

W W + 2 jets Analysis



THE UNIVERSITY
of
WISCONSIN
M A D I S O N



Will Parker

University of Wisconsin – Madison

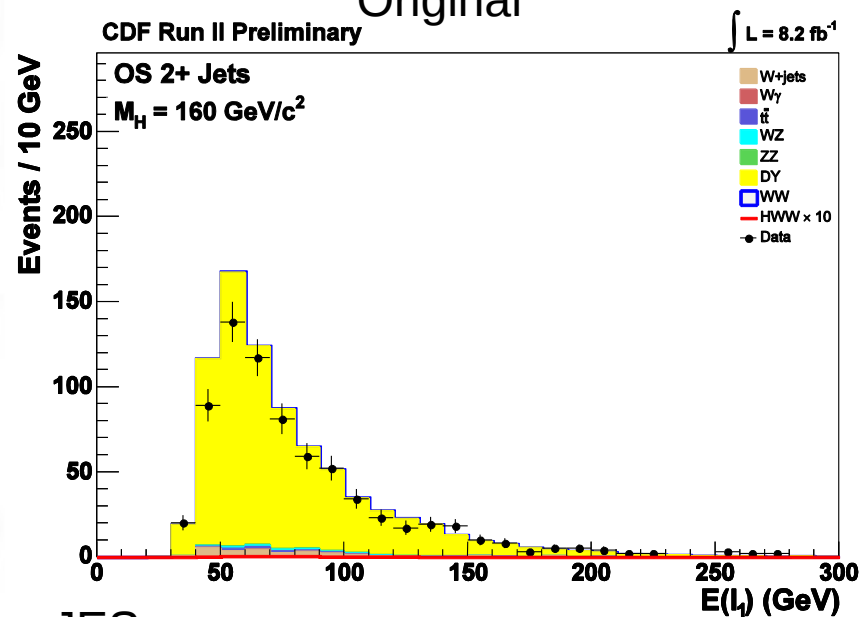
01/23/12

Leptons

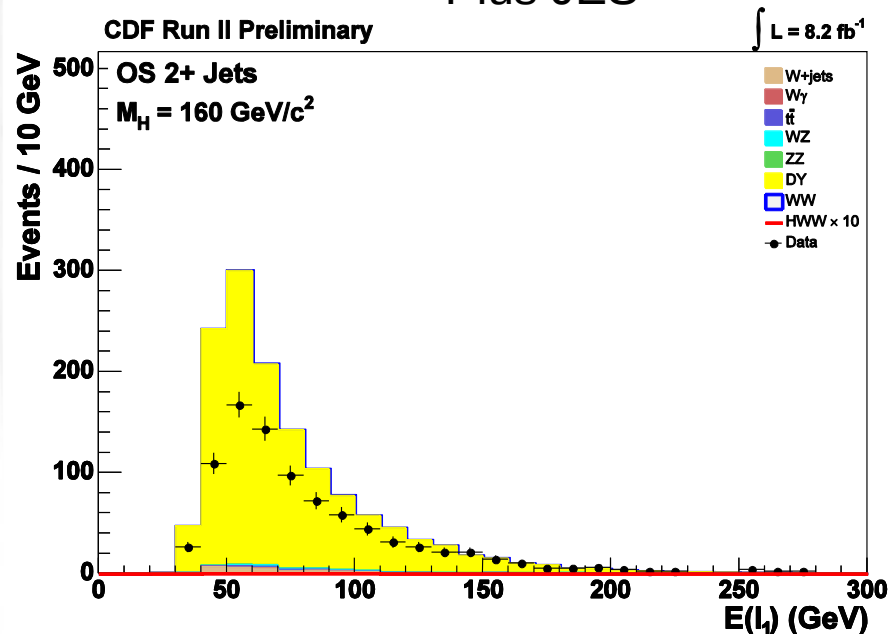
- 3. $E(I1)$
- 4. $E\eta(I1)$
- 5. $E(I2)$
- 6. $E\eta(I2)$
- 7. $M(II)$
- 8. $dR(II)$**

E(l1)

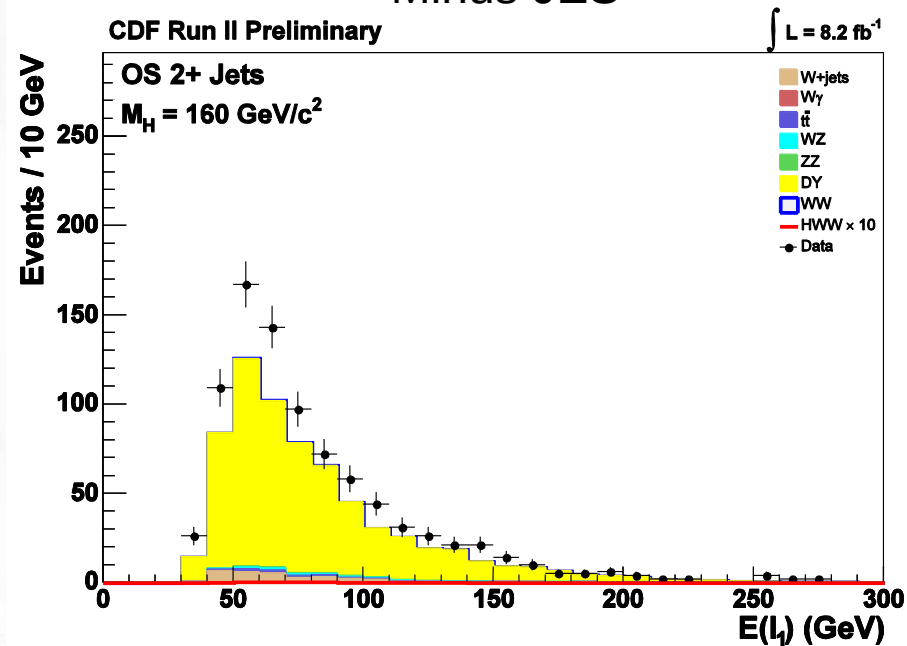
Original



Plus JES

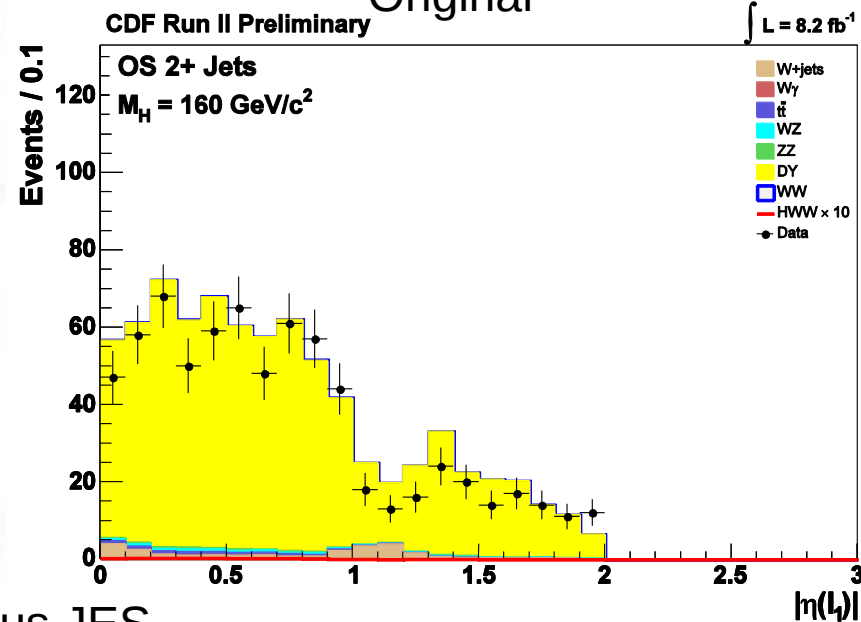


Minus JES

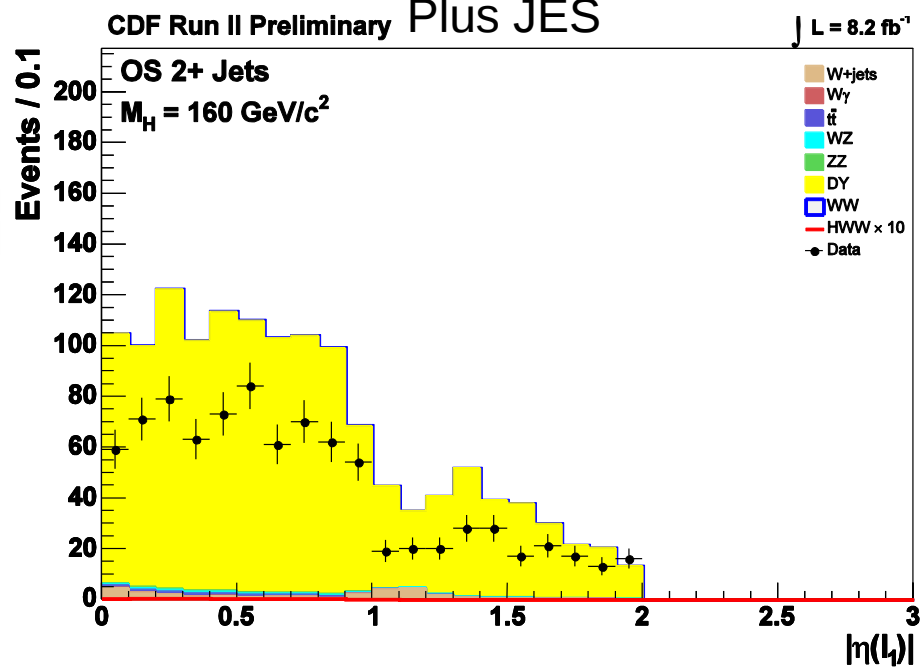


Eta(l1)

