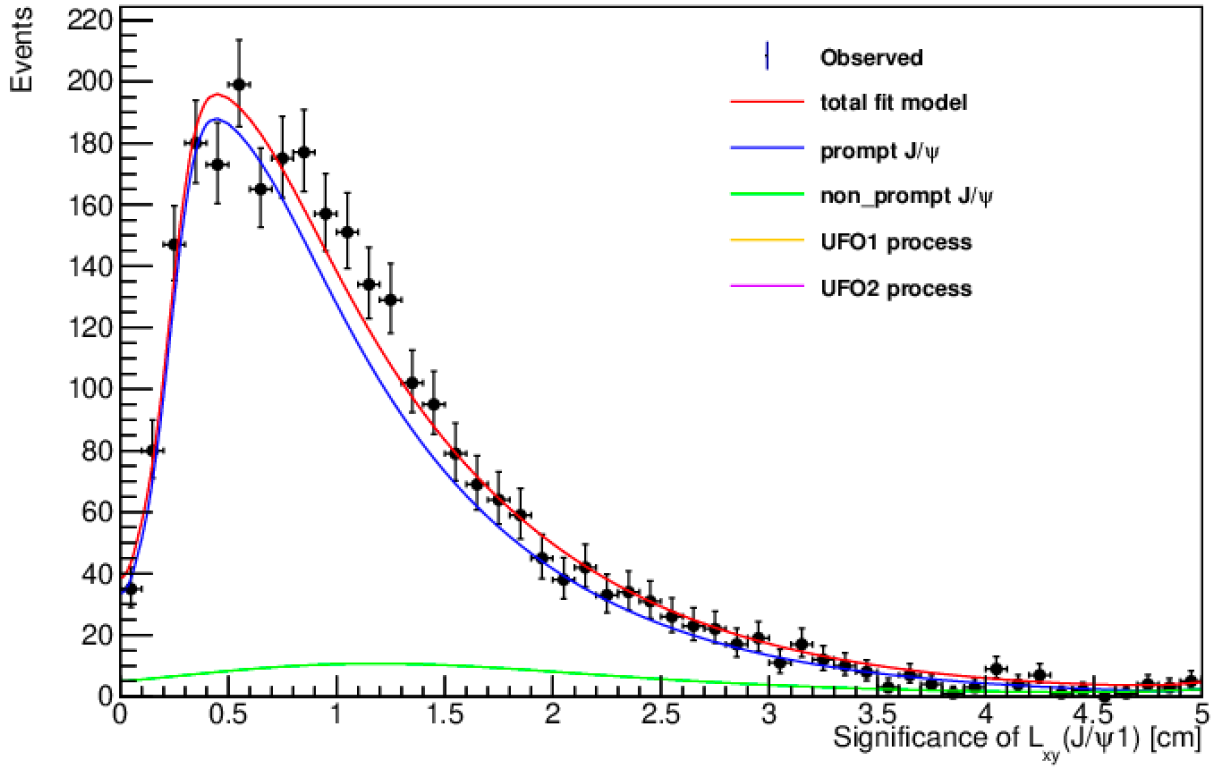
中國科學院高能物理研究所
Institute of High Energy Physics
Chinese Academy of Sciences

