



中國科學院高能物理研究所  
*Institute of High Energy Physics*  
*Chinese Academy of Sciences*

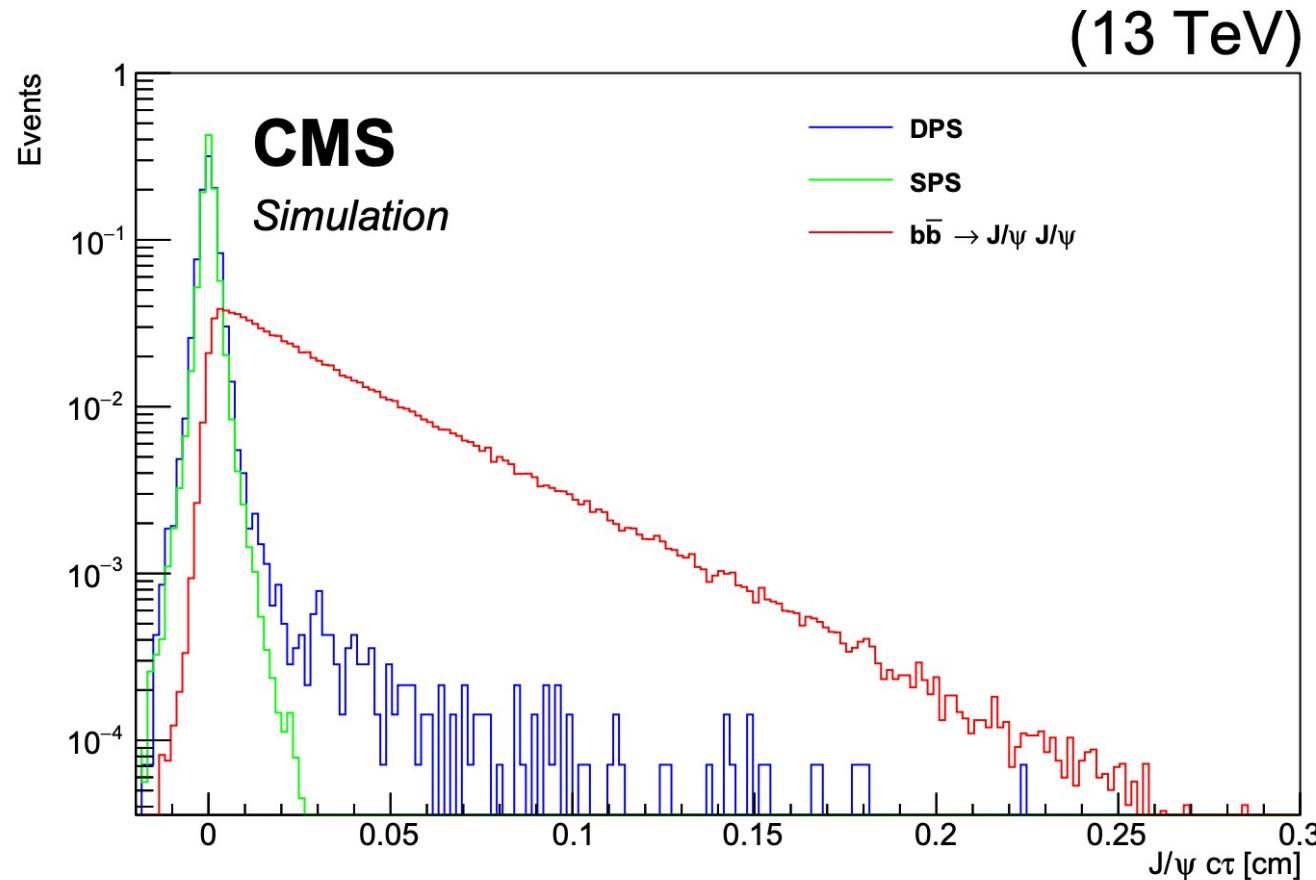


# Double Jpsi group meeting

Taozhe Yu

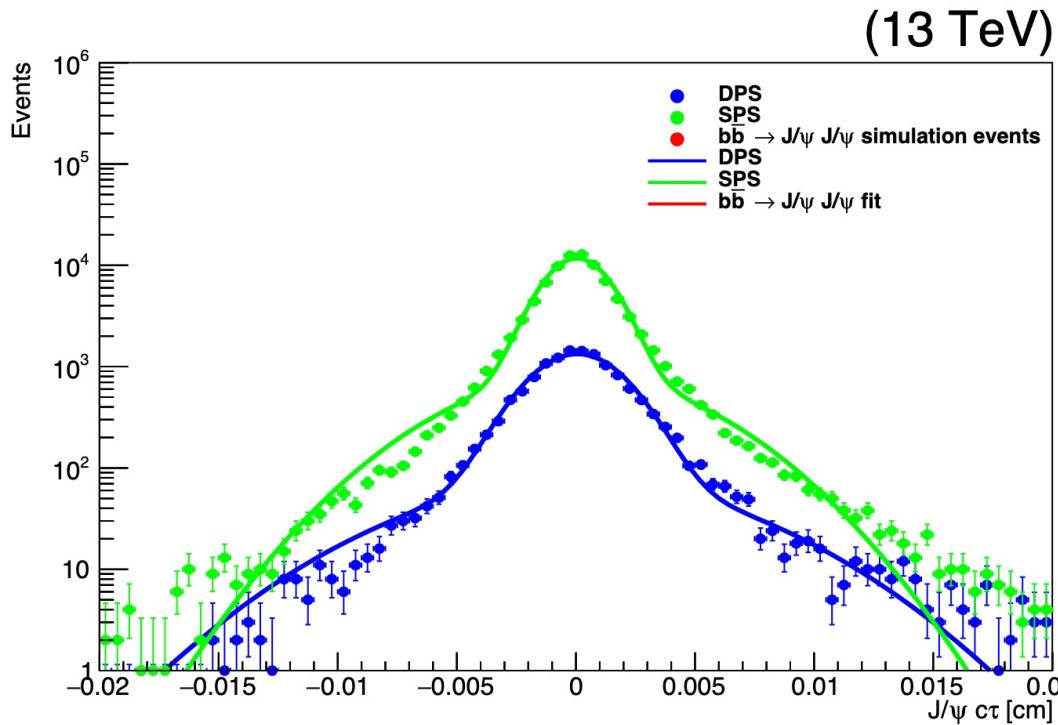
