

# Invariant mass distribution (Run 2016B)

*Linwei Li*  
*Peking University*

## **JSON file**

Cert\_271036-273730\_13TeV\_PromptReco\_Collisions16\_JSON.txt

## **Selection(muon)**

Singel muon  $P_t > 2$

Muon ID : soft

TrackType: INNER

Rapidity: (0, 1.4)

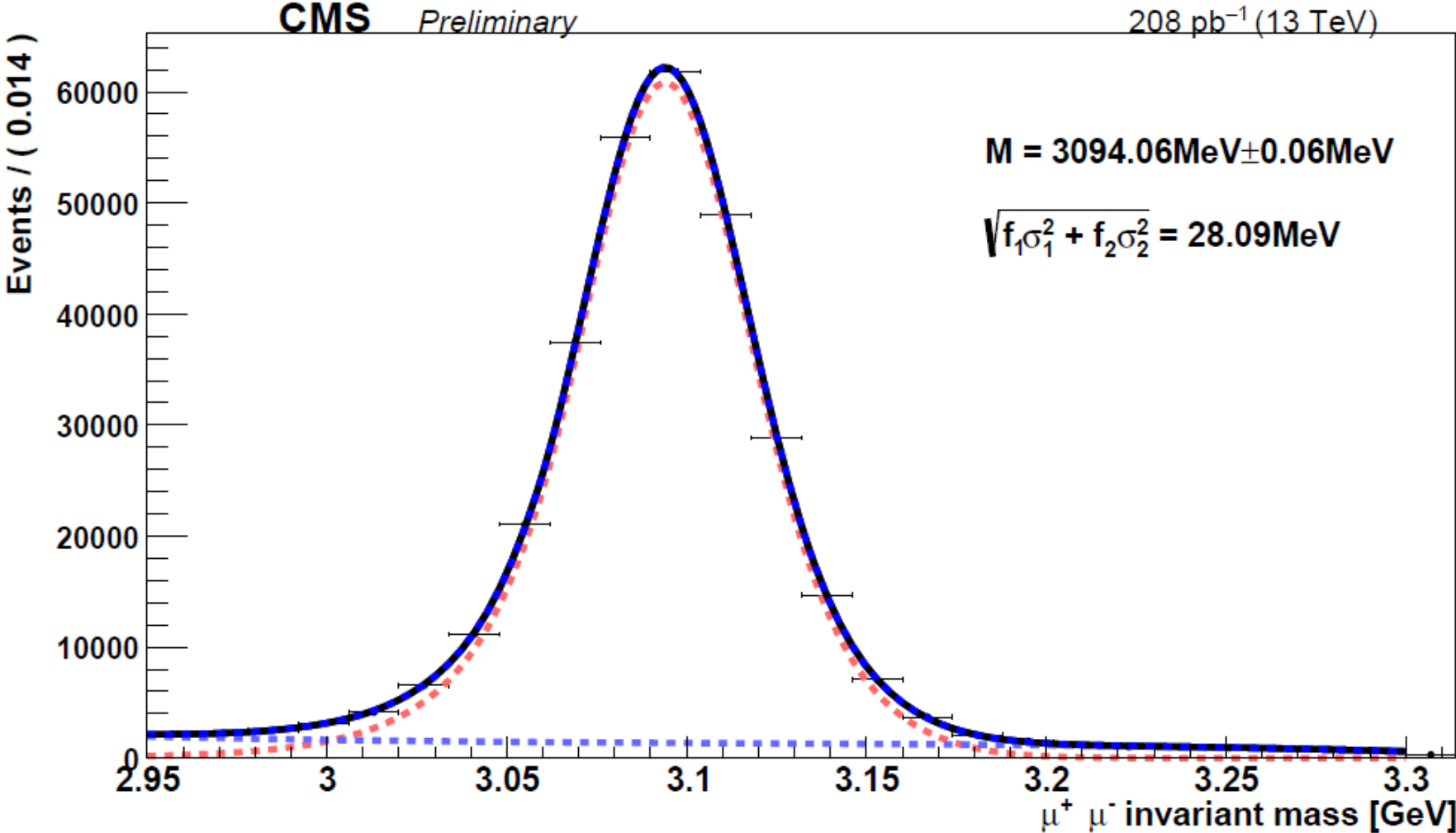
# Dimuon invariant mass of $J/\psi$

- Dataset: Charmonium – Prompt\_v2
- Selection: 2 muons passing Soft ID,  $|y_{jpsi}| < 1.4$
- Trigger: HLT\_Dimuon 16\_Jpsi
- Fit Method

Mass PDF: double Crystal Ball with common mean, n and alpha parameters

Background PDF: Chebychev polynomial series of order 2

# Dimuon invariant mass of J/ψ



# Dimuon invariant mass of $Y(nS)$

- Dataset: MuOnia – Prompt\_v2
- Selection: 2 muons passing Soft ID,  $|\mu_\eta| < 0.9$
- Trigger: HLT\_Dimuon 13\_Upsilon
- Fit Method

Y(1S) Mass PDF: double Crystal Ball with common mean, n and alpha parameters

Y(2S) Mass PDF: Crystal Ball

Y(3S) Mass PDF: Crystal Ball

Background PDF: Chebychev polynomial series of order 2

# Dimuon invariant mass of $Y(nS)$

