Understanding QCD "Dijets"

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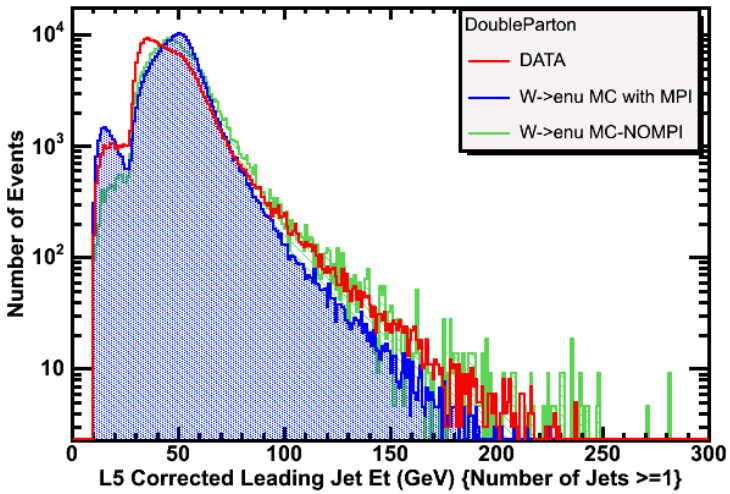
Talk Content

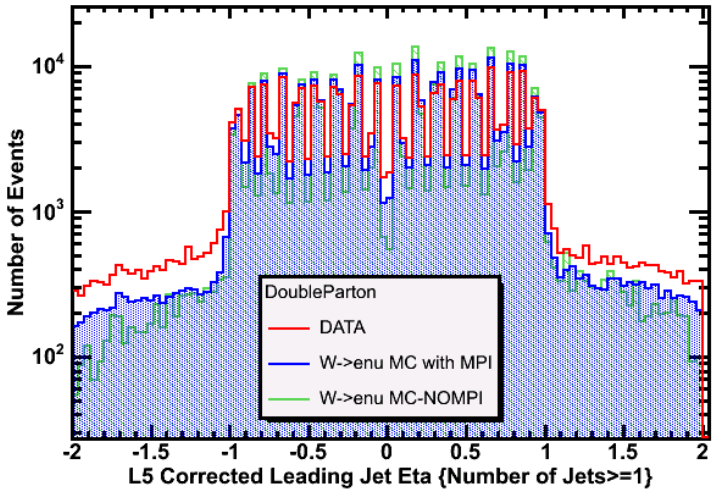
- Jet Variable Distributions for Number of Jets >=2 and >=3
- Δφ between Leading ,Second and Third Jets
- Invariant Mass-Leading ,Second,third Jets
- Cuts Applied on the Plots in Following slides
  1. MET>30 GeV,Only ONE Tight electron,Transverse Mass>20 GeV
  2. Number of Jets (selected and L5 corrected)>=2
  3. Number of Tracks (all tracks associated with Jet at Ntuple level)>=2

