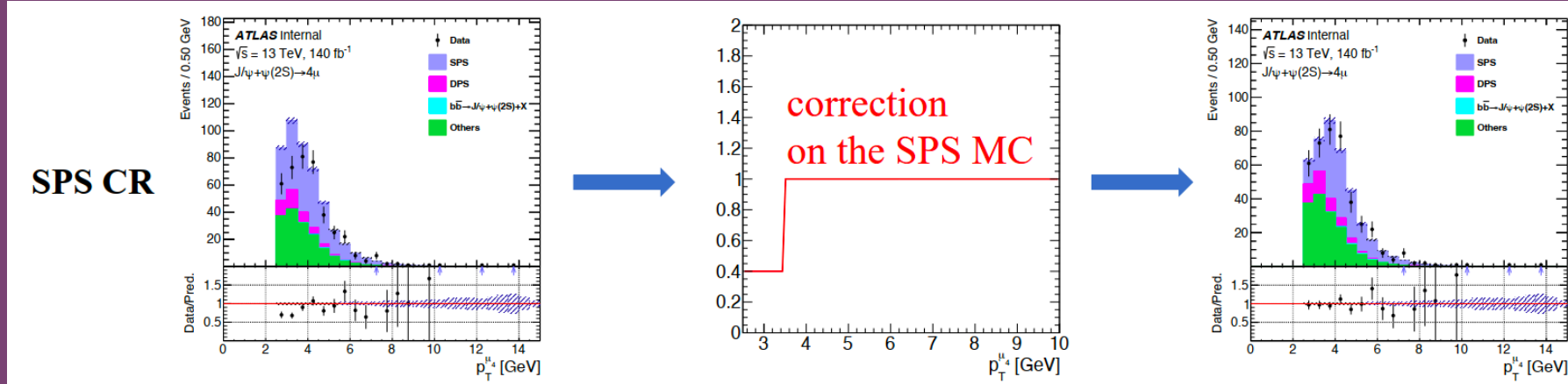# MC tuning

- ATLAS $J/\psi + \psi(2S)$ resonance study:



- SPS and DPS MC get corrected according to $p^T(\mu^+\mu^-\mu^+\mu^-)$ distribution from data sample

