



Update on the $\psi(2S)$ -to- $J\psi$ ratio

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Datasets

□ LHC24 pass1 skimmed

LHC24af, LHC24ag, LHC24aj, LHC24al

□ Triggers:

- ✓ fDiElectron

□ Event selection:

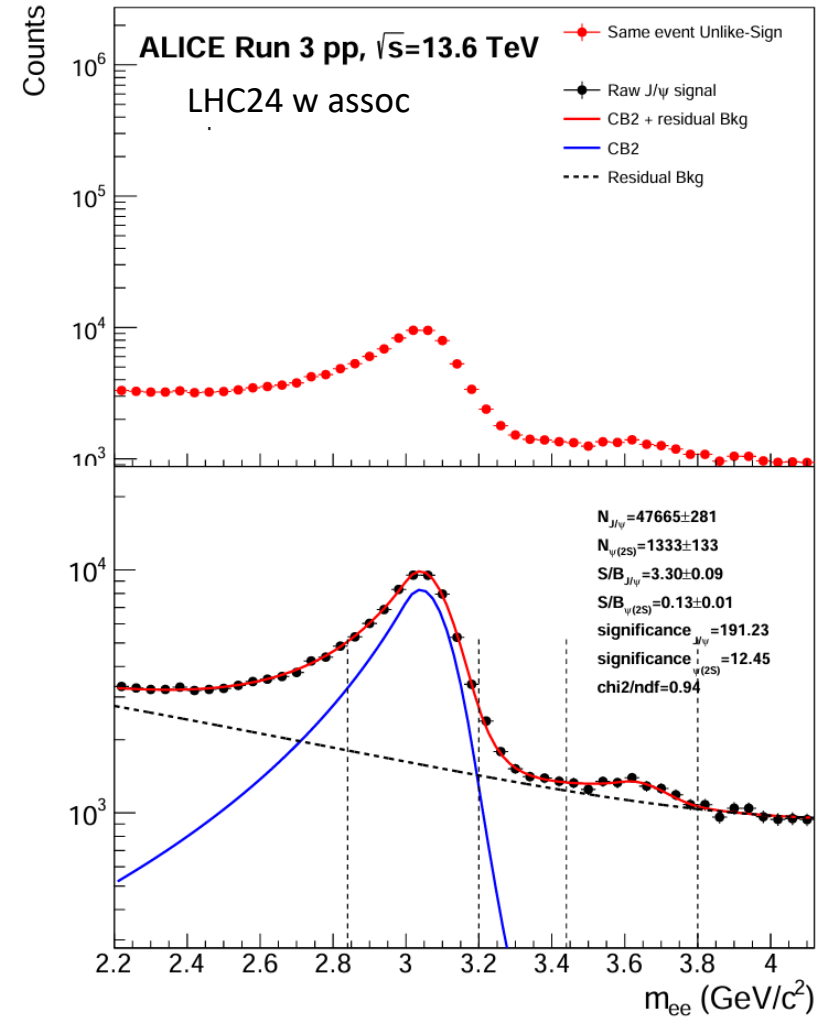
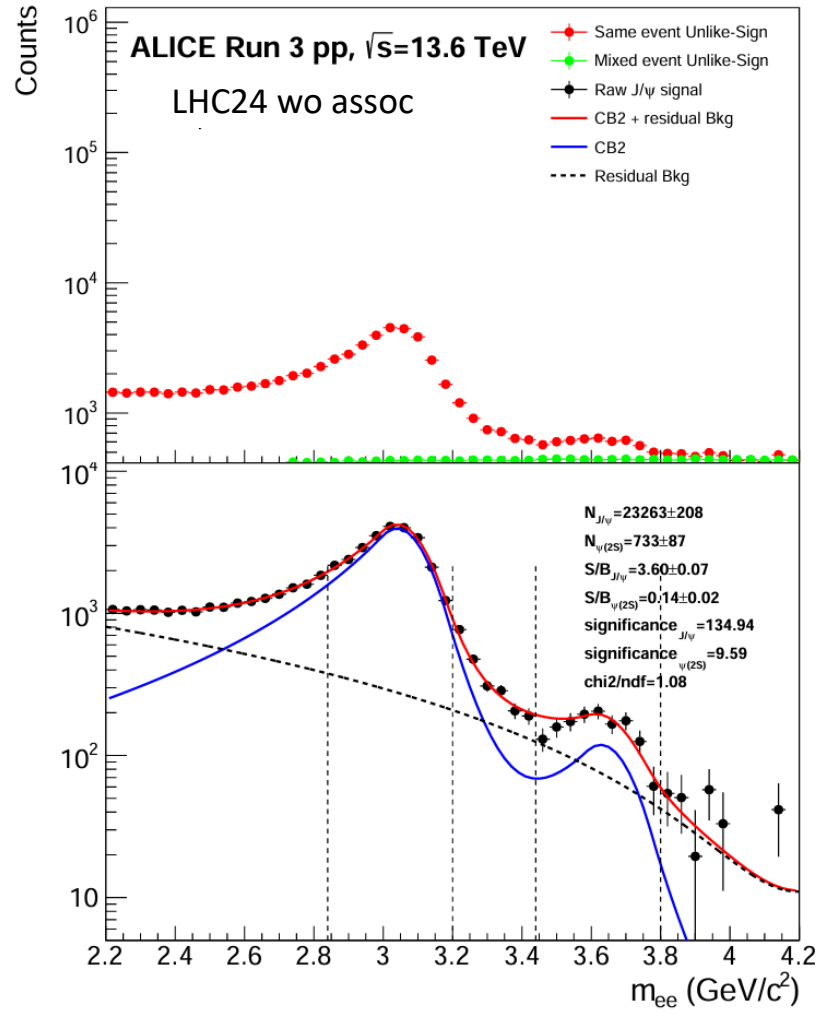
- ✓ $|VtxZ| < 10$ cm
- ✓ lsel8
- ✓ NoTFBorder
- ✓ NoITSROFBorder