2022.11.3

# Ctau distribution without 4mu cut

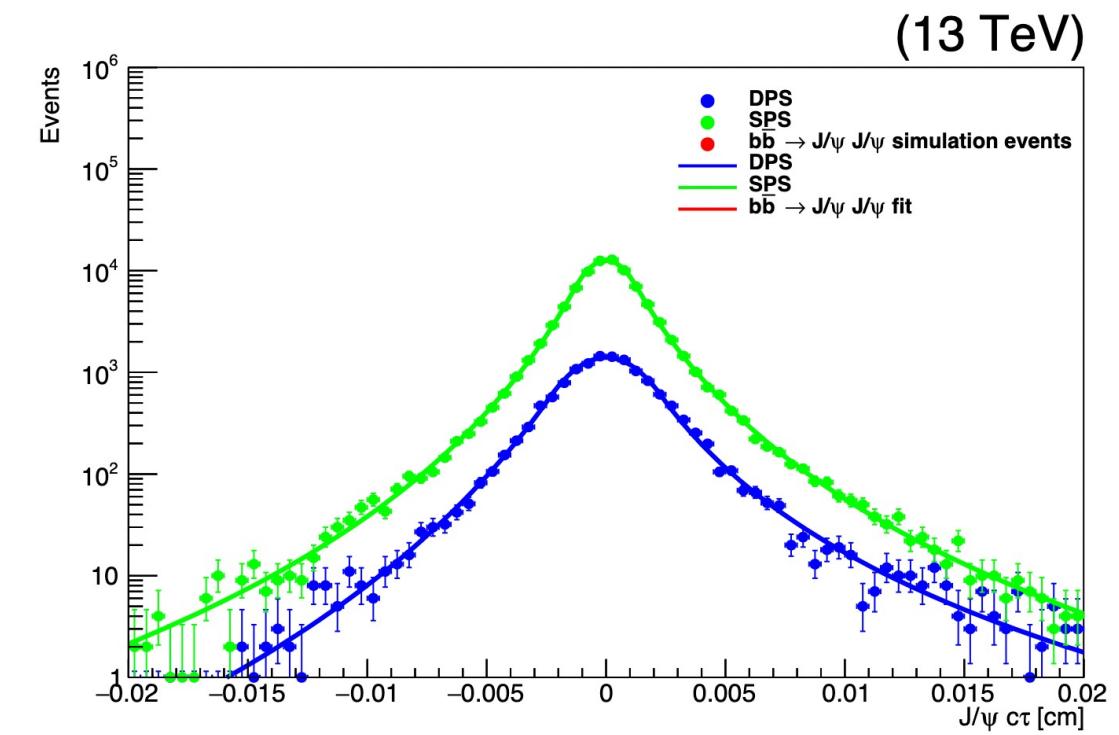


- Show the DPS, SPS and BBbar  $J/\psi$ 1 ctau distribution without 4mu vertex cut

