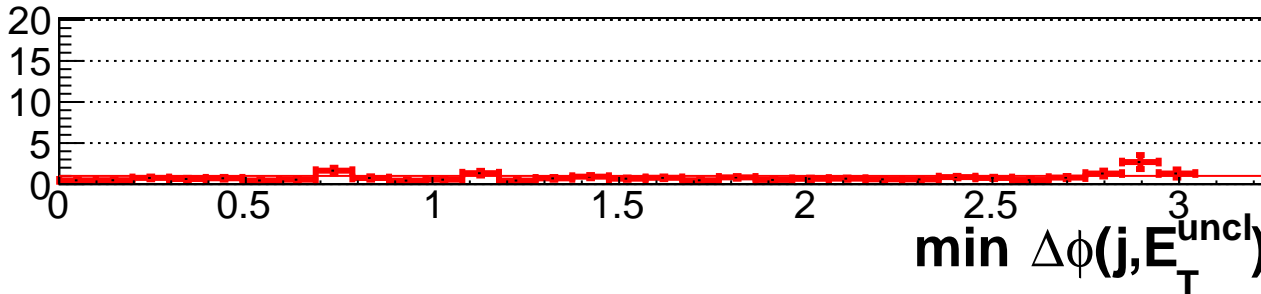
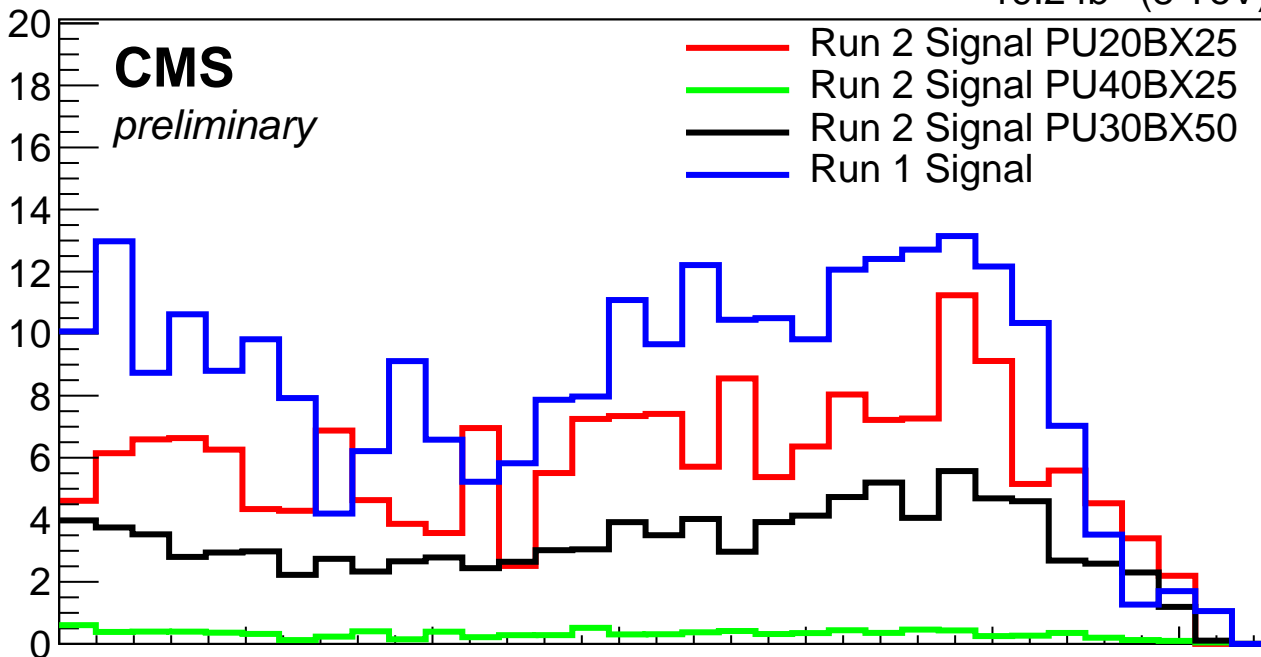
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg

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



19.2 fb⁻¹ (8 TeV)

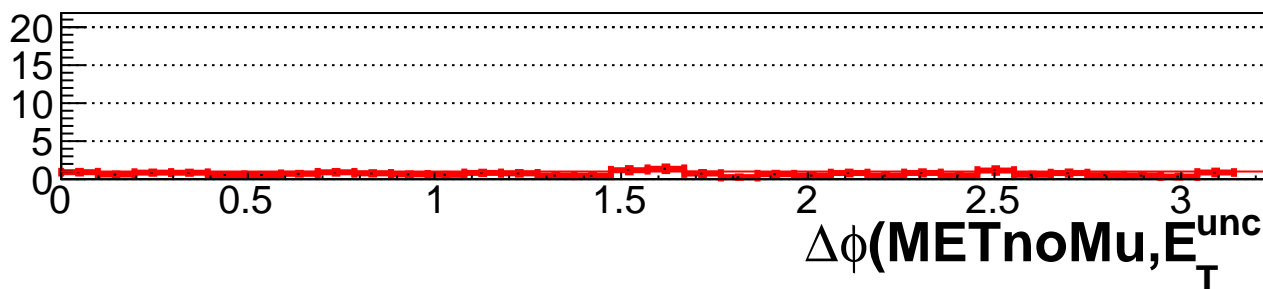
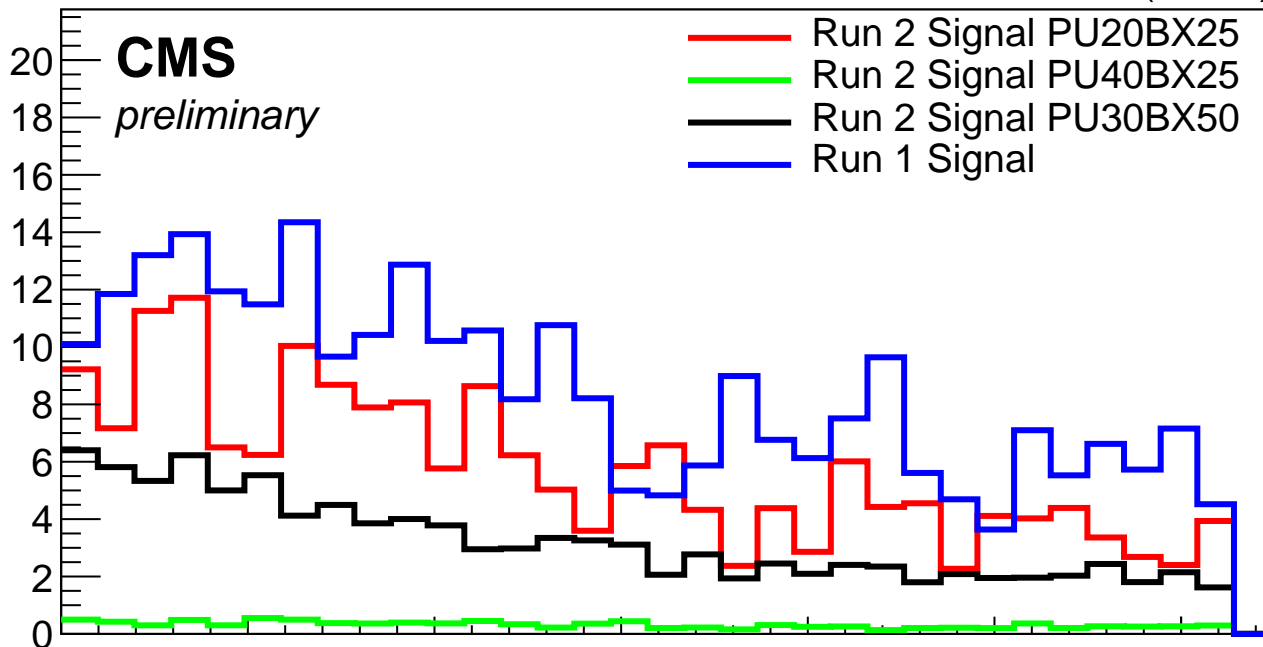
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg

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

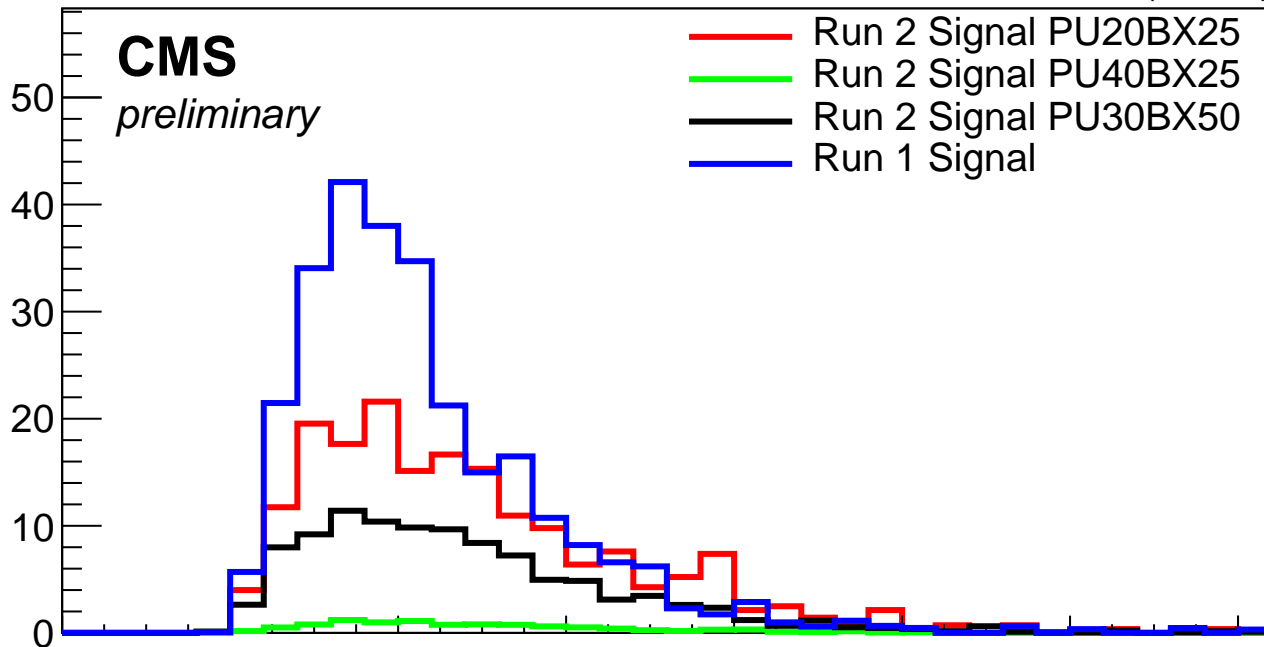


19.2 fb⁻¹ (8 TeV)

CMS

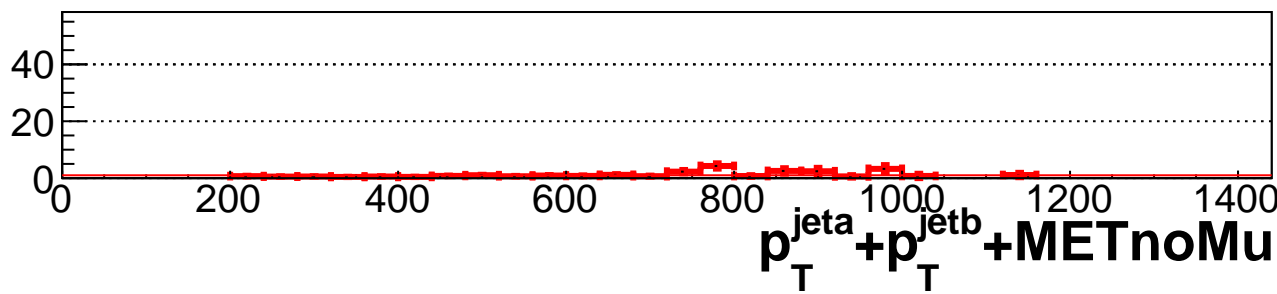
preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



Data/Bkg

$p_T^{\text{jeta}} + p_T^{\text{jetb}} + \text{METnoMu}$



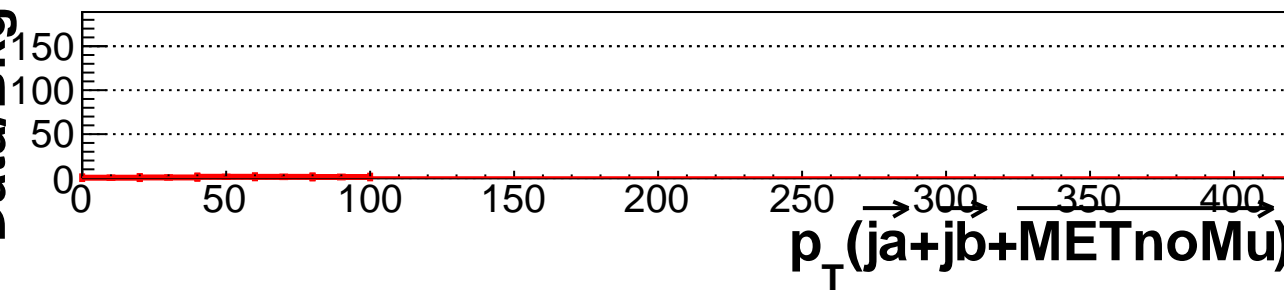
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg



19.2 fb⁻¹ (8 TeV)