Number of Jets >=1

Leading Jet Et



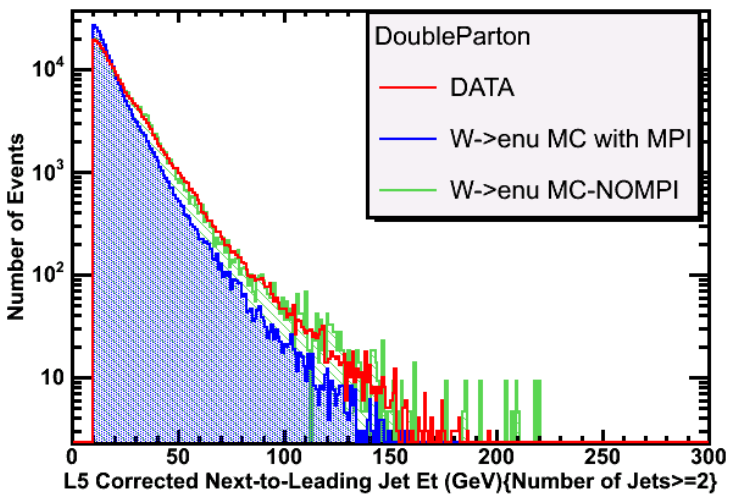
Leading Jet Eta



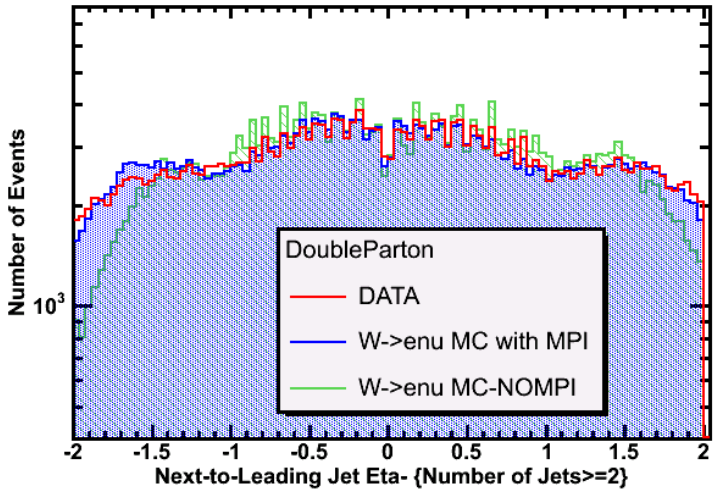
•Note the discrepancy in the Data for <20 GeV.

Number of Jets>=2

Second Jet Et



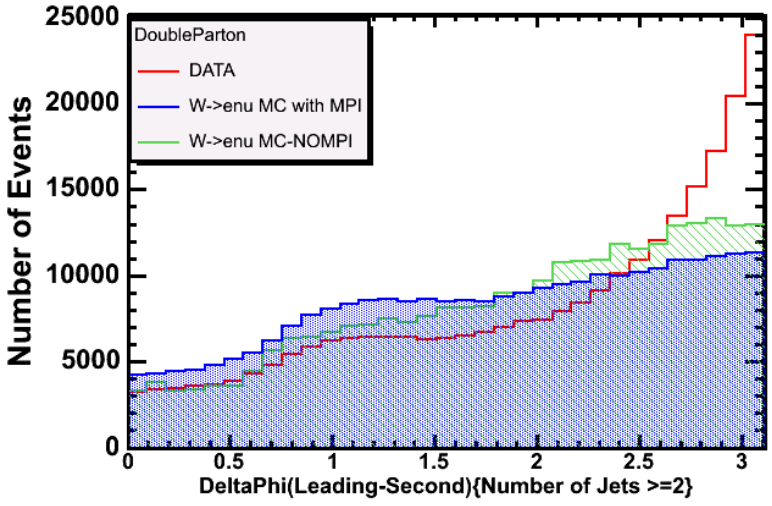
Second Jet Eta



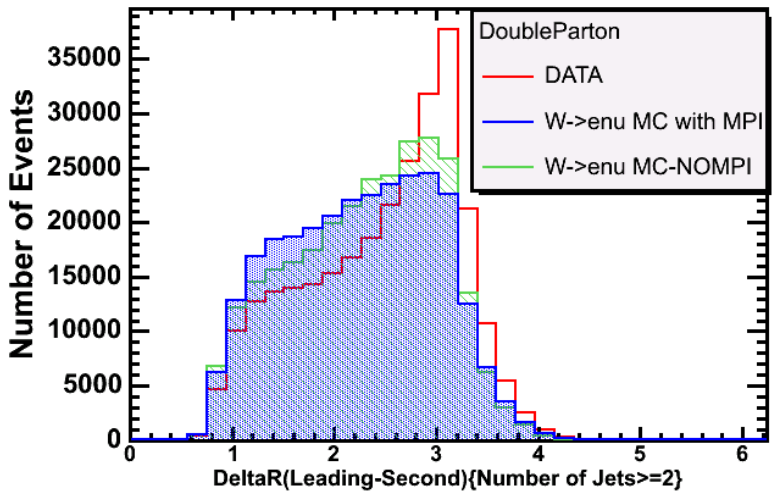
•Leading Jet tends to more Central,while the second jet ,being the Lower energy one is more spread out

