Weighted fit
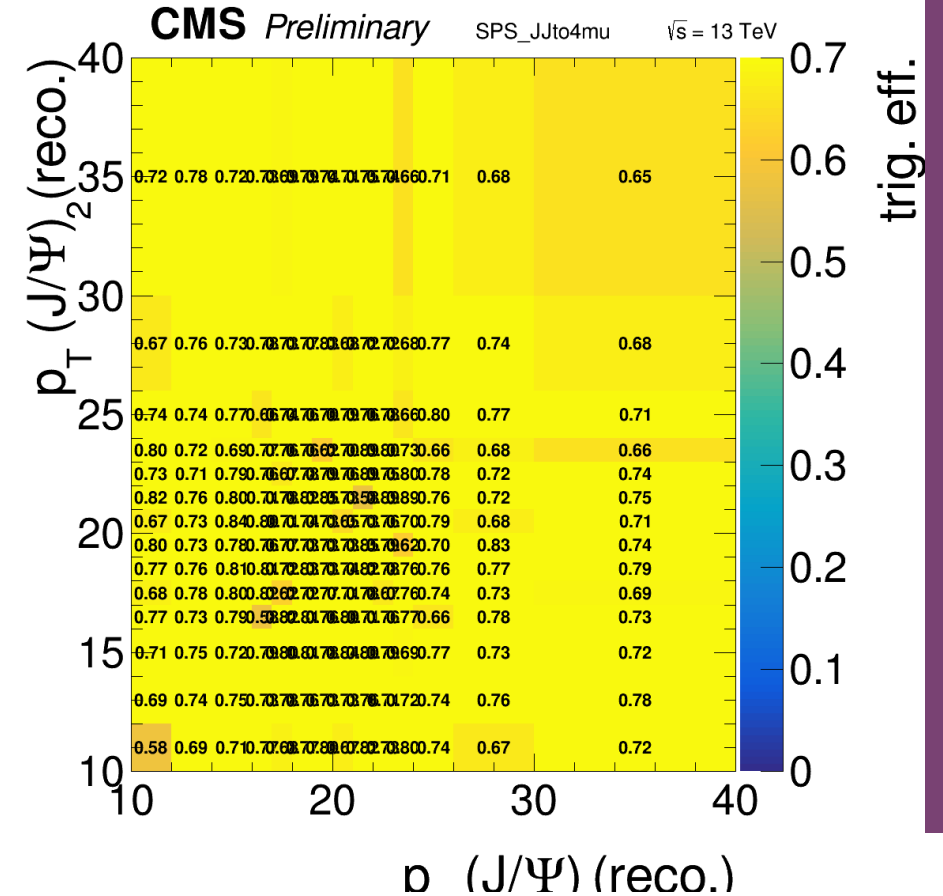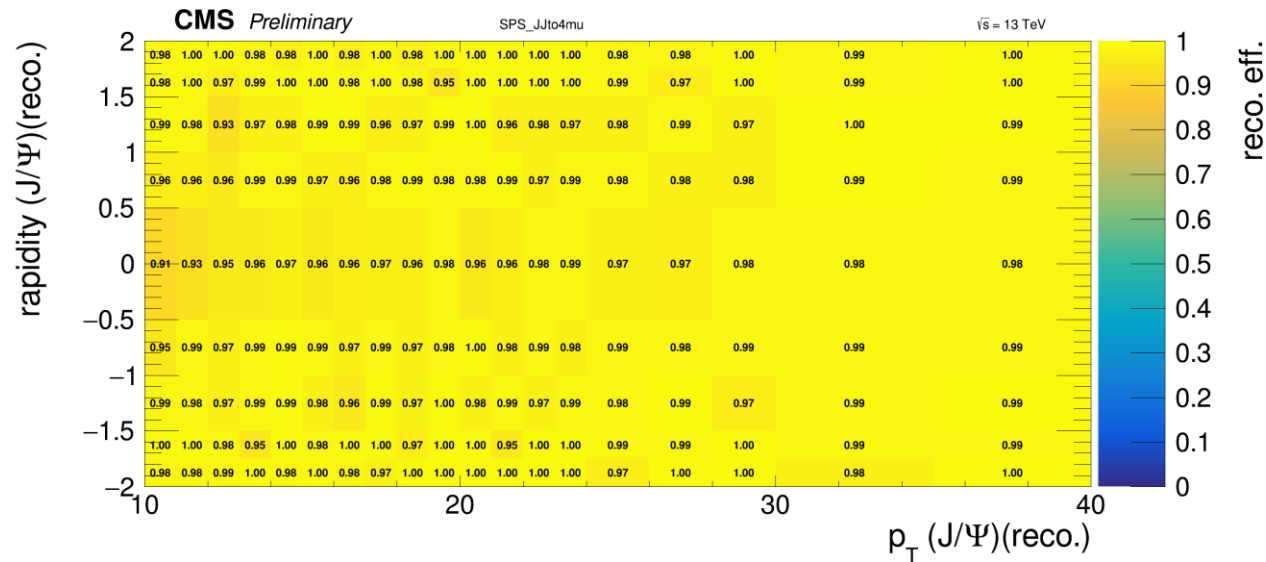
- Redone the acceptance and efficiency calculation and a weighted fit was carried out (2016)

