Double Parton Scattering

ELECTRON/JET TRACKS

UWHEP CDF
MONDAY, AUGUST 01, 2011

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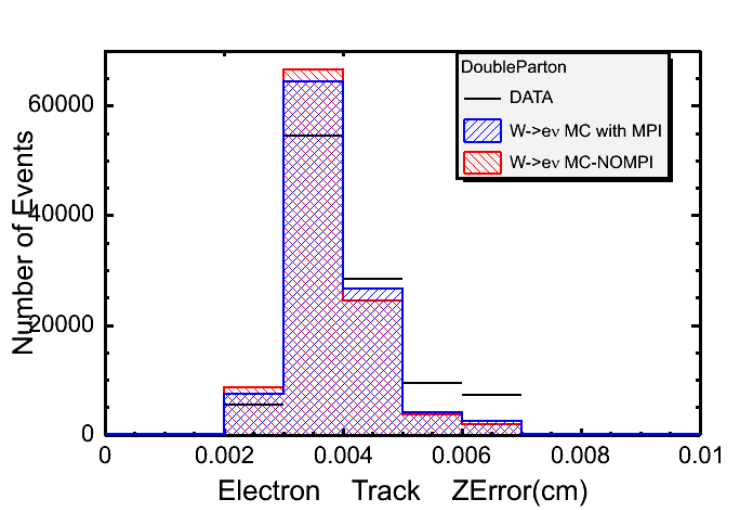
Talk Outline

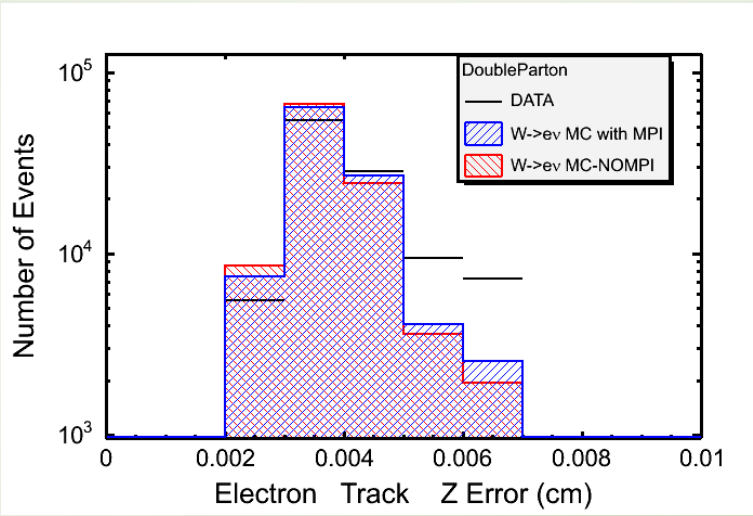
- Electron Track
  1. Variable Distributions
  2. Z Error
  3. Z errror Vs Variables
- Jet Track

