

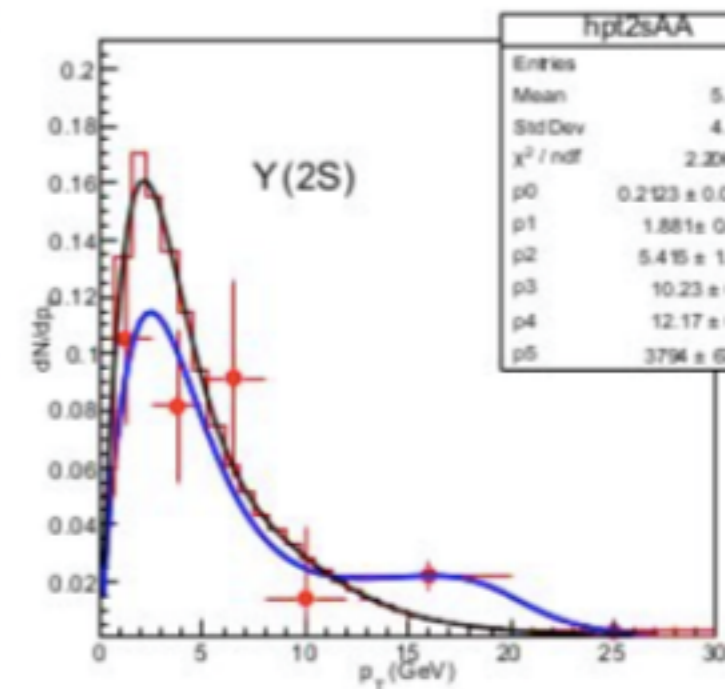
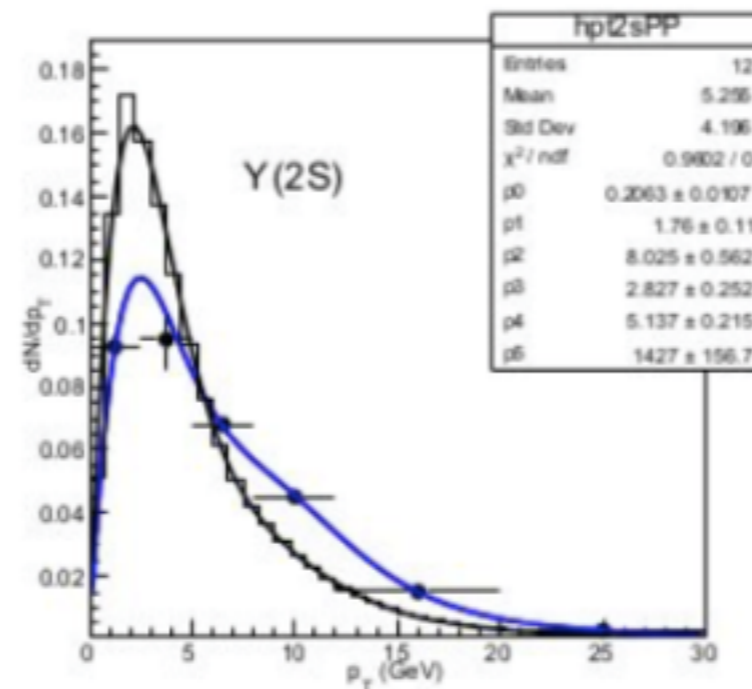
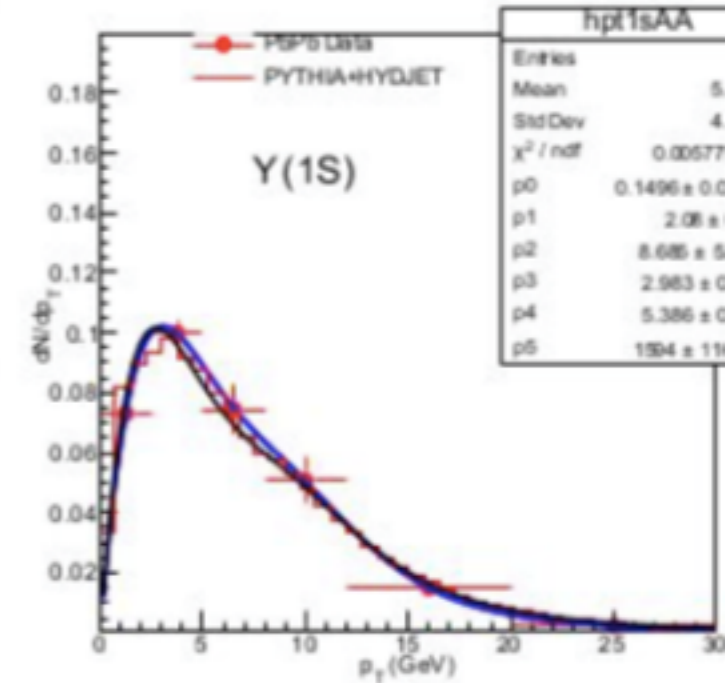