Double Jpsi

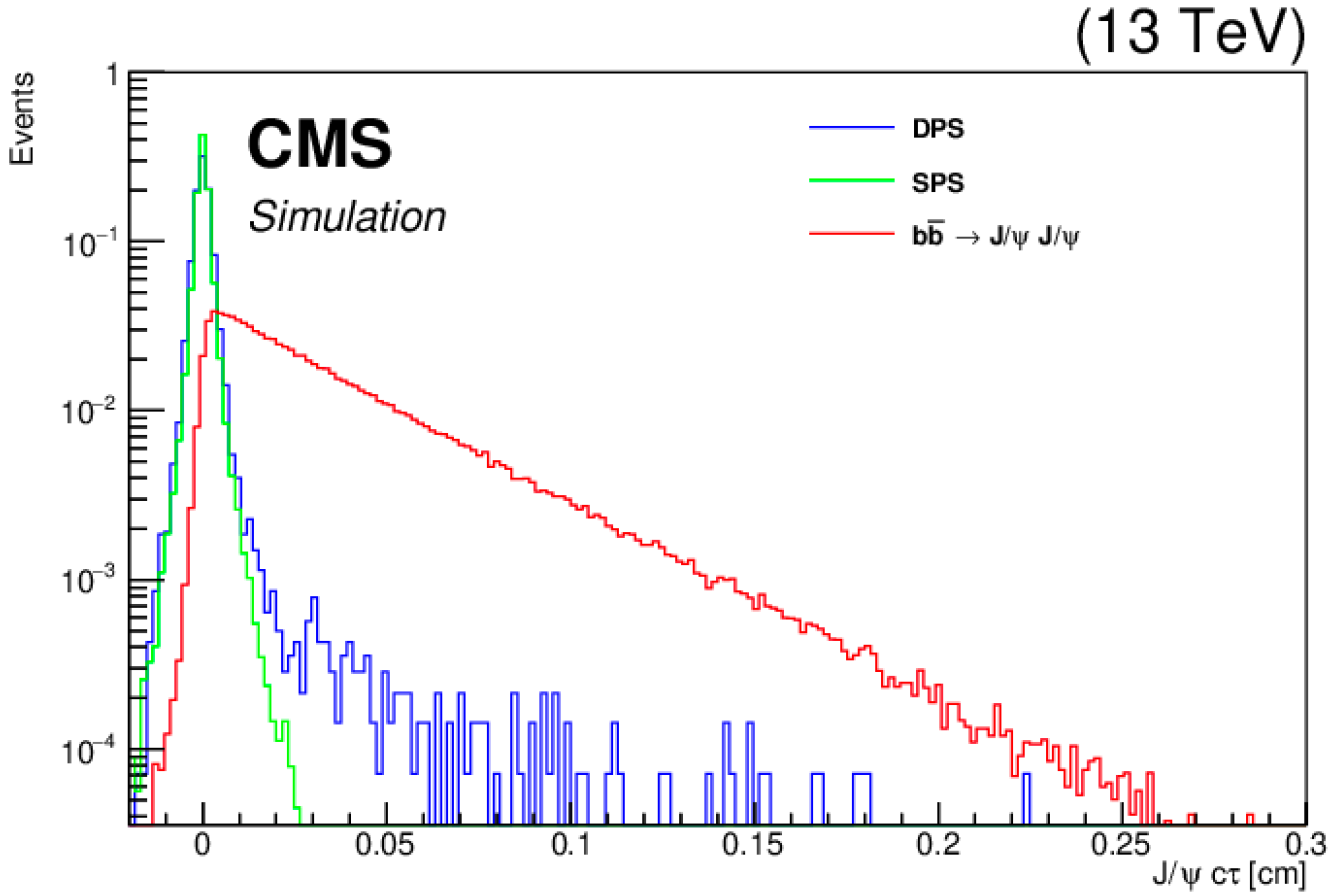
Taozhe Yu

Double gauss convolution Exp function



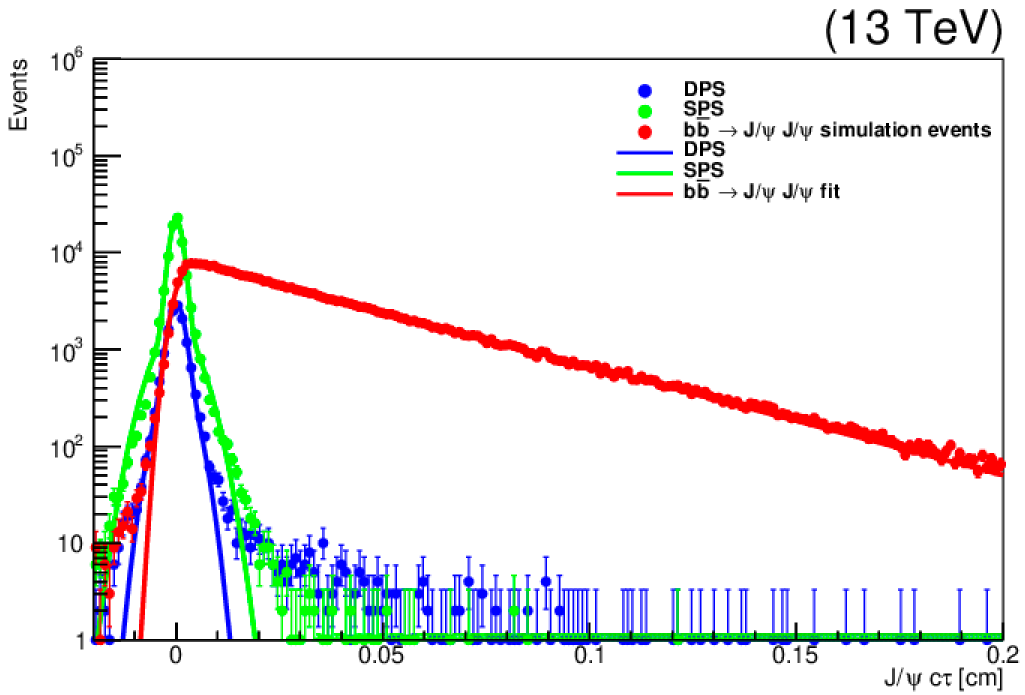
- I use double gauss convolution Exp function to fit Significance of Lxy
- The fit result seems still unreasonable