Electron Track

Electron Track Z Error

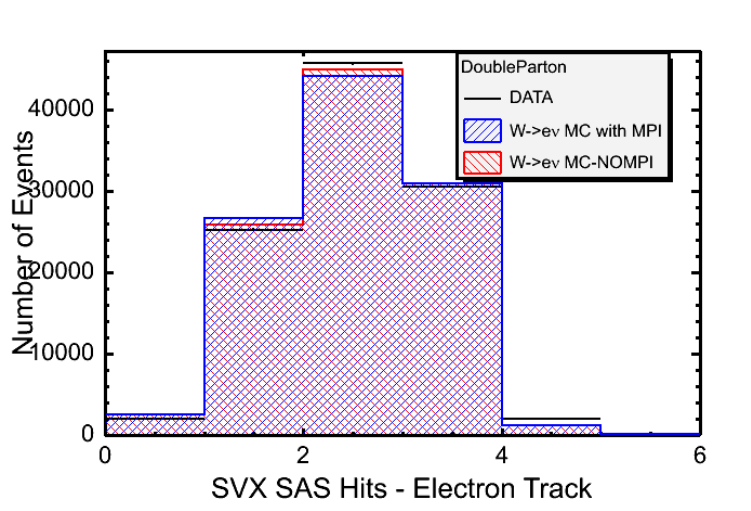


Electron Track Z Error-Log Scale

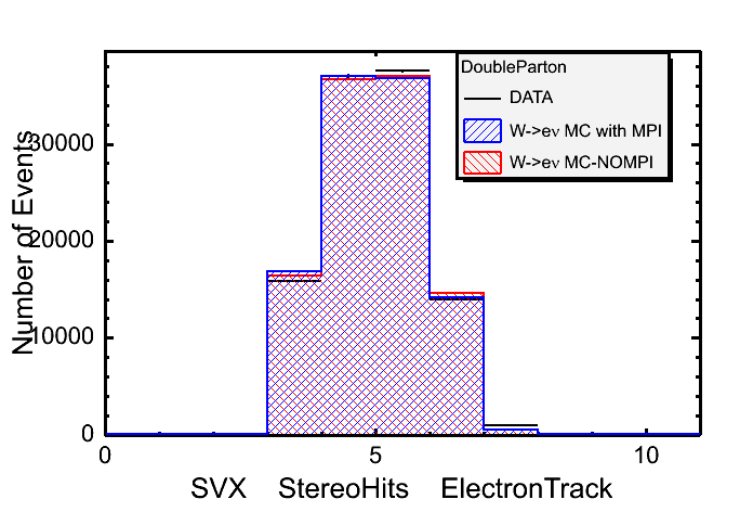


Electron Track

SVX SAS hits

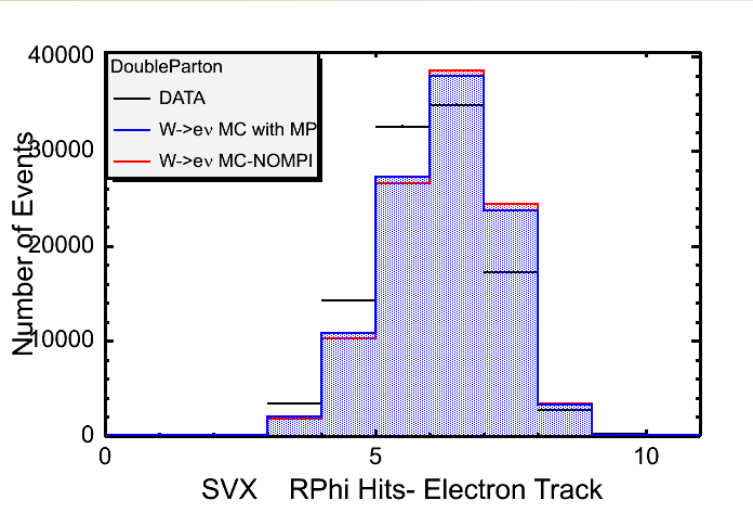


SVX-Stereo Hits

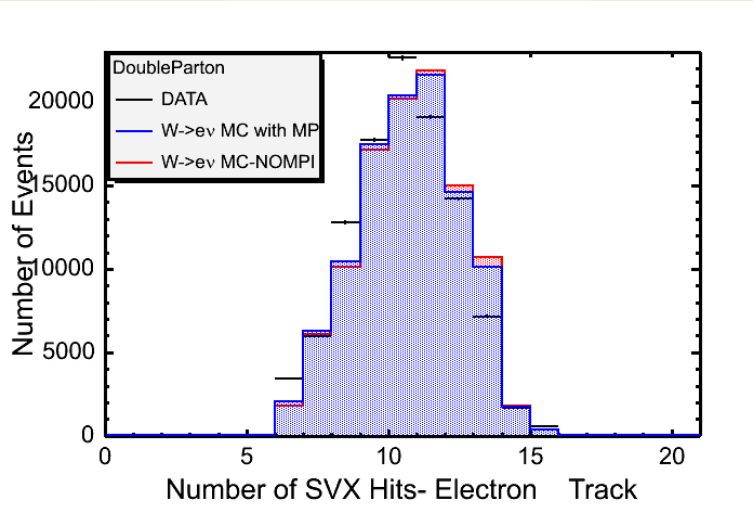


Electron Track

SVX RPhi Hits

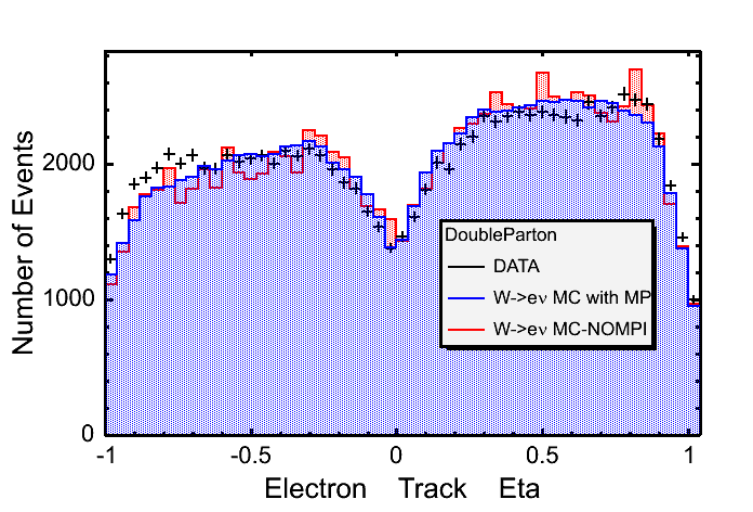


Total SVX Hits

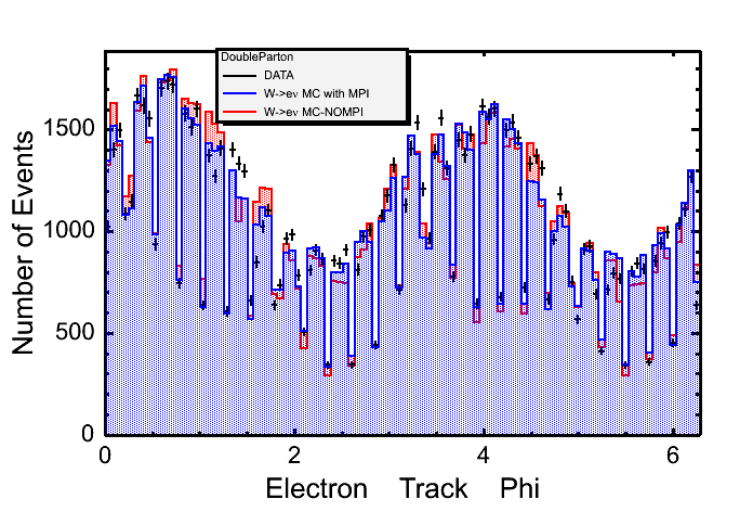


Electron Track

Track η

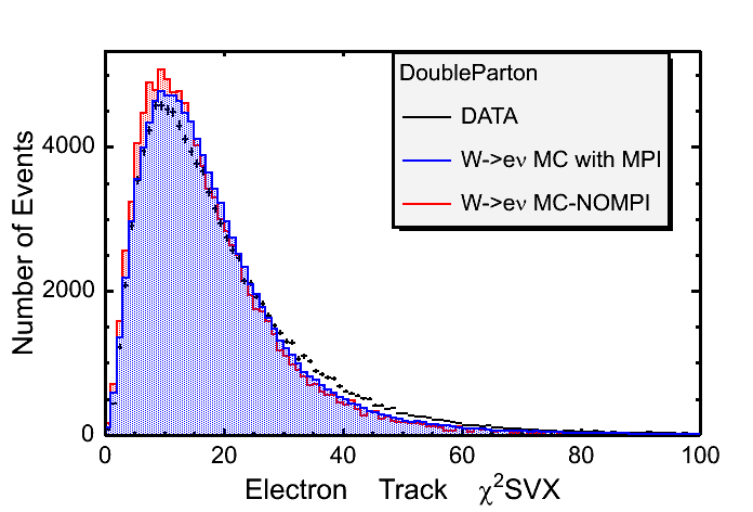


Track ϕ

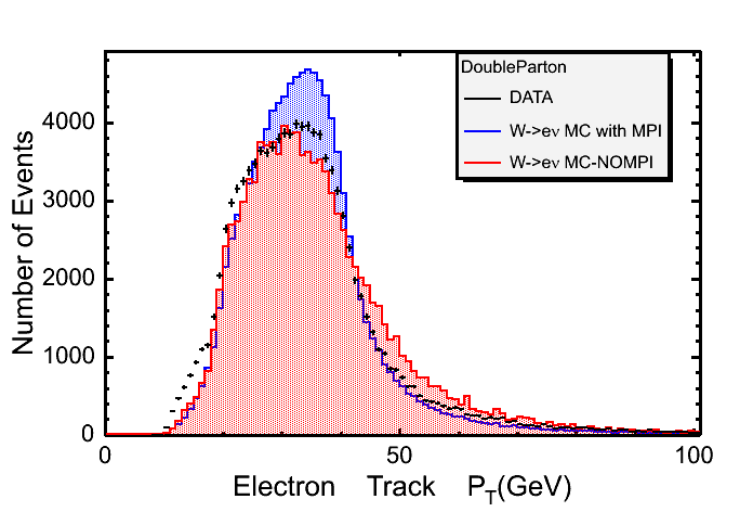


Electron Track

Track χ2- SVX

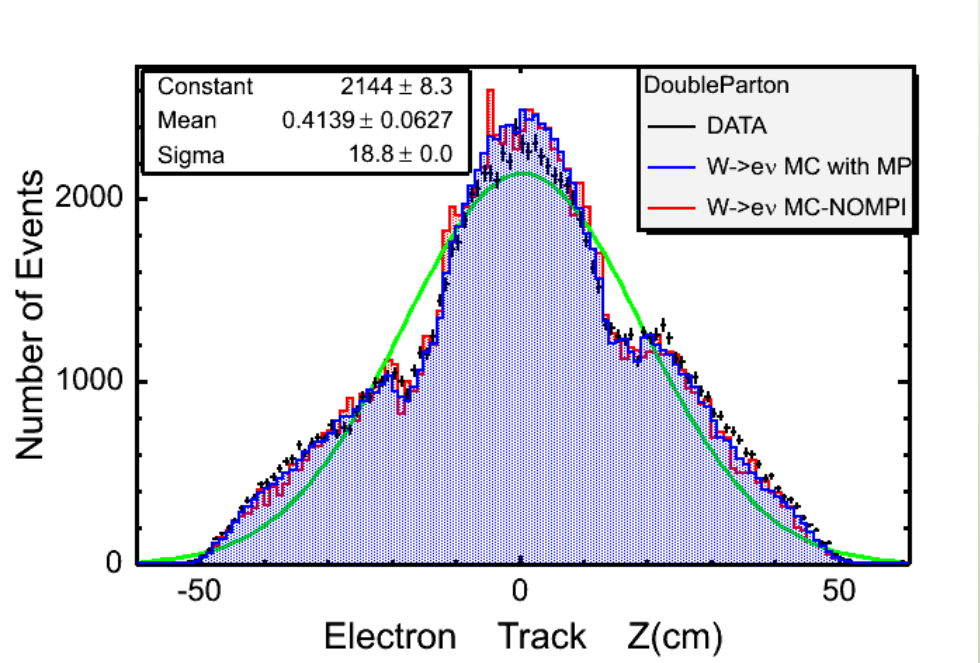


Track P_T



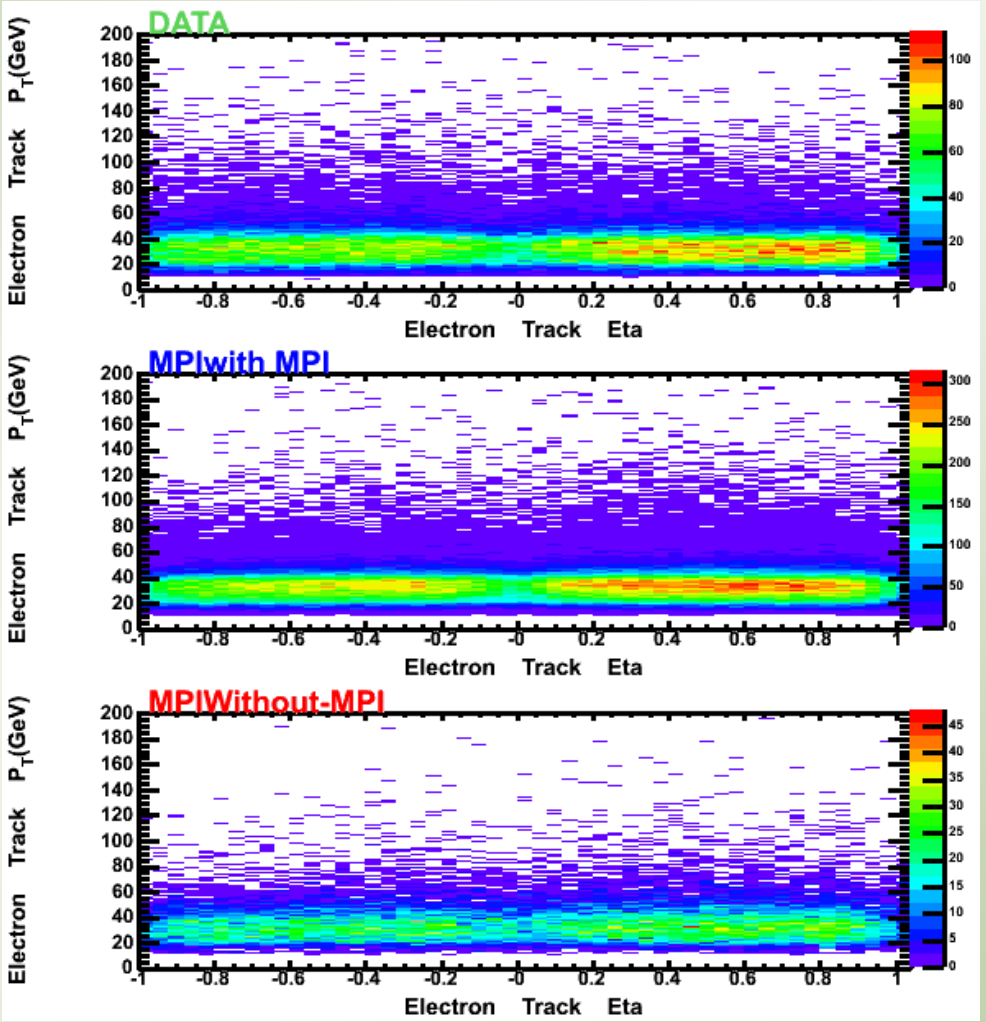
Electron Track Z

- Not a perfect gaussian !
- Shape governed by Track 11 –Z position in each event.
- Events selected depend on the Silicon good Run list
- Since Track 11 are 3D Silicon Tracks