# Ctau distribution fit without 4mu cut



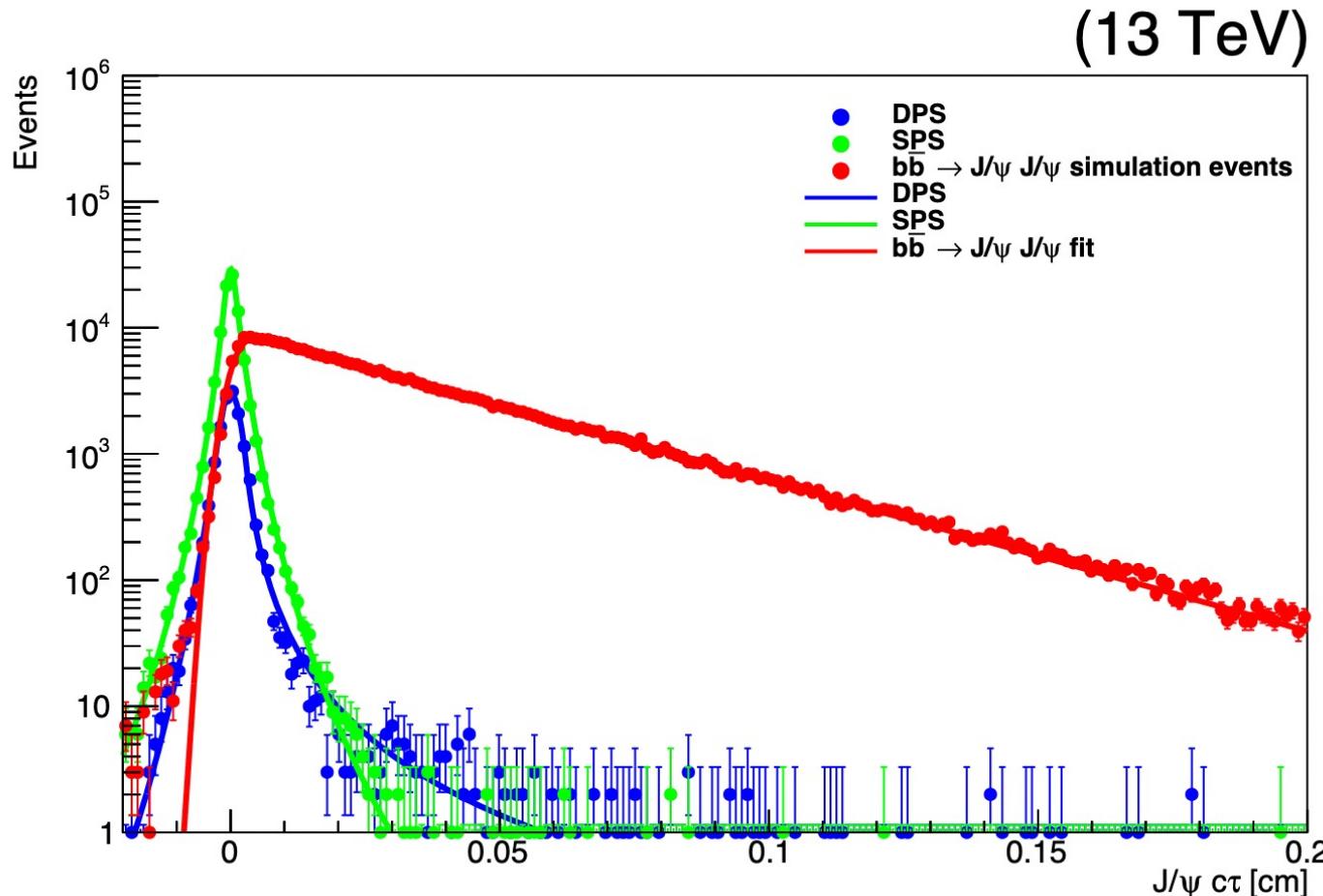
Use double gauss to fit DPS and SPS



Use DSCB to fit DPS and SPS

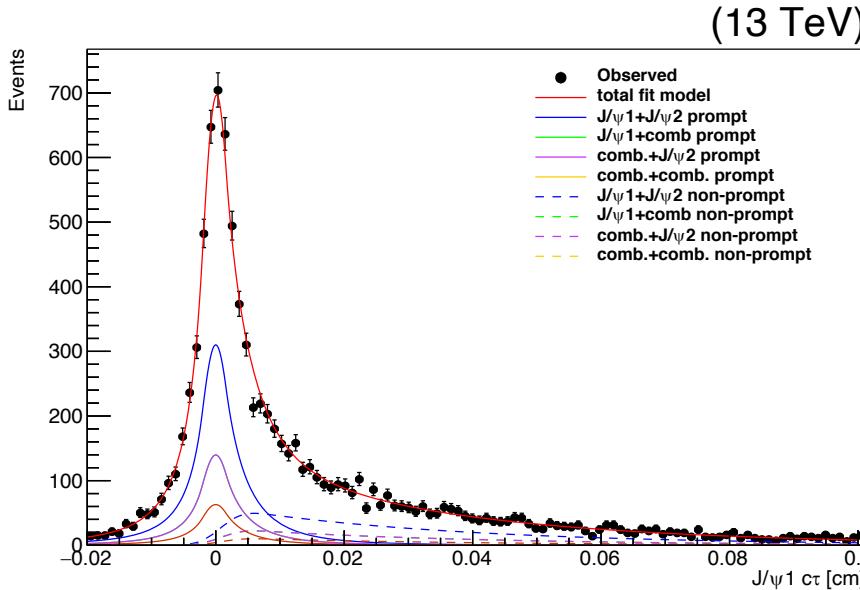
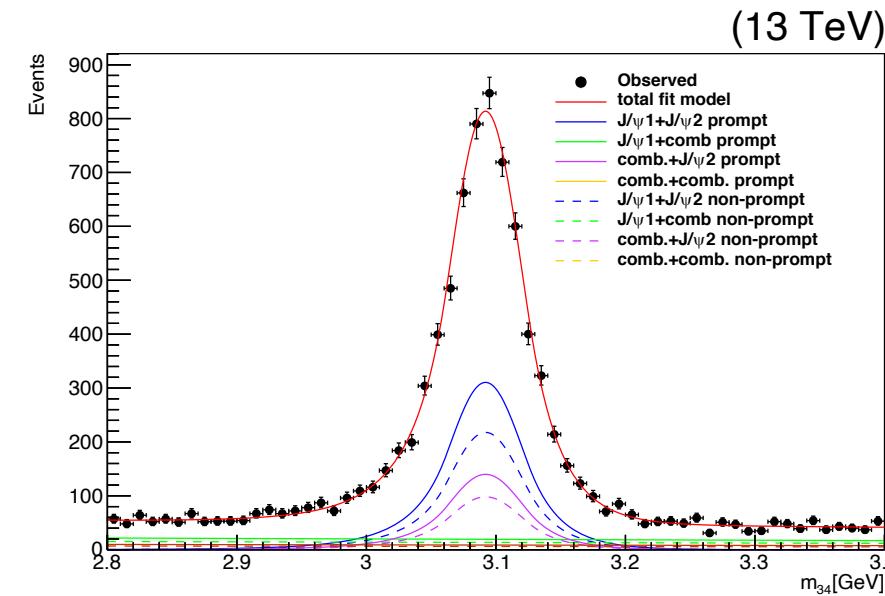
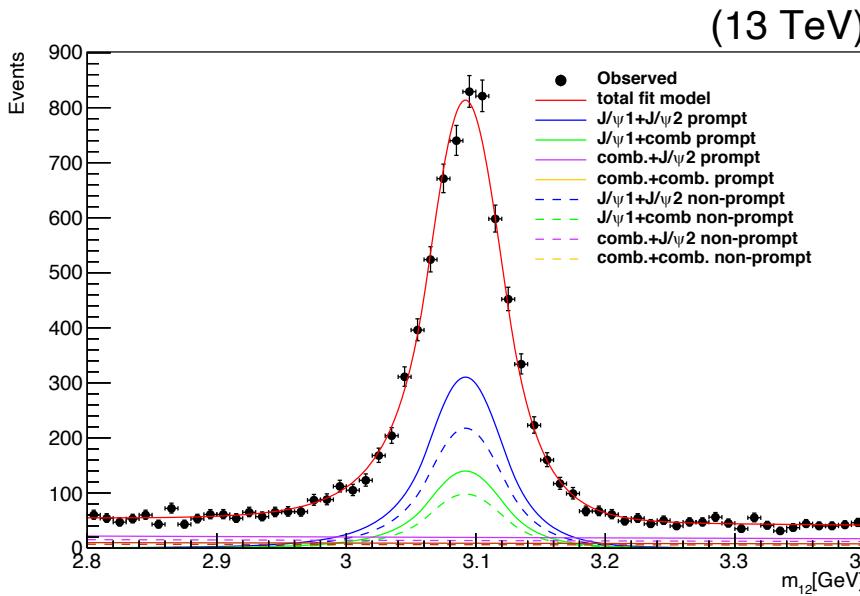
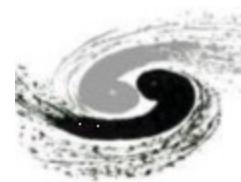
- Compare to double gauss function, double-sided Crystal Ball (DSCB) function can fit DPS and SPS better

## Ctau distribution fit without 4mu cut



Use the Gauss $\otimes$ Exp function to fit BBbar ctau distribution

# 3D fit without 4mu cut



- J/ $\psi$ : using double-sided Crystal Ball (DSCB) function. The parament get from DPS and SPS fit
- Combinatorial component: use the 2nd Chebyshev Polynomial
- Ctau: prompt use double-sided Crystal Ball (DSCB) function function, Non-prompt use the Gauss $\otimes$ Exp function
- J/ $\psi$  J/ $\psi$  fraction:  $0.475 \pm 0.011$ , prompt fraction:  $0.5878 \pm 0.0098$