Number of Jets>=2

Δφ(Leading-Second)

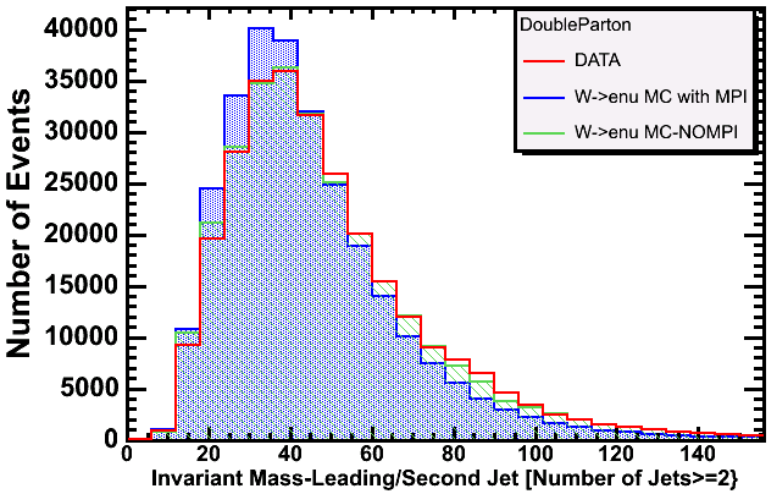


ΔR(Leading-Second)

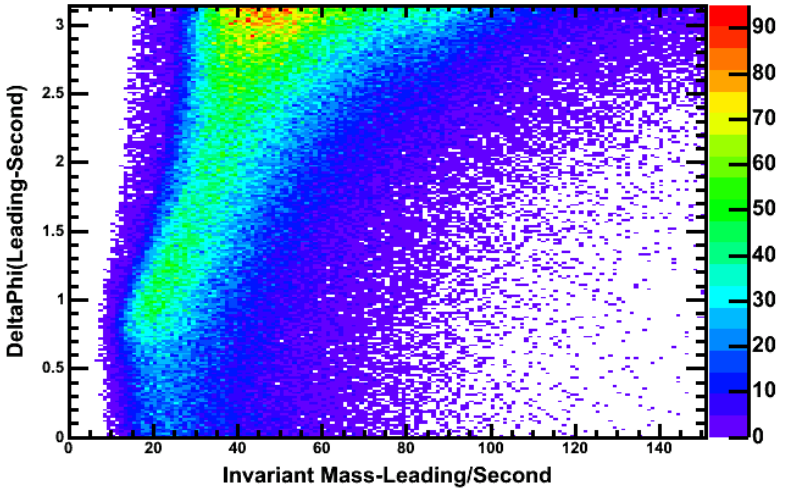


Number of Jets>=2

Invariant Mass-Leading/Second

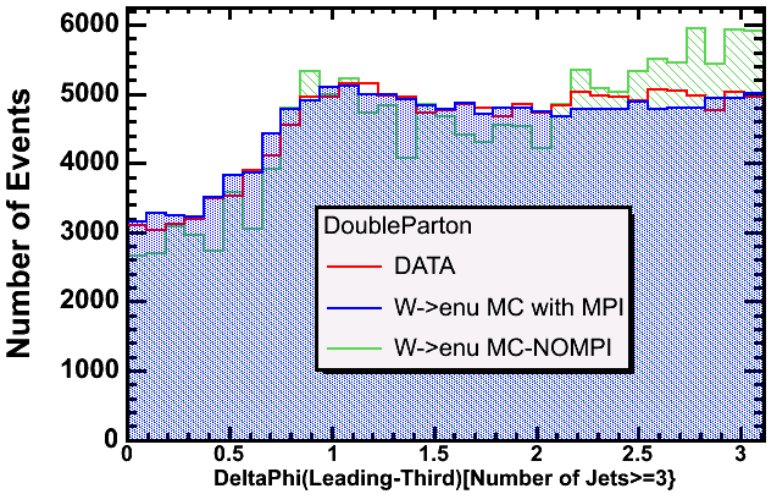


Invariant Mass/Δφ(Leading-Second)