CMS

preliminary

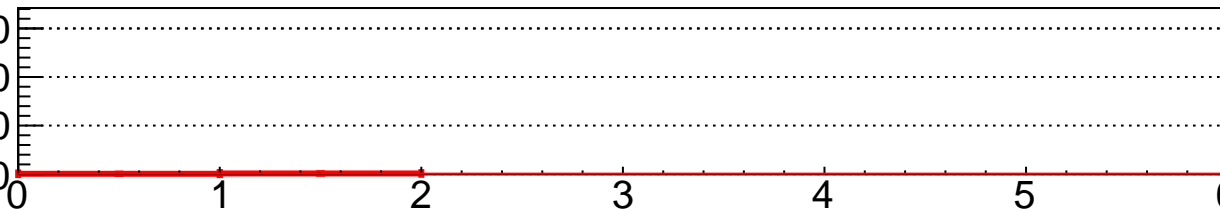
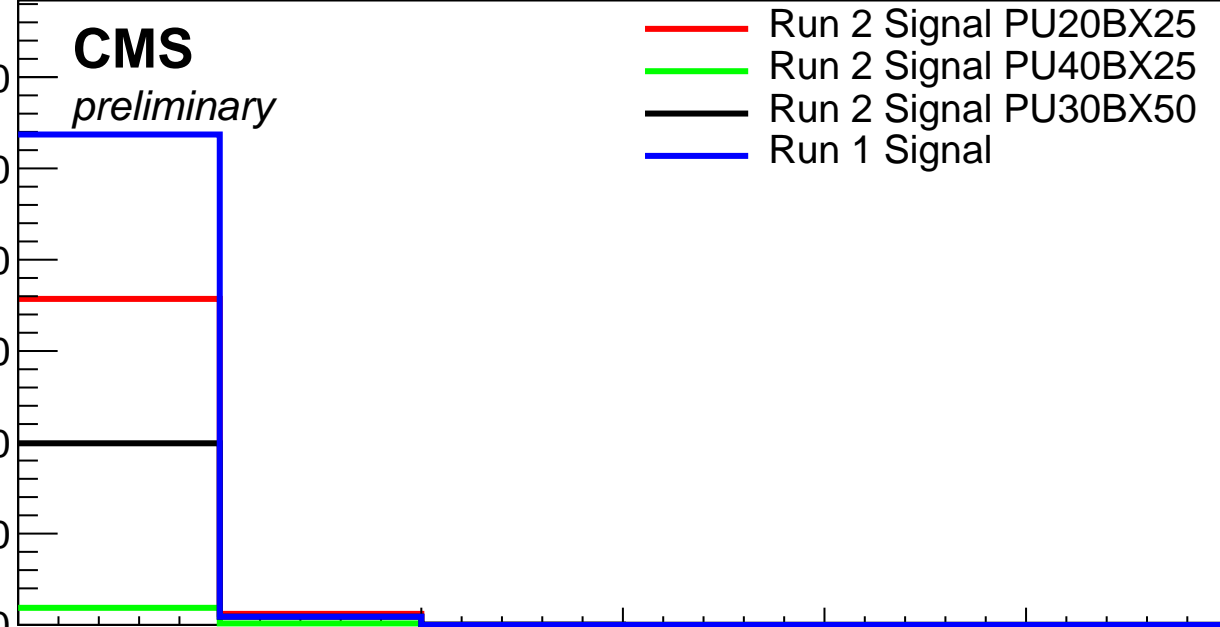
- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

300
250
200
150
100
50
0

Data/Bkg

300
200
100
0

CJV jets (30 GeV)

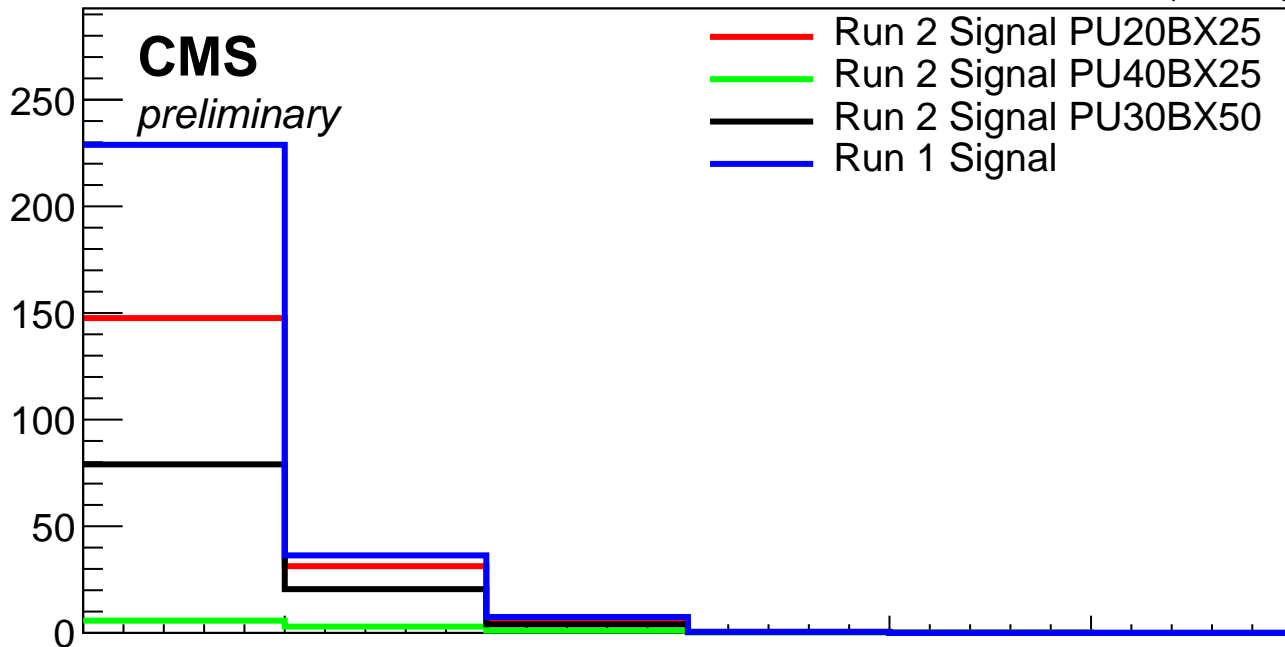


19.2 fb⁻¹ (8 TeV)

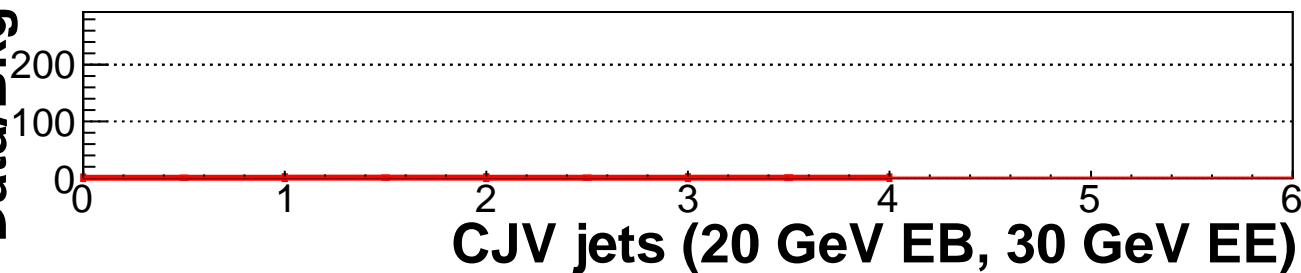
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