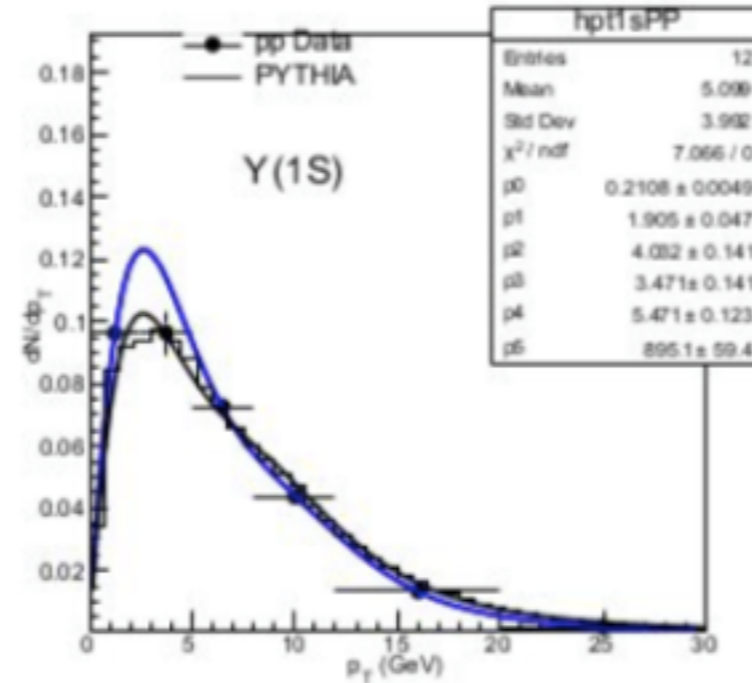
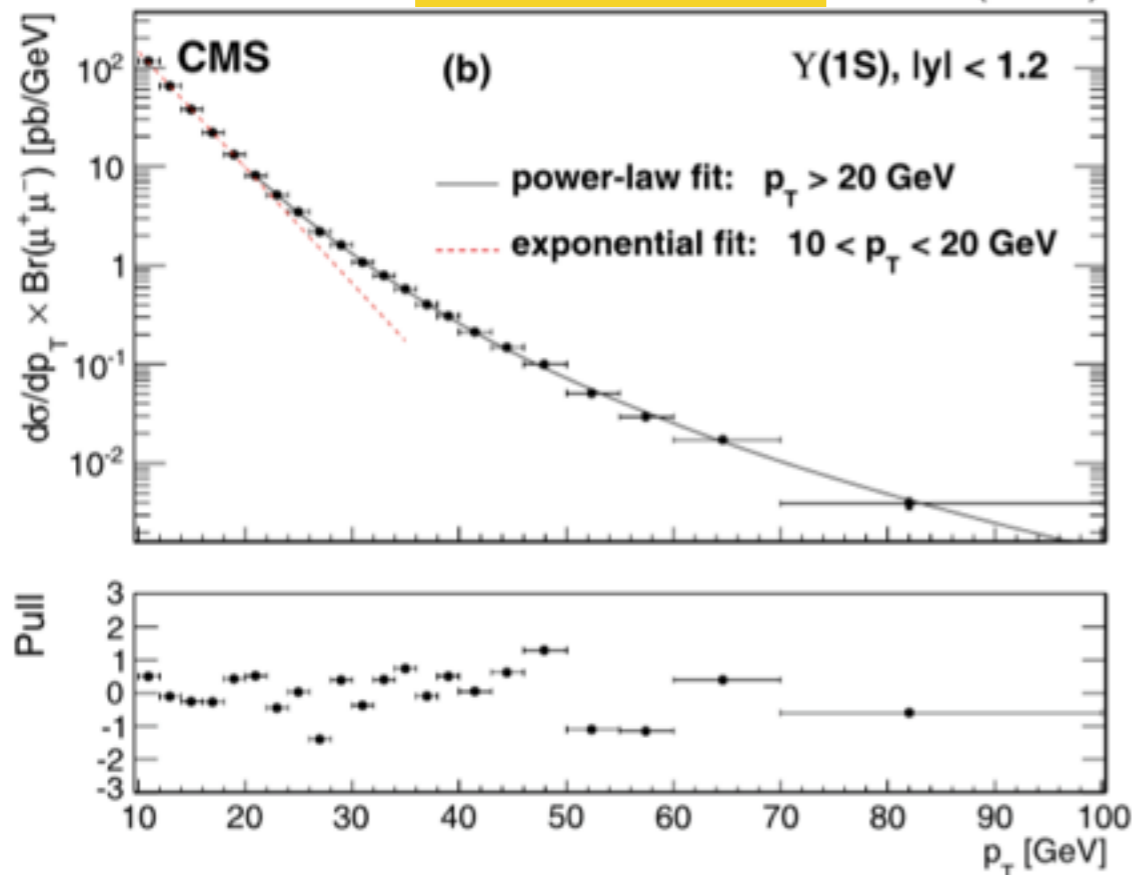
# Status report