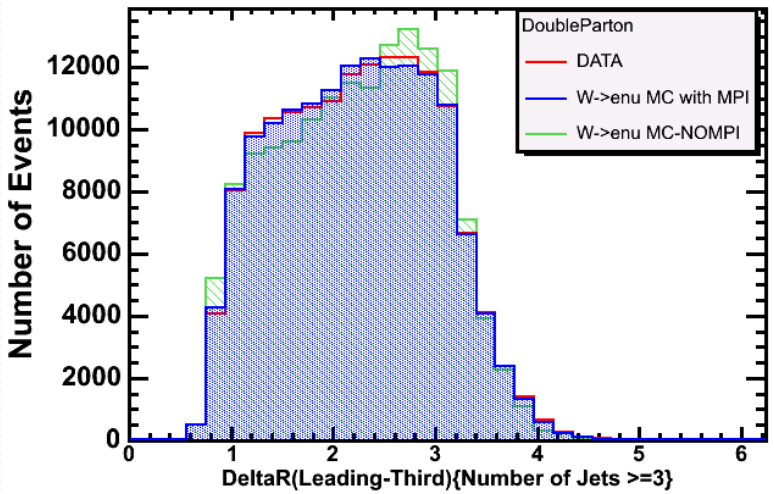


Number of Jets>=3

Δφ(Leading-Third)

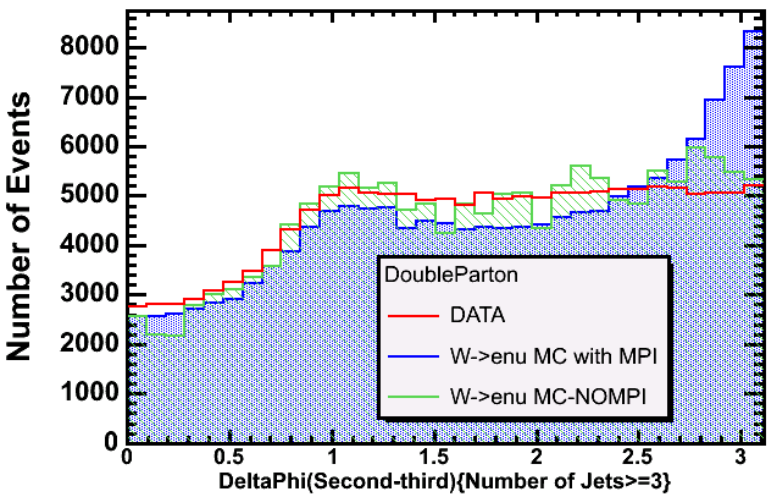


ΔR(Leading-Second)

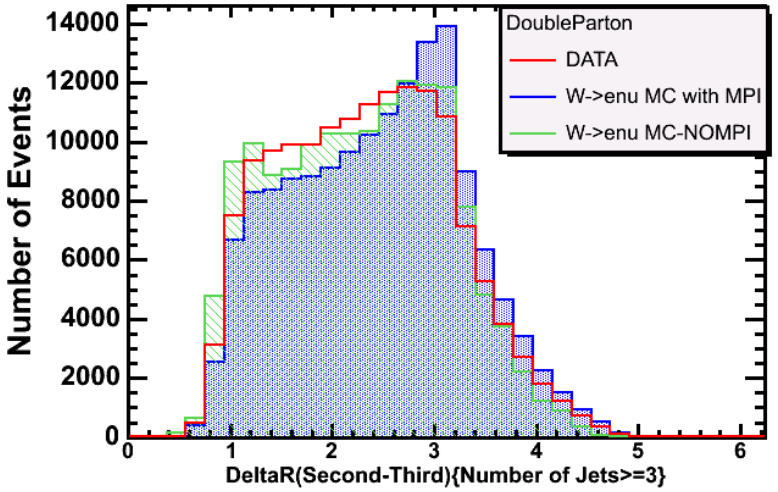


Number of Jets>=3

Δφ(Second-Third)