Data/Bkg

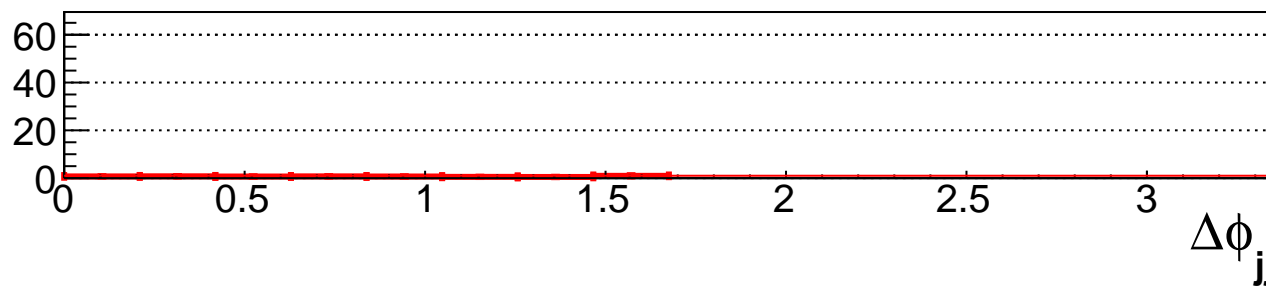
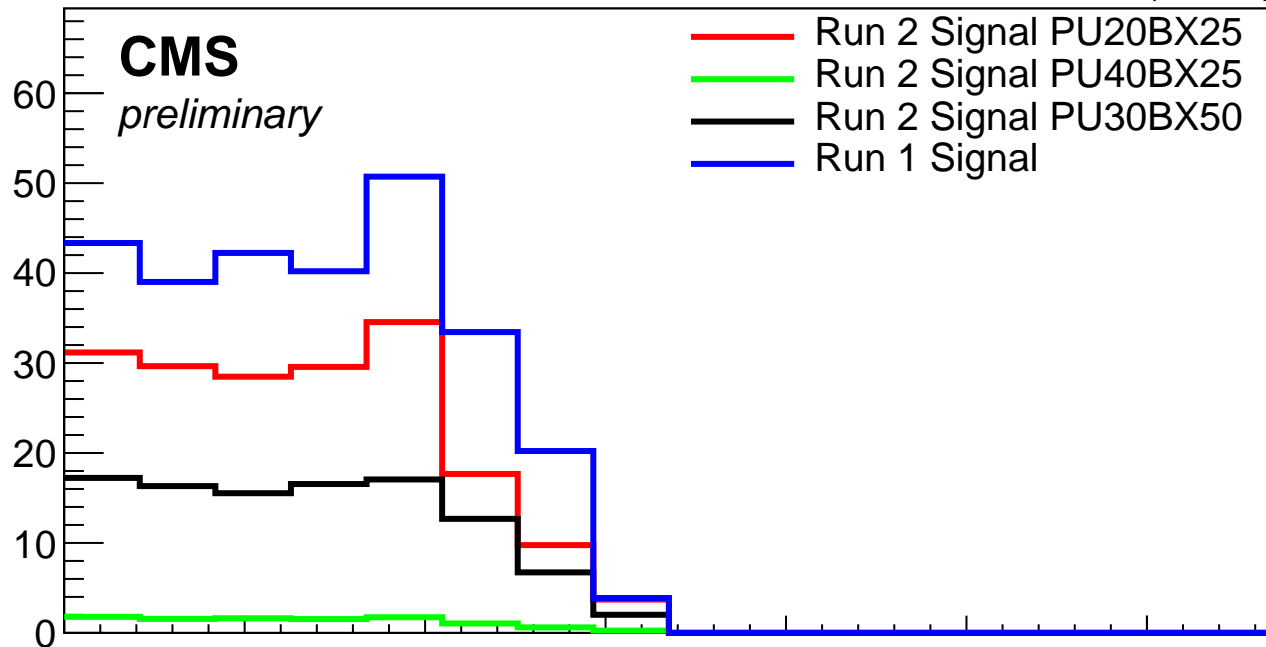


19.2 fb⁻¹ (8 TeV)

CMS
preliminary

— Run 2 Signal PU20BX25
— Run 2 Signal PU40BX25
— Run 2 Signal PU30BX50
— Run 1 Signal

Data/Bkg



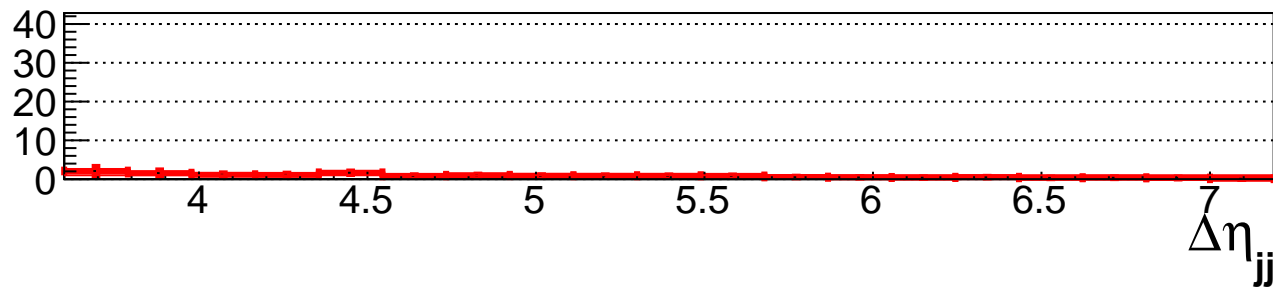
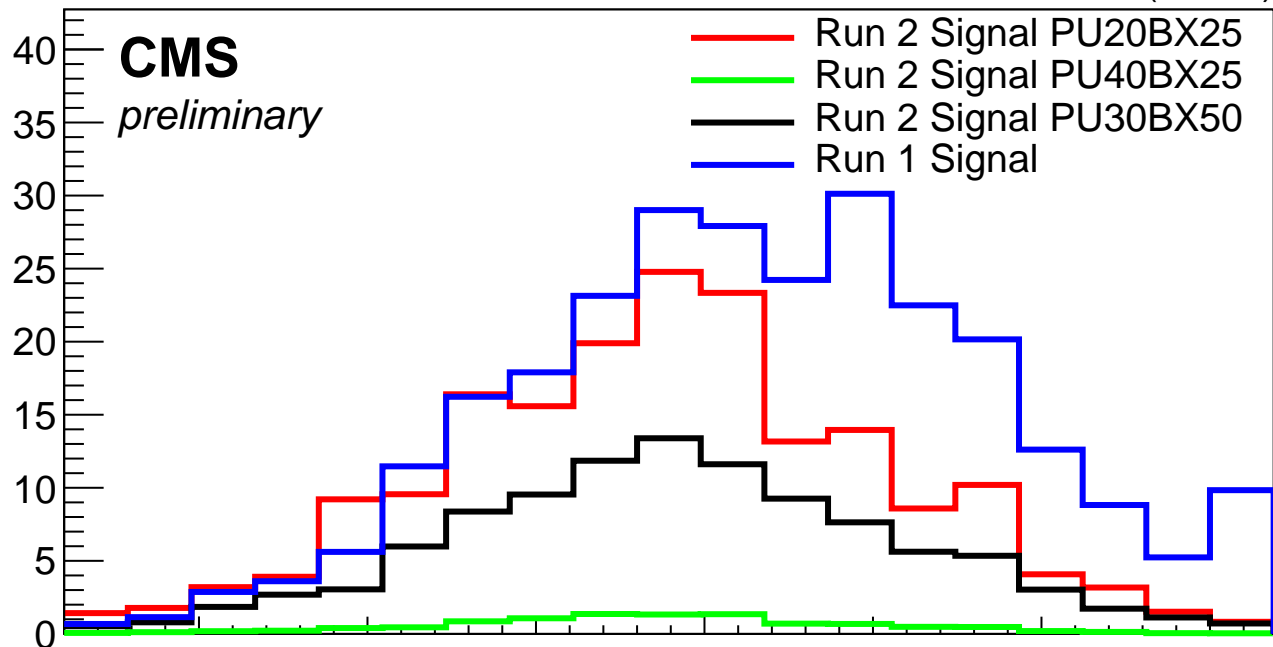
19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg