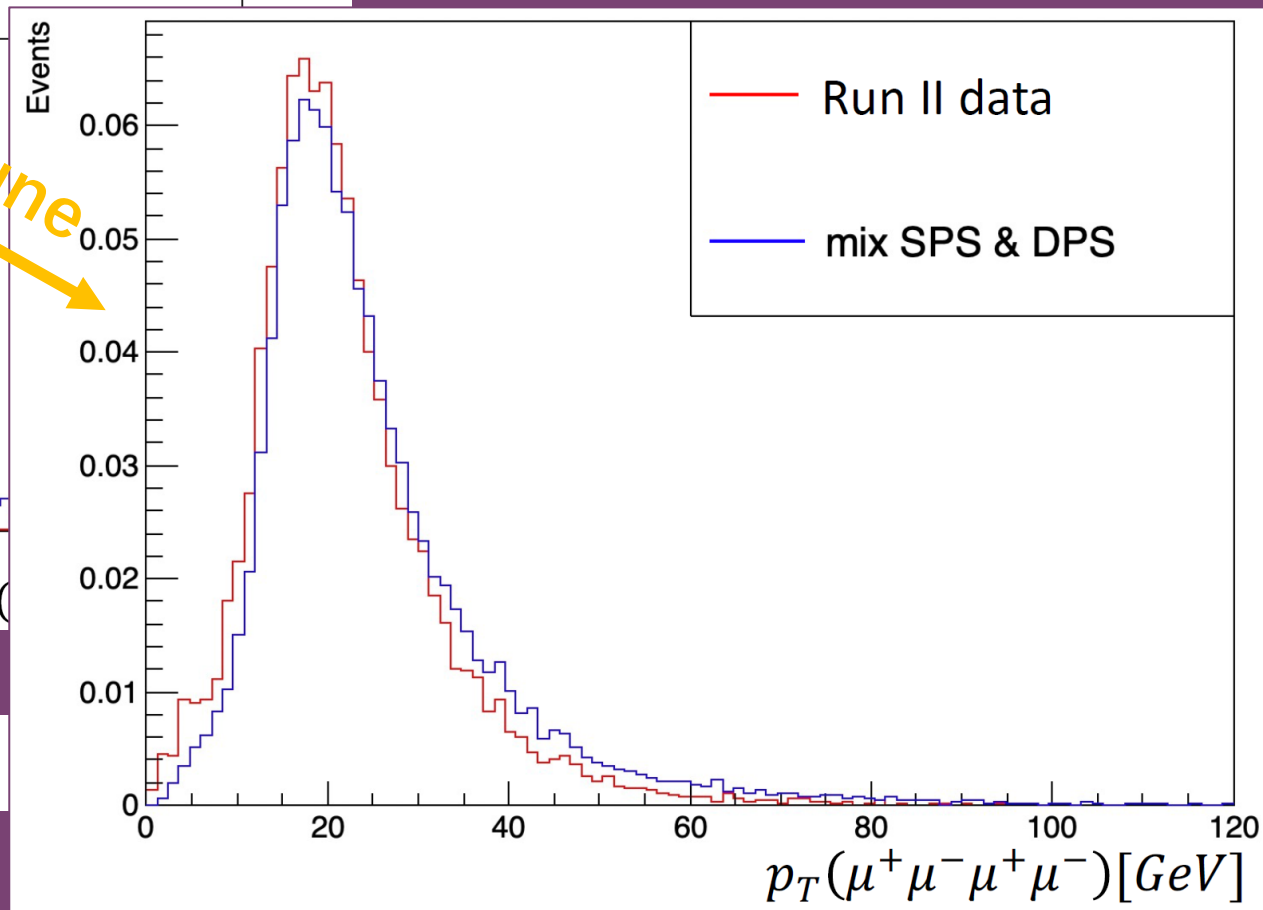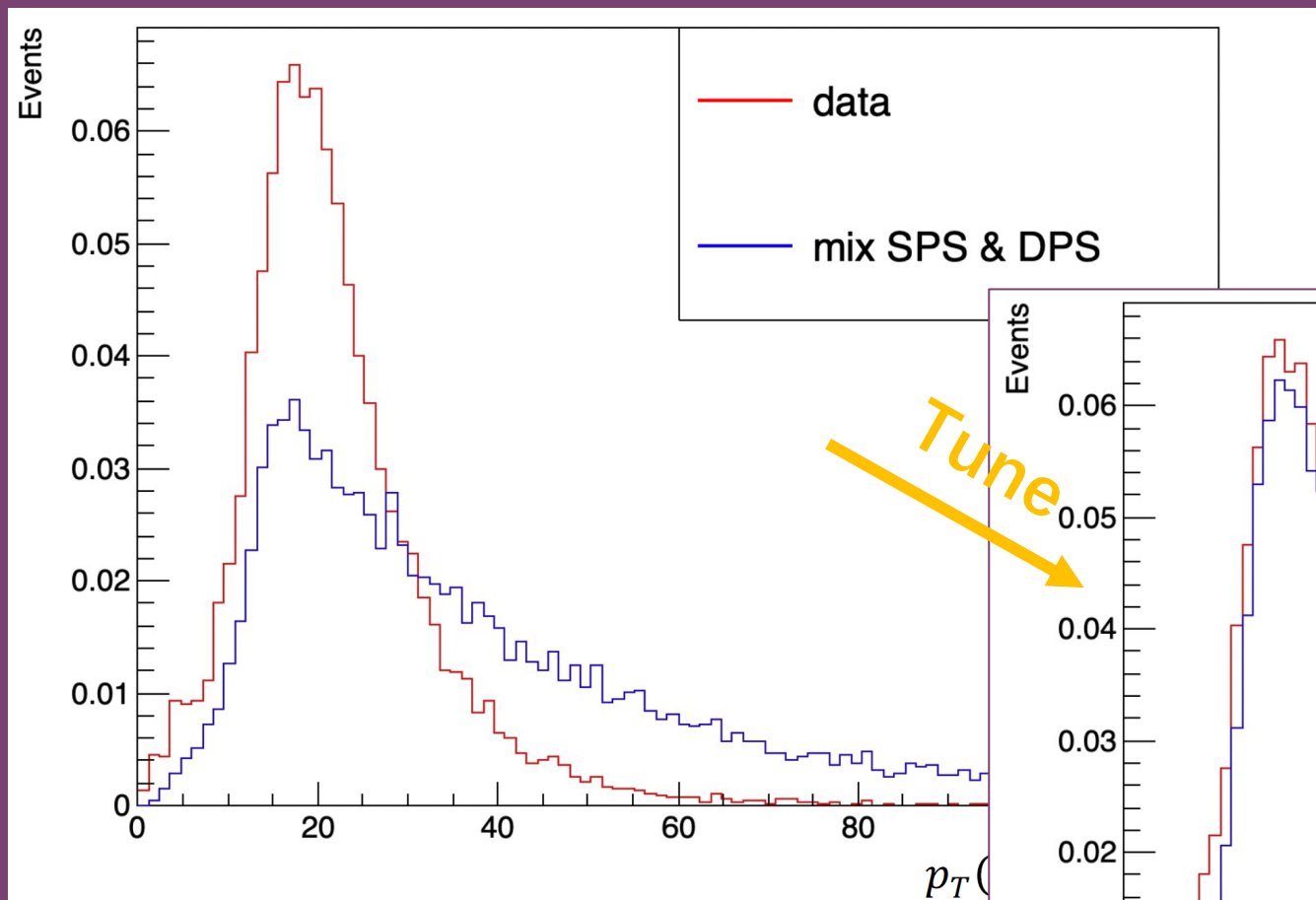- SPS and DPS get corrected separately in their corresponding control region

# MC tuning

- CMS $J/\psi J/\psi$ polarization study:

    - Tune SPS MC sample according to $p^T(\mu^+\mu^-\mu^+\mu^-)$ distribution from data sample

        - No tuning for DPS MC sample

        - SPS+DPS distribution same as the data sample

    - Tune signal (resonance) MC according to $p^T(\mu^+\mu^-\mu^+\mu^-)$ distribution from tuned SPS sample

# MC tuning

# MC tuning

- Tuned SPS fragment file:

  - SpaceShower:pTmaxFudge=2

  - TimeShower:pTmaxFudge=2

  - SpaceShower:pTdampMatch=1

  - SpaceShower:renormMultFac=10