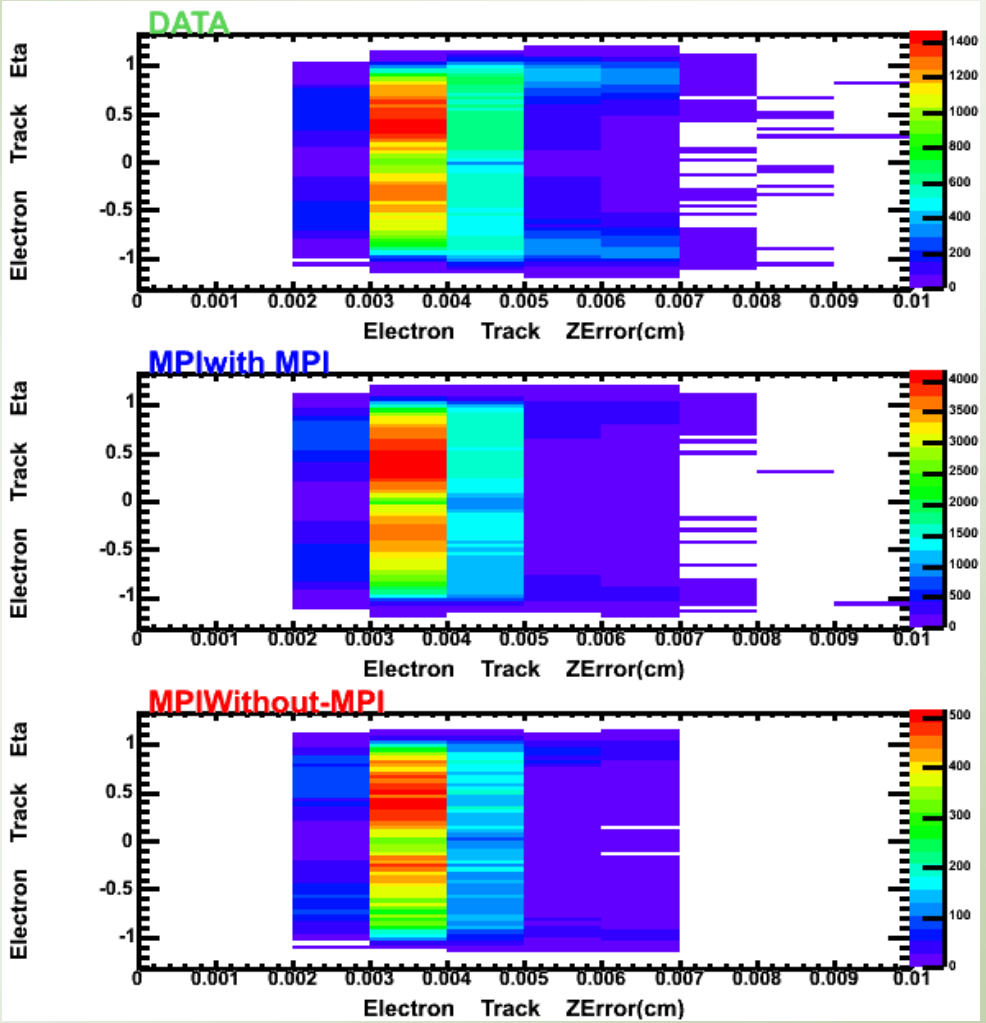


Electron Track

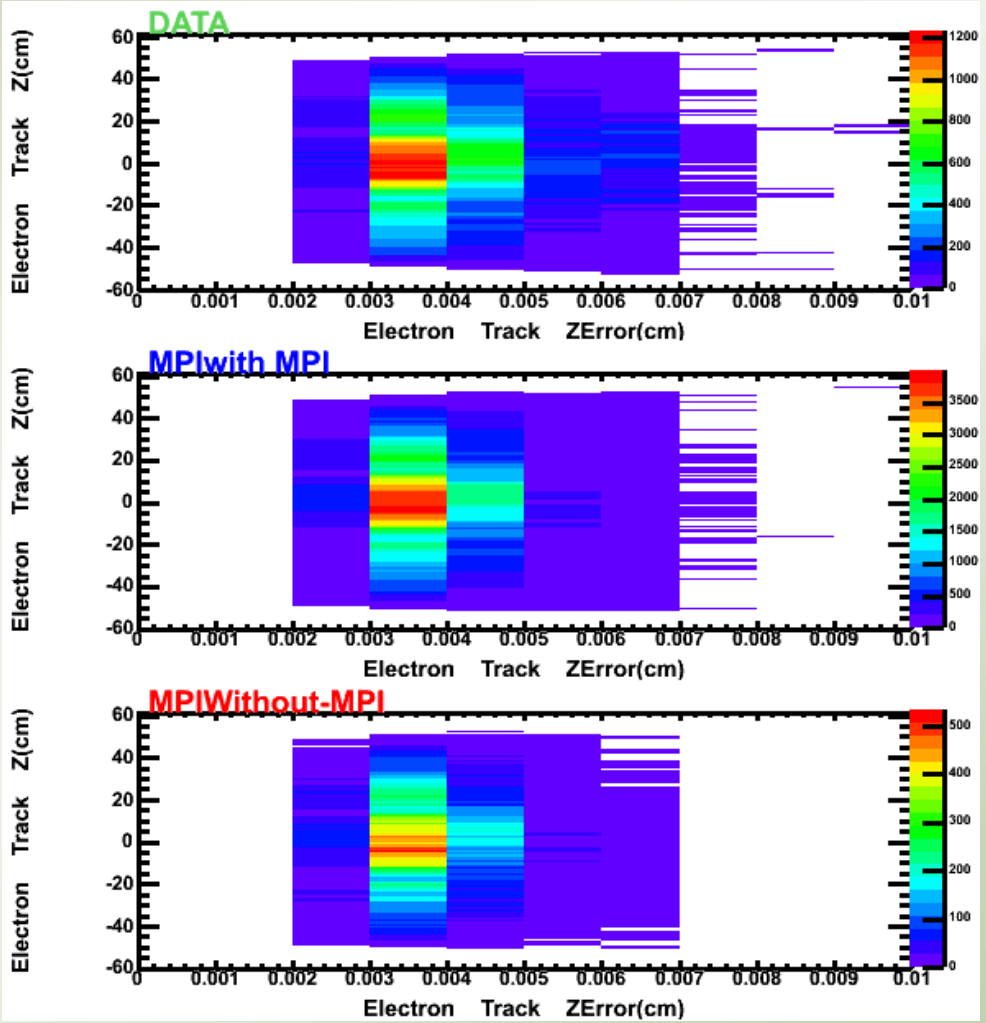
Track Pt >20 GeV is from the "Tight " Electron Selection made