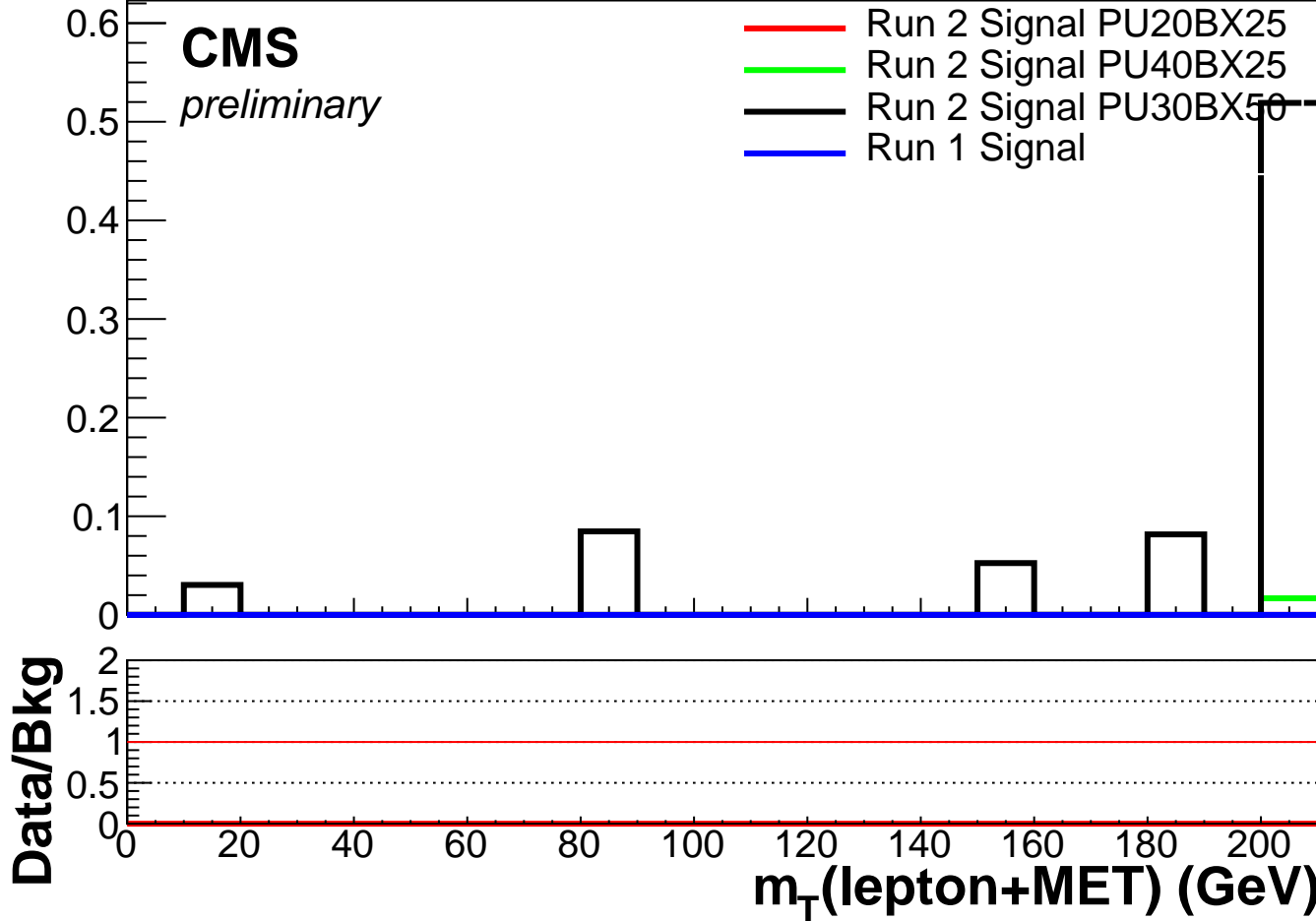


19.2 fb⁻¹ (8 TeV)