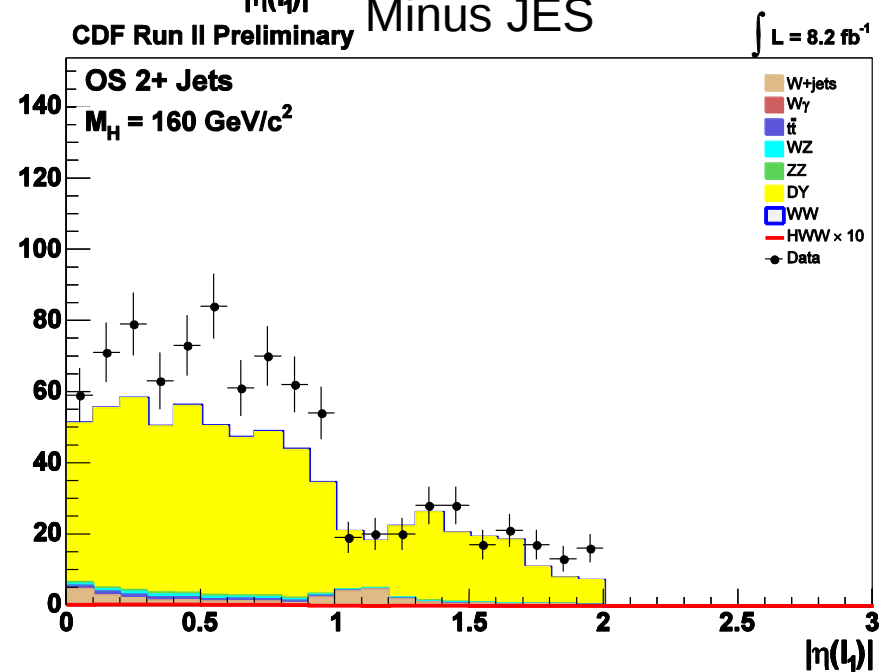
Original



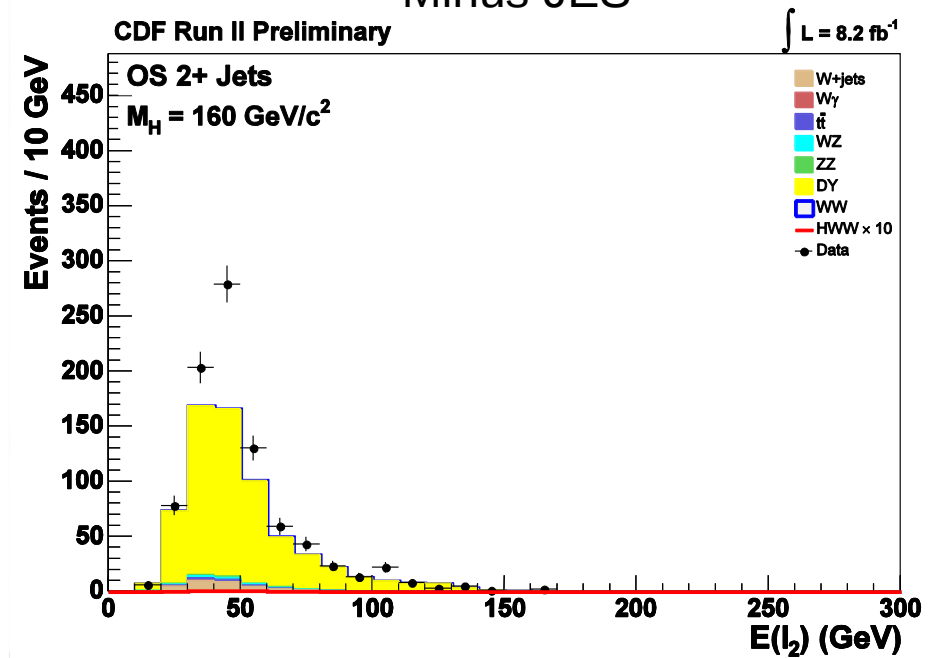
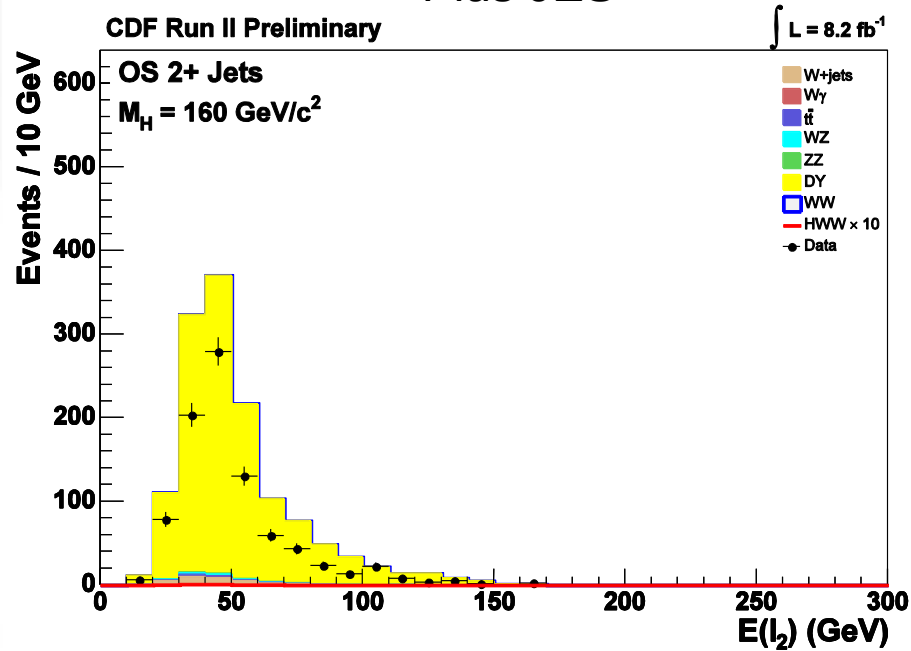
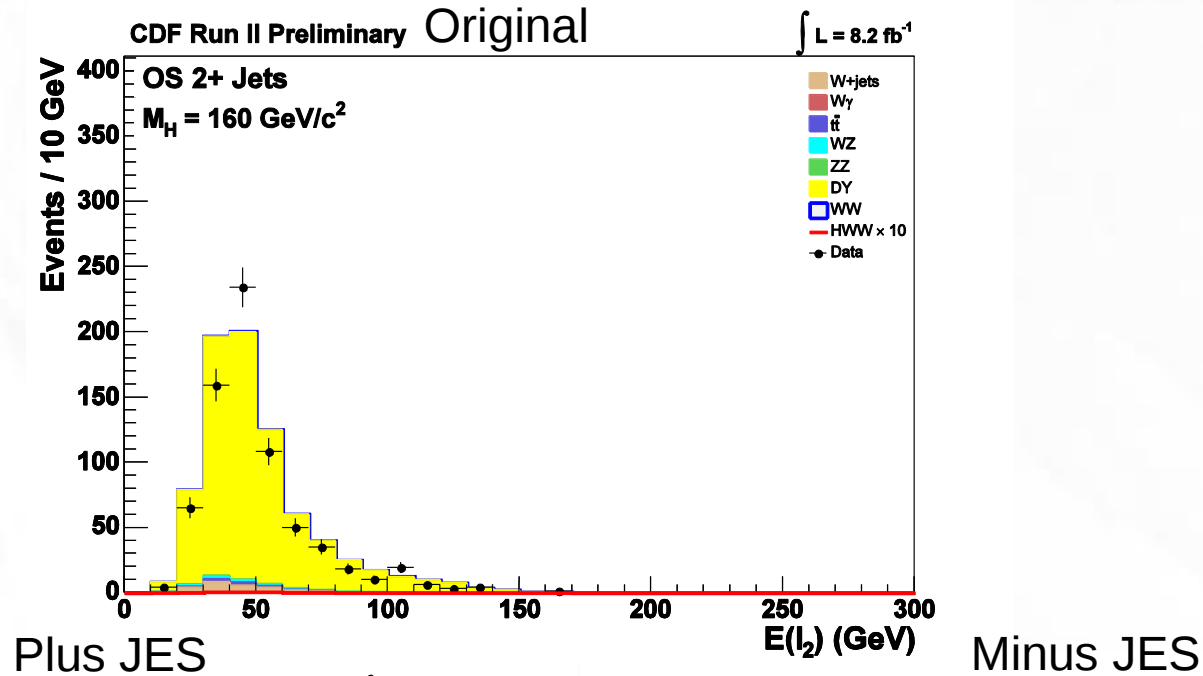
Plus JES



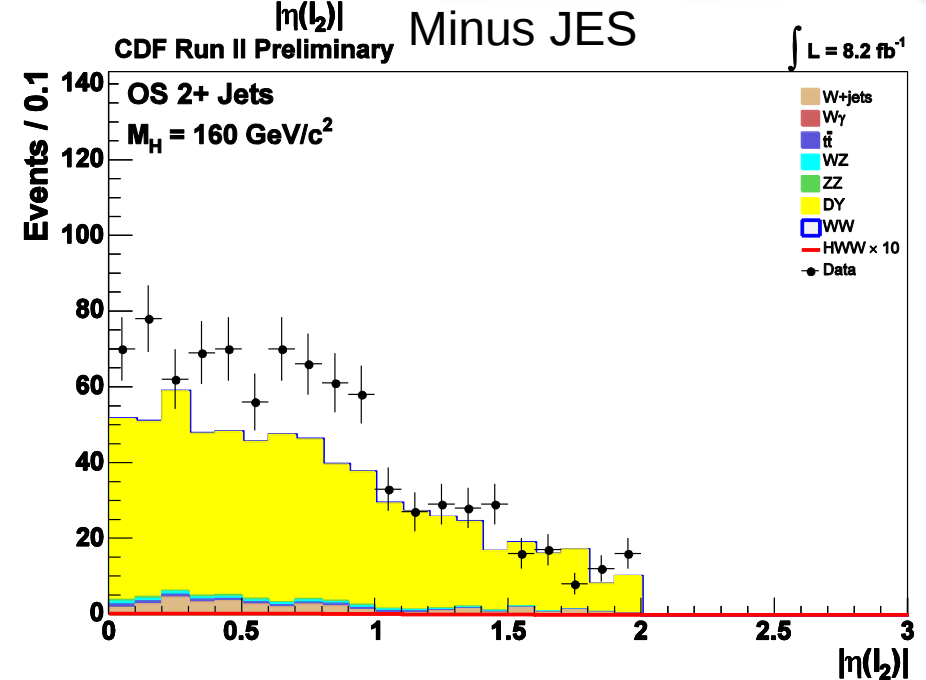
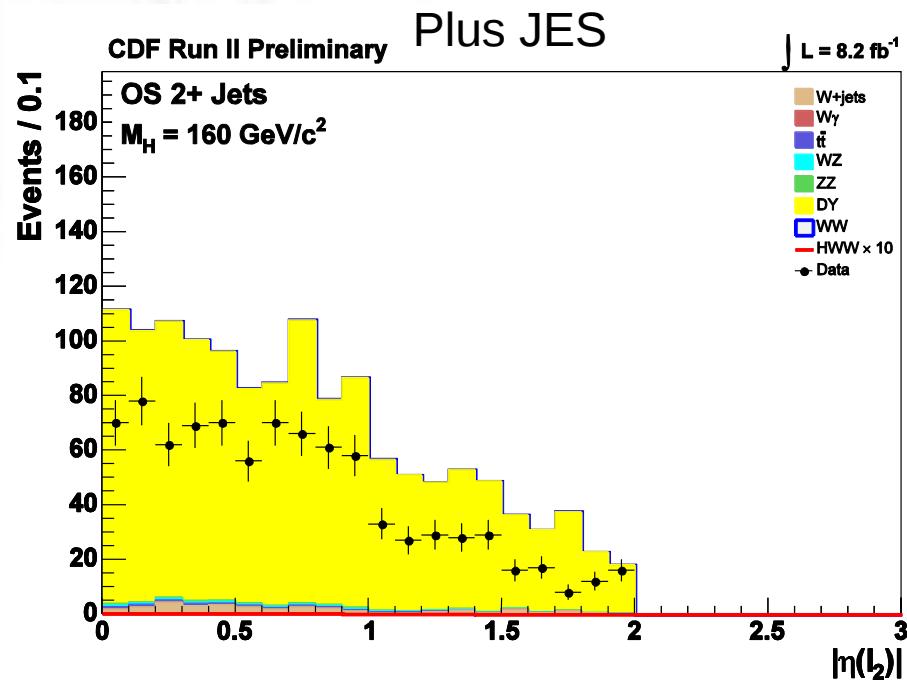
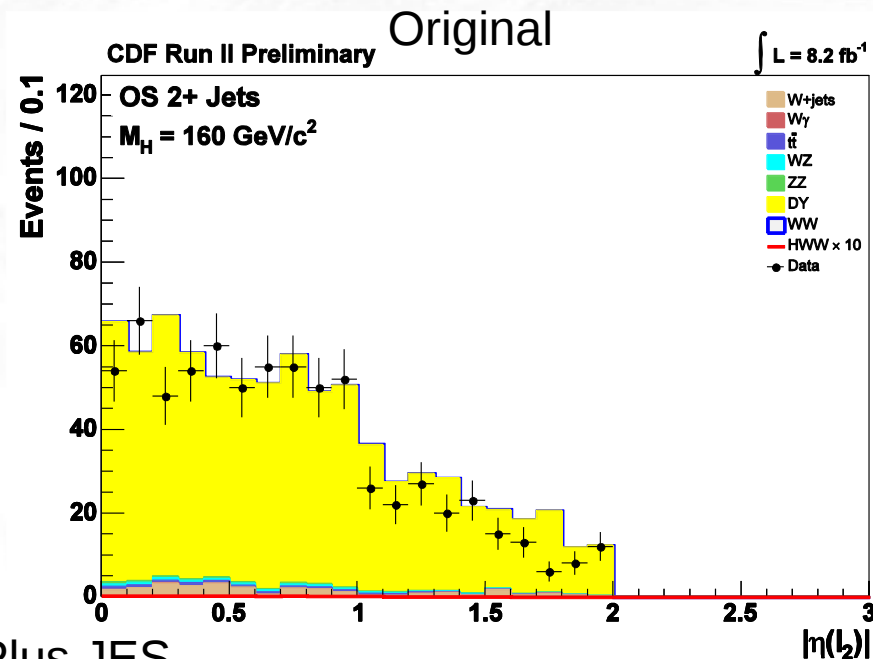
Minus JES



E(l2)