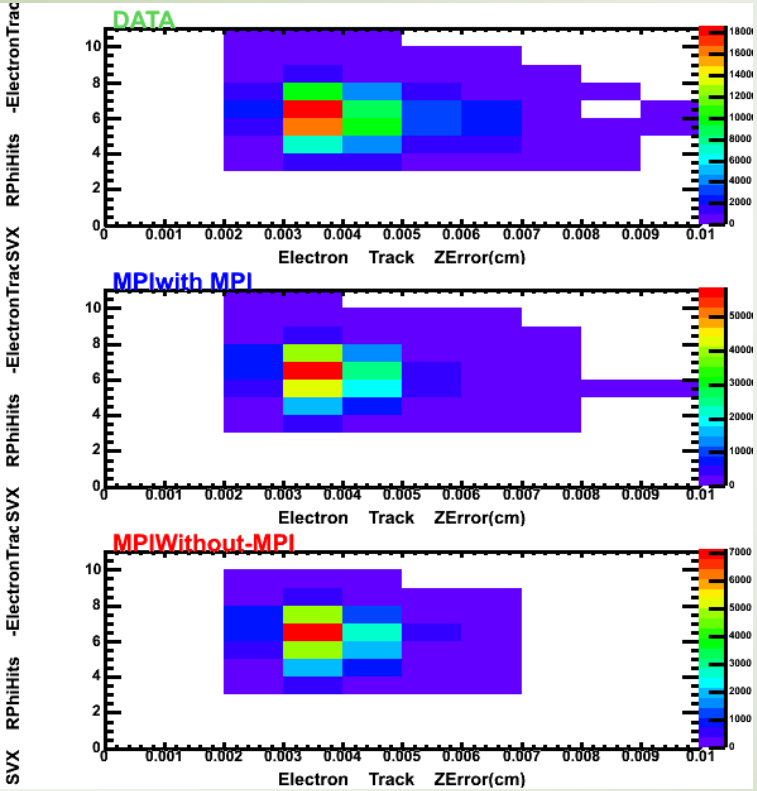
Electron Track

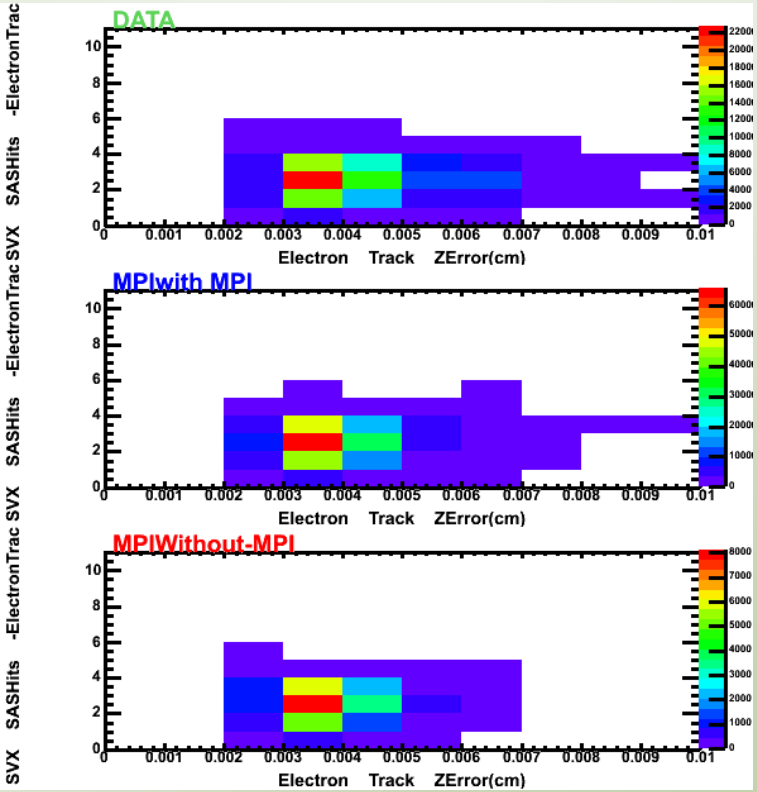


Electron Track



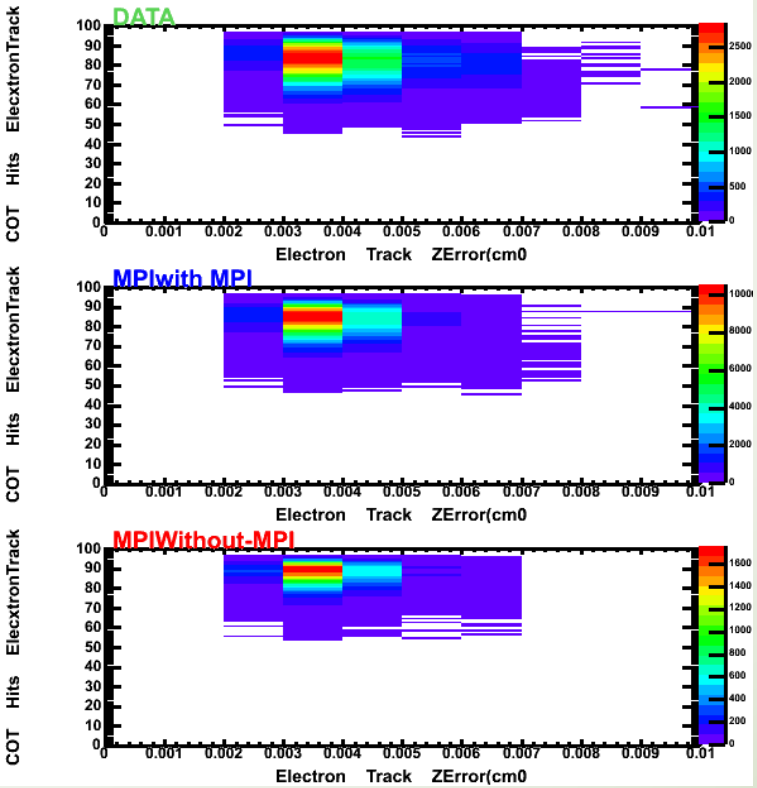
Electron Track



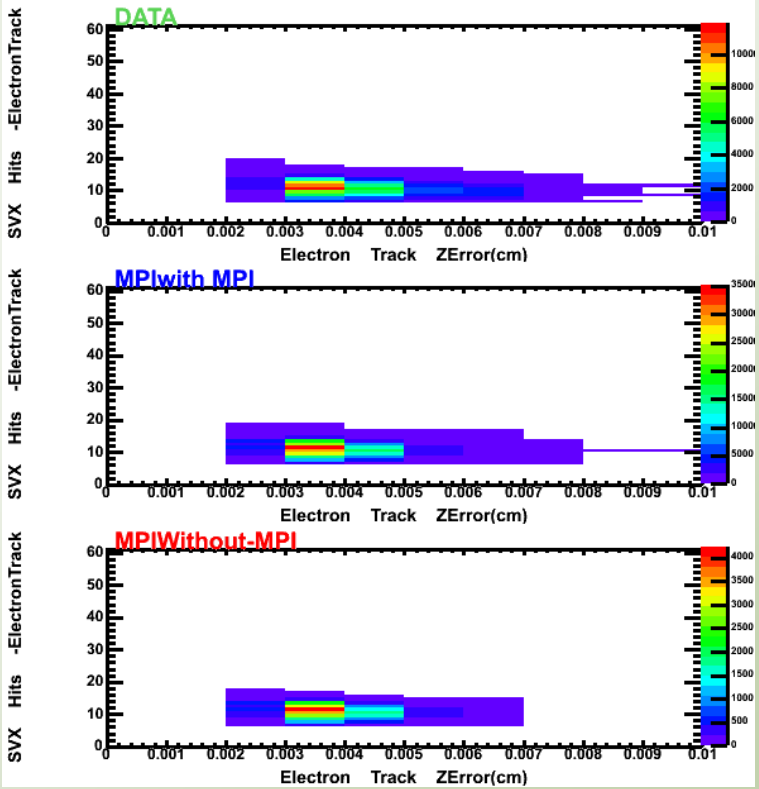


Electron Track

Total COT Hits Vs Electron Track Z Error

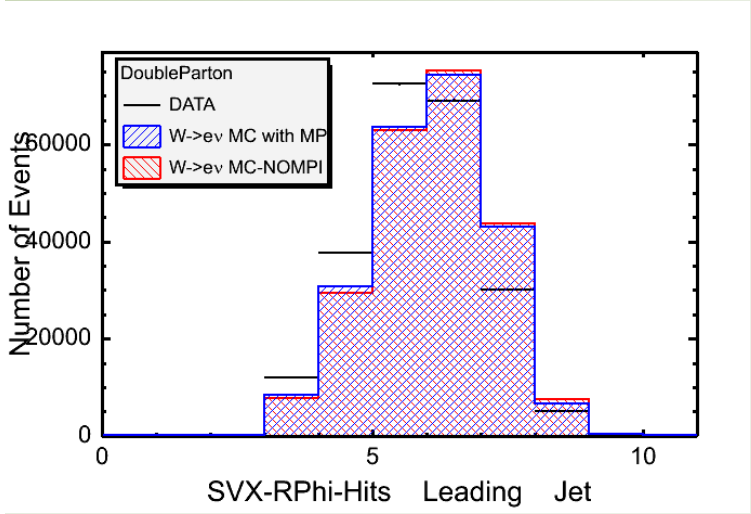


Total SVX Hits Vs Electron Track Z Error

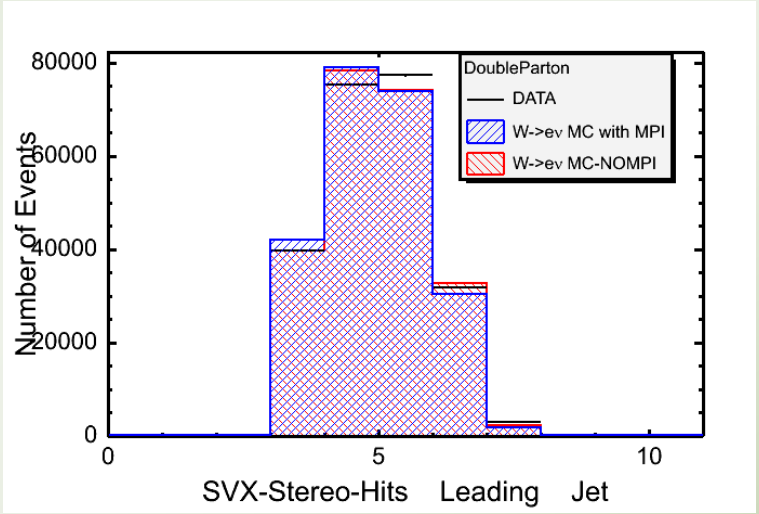


Leading Jet -Tracks