CMS

preliminary

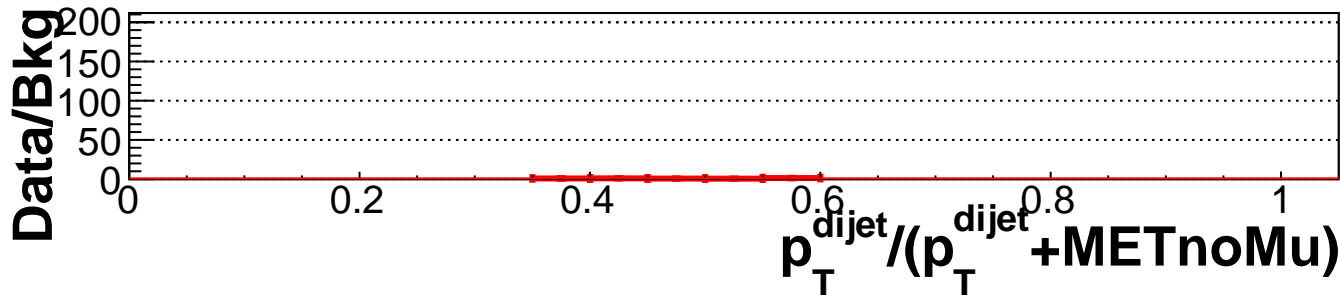
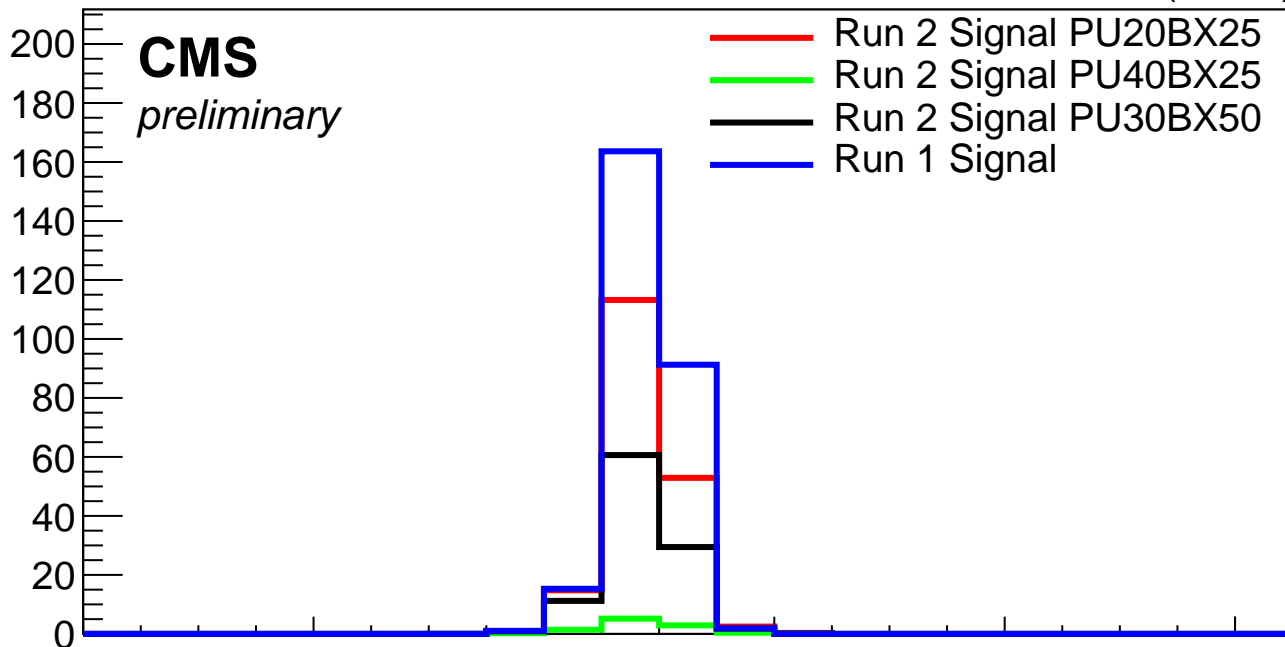
- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



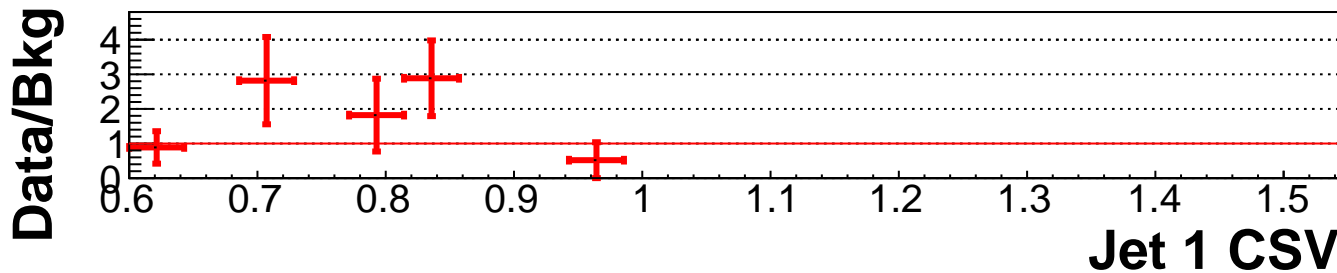
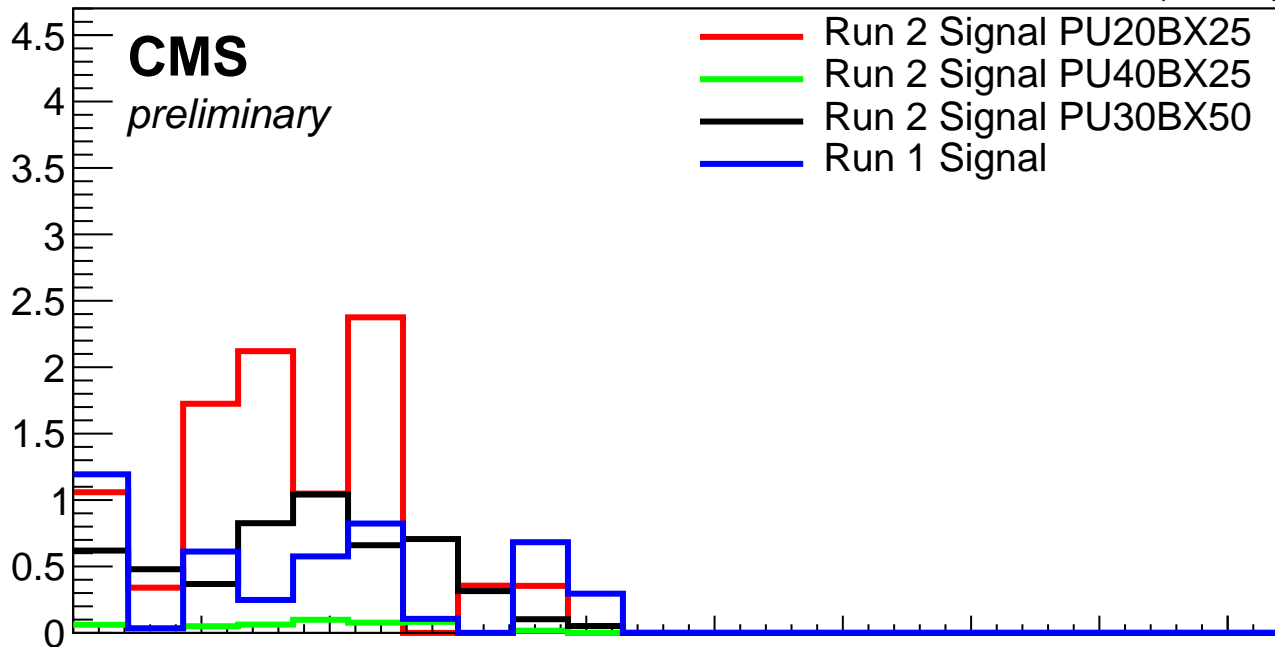
19.2 fb⁻¹ (8 TeV)

CMS

preliminary



19.2 fb⁻¹ (8 TeV)