□ Track cuts:

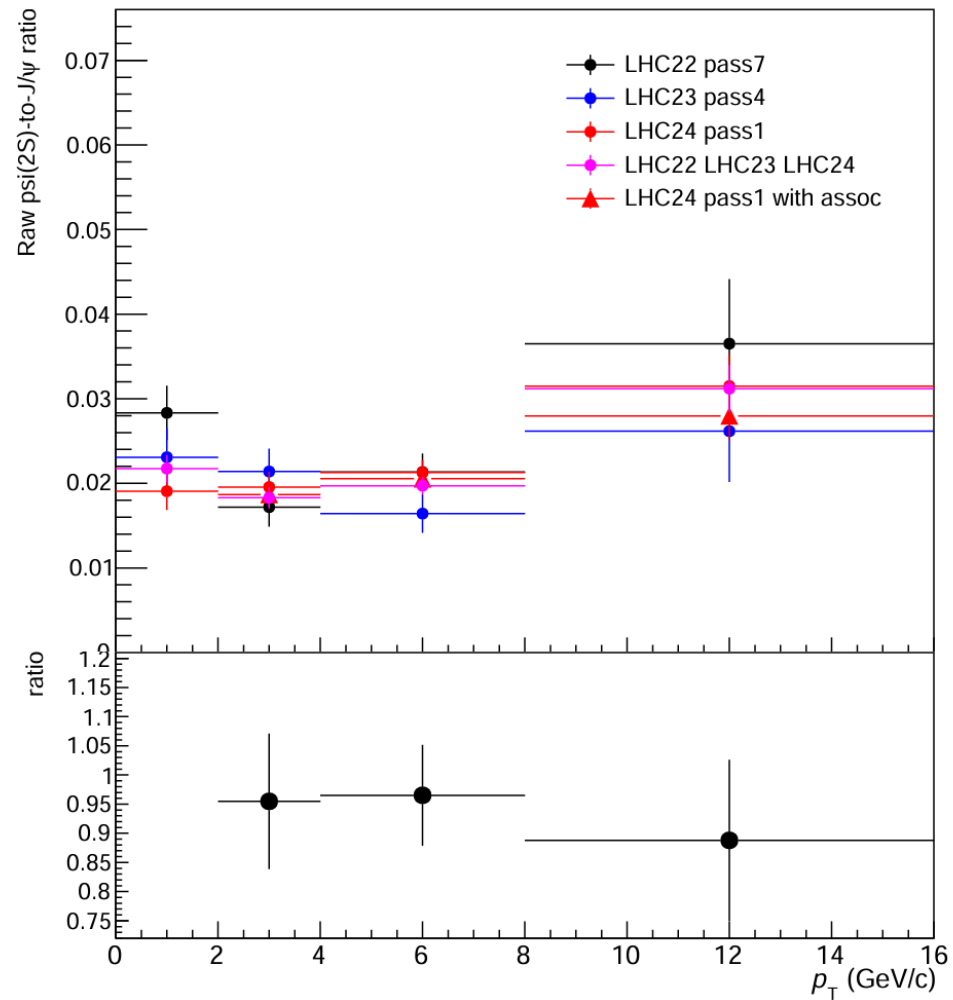
- ✓ $pT > 1$ GeV/c
- ✓ $|\eta| < 0.9$
- ✓ ITSncls > 2
- ✓ At least one hit in the first 2 layers
- ✓ ITSch2 < 5
- ✓ TPCncls > 90
- ✓ TPCchi2 < 4
- ✓ $|DCAxy| < 1$ cm
- ✓ $|DCAz| < 1$ cm

