

Double Parton

[Varsha Ramakrishnan]

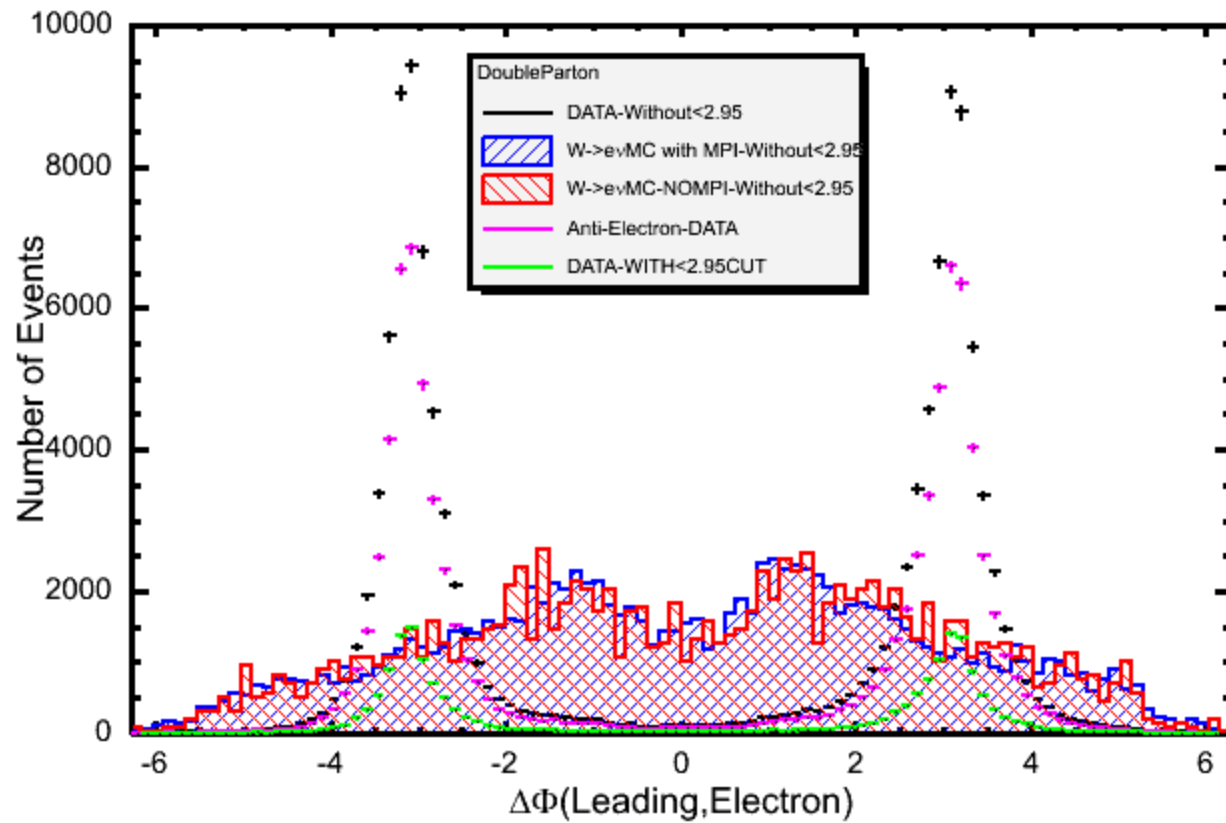
Summary From Last Mondays Meeting

1. Electron/Jet Variables Plots WITHOUT the $\Delta\phi(\text{Tight-Electron}, \Sigma\text{Jet PT}), 2.95$
2. Same set of Plots as above for comparison purposes with the “Anti-Electron” Sample
3. Look at the Transverse Mass Plots WITH $\Delta\phi(\text{Tight-Electron}, \Sigma\text{Jet PT}), 2.95$ sample with Tight-Electrons for ONLY TWO JETS to see if there is better agreement between Data/MC at Low Mass $\sim < 60\text{GeV}$
4. Separate the $\Delta\phi(\text{Electron}, \text{Leading})$ into TWO Regions of > 2.2 radians and < 2.2 radians, Look at all the of the Plots show above for both regions
5. For ONLY TWO Jets and $|\Delta Z(\text{Electron}, \text{Leading})| > 0.04 \text{ cm}$ // $|\Delta Z(\text{Electron}, \text{Second})| > 0.04 \text{ cm}$ // $|\Delta Z(\text{Leading}, \text{Second})| < 0.04 \text{ cm}$
For the sample WITH $\Delta\phi(\text{Tight-Electron}, \Sigma\text{Jet PT}), 2.95$