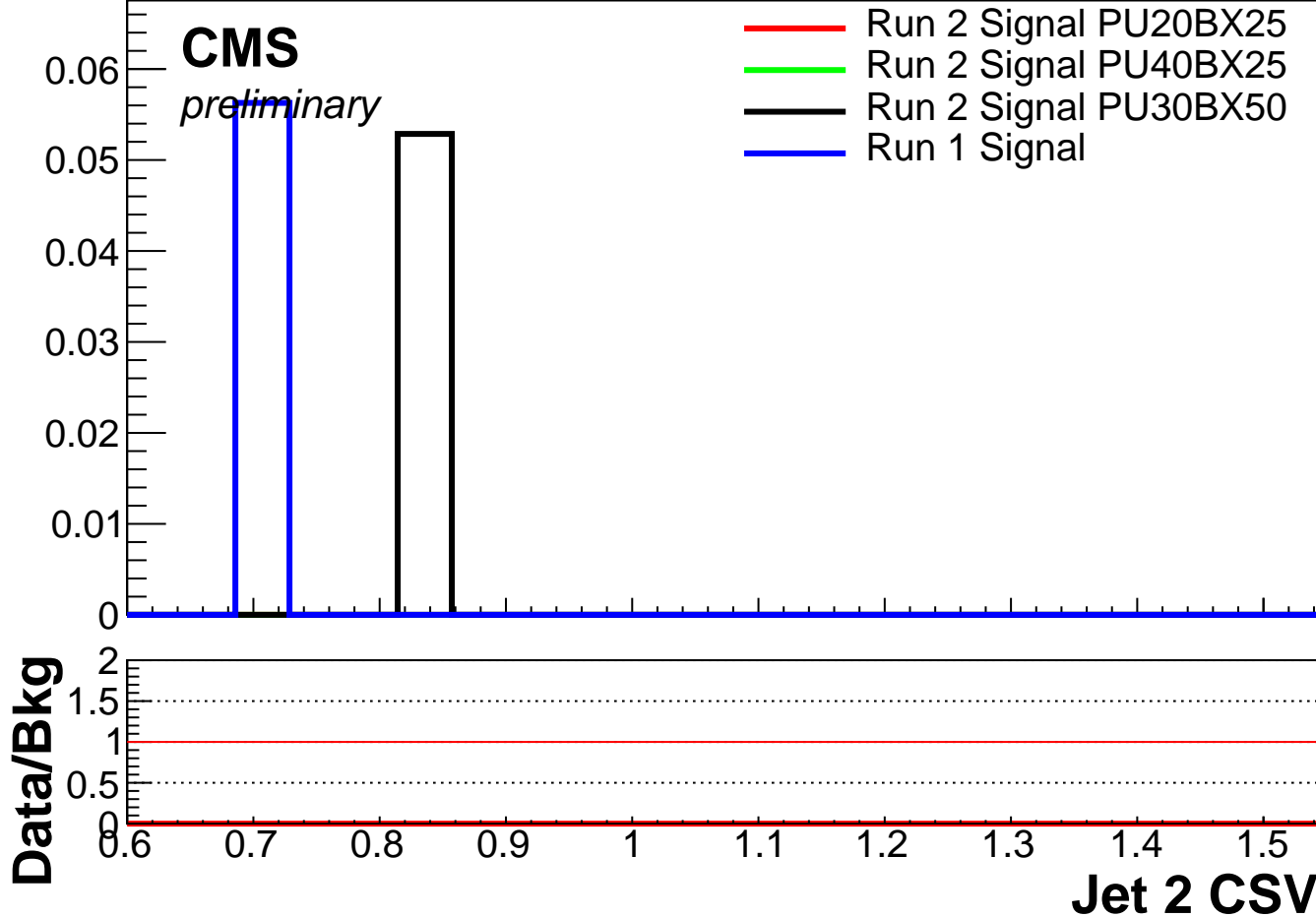


19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

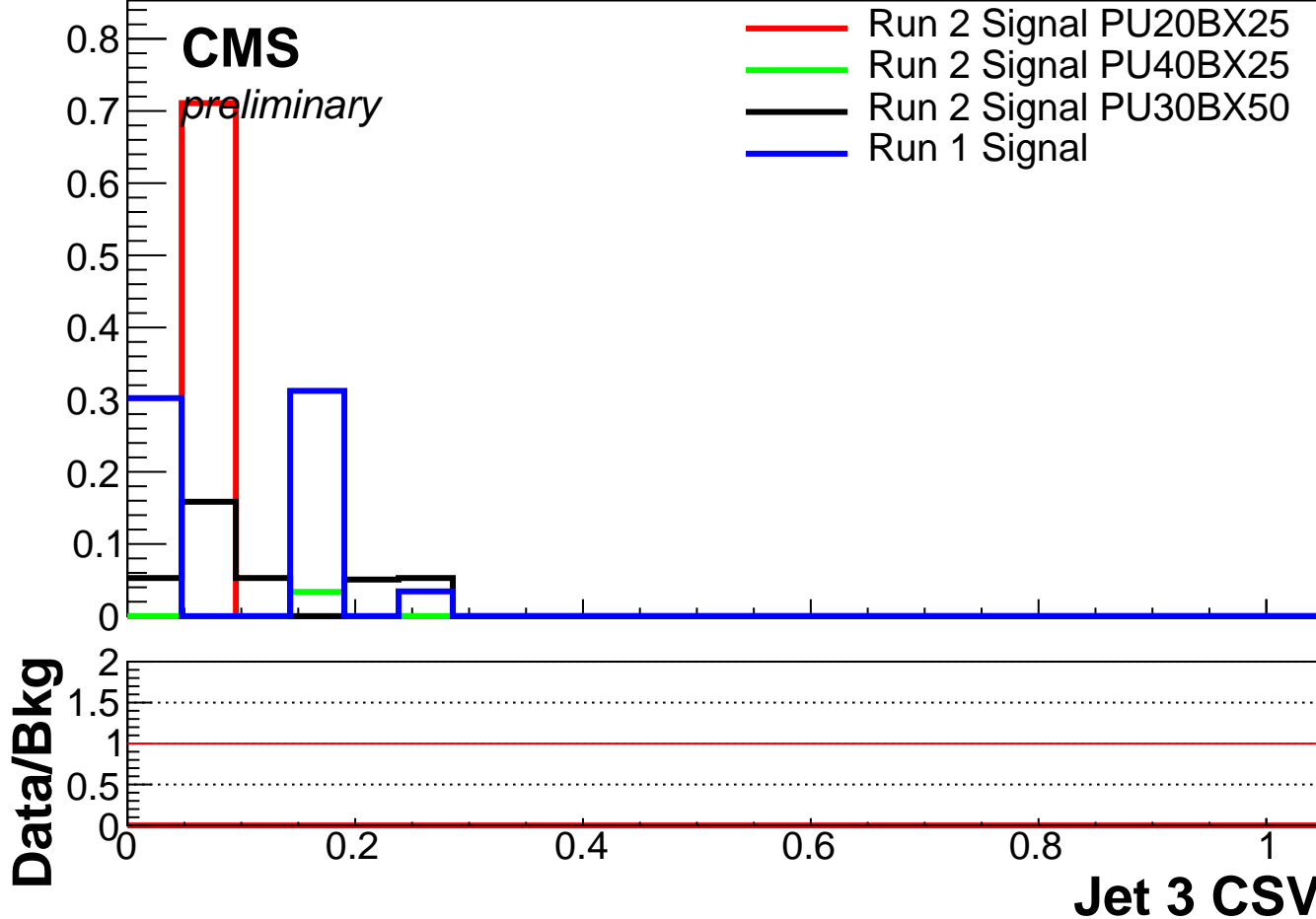


19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

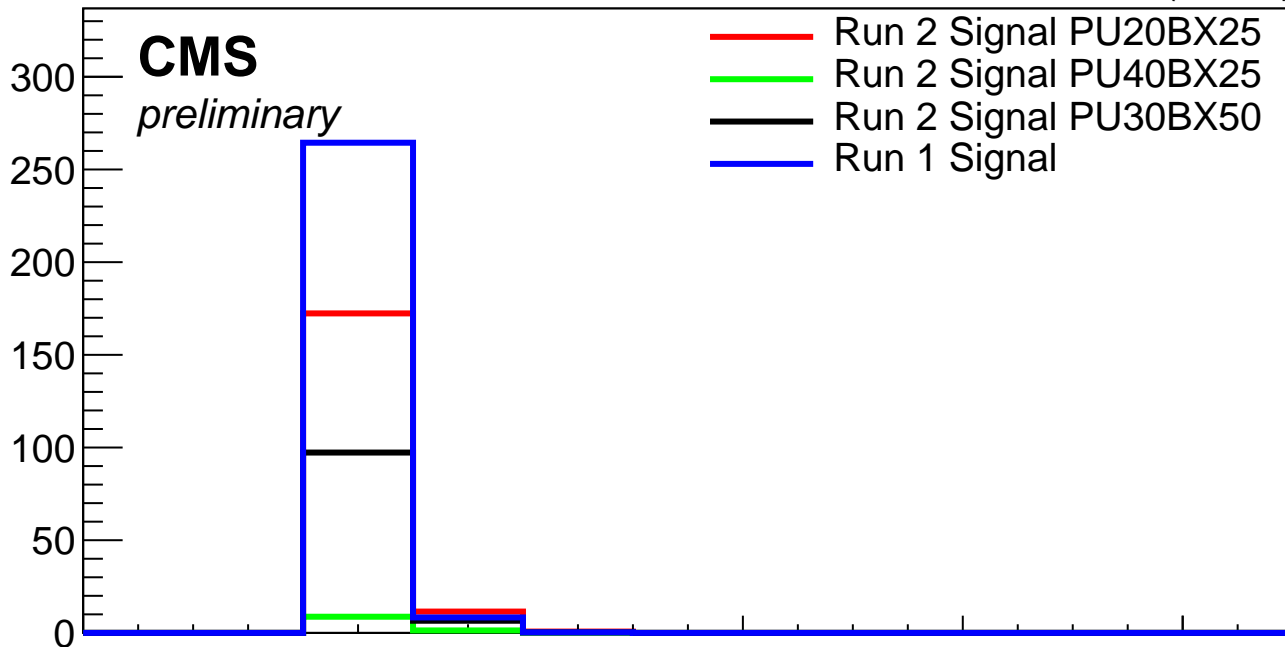


19.2 fb⁻¹ (8 TeV)

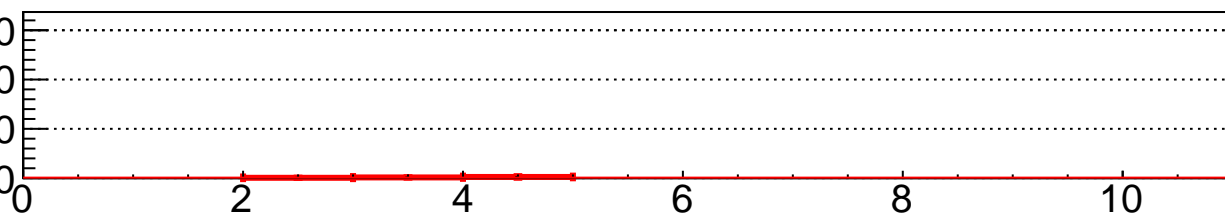
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



Data/Bkg



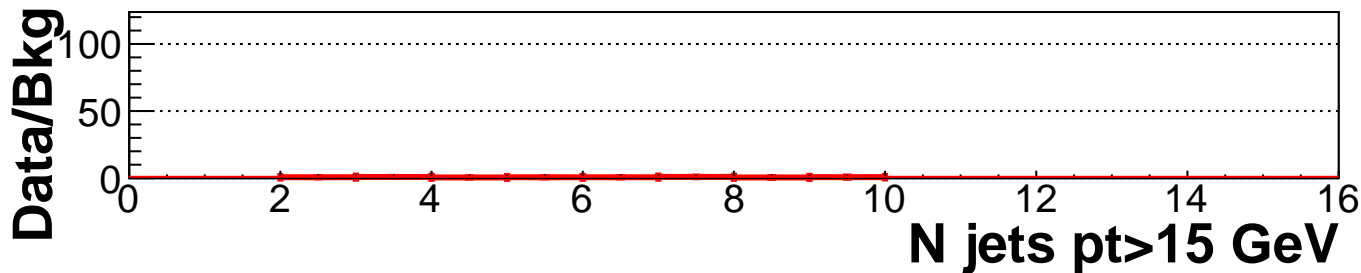