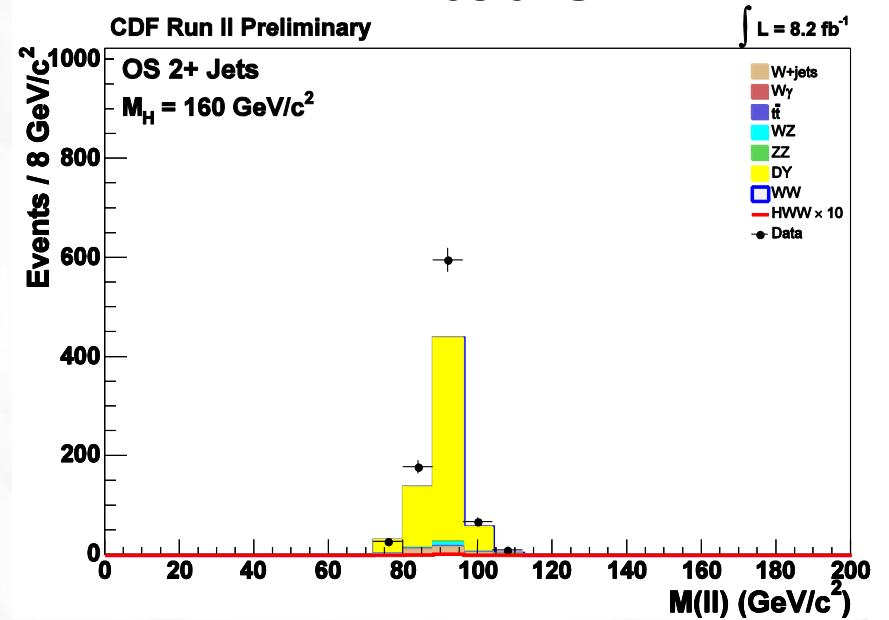
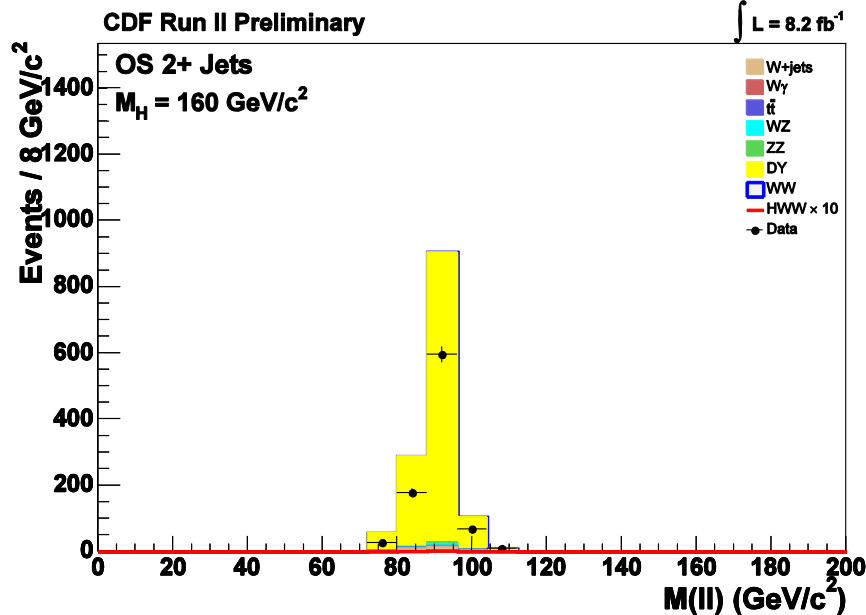
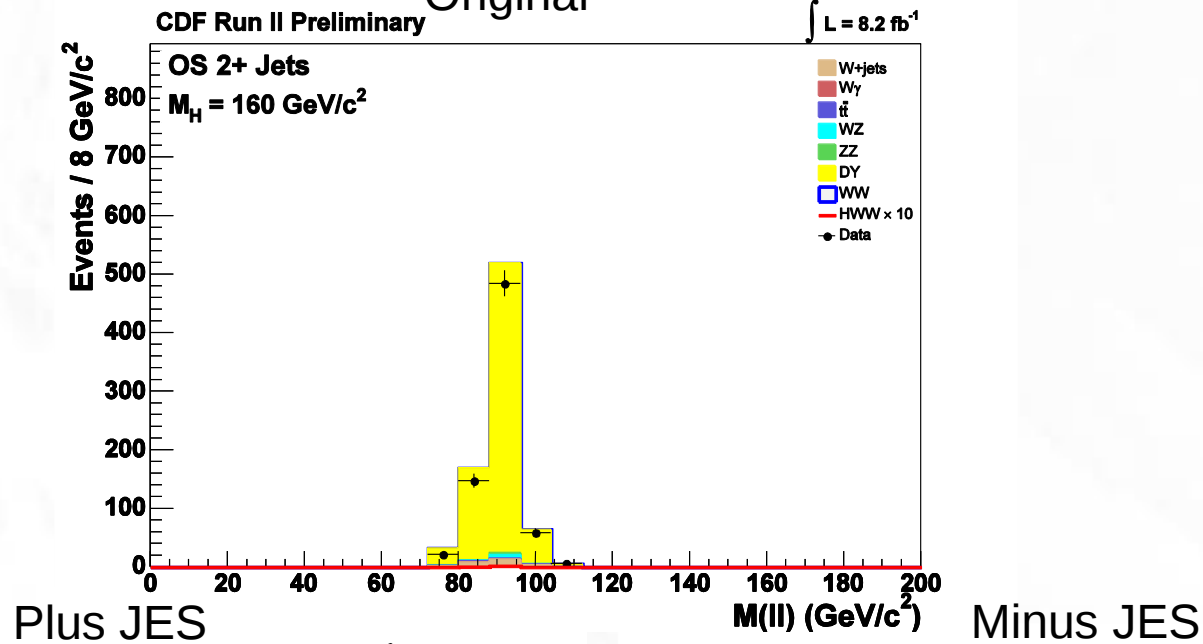


Eta(l2)

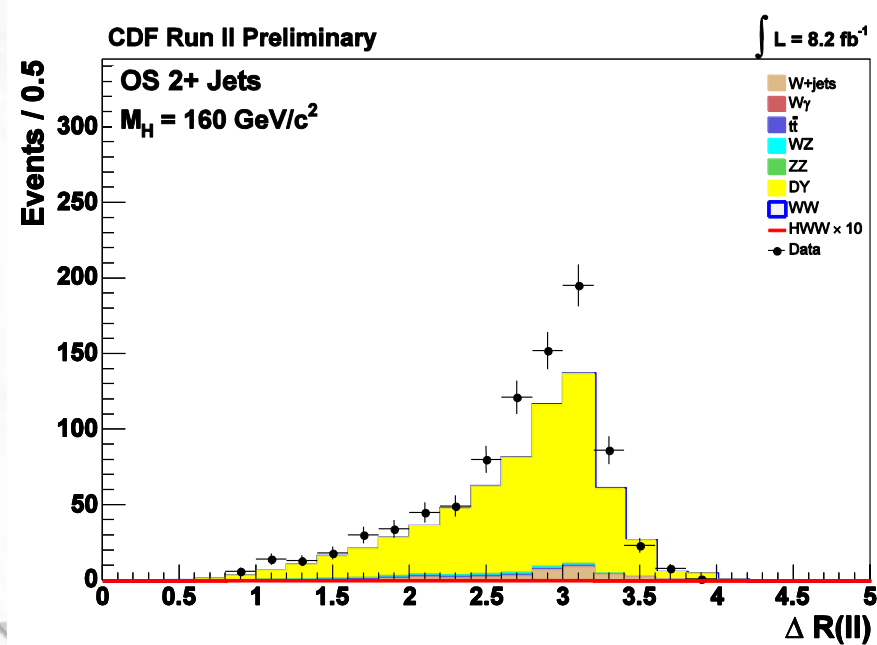
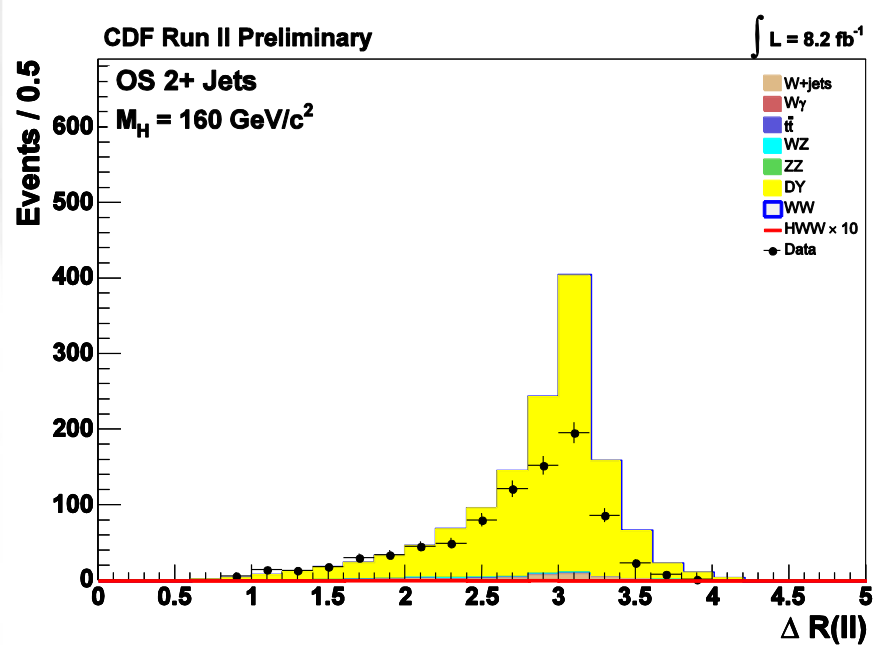
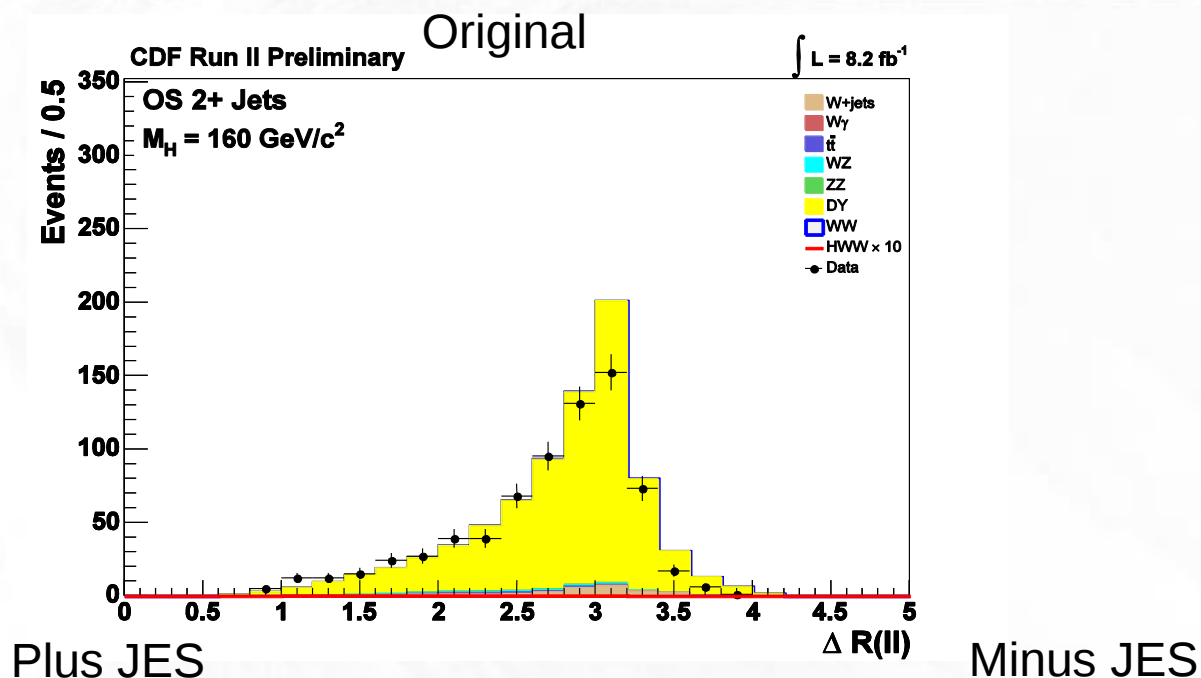


M(II)

Original



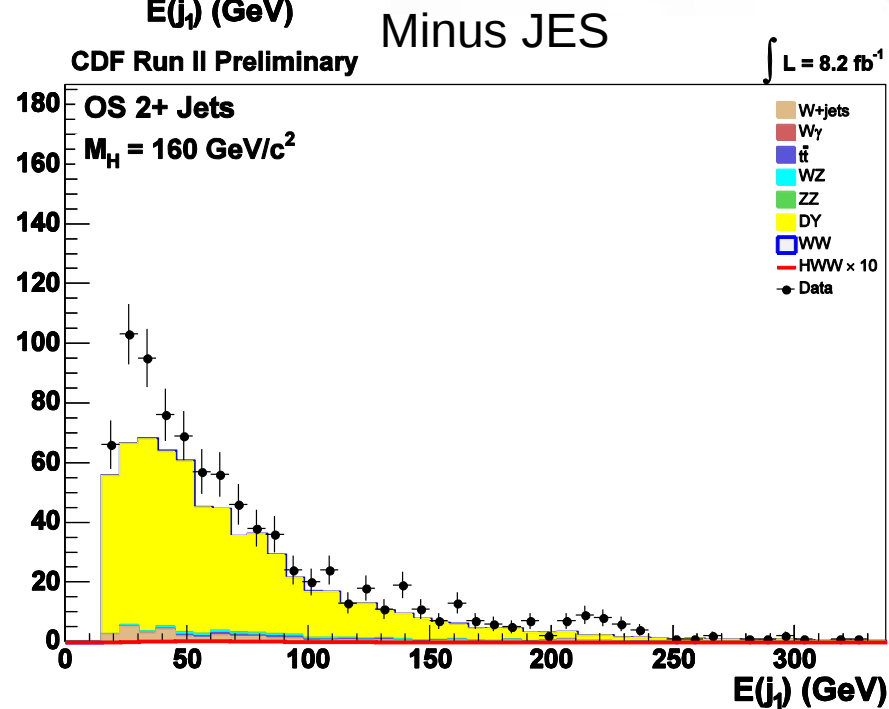
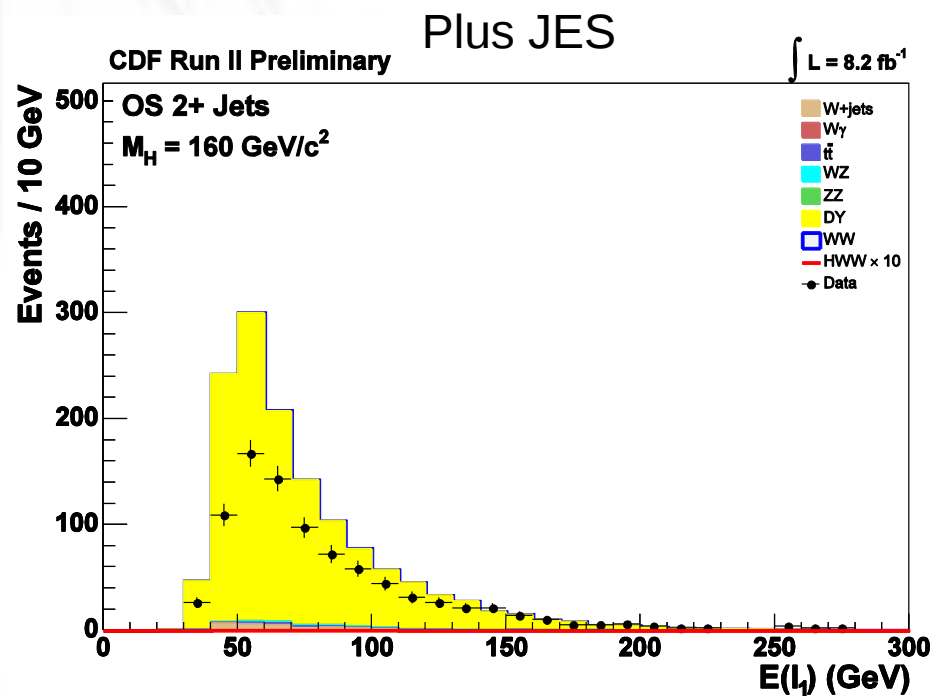
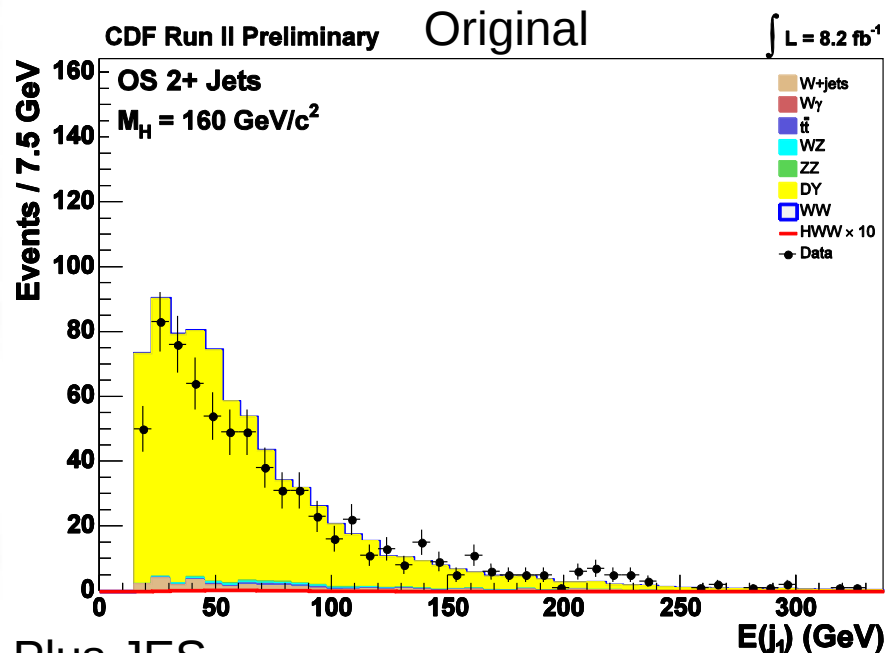
$\Delta R(\text{II})$



