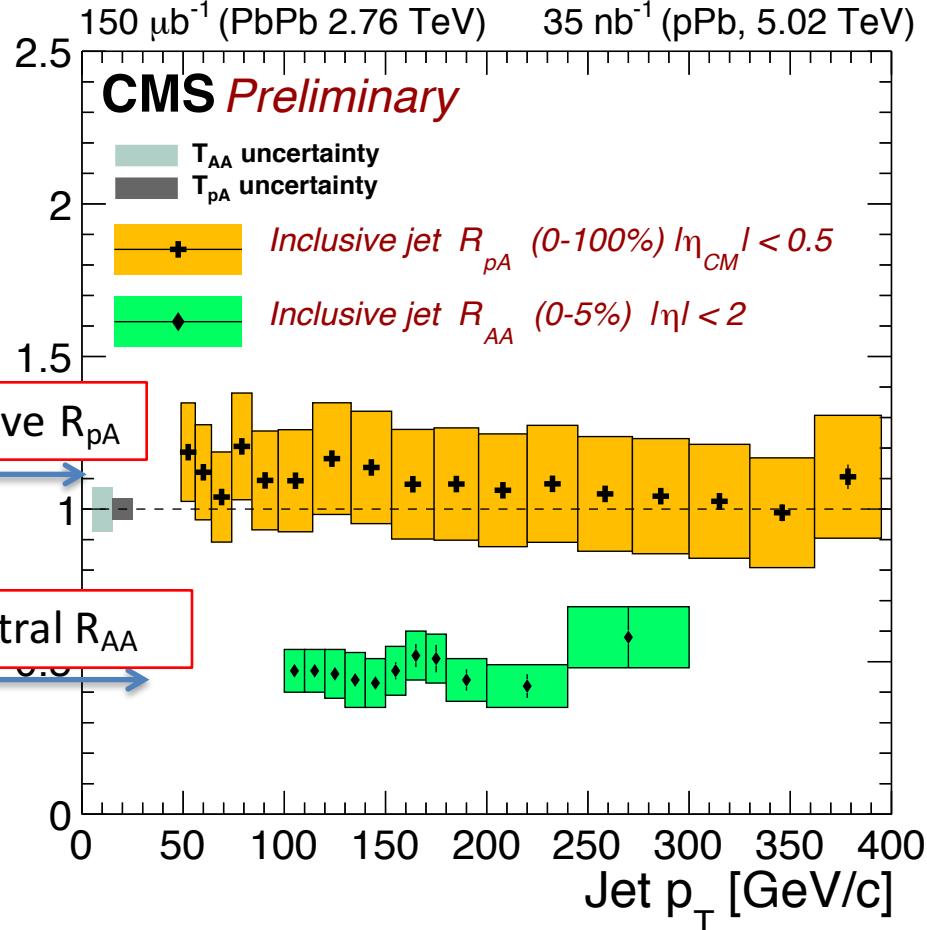
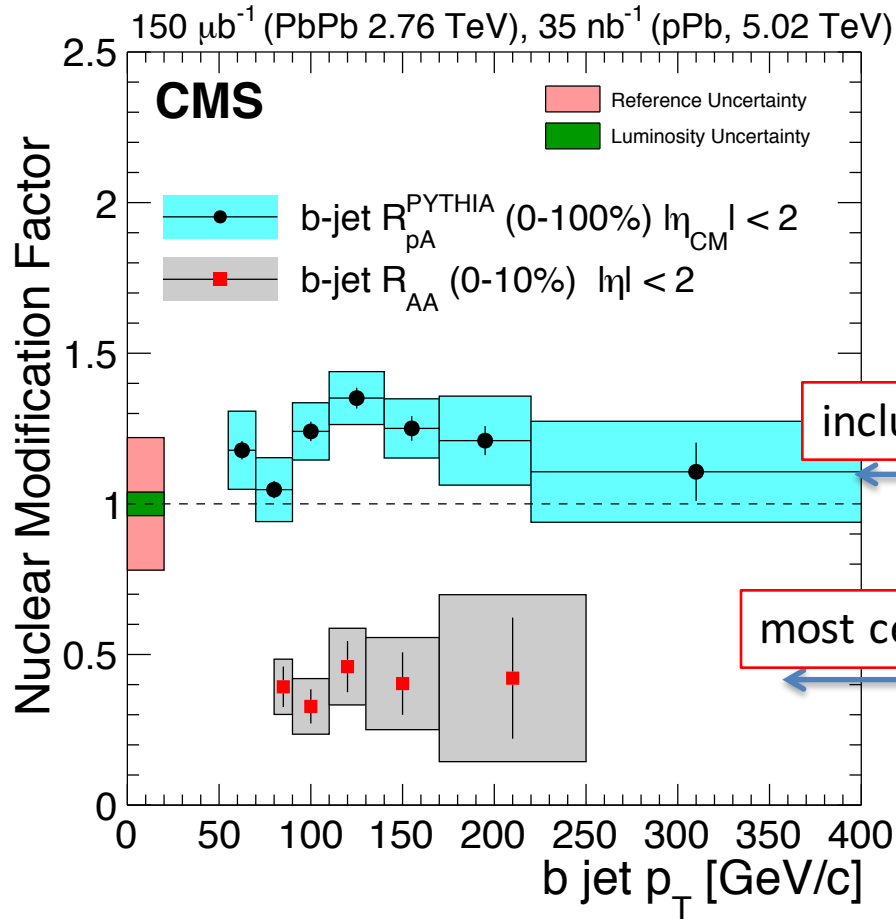