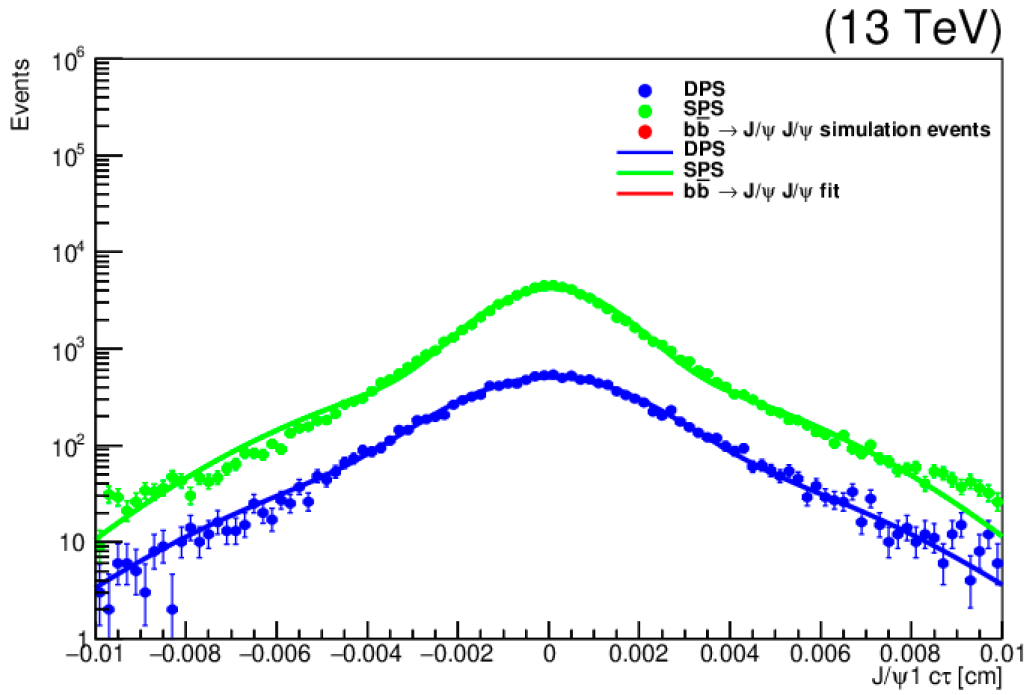
Ctau distribution without 4mu cut



- The ctau distribution without 4mu cut

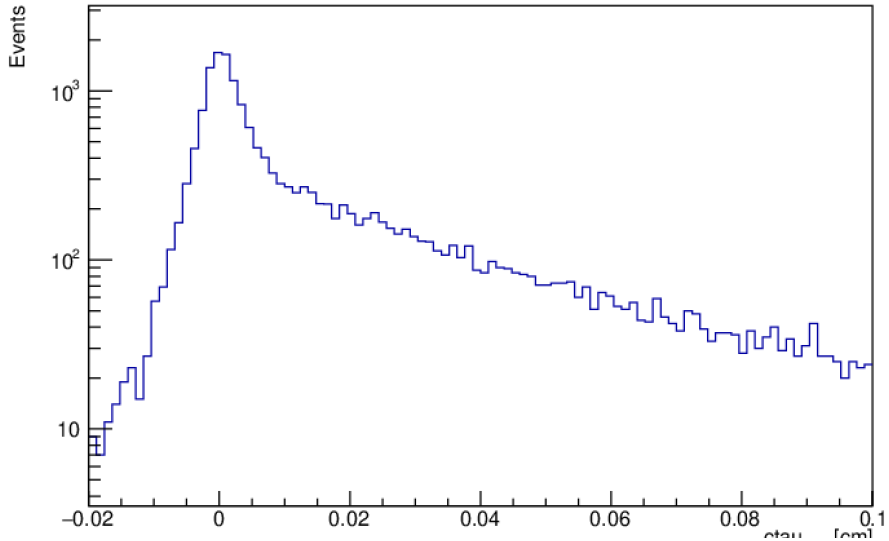
Fit the ctau without 4mu cut