Weighted fit

- Redone the acceptance and efficiency calculation and a weighted fit was carried out (2016)
- For the weight:
  - $0.692 \times \varepsilon(DPS) + 0.308 \times \varepsilon(SPS)$
  - $\varepsilon(DPS) = \varepsilon_\eta(DPS) \times \varepsilon_{p^T}(DPS) \dots$
  - All MC samples and Data sample are corrected by this weight

Weighted fit

- Redone the acceptance and efficiency calculation and a weighted fit was carried out (2016)
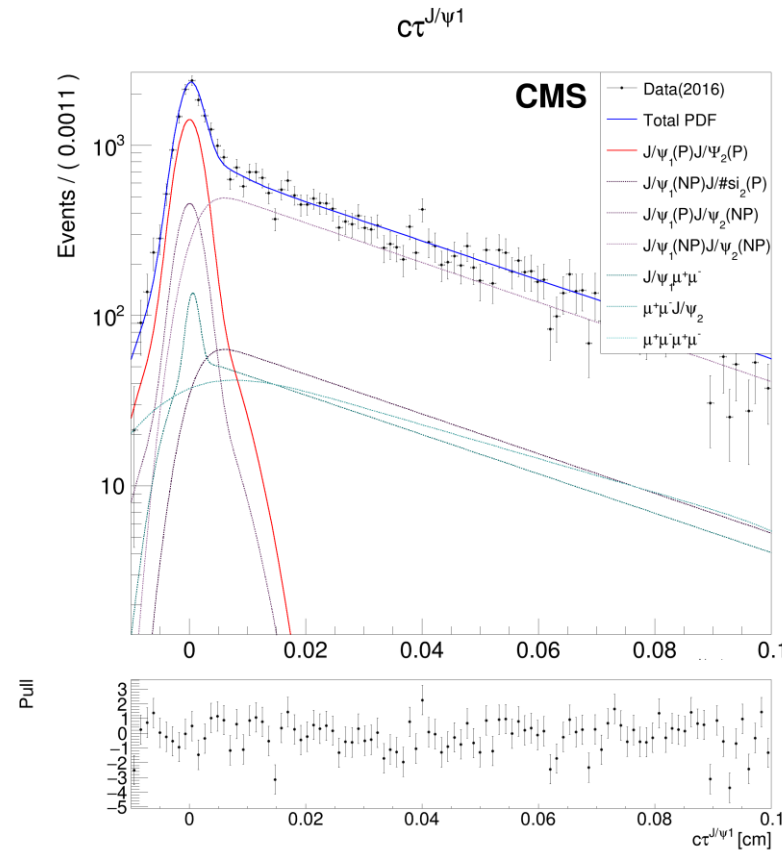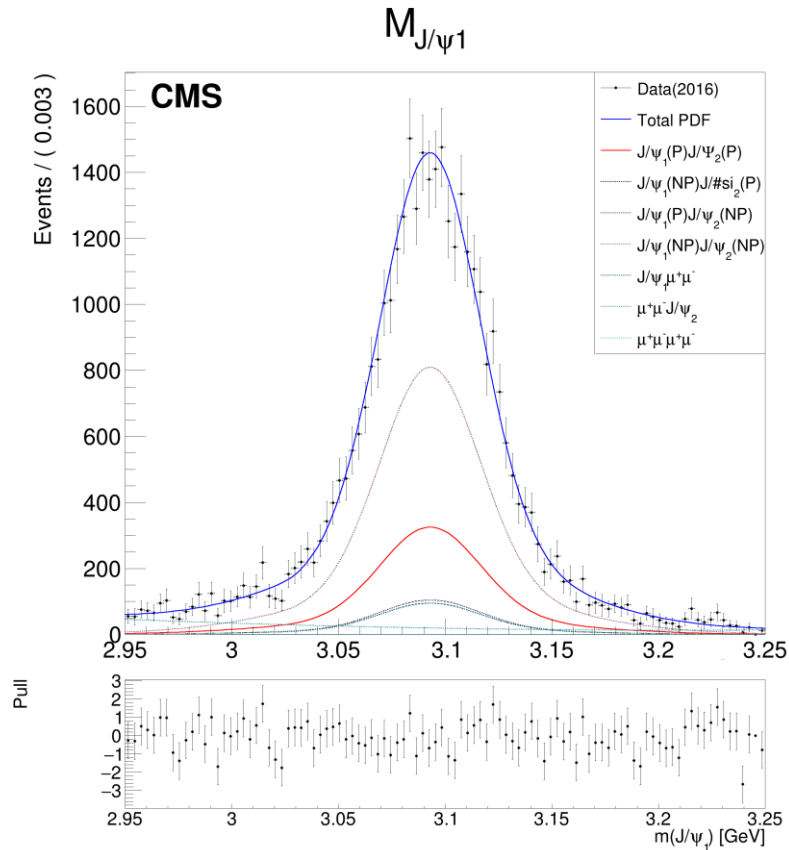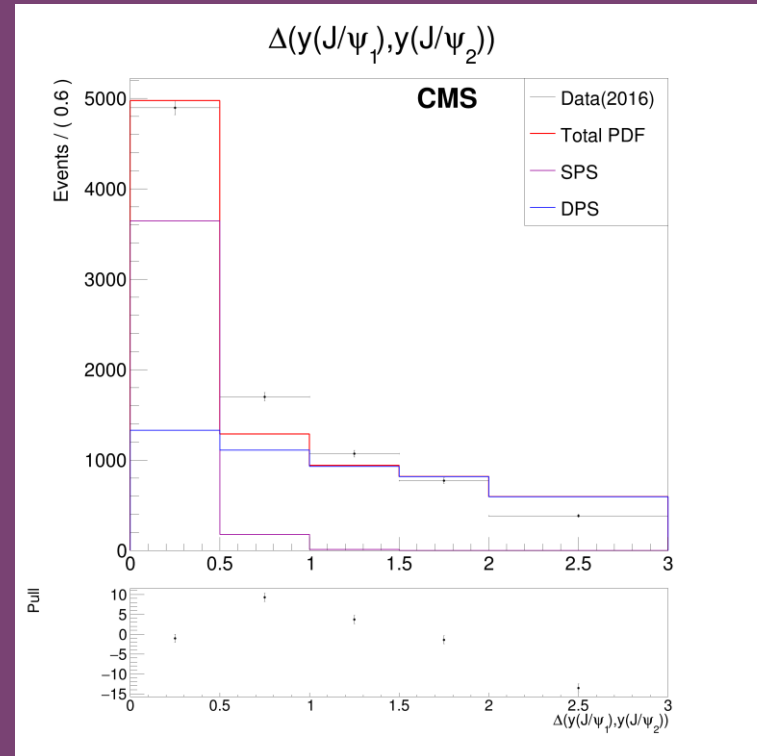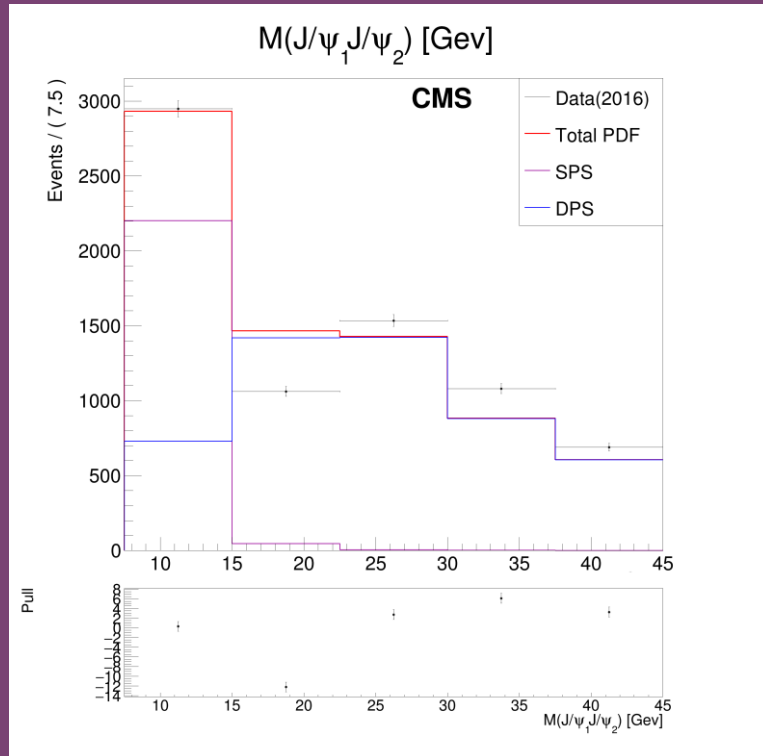