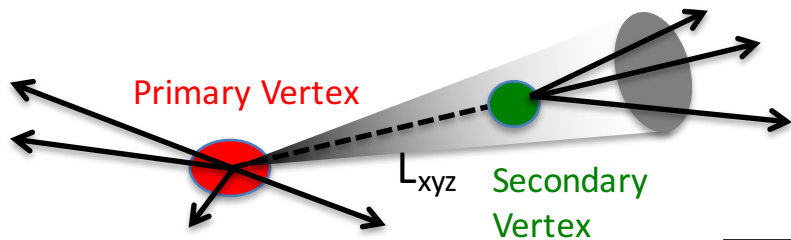
# Pre-QM Heavy Flavored Jet Status



- CMS showed b-jets in PbPb (and pPb) are modified to a similar extent as light jets
- Can we say anything about charm jets? (yes)

- b-jets tagged at CMS by selecting on displaced vertices
- Charm jets have smaller displacement, therefore trickier to tag
  - Developed a set of variables that provide discrimination power to extract c-jets

## 3+ Body Secondary Vertex Tagging

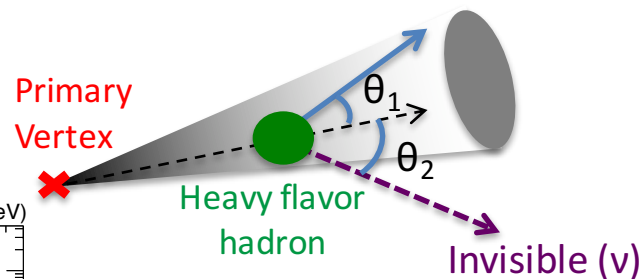


Separation of Charm + Light

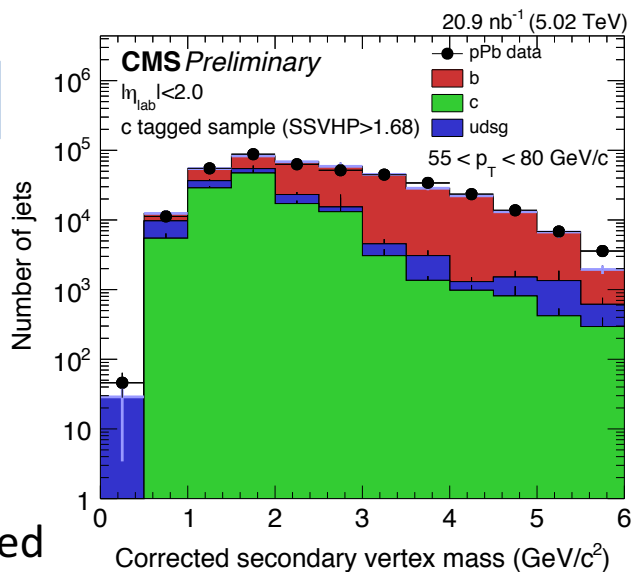