- ✓ $-2 < TPCnSigmaE < 3$
- ✓ $TPCnSigmaPi > 3$
- ✓ $TPCnSigmaPr > 3$

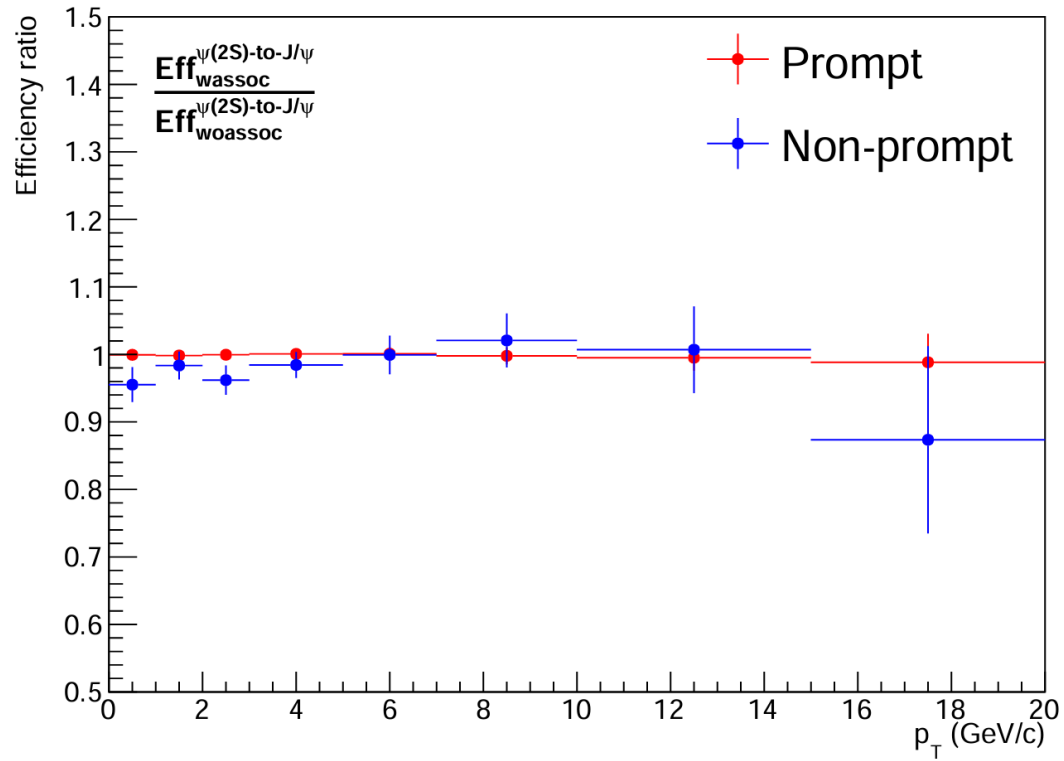
Signal extraction



Track-collision re-association



Check in MC

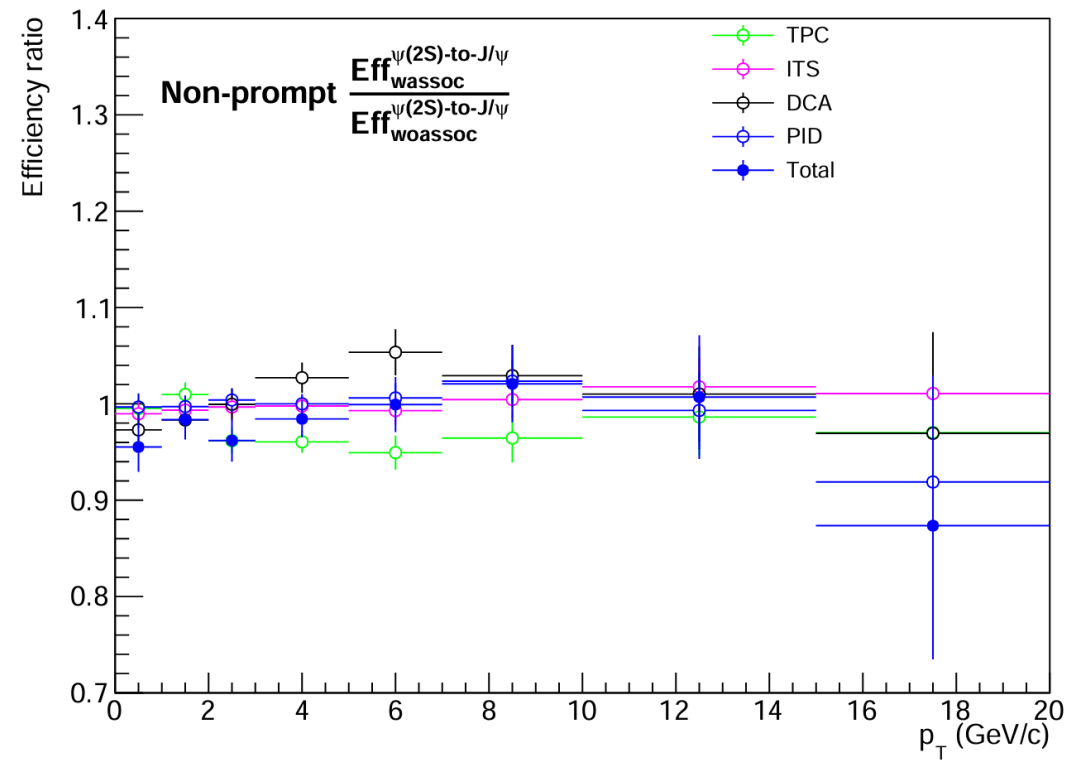


Prompt Jpsi, Psi2S:

LHC24d4a: [anchored to pass6 data](#)