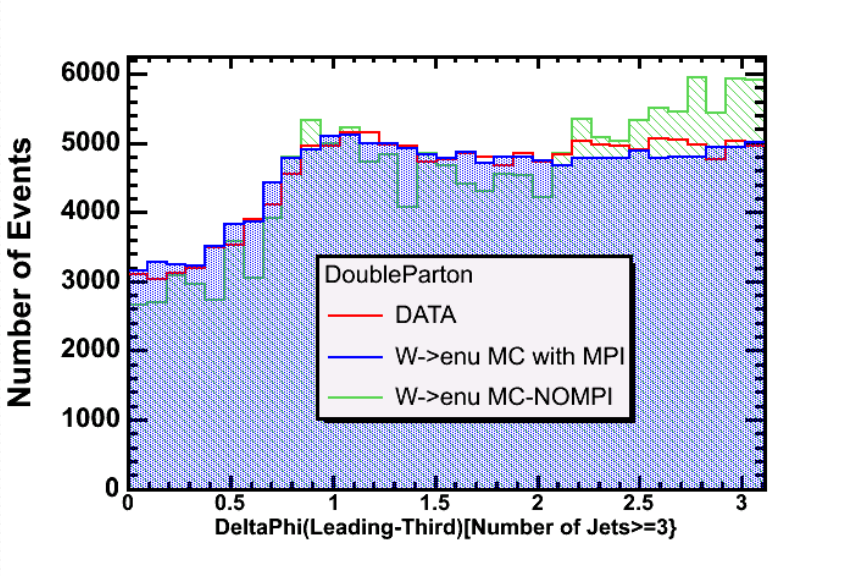


ΔR(Second-Third)

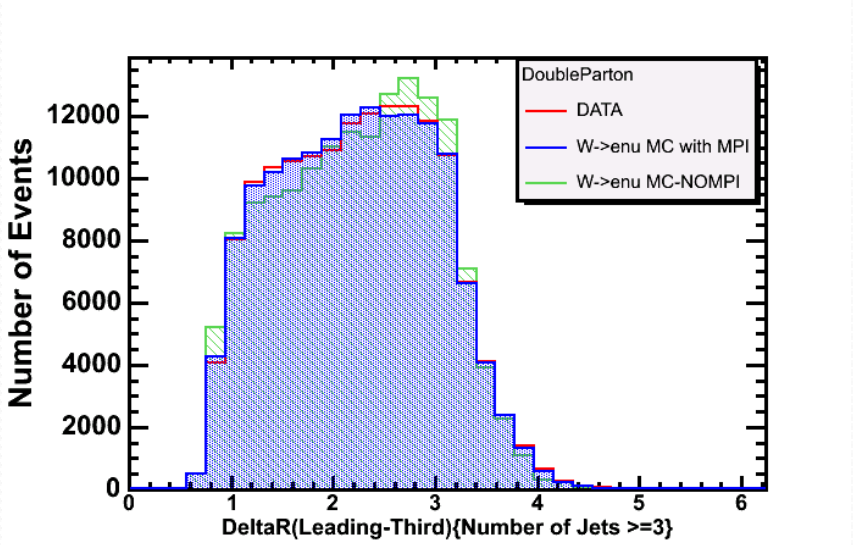


Number of Jets>=3

Δφ(Leading-Third)