JaeBeom Park

# dN/dpT re-weight

- Split the function into two regions 0-20, 20-30 GeV
  - Exponential function  $p_T < 20 \text{ GeV}/c$   
 $dN/dp_T = C \cdot p_T / (\exp(p_T/T) + 1)$
  - Power function  $p_T > 20 \text{ GeV}/c$
- 6 parameters 6 data point, only 1 point above 20 GeV
- Need to fit well the low pT part

[Phys. Lett. B 749 (2015) 14] 4.9 fb<sup>-1</sup> (7 TeV)

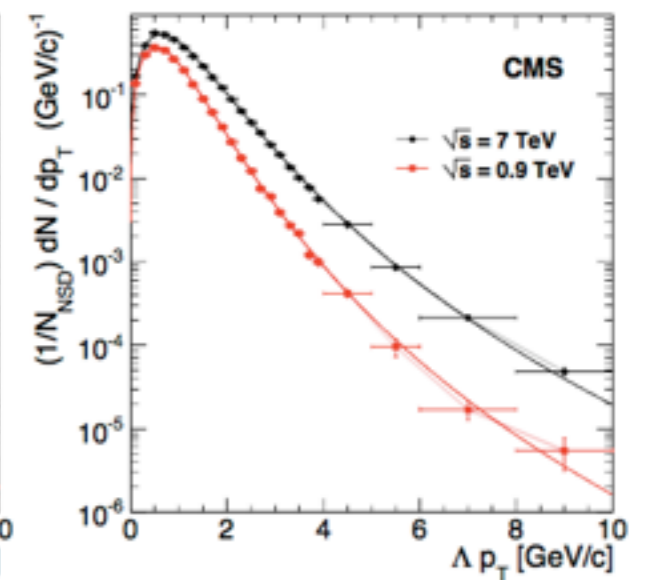
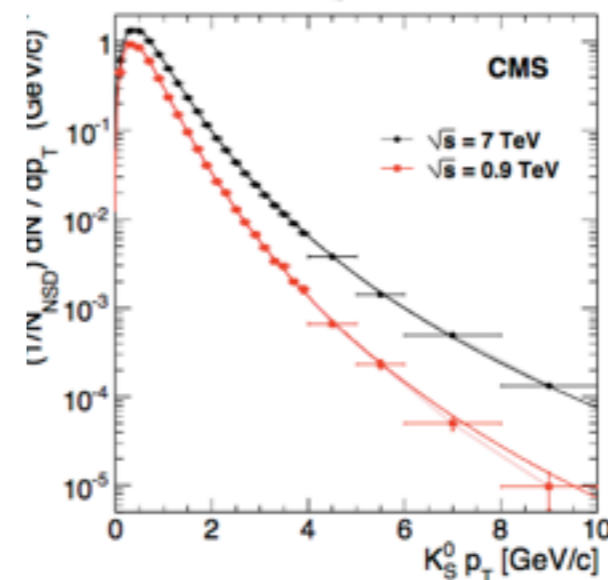
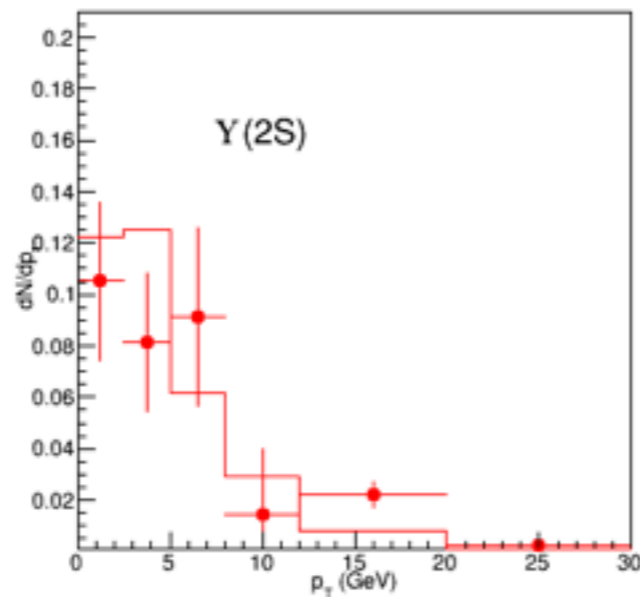
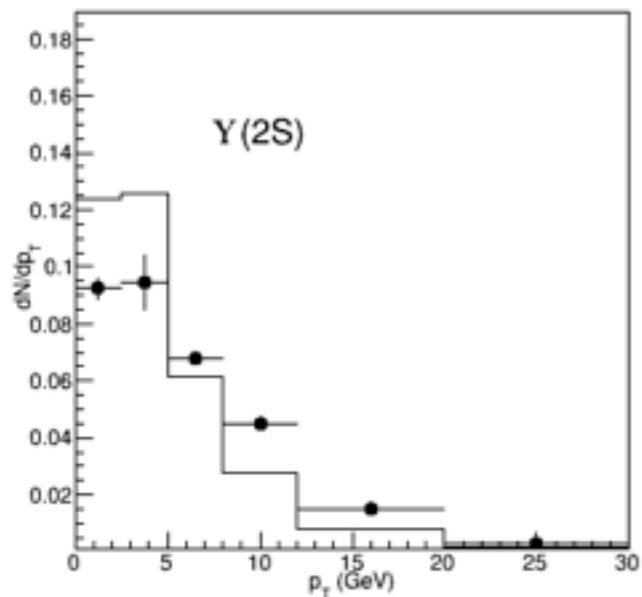
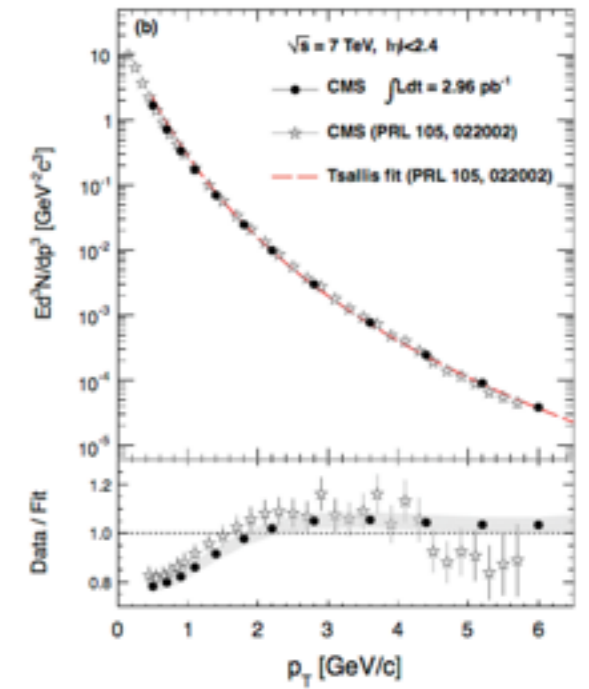
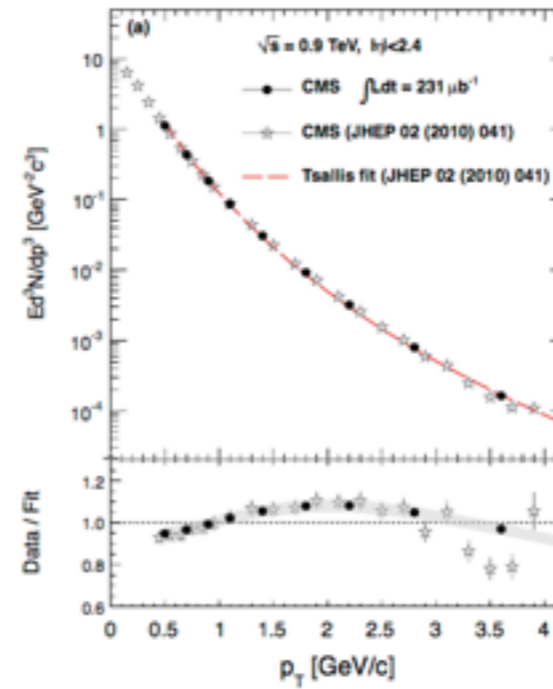
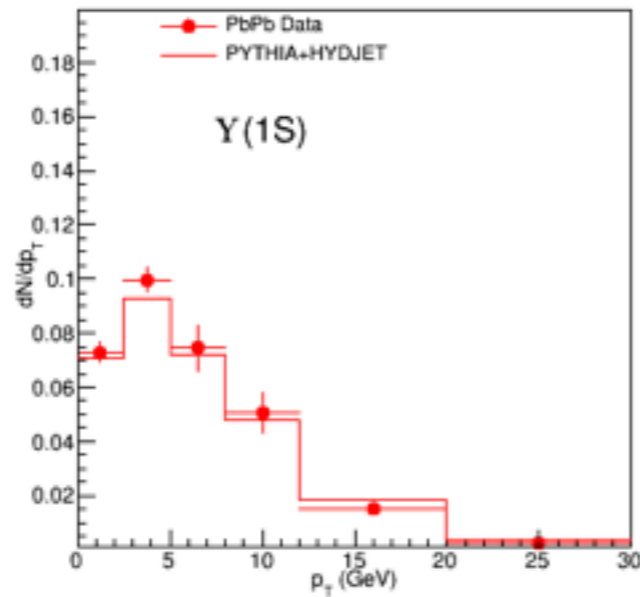
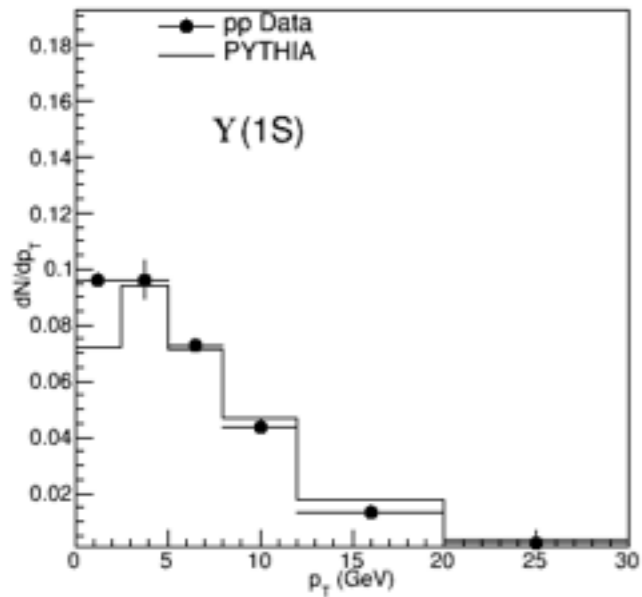


# dNdpT ratio

[arxiv.org/abs/1210.7464]  
[Ferenc Sikl'er: Tsallis fitting of the CMS data]

- Fit the ratio itself

- Tsallis function 
$$\frac{d^2N}{dp_T dy} = p_T \frac{dN}{dy} \frac{(n-1)(n-2)}{nC(nC + m_0(n-2))} \left[ 1 + \frac{m_T - m_0}{nC} \right]^{-n}$$



# dN/dpT re-weight

‘Ratio Function’ of two exponential like function

‘Ratio Function’ of two Tsallis functions