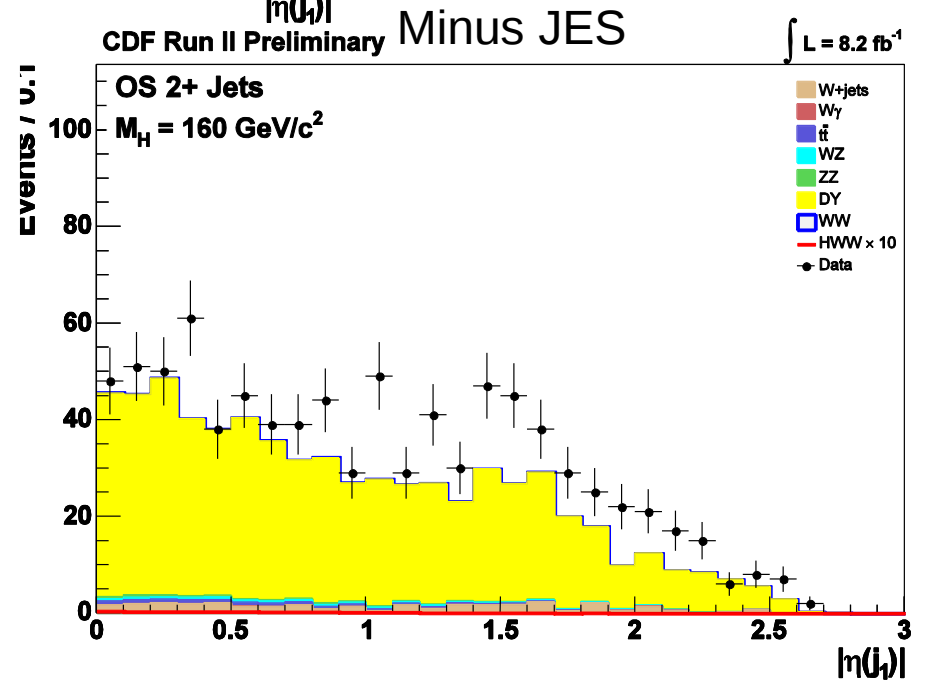
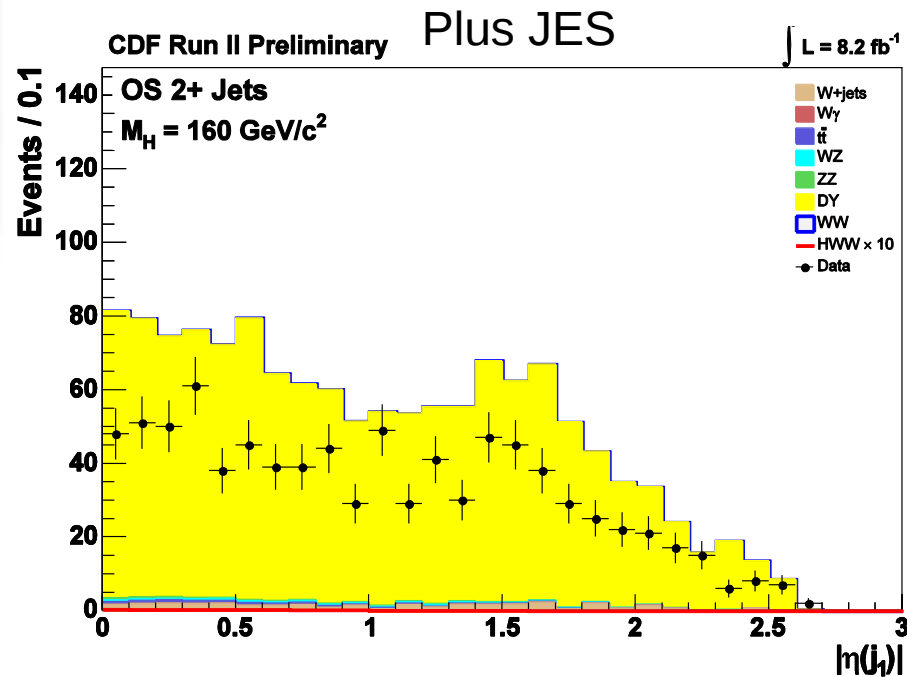
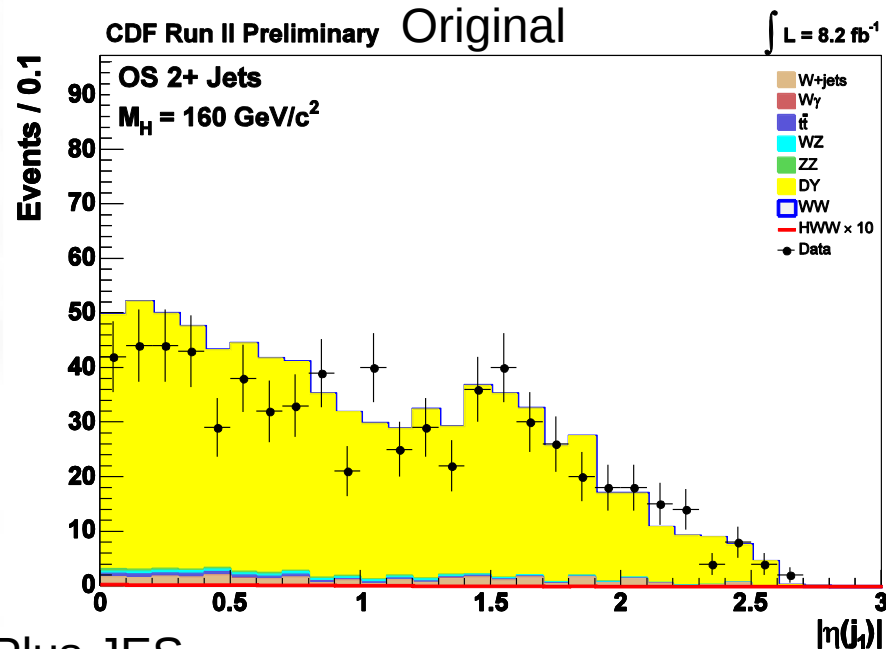
Jets

- 10. **$E(j1)$**
- 11. $Eta(j1)$
- 12. **$E(j2)$**
- 13. $Eta(j2)$
- 14. **$M(jj)$**
- 15. $dR(jj)$
- 16. $dEta(jj)$

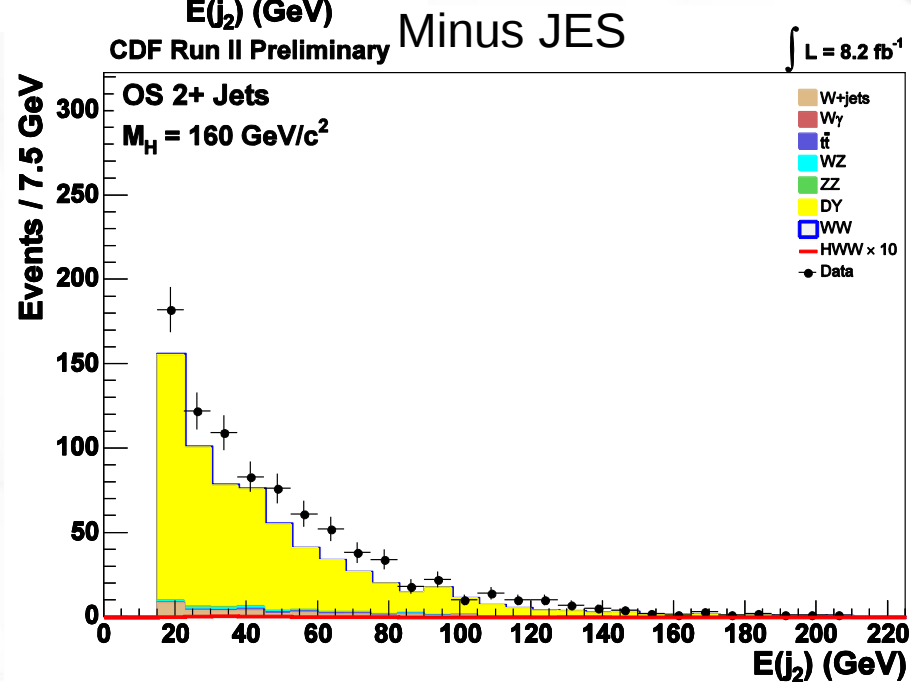
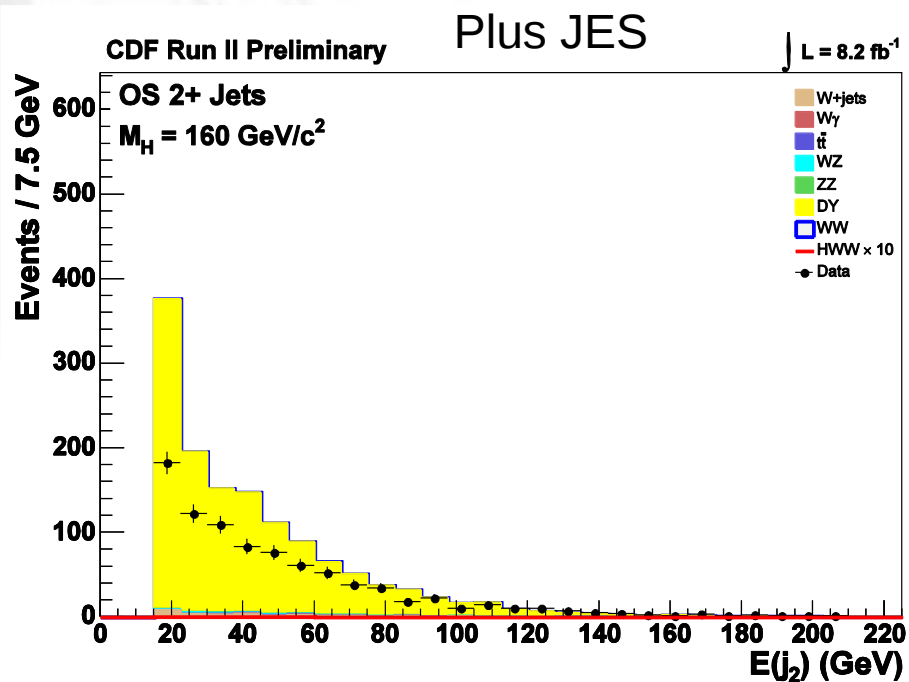
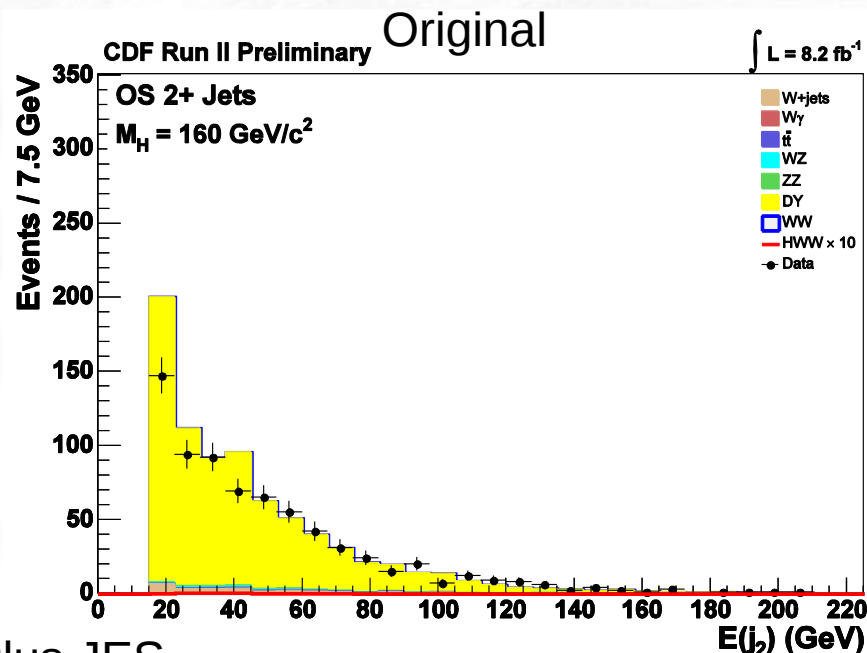
E(j1)