SVX - RPhi

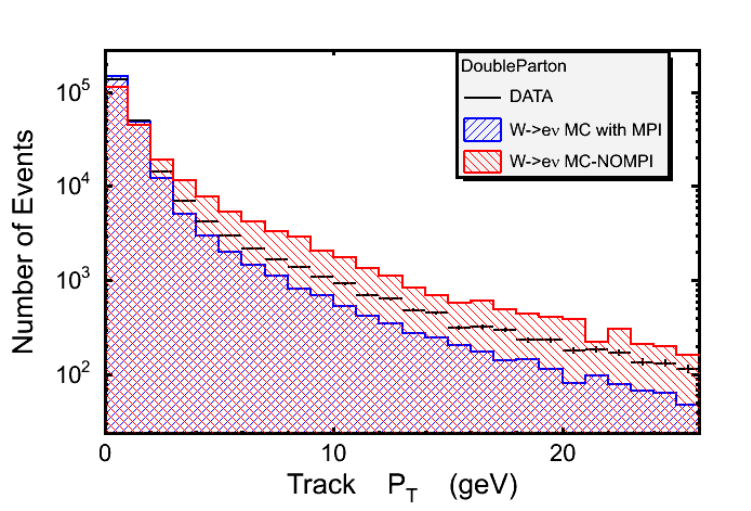


SVX-Stereo

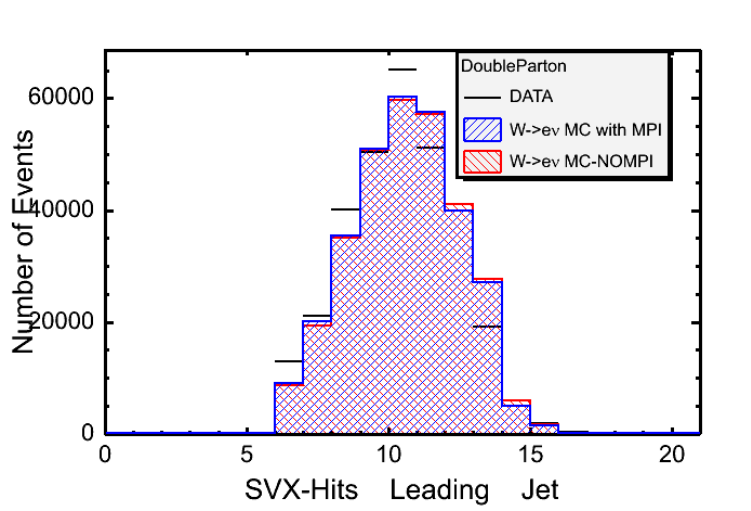


Leading Jet -Tracks

Track P_T

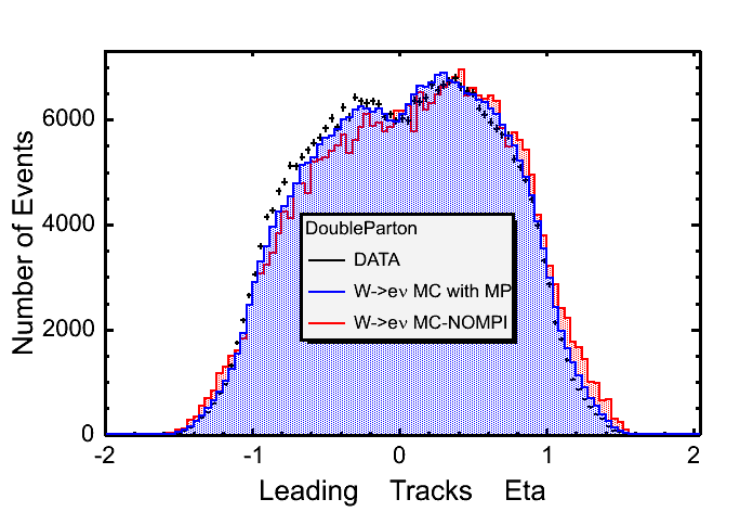


Total SVX-Hits

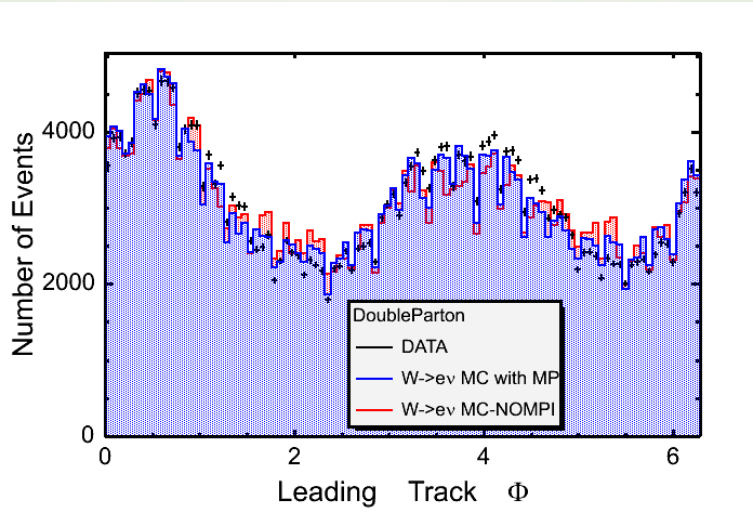


Leading Jet -Tracks

Track η

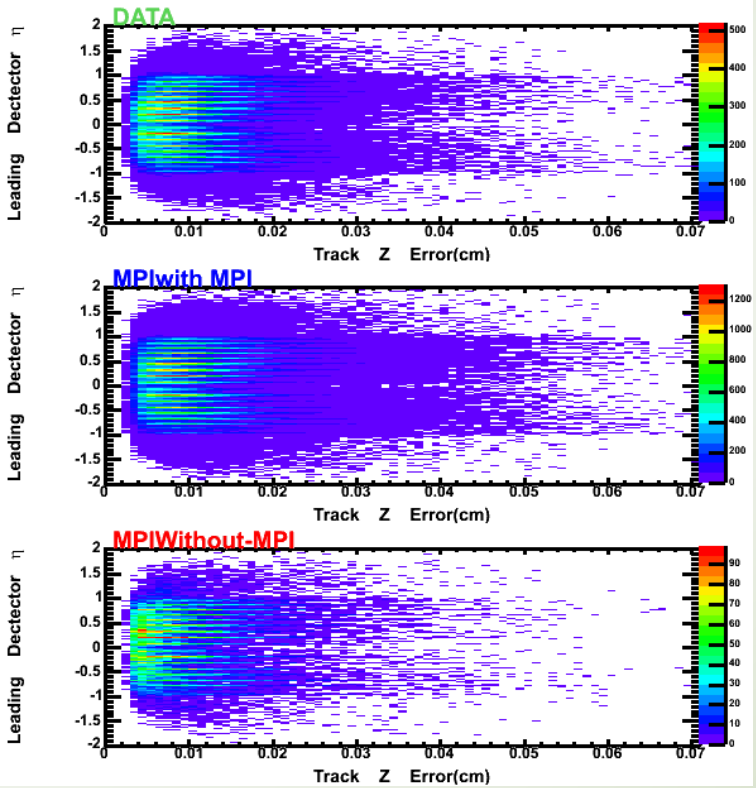


Track ϕ

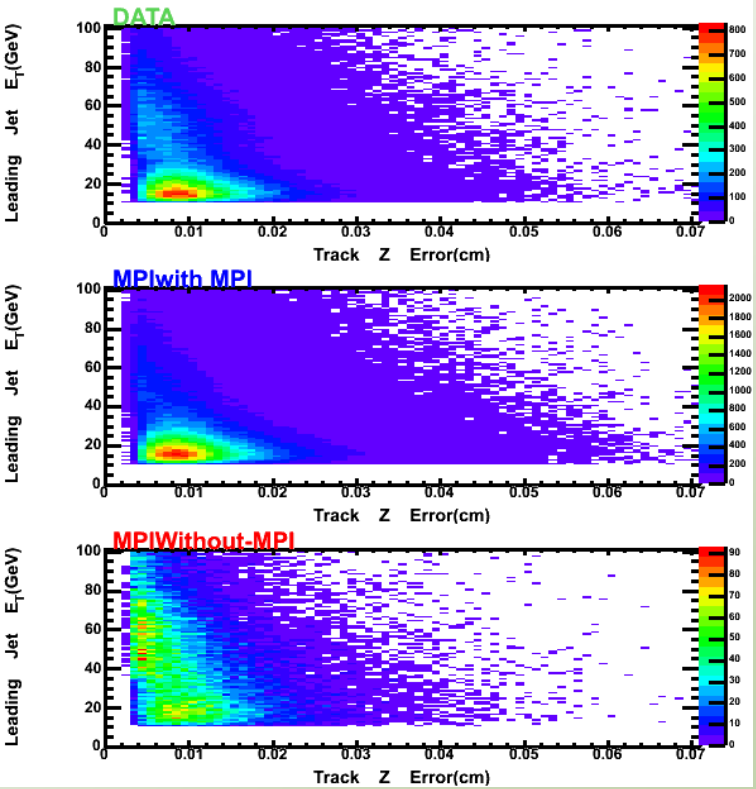


Leading Jet -Tracks

Jet Detector η Vs Track Z Error