Non-prompt Jpsi, Psi2S:

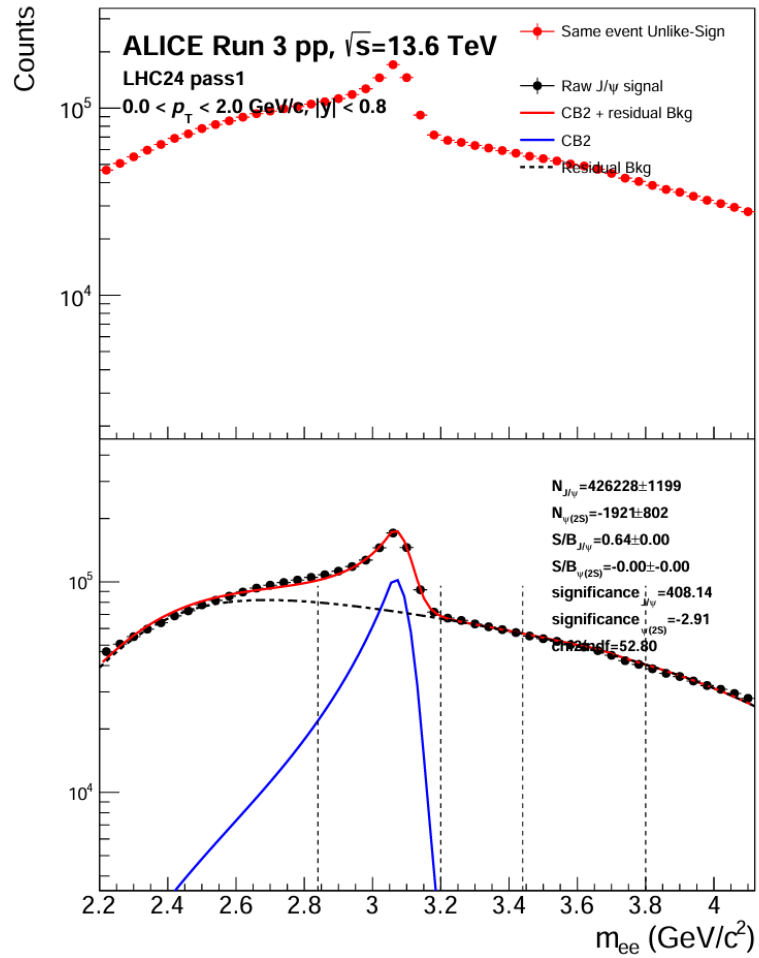
LHC24d4b: [anchored to pass6 data](#)



jira: <https://its.cern.ch/jira/browse/O2-4849>

Back up

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It's difficult to directly fit the background in low p_T .