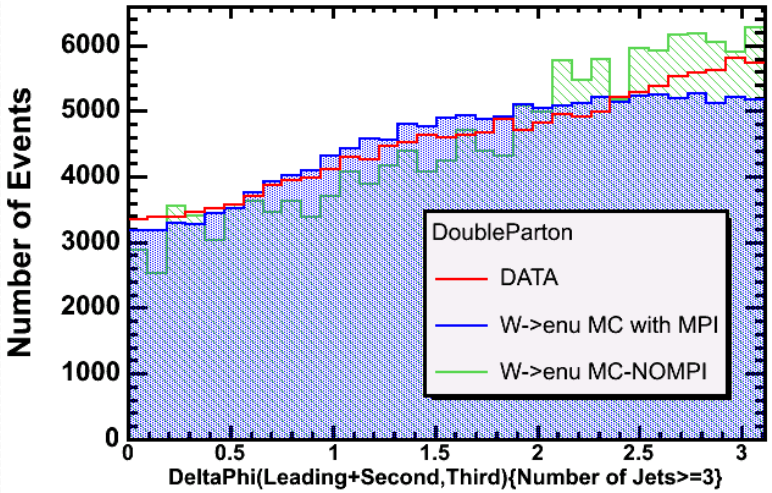


ΔR(Leading-Third)

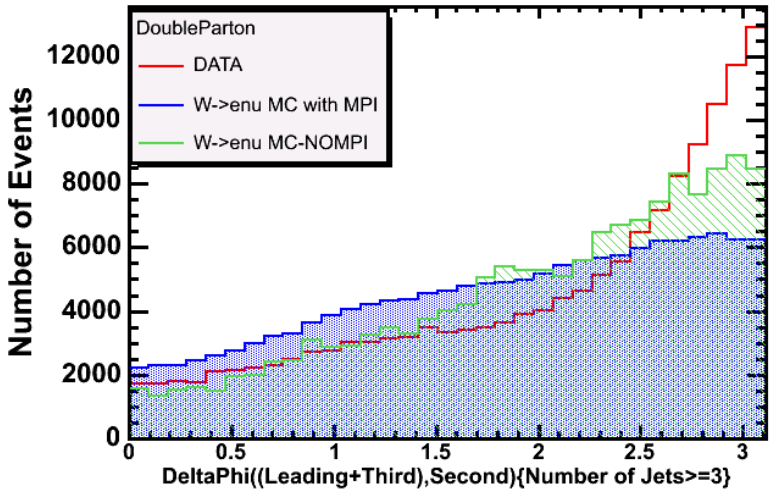


Number of Jets>=3

Δφ((Leading+Second)-Third)

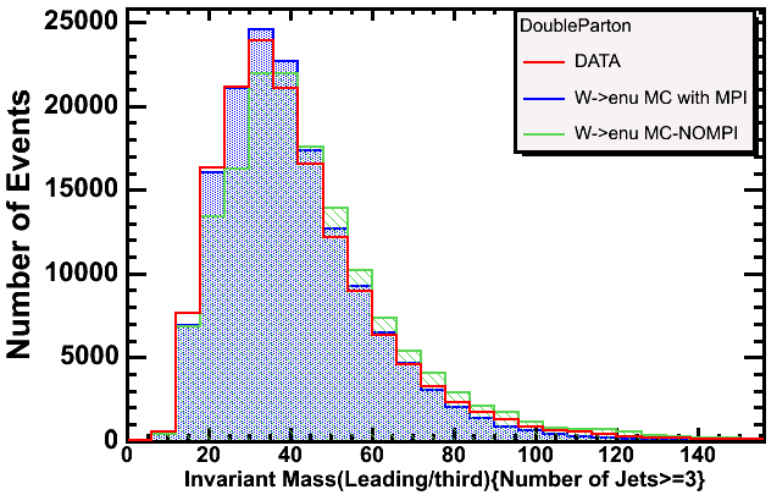


Δφ((Leading+Third)-Second)