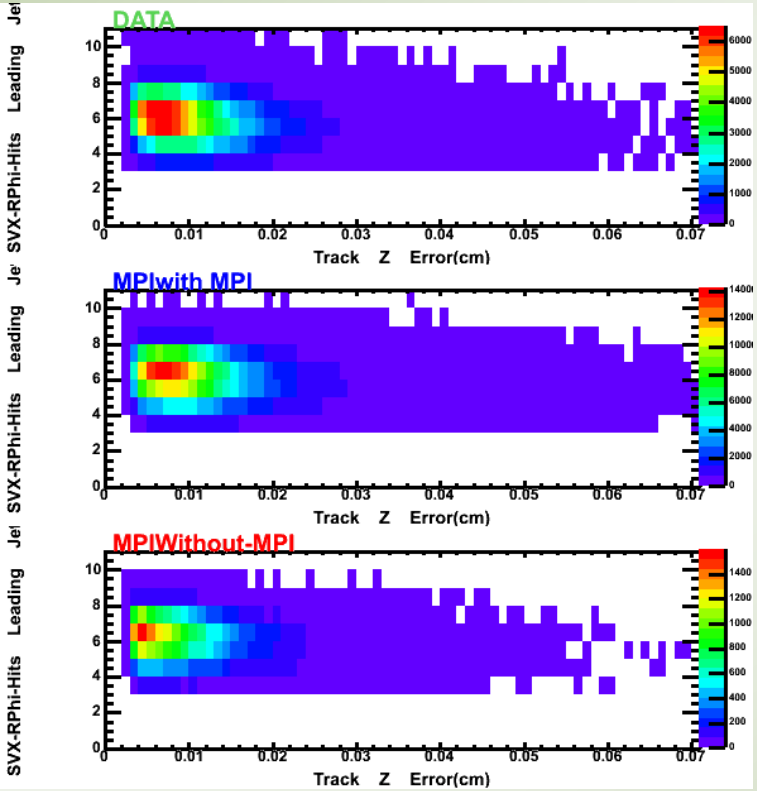


Jet ET Vs Track Z Error

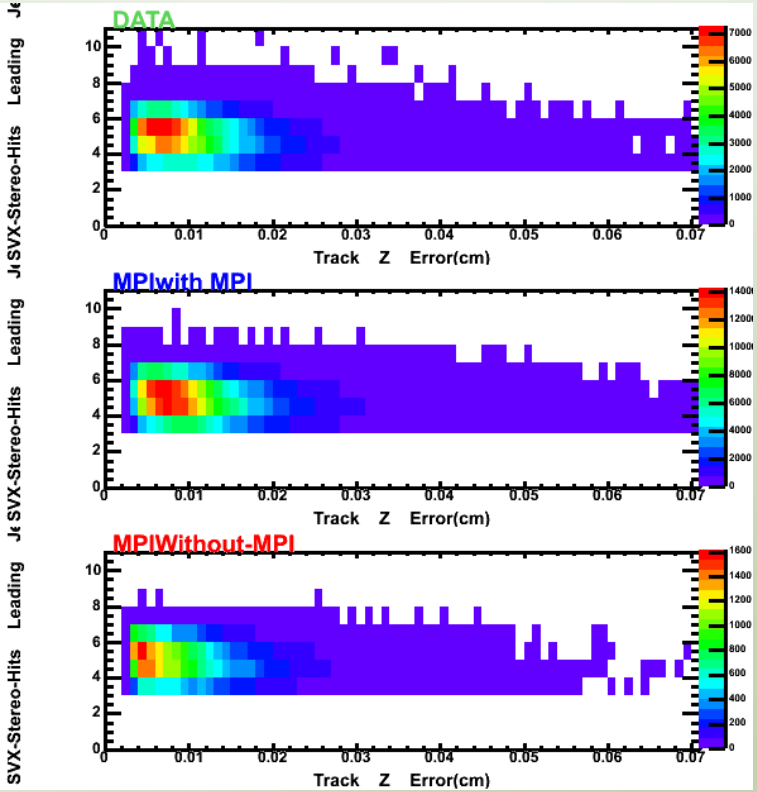


Leading Jet -Tracks

SVX – Rphi Vs Track Z Error

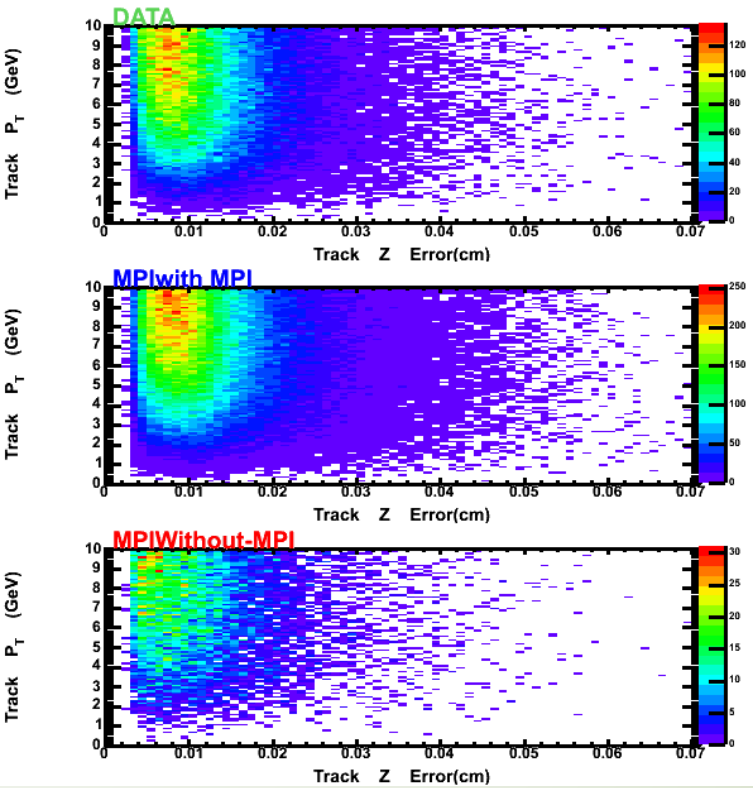


SVX-Stereo Vs Track Z Error

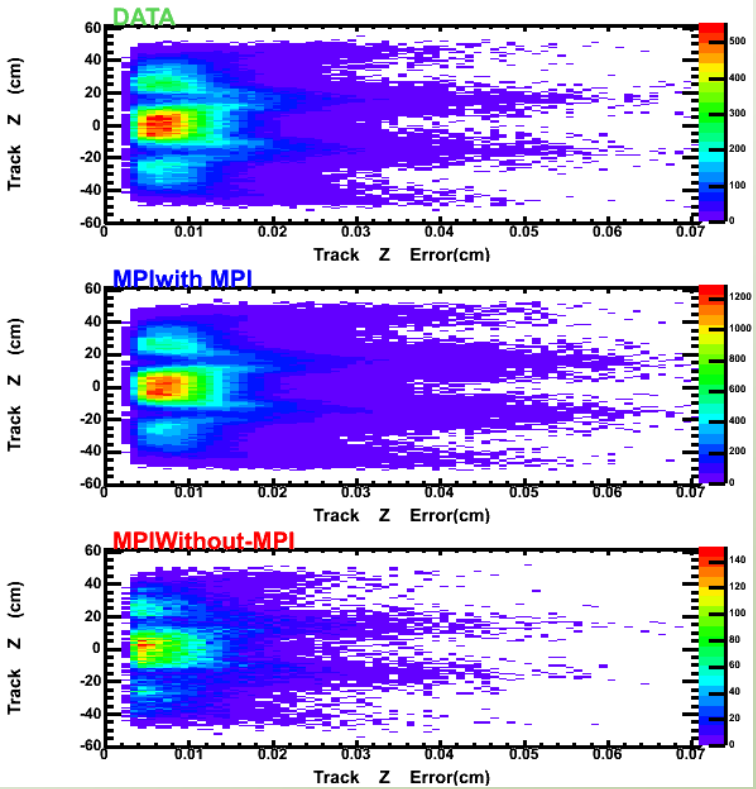


Leading Jet -Tracks

Track PT Vs Track Z Error



Track Z Vs Track Z Error



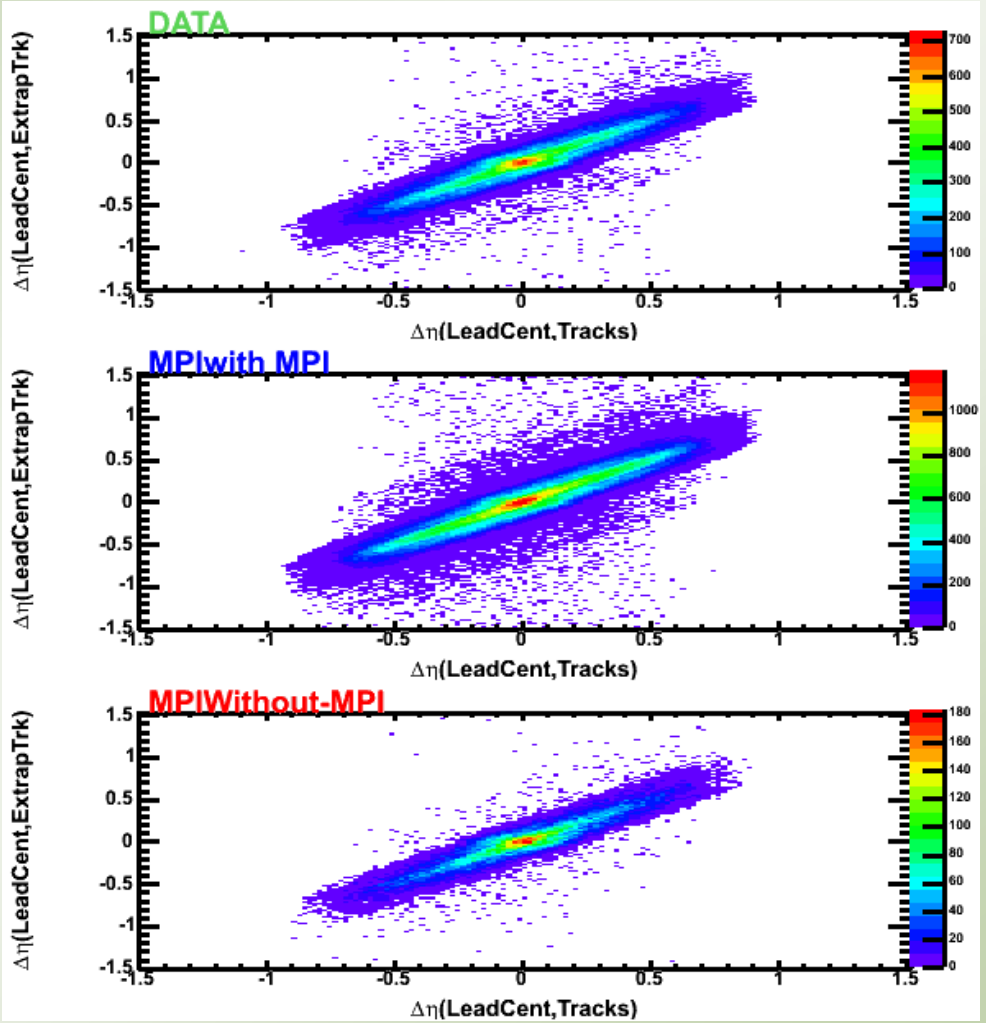
Choice of ΔR(Track,Jet Centroid)

