Jpsi meeting

Taozhe

Fit

Use one side crystal ball function
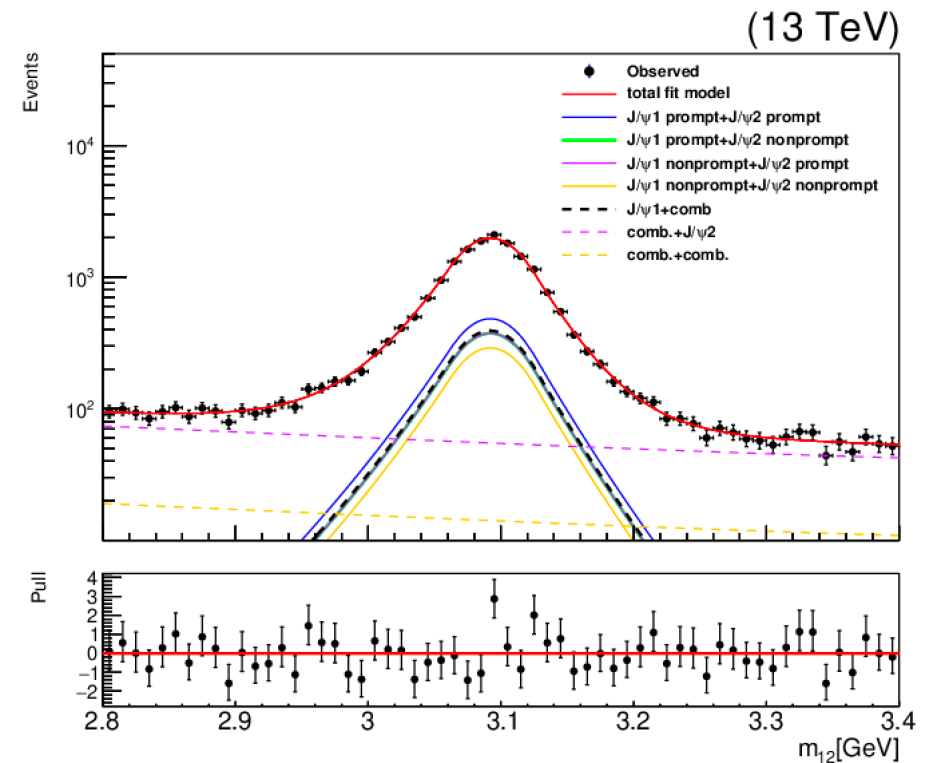
Use Double side crystal ball function

- Suggest to use double side crystal ball function

4D fit to distinguish all components
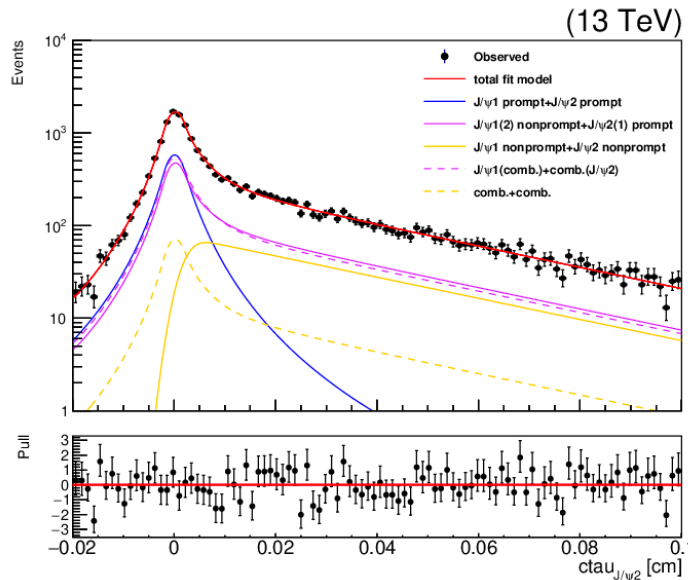
➢ 4D fit