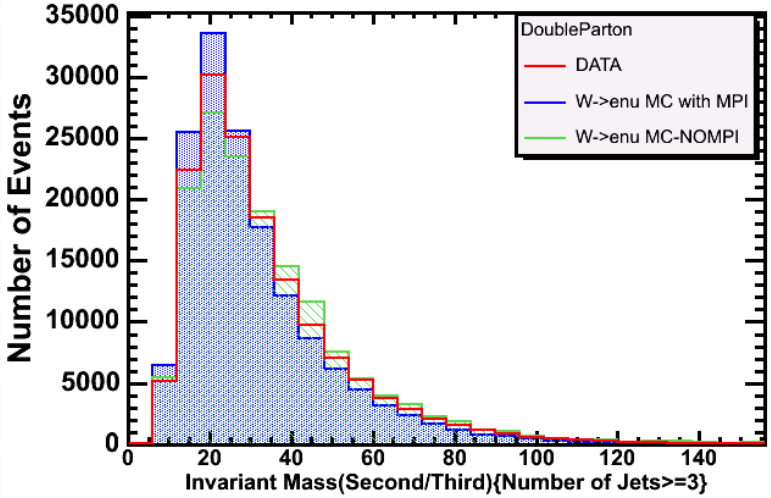


Number of Jets>=3

Invariant Mass-Leading/Third

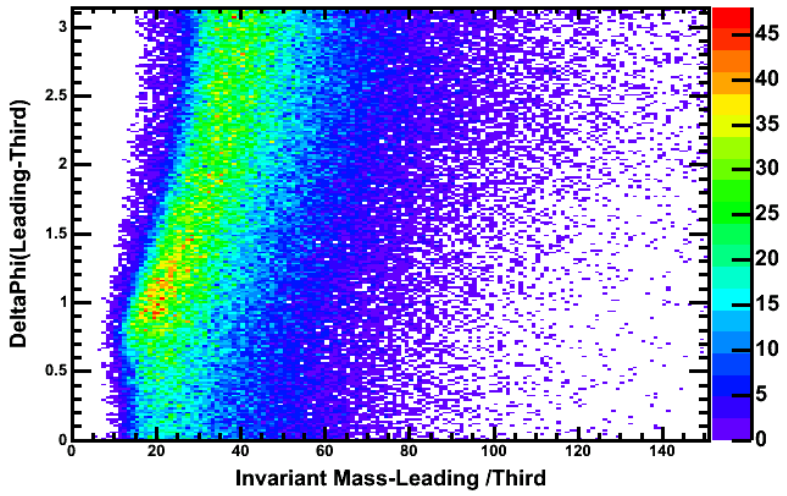


Invariant Mass-Third/Second

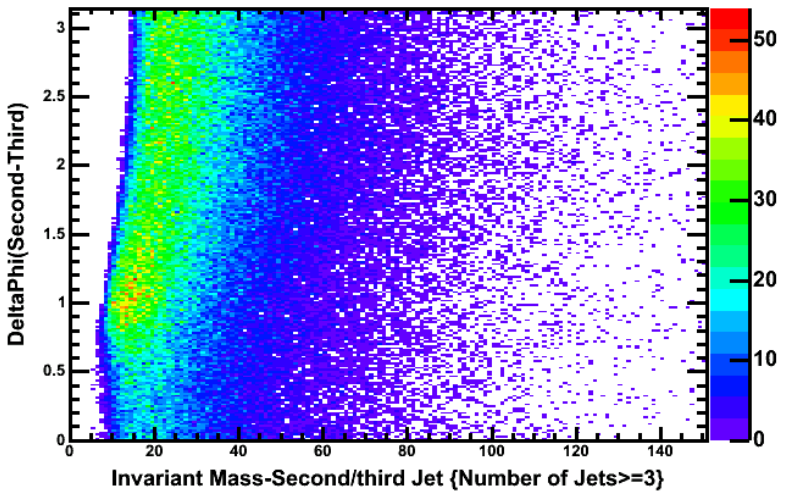


Number of Jets>=3

Invariant Mass-Leading/third



Invariant Mass-Second/third



Conclusions

- Discrepancies seen in $\Delta\varphi$ Plots between the Jets,which need be reemamined after DeltaZ cuts are also made
- QCD dijets lack of it has probed.