- Extrap-Track: refers to the Track extrapolated to the nearest Calorimeter Plane
- We get (η_{EXTRAP},ϕ_{EXTRAP}) from the above process
- The Plot here is made WITHOUT ANY CUTS ON

ΔR(Track,Jet-Centroid) and

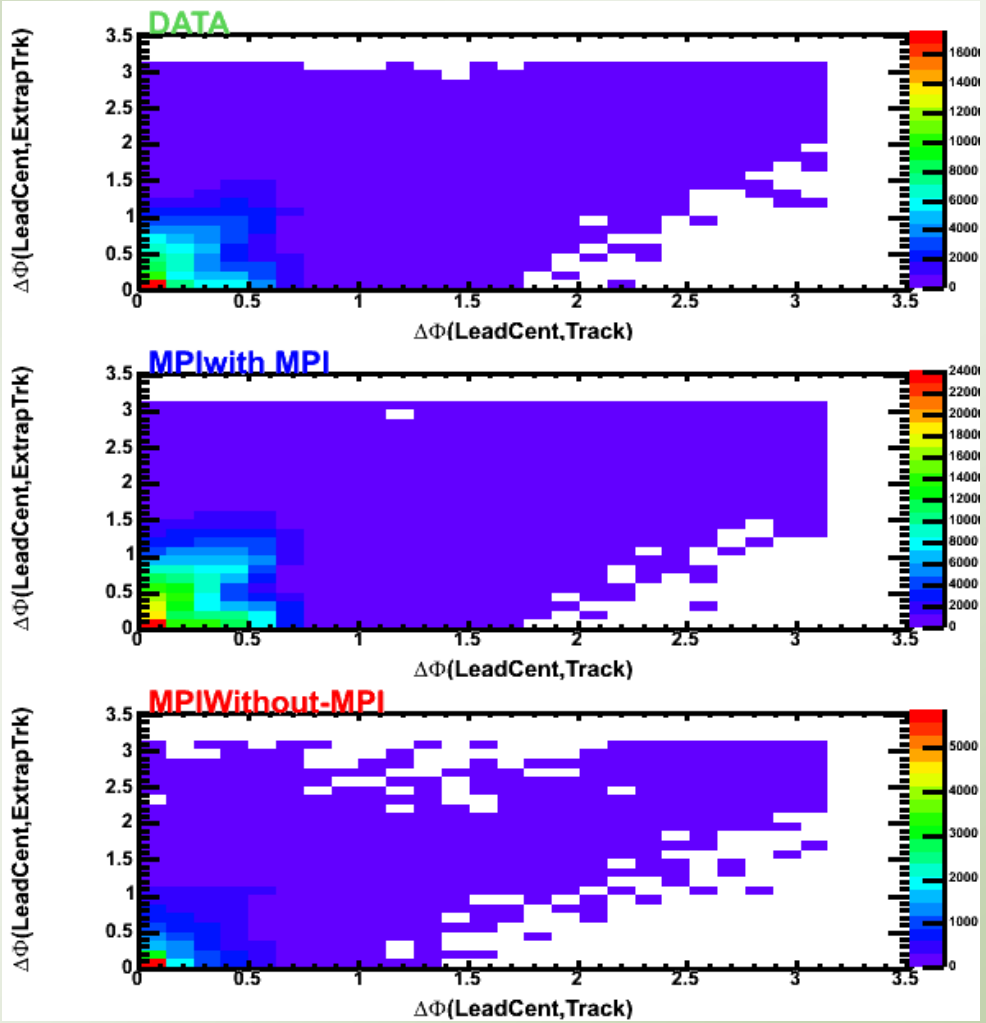
ΔR(Extrap-Track,Jet-Centroid) and

- Next few slides we will explore the reason to apply both cuts



Choice of ΔR(Track,Jet Centroid)

- The Plot here is made WITHOUT ANY CUTS ON ΔR(Track,Jet-Centroid) and ΔR(Extrap-Track,Jet-Centroid) and
- Next few slides we will explore the reason to apply both cuts



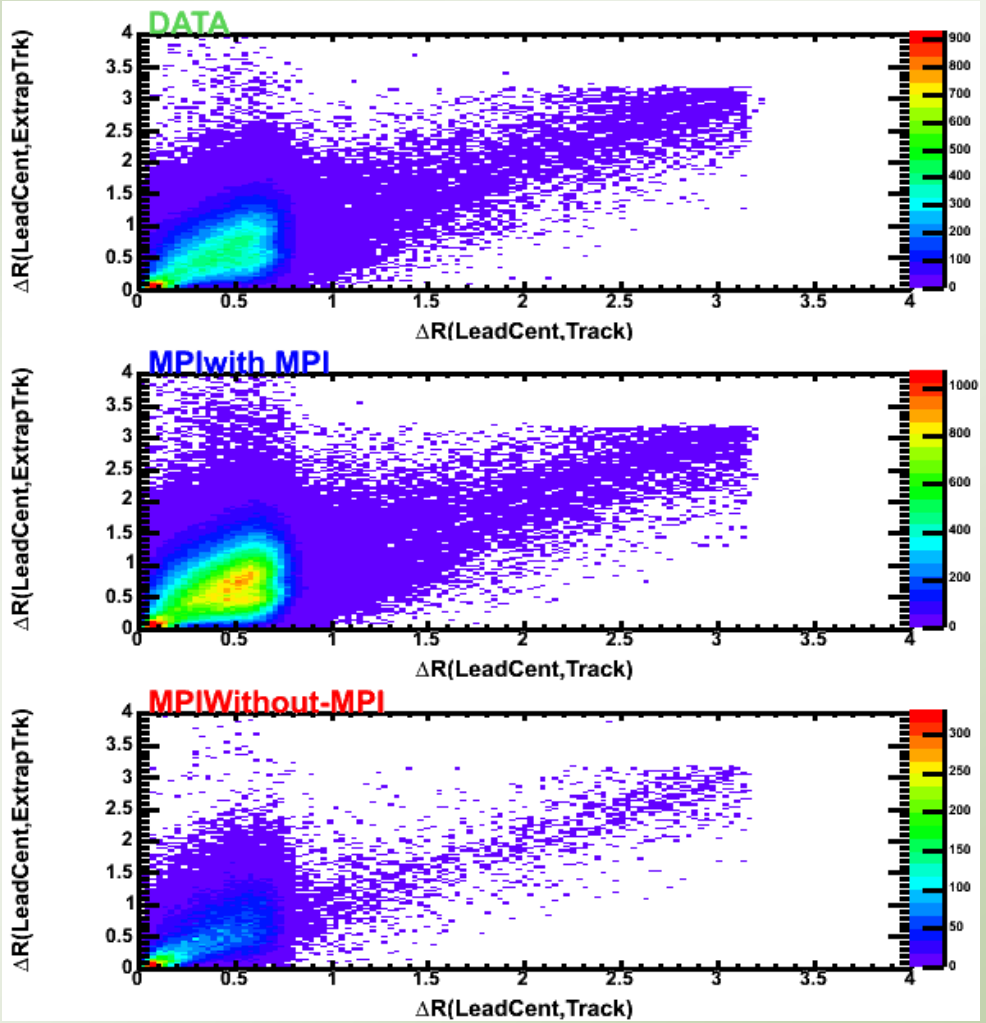
Choice of ΔR(Track,Jet Centroid)