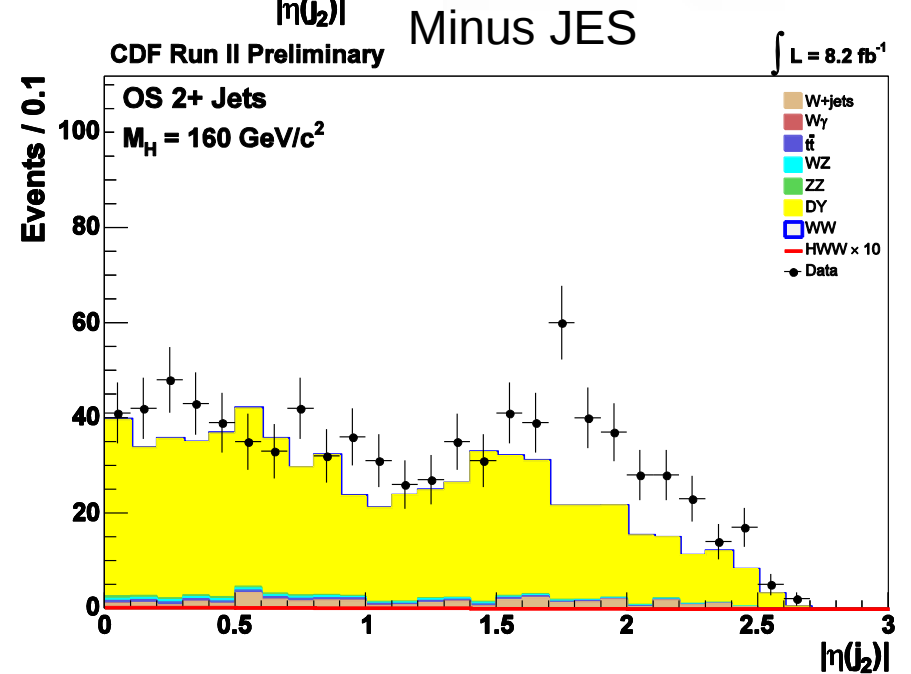
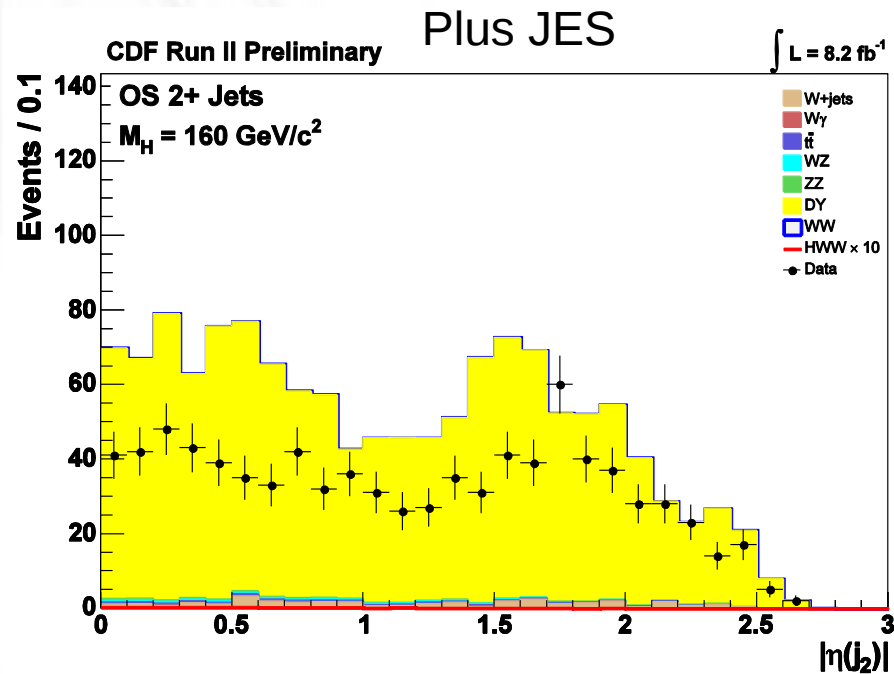
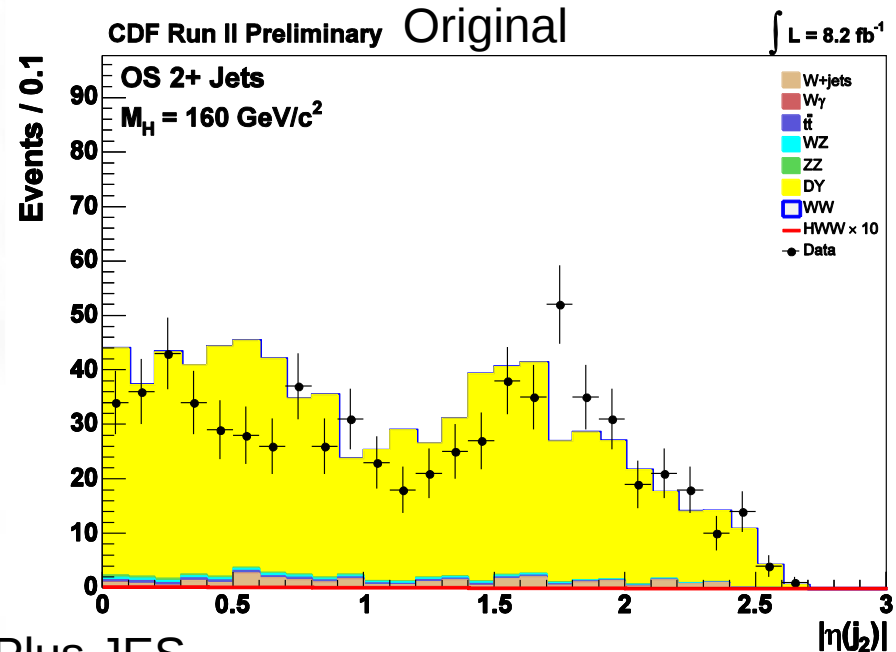
Eta(j1)



E(j2)

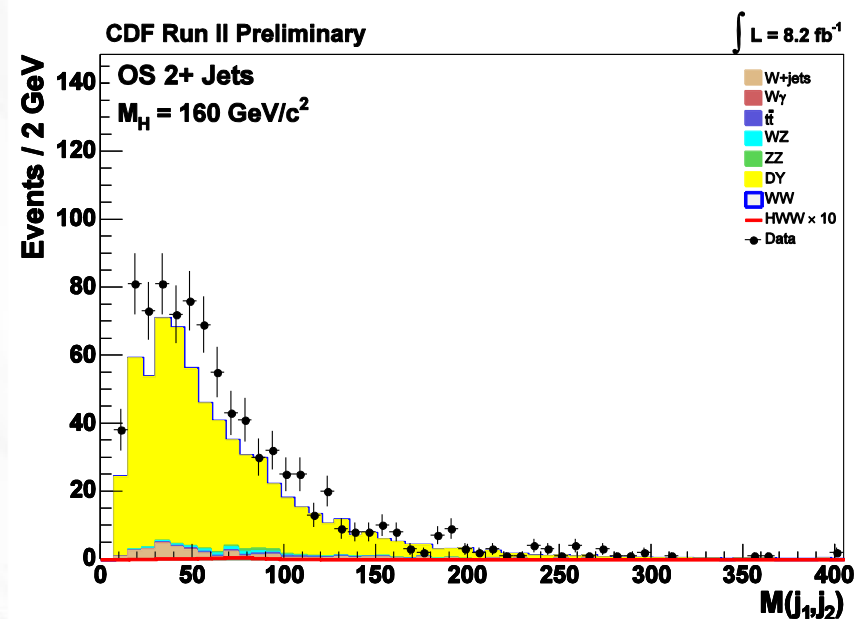
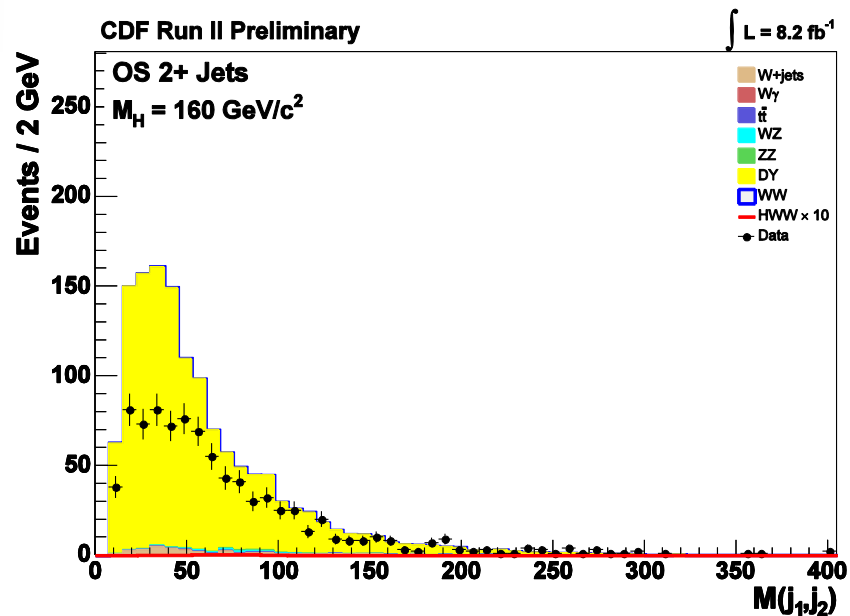
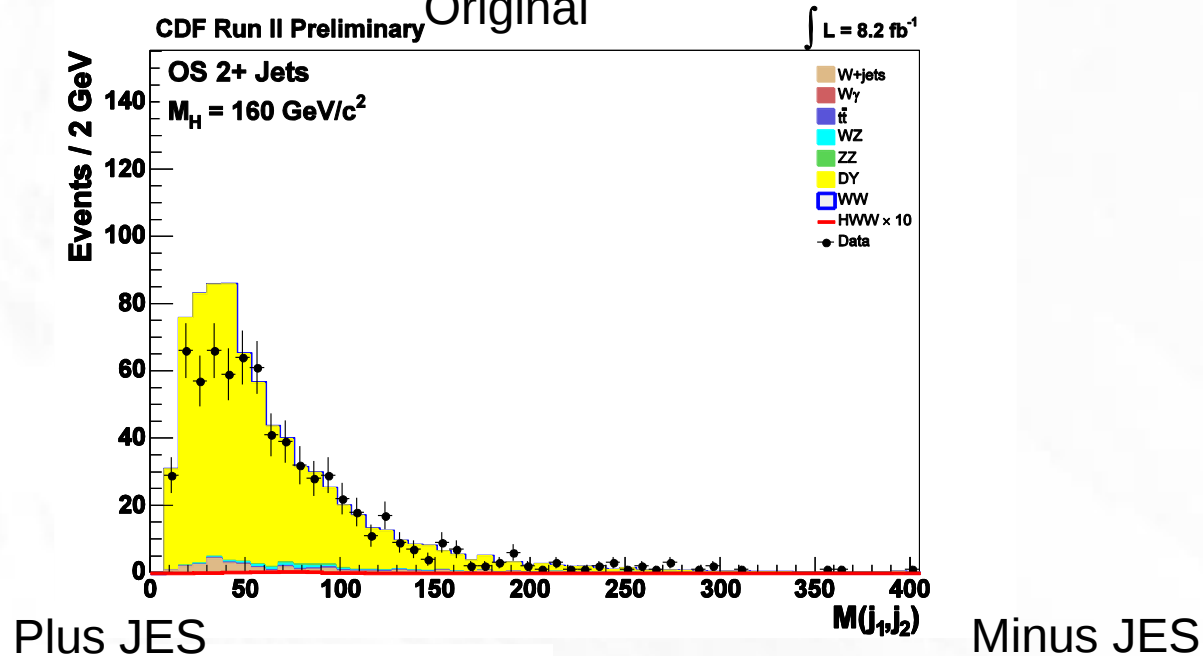