N jets pt>30 GeV

19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal



19.2 fb⁻¹ (8 TeV)

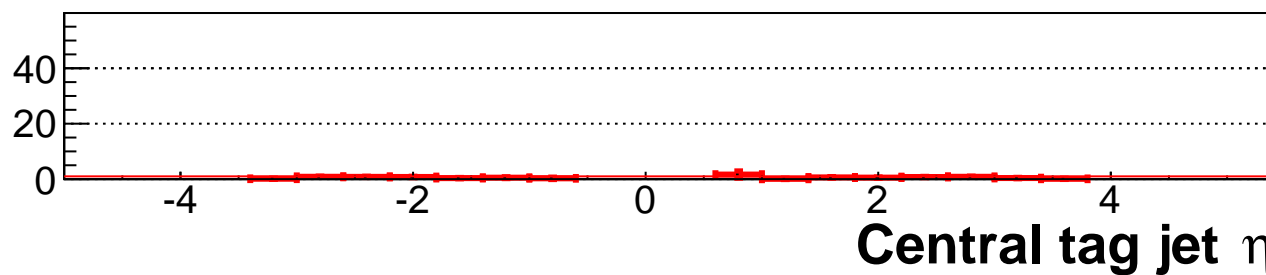
CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

50
40
30
20
10
0

Data/Bkg



19.2 fb⁻¹ (8 TeV)

CMS

preliminary

- Run 2 Signal PU20BX25
- Run 2 Signal PU40BX25
- Run 2 Signal PU30BX50
- Run 1 Signal

Data/Bkg

Forward tag jet η