- The Plot here is made WITHOUT ANY CUTS ON

ΔR(Track,Jet-Centroid) and

ΔR(Extrap-Track,Jet-Centroid) and

- Next few slides we will explore the reason to apply both cuts

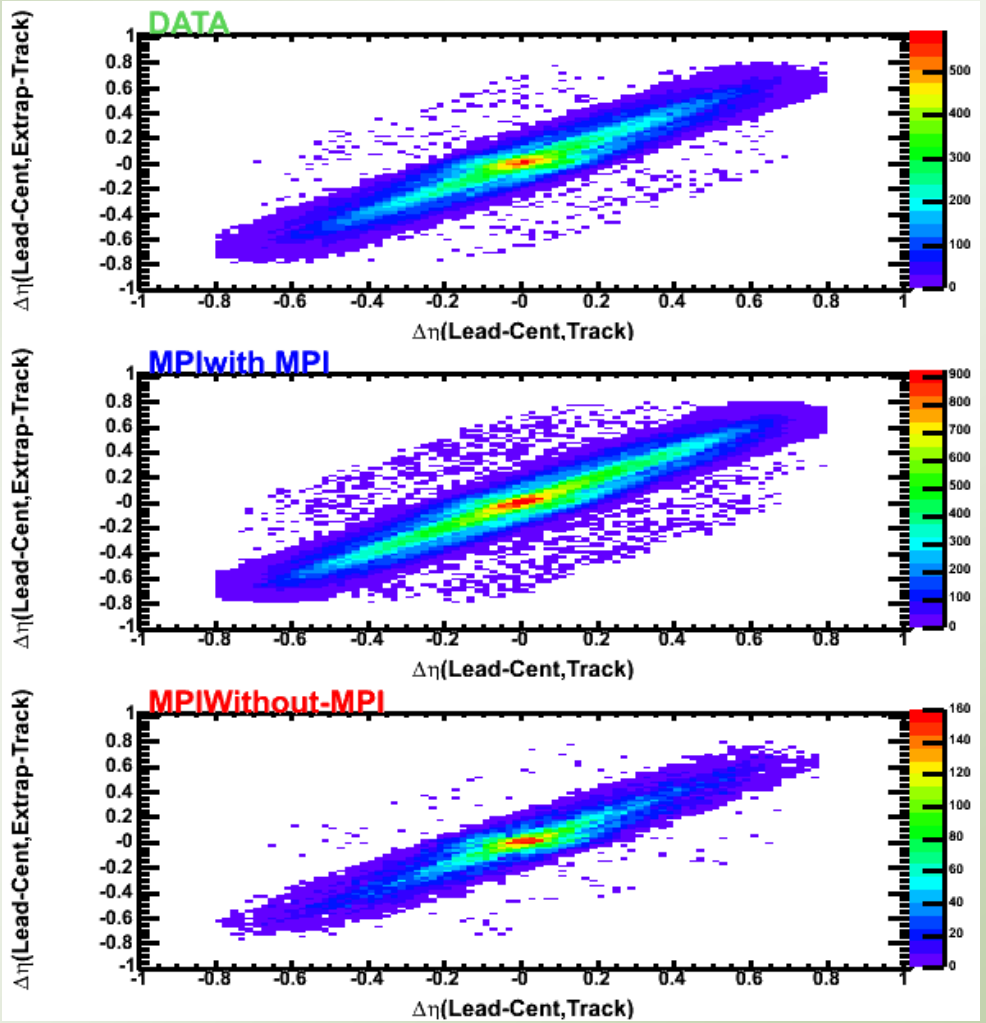


Choice of ΔR(Track,Jet Centroid)

- The Plot here is made after making the following cut

ΔR(Track,Jet-Centroid) <o.8 and

ΔR(Extrap-Track,Jet-Centroid) <o.8

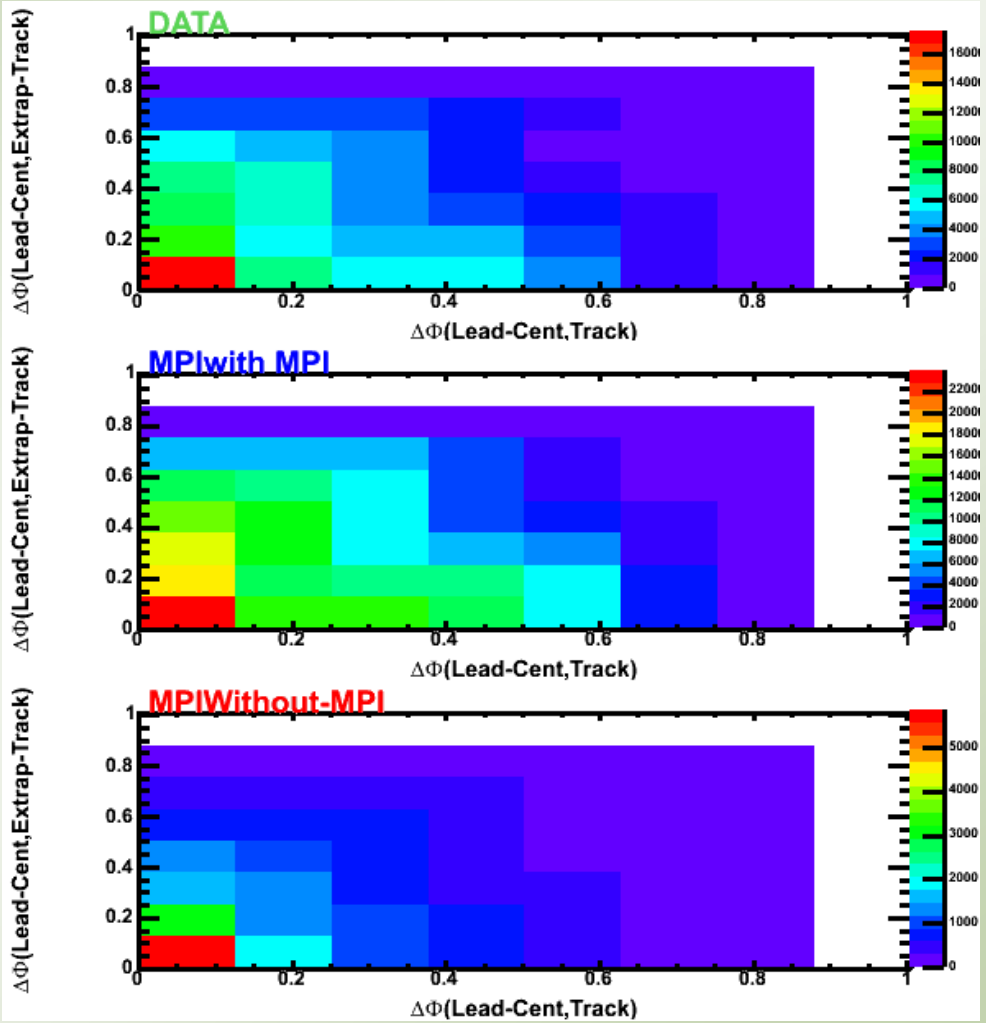


Choice of ΔR(Track,Jet Centroid)

- The Plot here is made after making the following cut

ΔR(Track,Jet-Centroid) <o.8 and

ΔR(Extrap-Track,Jet-Centroid) <o.8

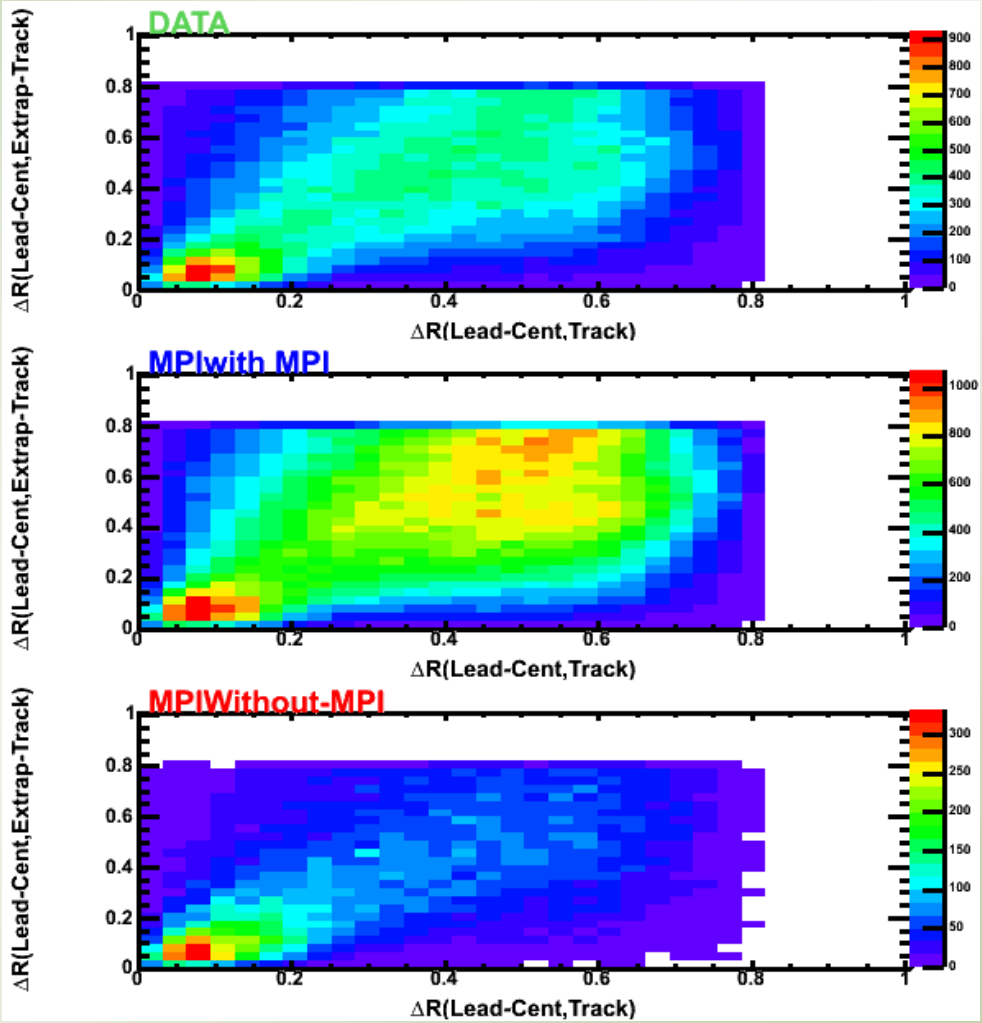


Choice of ΔR(Track,Jet Centroid)

- The Plot here is made after making the following cut

ΔR(Track,Jet-Centroid) <o.8 and

ΔR(Extrap-Track,Jet-Centroid) <o.8



Conclusion

- All Scatter/Azimuthal plots from now are to made with both **ΔR(Track,Jet-Centroid) <0.8 and**

ΔR(Extrap-Track,Jet-Centroid) <0.8