Eta(j2)

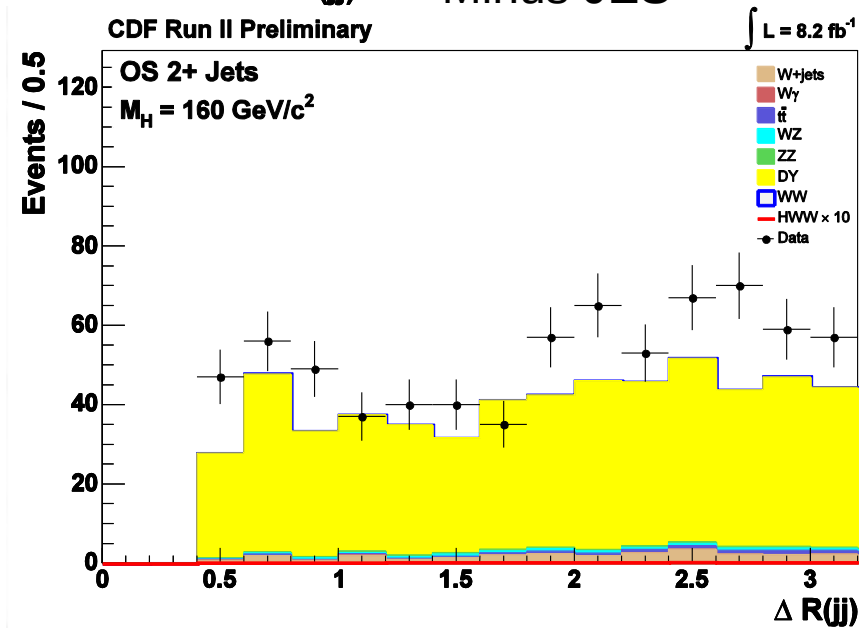
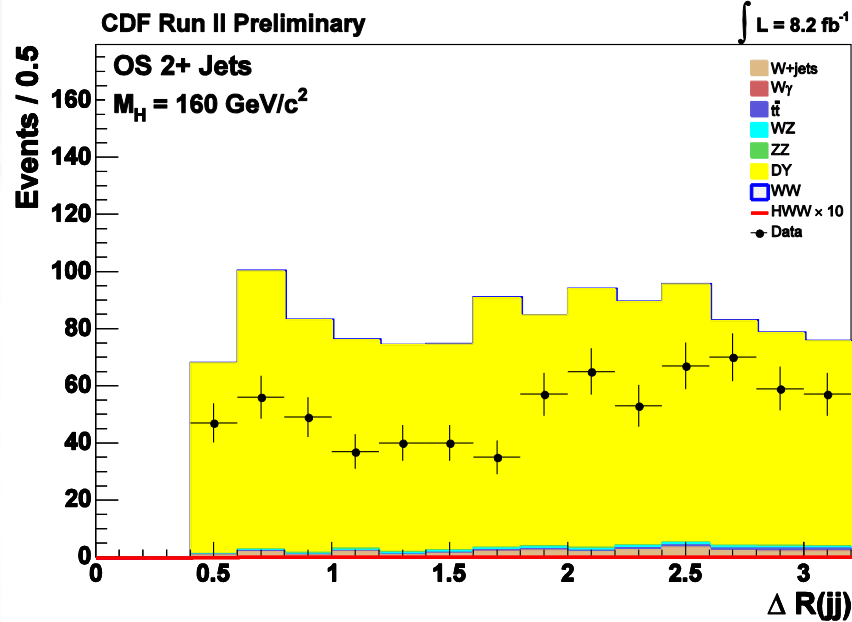
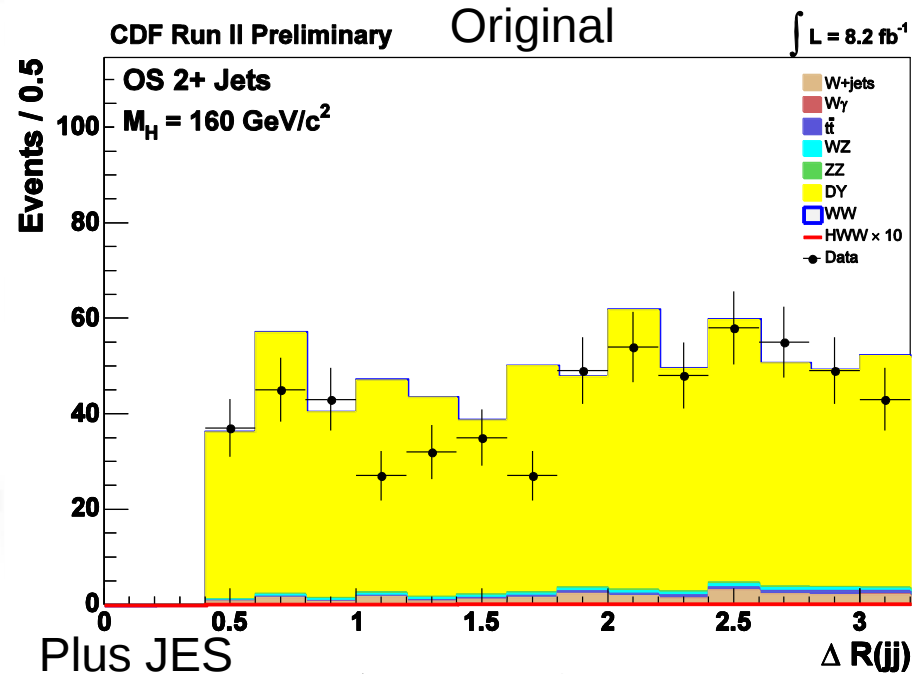


M(jj)

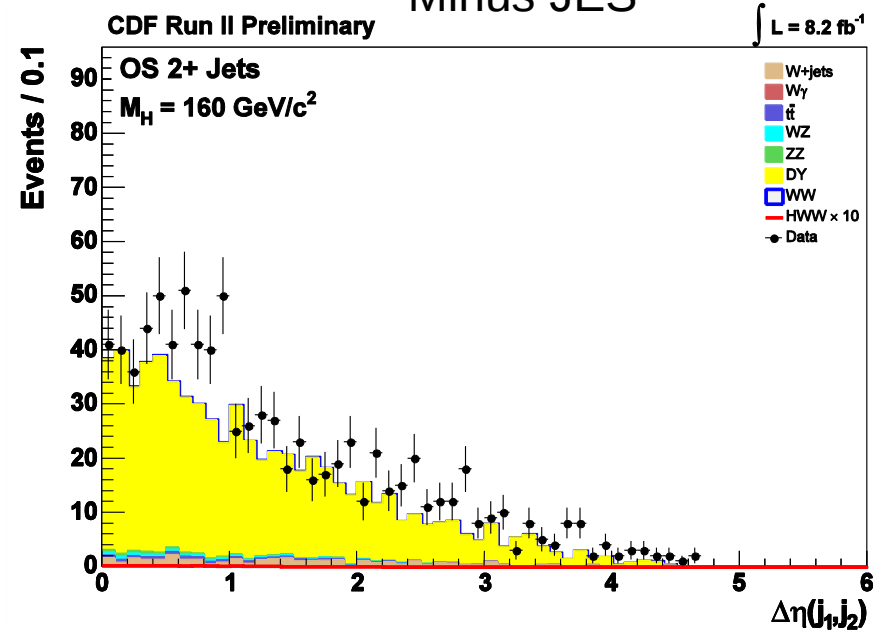
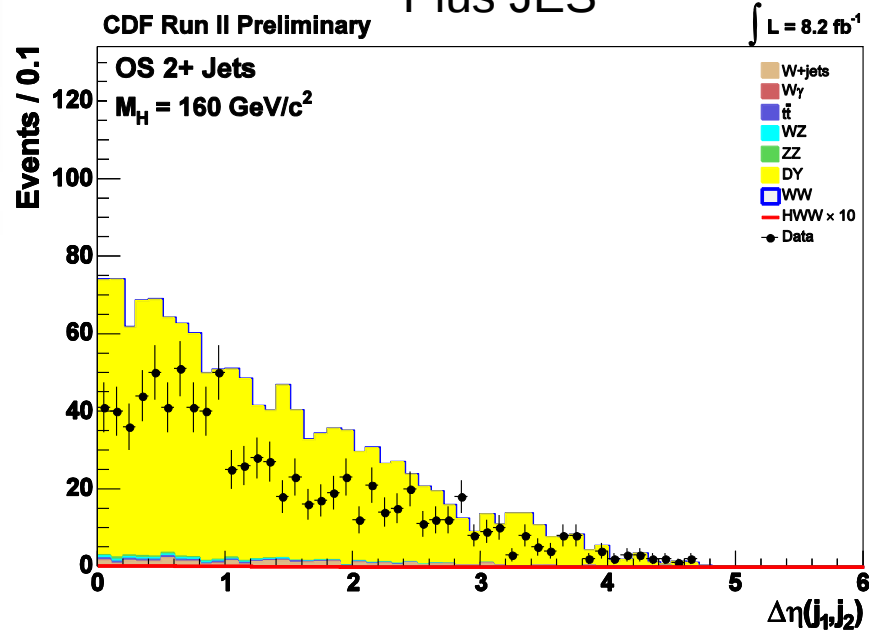
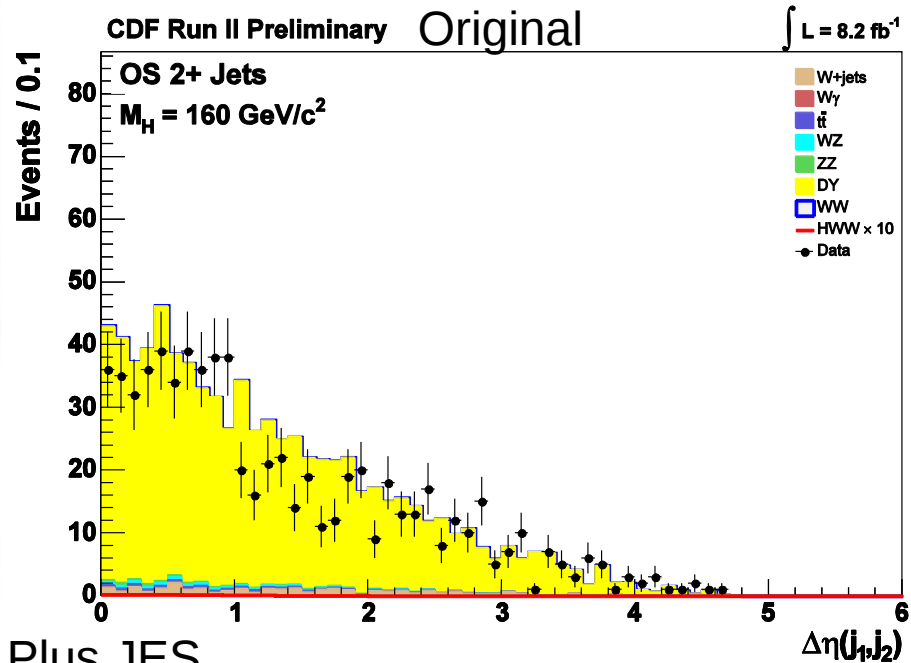
Original