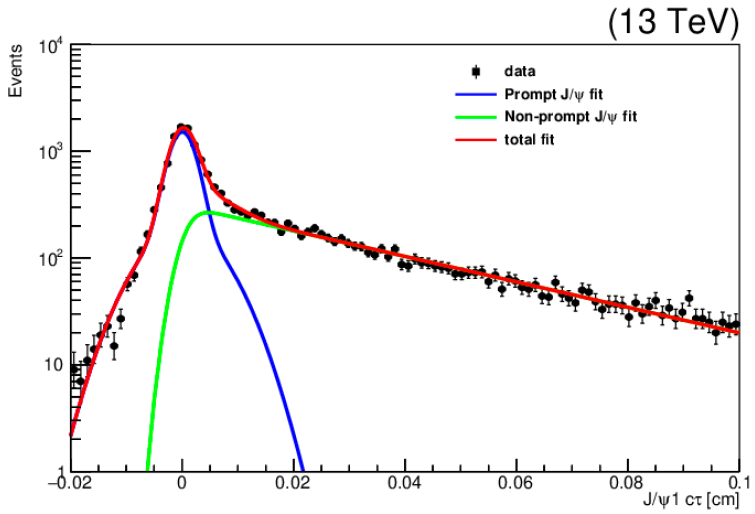


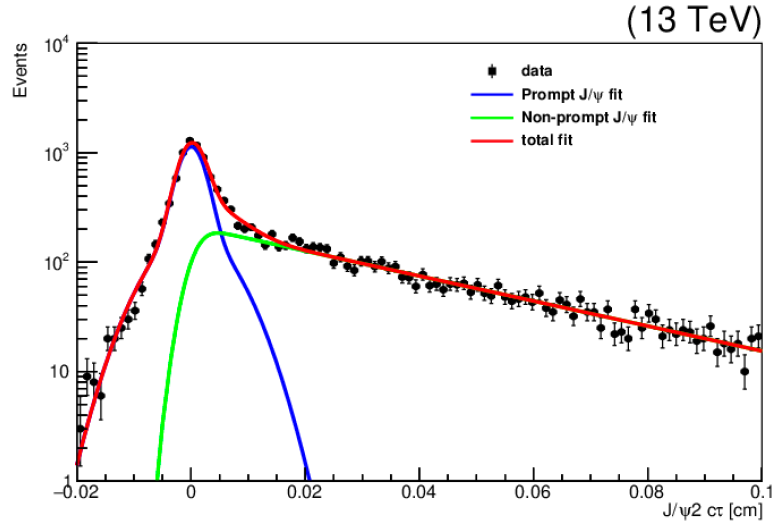


- Use double gauss function to fit prompt
- Use gauss Convolution Exp function to fit non-prompt