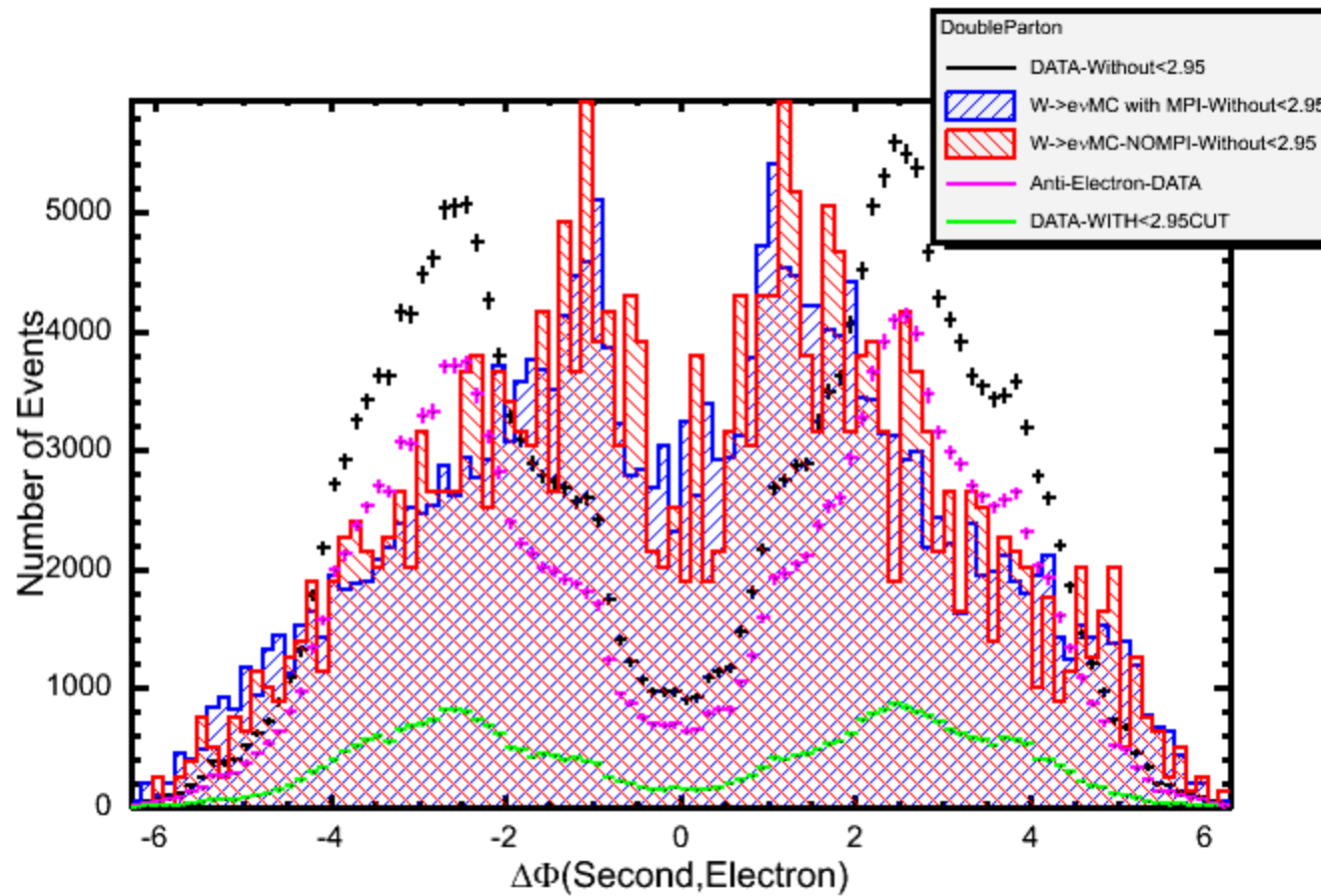
Tight/W/MET Cuts

- Tight electron cuts applied to select the Electron from the Ntuple
- Electron-Jet object removed from the Jets in the Ntuple
- Jets with L5 JES corrected $ET > 5 \text{ GeV}$ and $|\eta| < 2$ selected
- $\Delta R(\text{Electron}, \text{Closest-Jet}) > 0.92 (1.3 * \text{radius of cone})$
- $\Delta\phi(\text{Tight-Electron}, \sum \text{Jet } ET) < 2.95$
- Missing ET corrected for Muons/Jets-Selected
- ONLY ONE Tight-Electron, $MET > 30 \text{ GeV}$, Transverse Mass $> 50 \text{ GeV}$
- At least TWO Jets (as selected above)
- Above Leading/.Second Jet need to have at least TWO TRACKS in them

W+Only 2 Jets



W+Only 2 Jets



ΔZ Tight Electron Selection Cut

$|\Delta Z| \leq 3 \text{ cm}$