$\Delta R(jj)$



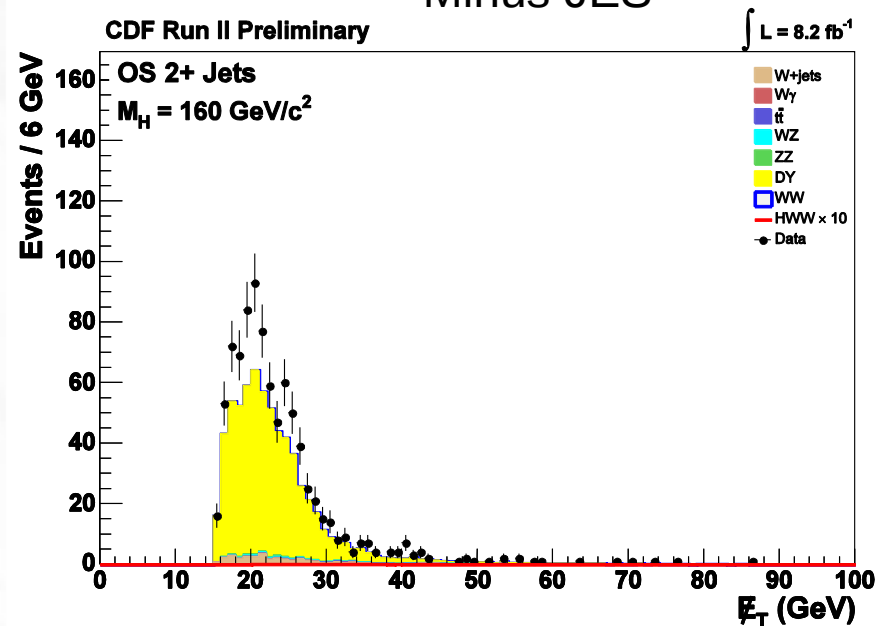
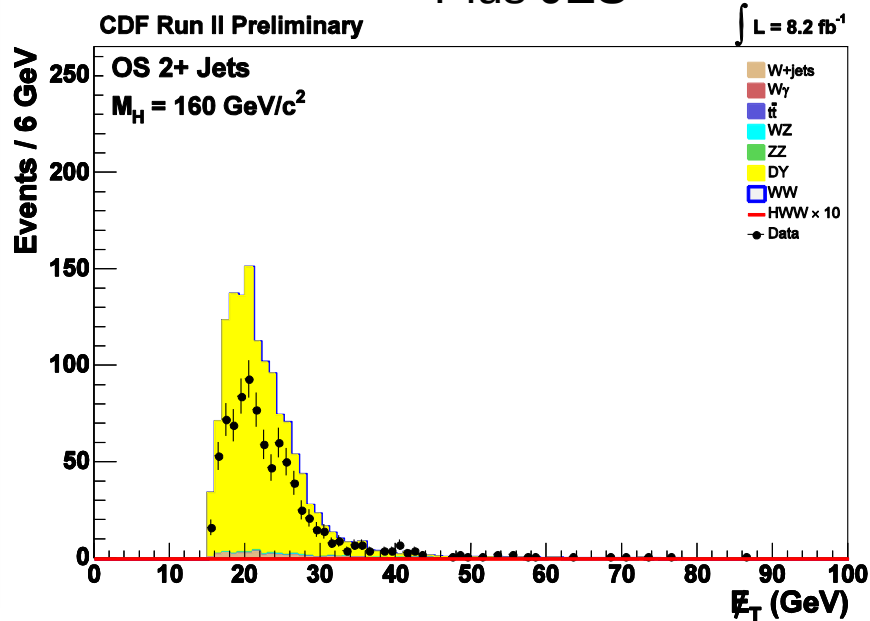
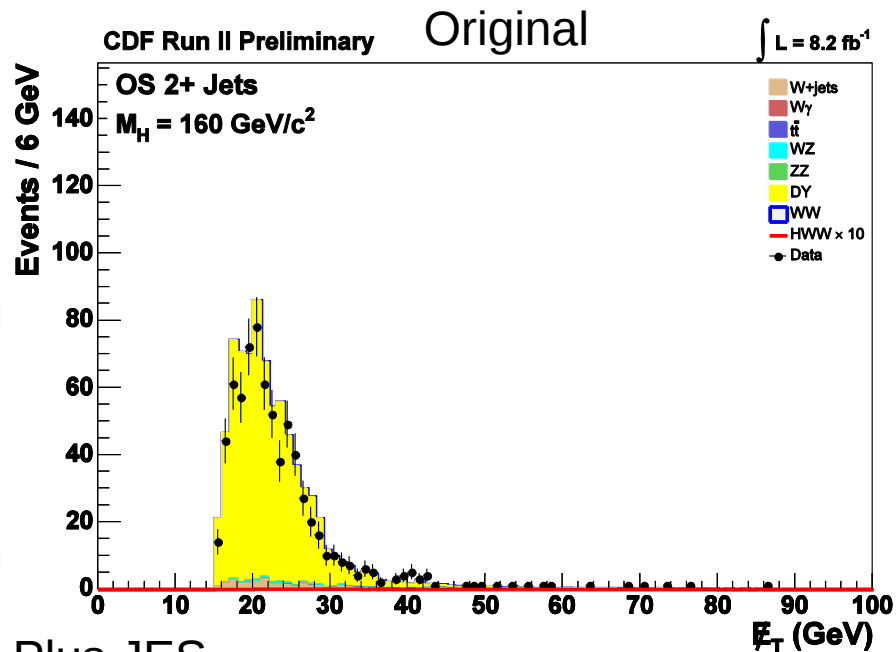
$\Delta\text{Eta}(jj)$



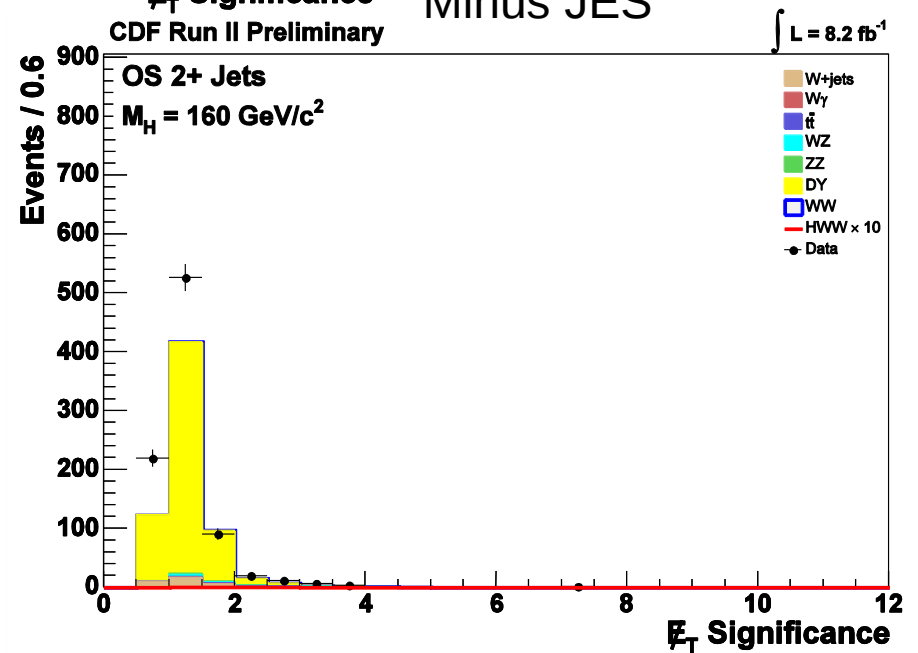
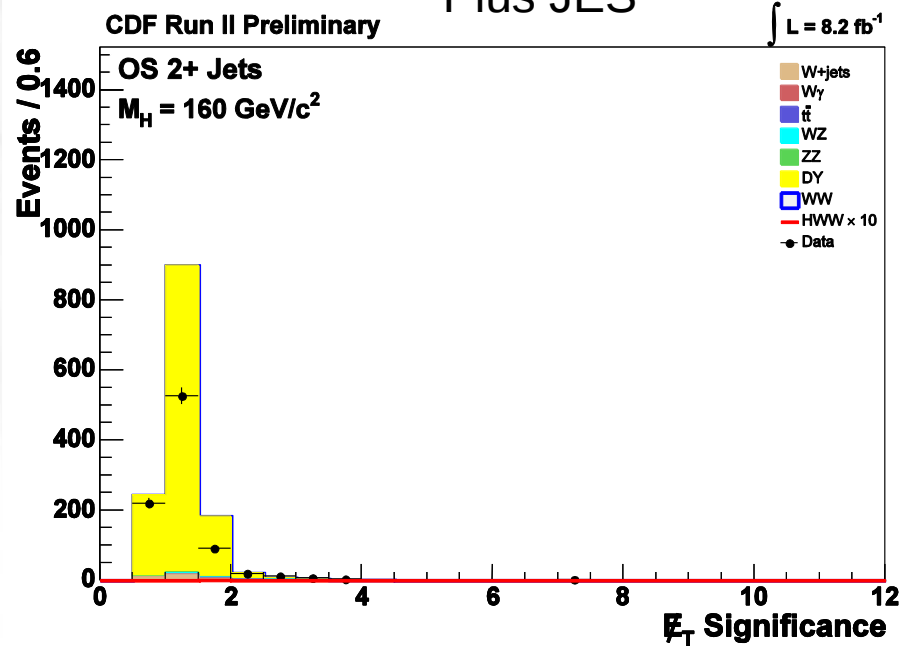
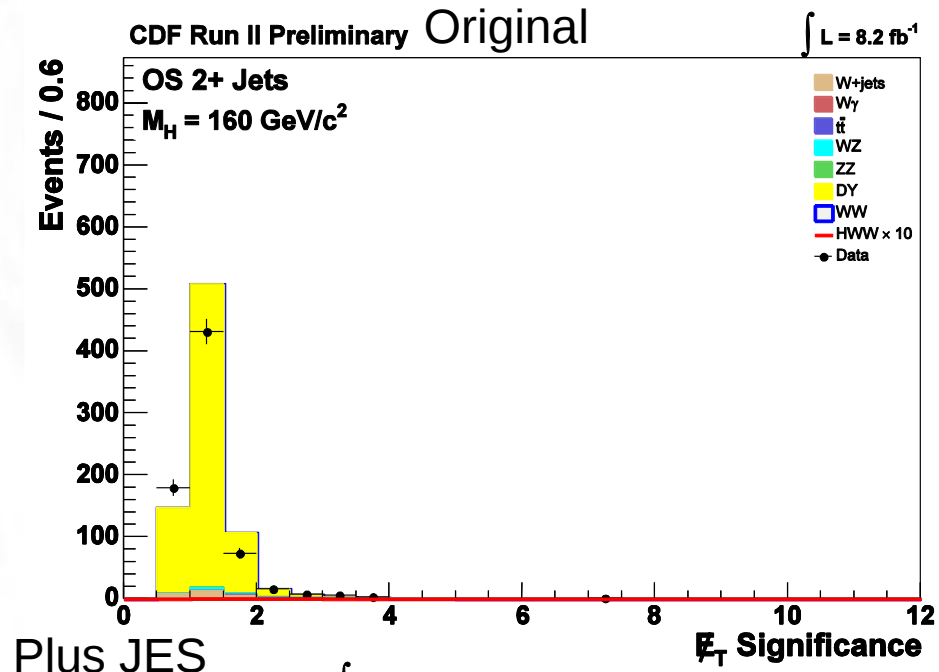
Met