Data ctau 1D fit

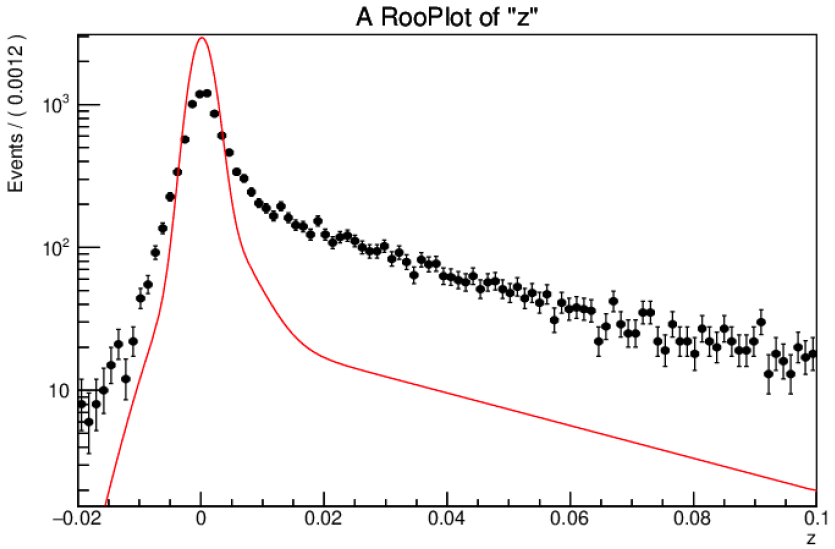




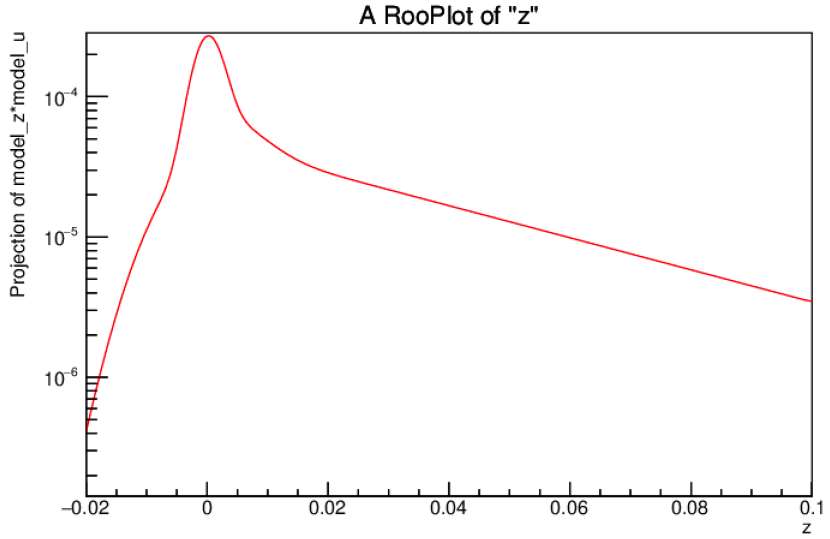


- The fit parameter get from MC fit

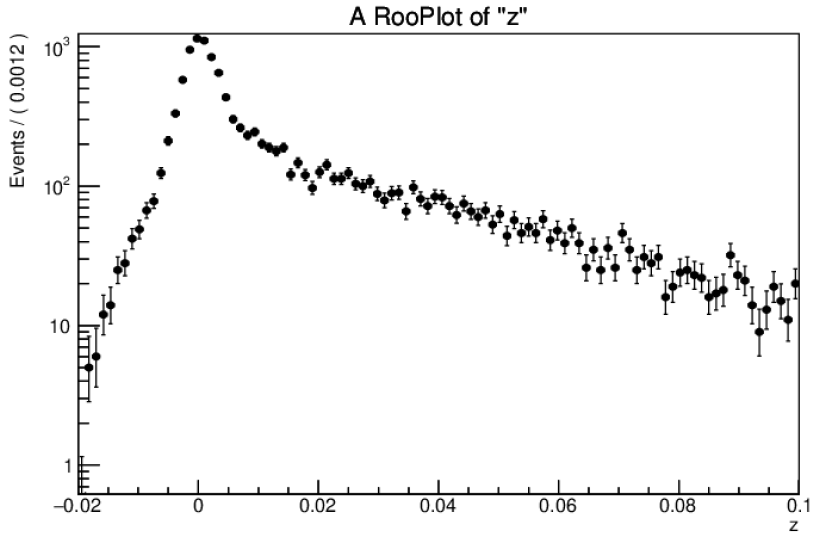
Data ctau 2D fit



- 2D fit seems have problem, the projection seems not fit the data



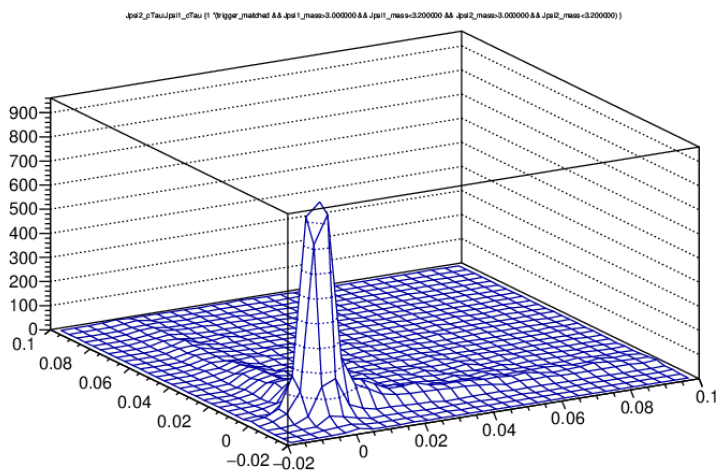
Check the 2D function projection distribution