$$N(PP) = 7740 \pm 100$$

$$L_{2016} = 36.3 fb^{-1}$$

$$\sigma = \frac{7740}{36.3 \times 5.96\%^2} fb$$

$$= (60.0 \pm 0.8) pb$$

Binned fit

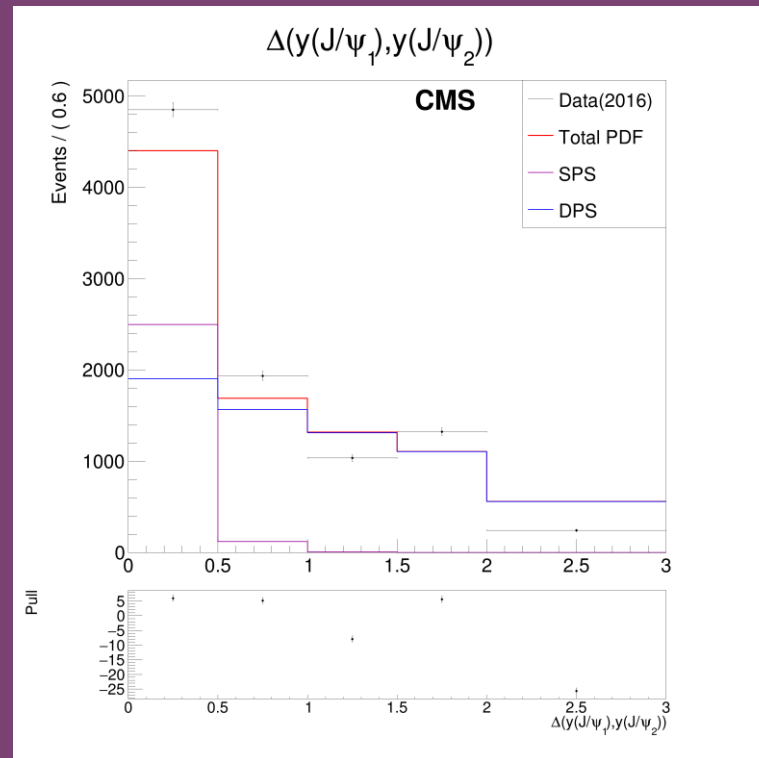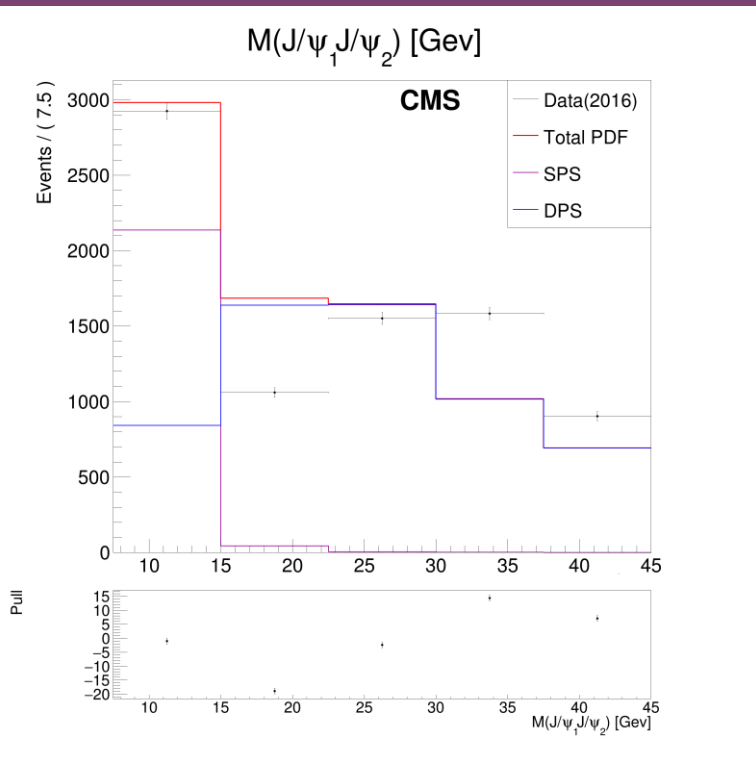- The template fit to determine the SPS/DPS fraction was carried out

- The fitting quality was not that satisfying
- DPS fraction acquired:
  - $M(J/\psi J/\psi)$: 0.625 ± 0.006
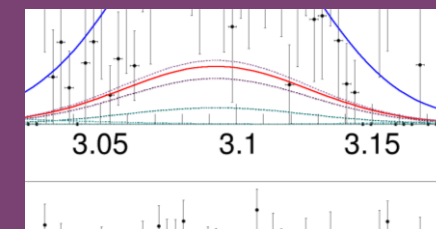 - $\Delta(y(J/\psi_1), y(J/\psi_2))$: 0.0594 ± 0.007
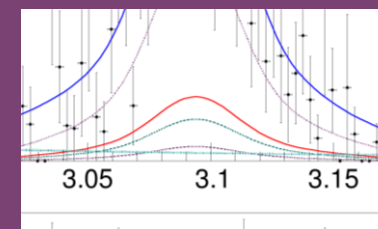
Binned fit

- A 2D template fit to was tried

- DPS fraction acquired:
  - 0.727 ± 0.006
- Fitting in single bin is unsteady

- Propose to fix more parameters in binned fit (e.g: J/ψ mass peak)

Back Up

		0.5		0.2	
SPS	10K	→	5K	→	1K
DPS	5K	0.4	2K	0.4	800
		→		→	
Total	15K	→	7K	→	1800

$(0.5*2+0.4)/3$ $(0.2*2+0.4)/3$

14464 ← 6750 ← 1800

$(0.5*0.2*2+0.4*0.4)/3$

15000 ← 1800

1800