- 18. Met
- 19. MetSig
- 20. MetSpec
- 21. **dPhi(II, Met)**
- 22. **Ht**

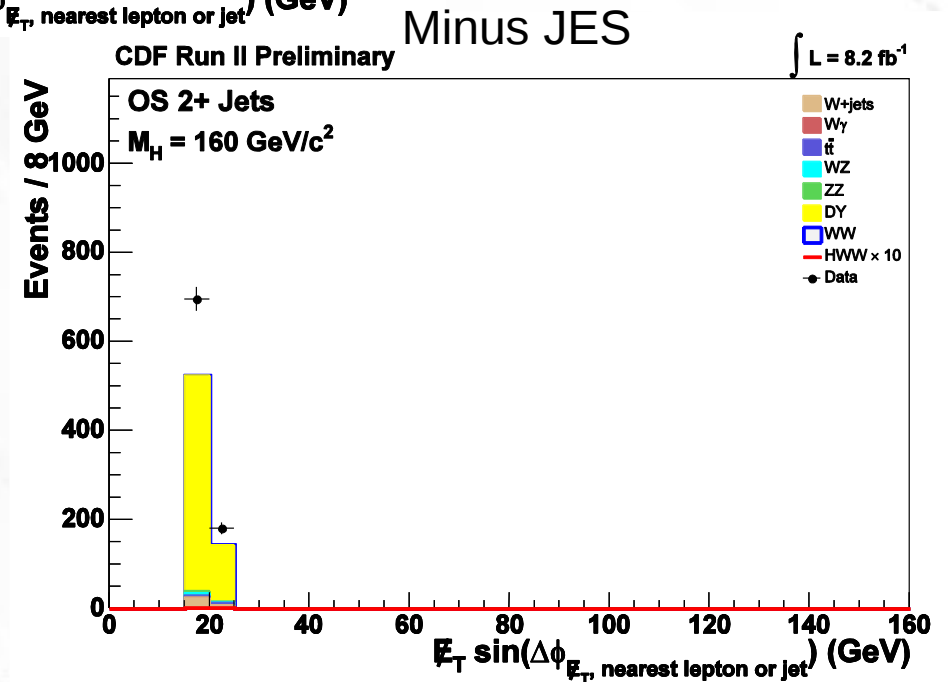
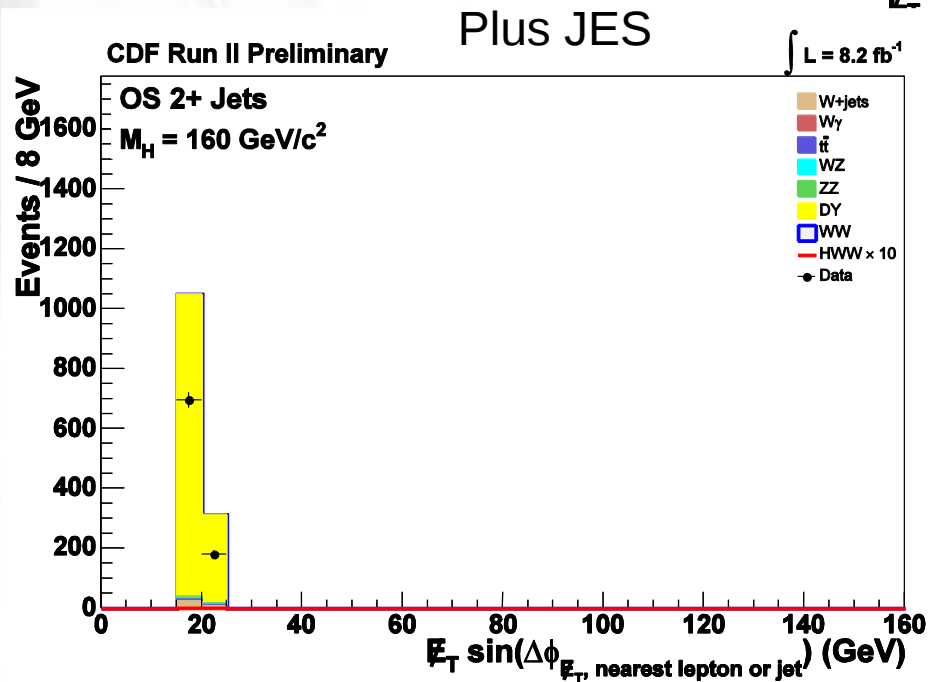
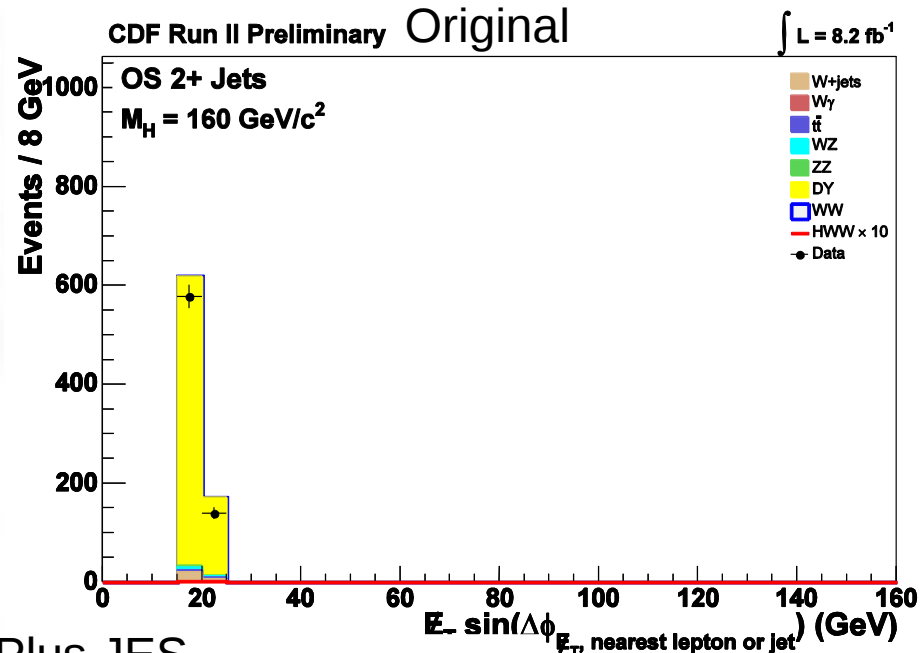
Met



MetSig

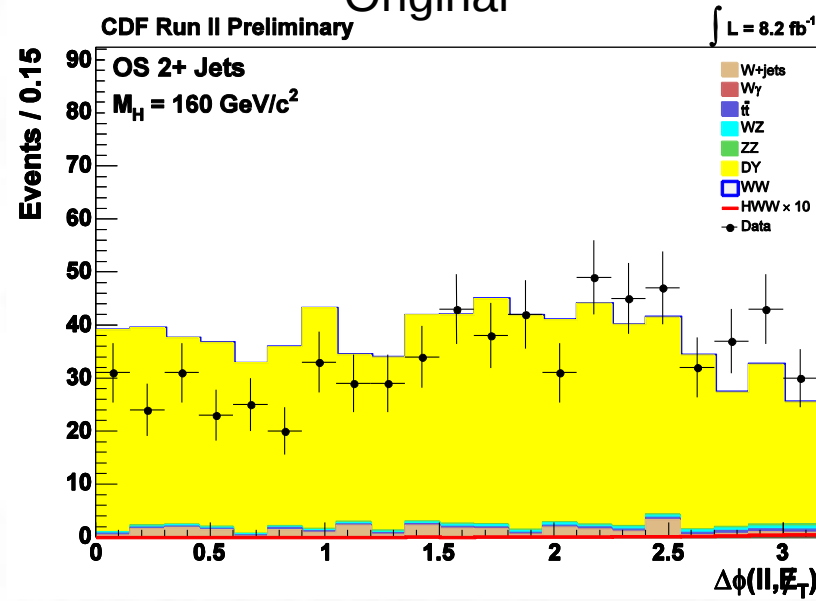


MetSpec

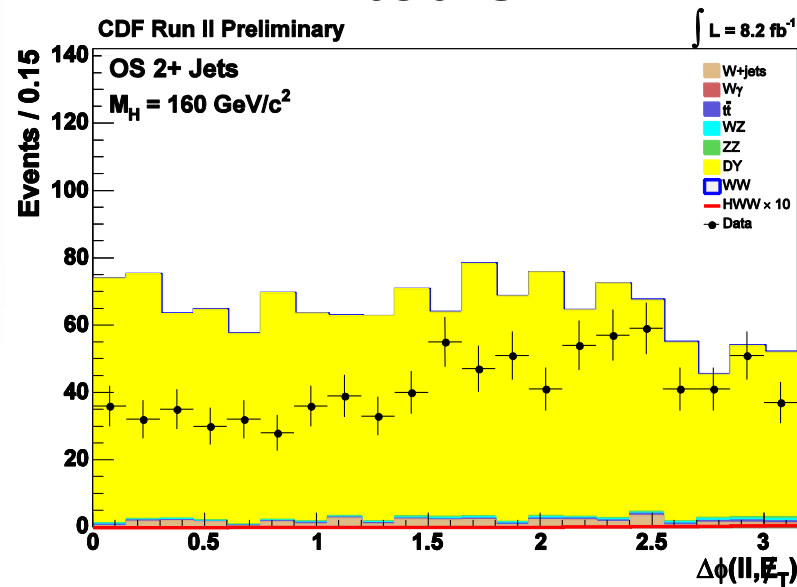


$\Delta\Phi(\ell\ell, E_T)$

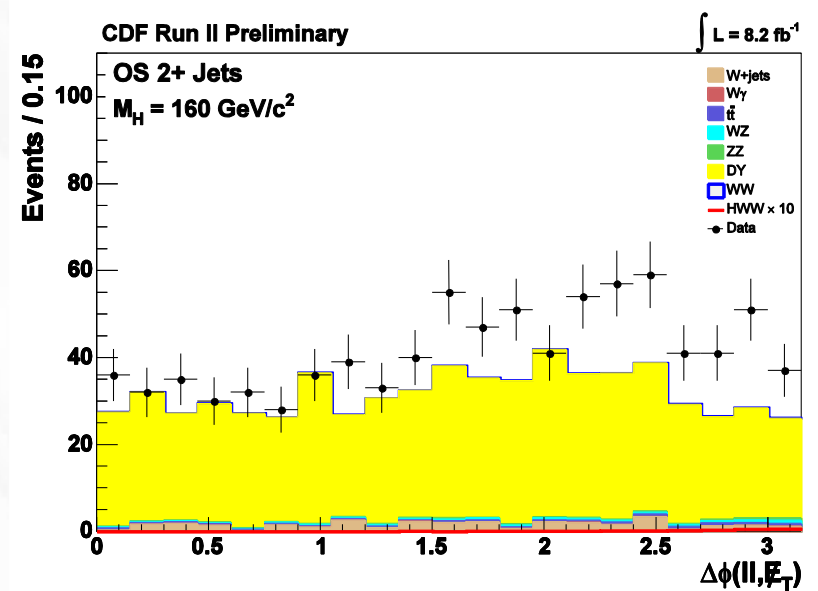
Original



Plus JES

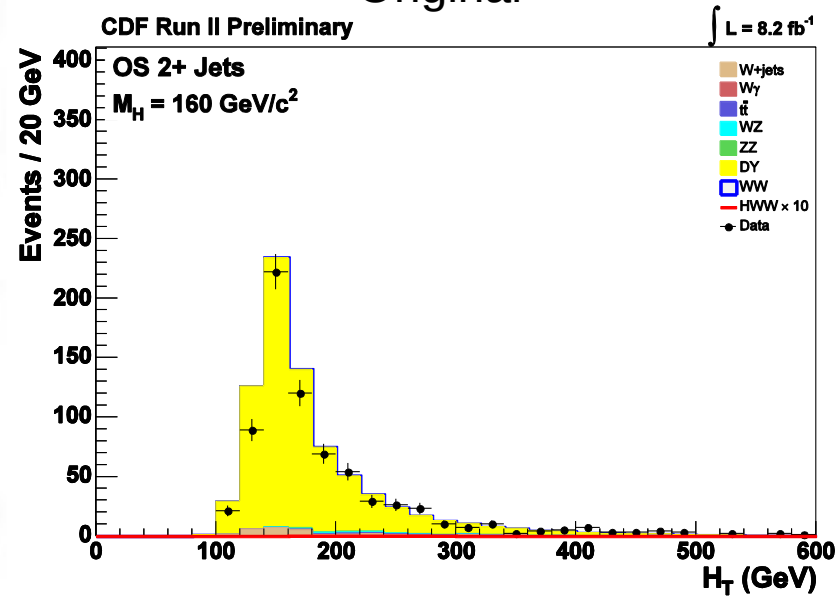


Minus JES

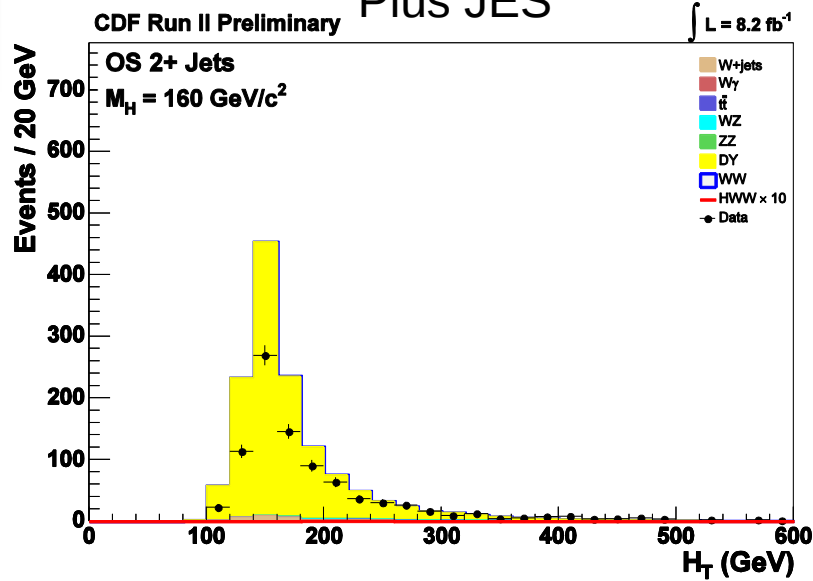


Ht

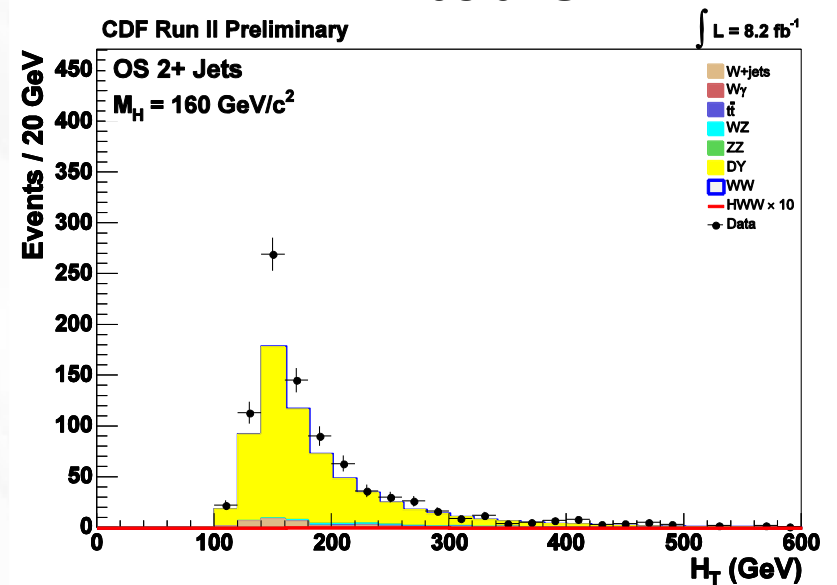
Original



Plus JES



Minus JES



In Progress

- No word from Eric or Sergo regarding MC yields
- Can try to double-check old WZ sample
- Adding separate colors for $Z \rightarrow t\bar{t}$, investigating $d\Phi(l\bar{l}, \text{Met})$, $d\Phi(l1, \text{Met})$, and $d\Phi(l2, \text{Met})$
- Will test using $d\Phi(l\bar{l}, \text{Met})$, $M(l\bar{l})$, and MetSig cuts to nearly eliminate DY
- Present something on the 27th?