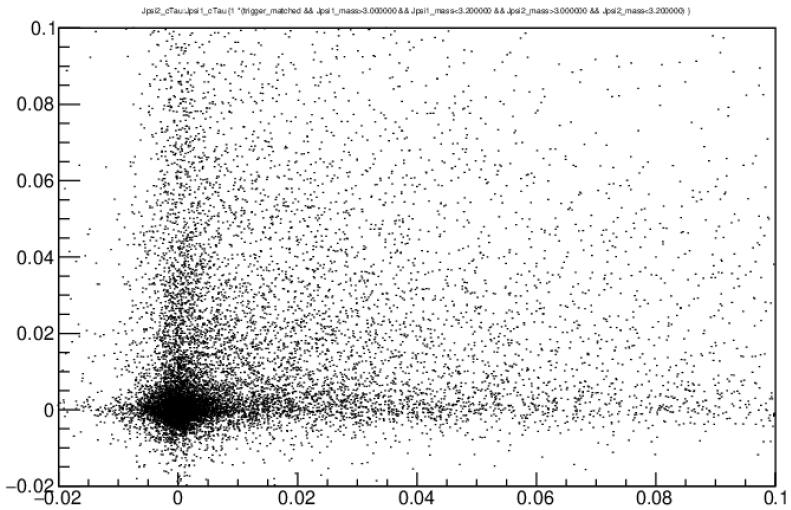


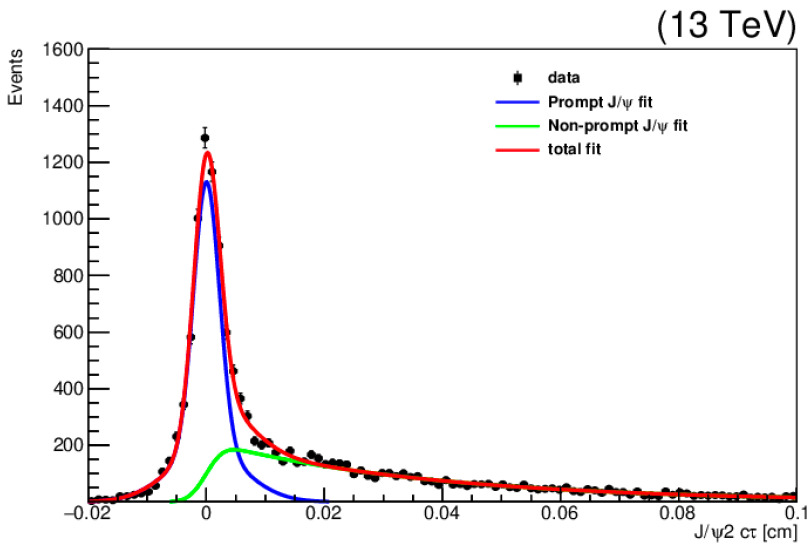
Ues 2D function to produce toy data

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

backup


Jpsi2_cTau:Jpsi1_cTau (1 *(trigger_matched && Jpsi1_mass>3.000000 && Jpsi1_mass<3.200000 && Jpsi2_mass>3.000000 && Jpsi2_mass<3.200000))
900
800
700
600
500
400
300
200
100
0
0.1
0.08
0.06
0.04
0.02
0
−0.02
−0.02
0
0.02
0.04
0.06
0.08
0.1


Jpsi2_cTau:Jpsi1_cTau (1 *(trigger_matched && Jpsi1_mass>3.000000 && Jpsi1_mass<3.200000 && Jpsi2_mass>3.000000 && Jpsi2_mass<3.200000))
0.1
0.08
0.06
0.04
0.02
0
−0.02
−0.02
0
0.02
0.04
0.06
0.08
0.1


(13 TeV)
Events
1600
1400
1200
1000
800
600
400
200
data
Prompt J/ψ fit
Non-prompt J/ψ fit
total fit
−0.02
0
0.02
0.04
0.06
0.08
0.1
J/ψ2 cτ [cm]