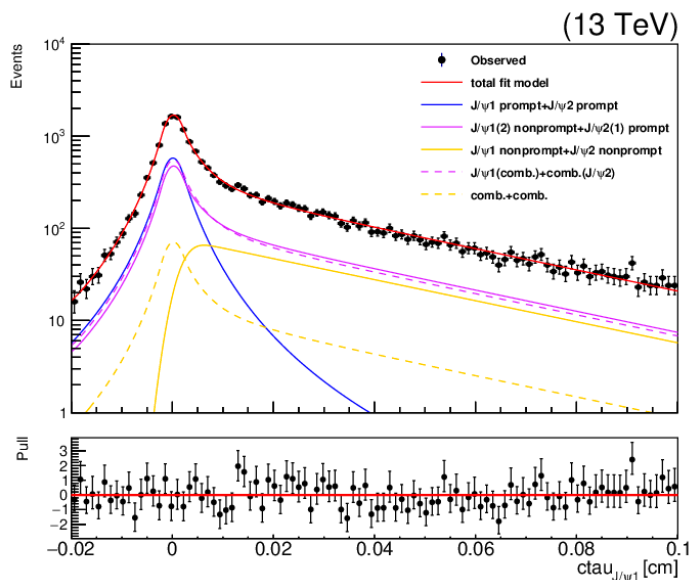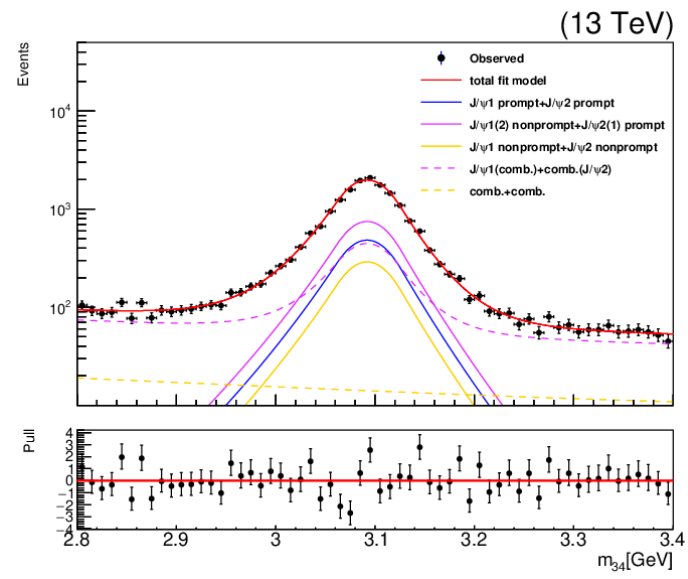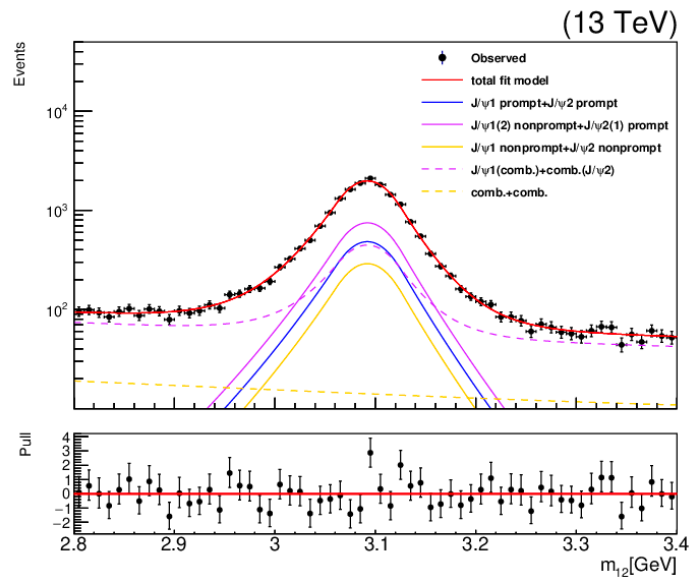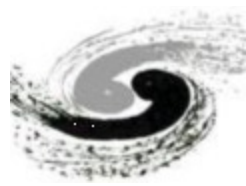- We do fit simultaneous in invariance mass and lifetime for two muon pairs, we can distinguish all 16 components.

- To make it looks brief, we merge some components in the plots, the legend in the plots:

  ☐ J/ψ1 prompt + J/ψ2 prompt
    - The two muon pair are all prompt J/ψ, this component are signal

  ☐ J/ψ1(2) non-prompt + J/ψ2(1) prompt
    - The two muon pair are all J/ψ, but one of them is non-prompt

  ☐ J/ψ1 non-prompt + J/ψ2 non-prompt
    - The two muon pair are all non-prompt J/ψ

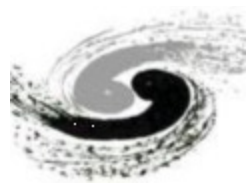 ☐ J/ψ1(comb.) + comb. (J/ψ2)
    - One muon pair is J/ψ and another is comb, these two muon pair could be prompt or non-prompt

  ☐ comb. + comb.
    - All these two muon pair are comb, they could be prompt or non-prompt

Sample produce

➢ SPS, DPS and BBbar MC sample produce

gsiftp://ccsrm.ihep.ac.cn/dpm/ihep.ac.cn/home/cms/store/user/tayu/BBarToJJ_Ntuple_triggerMatched

gsiftp://ccsrm.ihep.ac.cn/dpm/ihep.ac.cn/home/cms/store/user/tayu/DPSToJJ_Ntuple_triggerMatched

gsiftp://ccsrm.ihep.ac.cn/dpm/ihep.ac.cn/home/cms/store/user/tayu/SPSToJJ_Ntuple_triggerMatched

➢Data

Blacklist: /Charmonium/Run2018A-12Nov2019_UL2018_rsb-v1/AOD#ffae8690-4d08-44fb-8dcc-e200ea0cd510

davs://ccsrm.ihep.ac.cn:443/dpm/ihep.ac.cn/home/cms/store/data/Run2018A/Charmonium/AOD/12Nov2019_UL2018_rsb-v1/50000/