Feed into template shapes –  
charm jet contribution extracted

## Corrected Secondary Vertex Mass

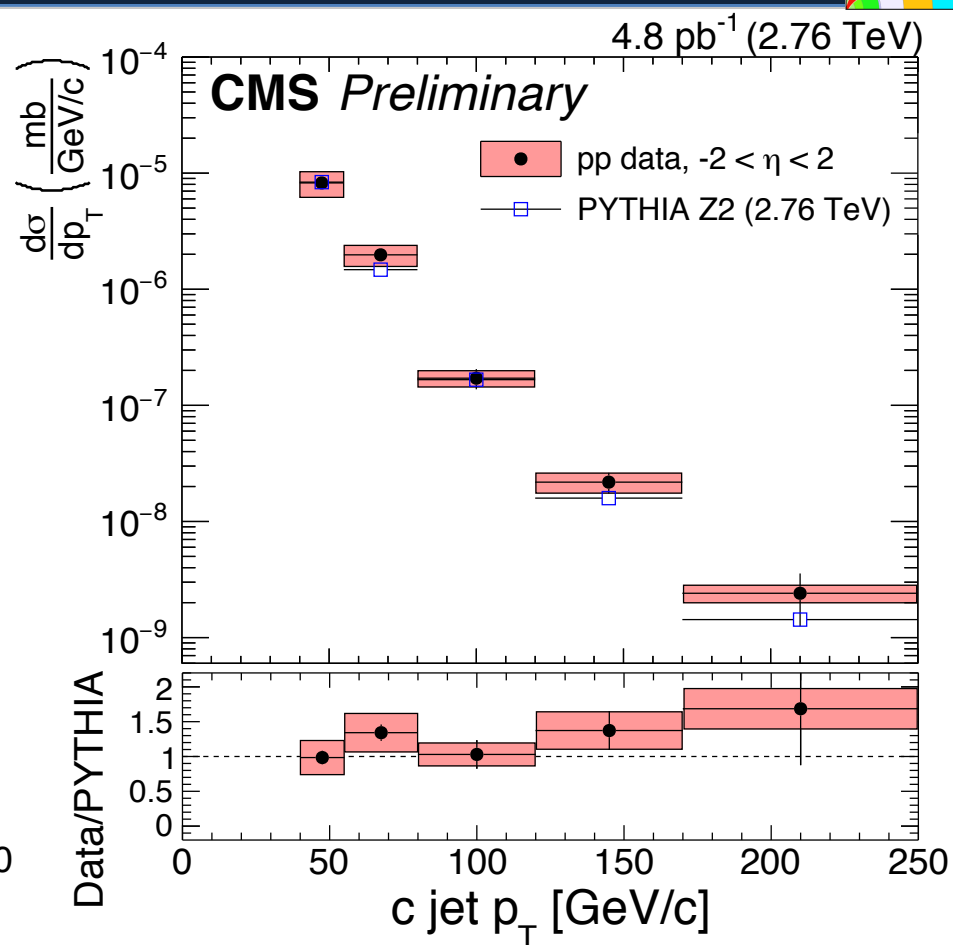
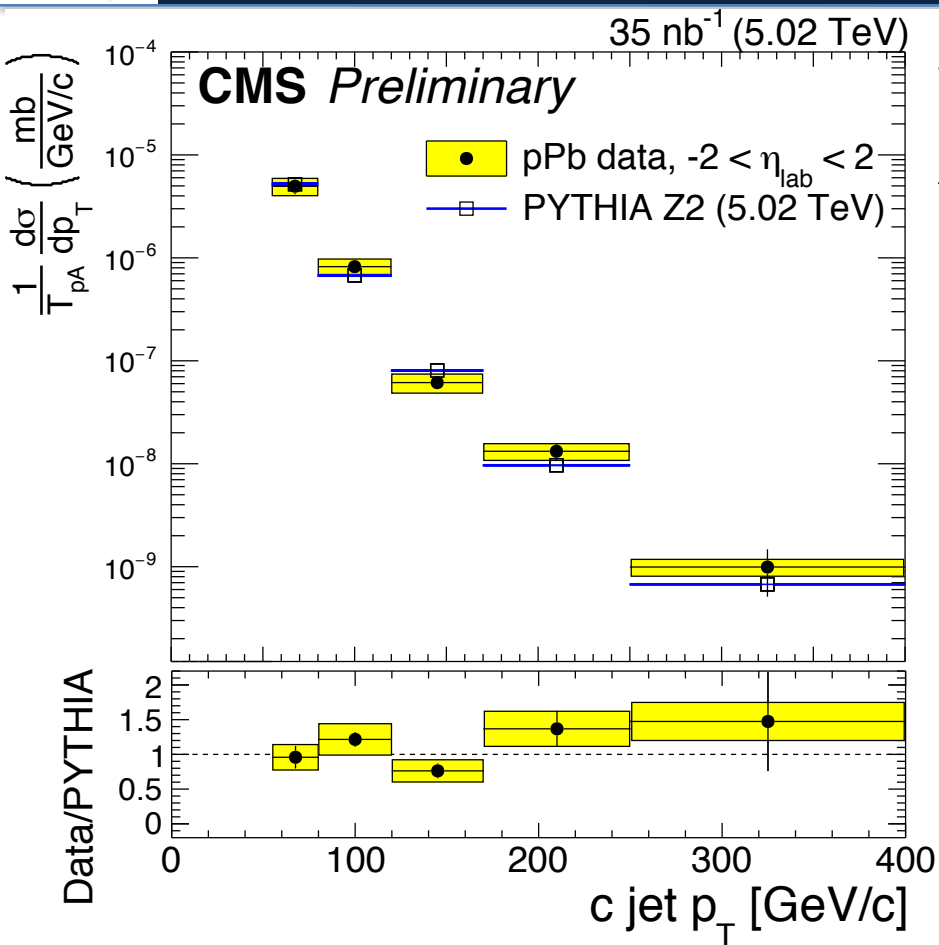
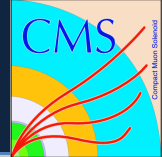


Separation of Charm + Bottom





# Charm-Tagged Results



- First charm jet measurement in heavy-ion collisions!
  - pPb and pp tackled so far – both consistent with PYTHIA predictions
    - 1.00 +/- 0.19 (stat.+syst. pPb)
    - 1.15 +/- 0.27 (stat.+syst. pp)
  - Charm jet fraction (not shown) also consistent with PYTHIA