

Double Parton

[Varsha Ramakrishnan]

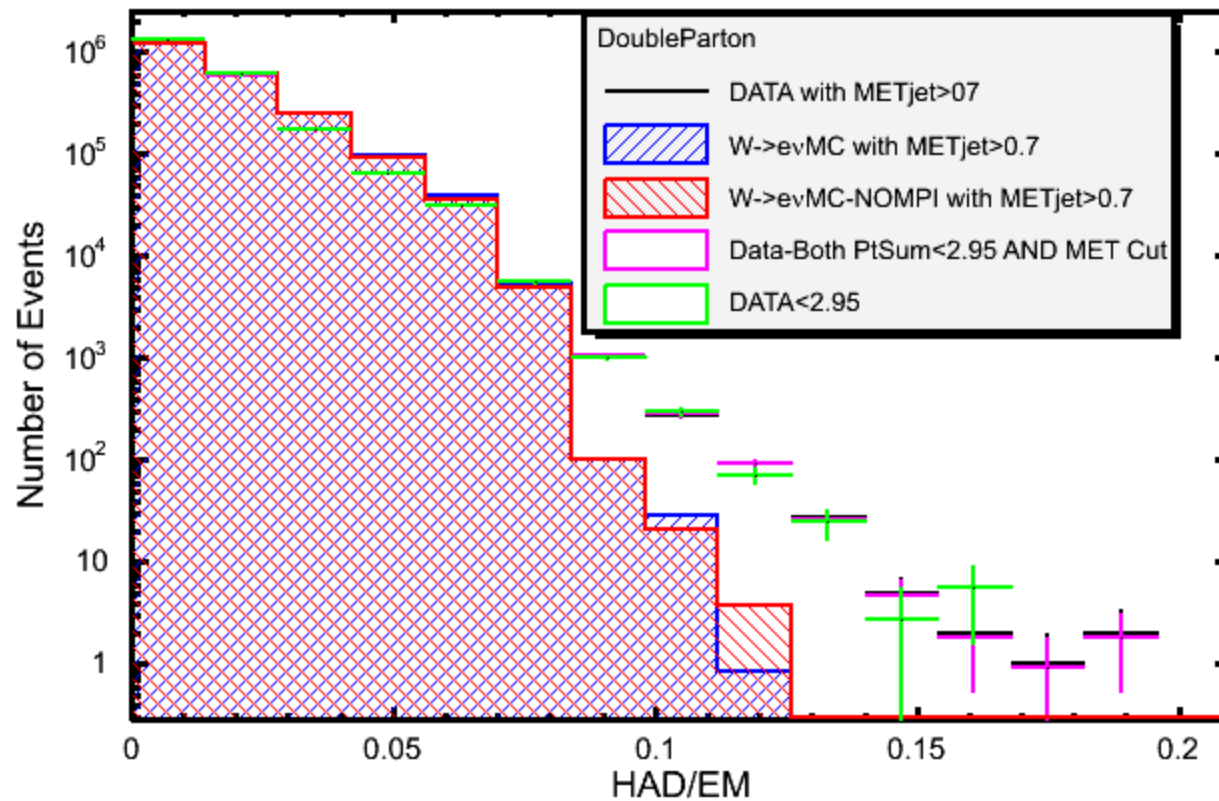
Summary From Last Mondays Meeting

1. Apply $\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$ as a Baseline cut and look at W/Electron/Jet Variable distributions.
2. 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

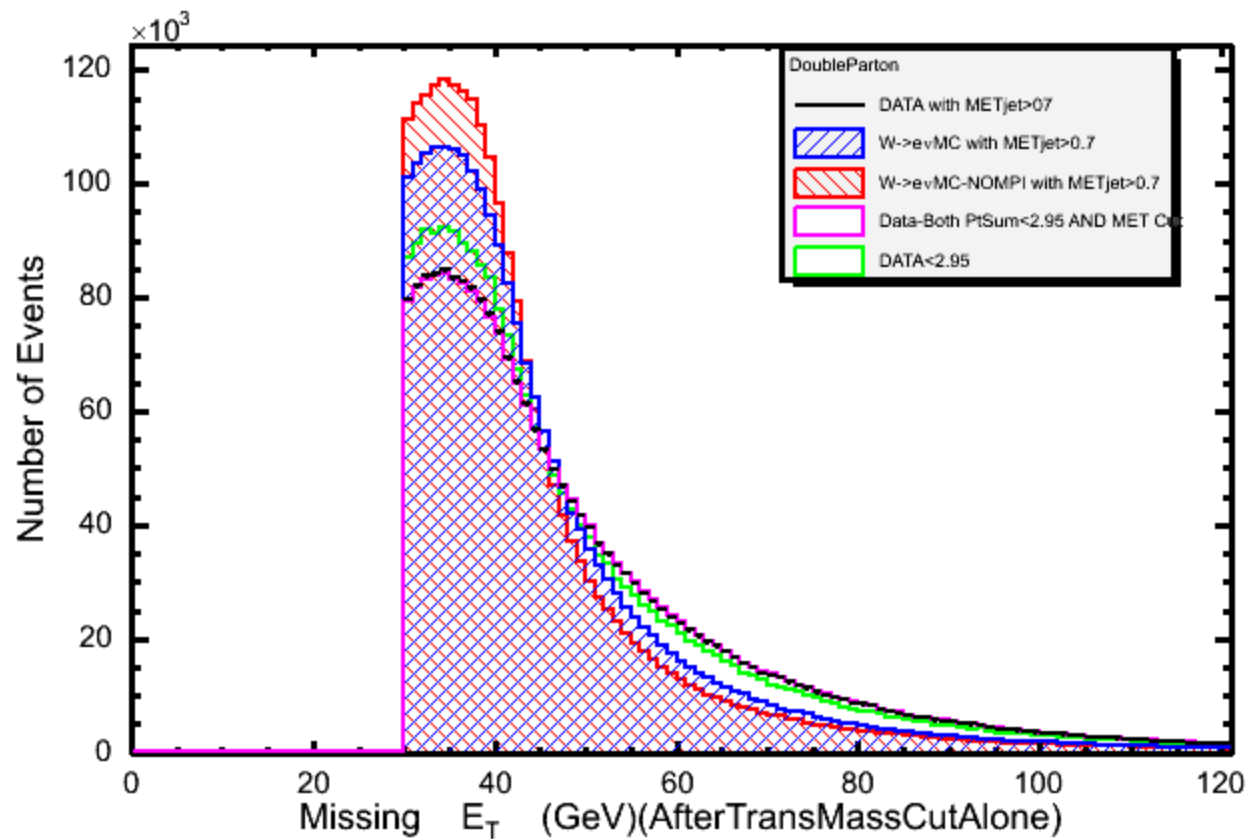
Tight/W/MET Cuts

- 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
- $\Delta R(\text{Electron}, \text{Closest-Jet}) > 0.92 (1.3 * \text{radius of cone})$
- $\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$
- Missing ET corrected for Muons/Jets-Selected
- ONLY ONE Tight-Electron, $\text{MET} > 30 \text{ GeV}$, $\text{Transverse Mass} > 50 \text{ GeV}$
- At least TWO Jets (as selected above)
- Above Leading/.Second Jet need to have at least TWO TRACKS in them

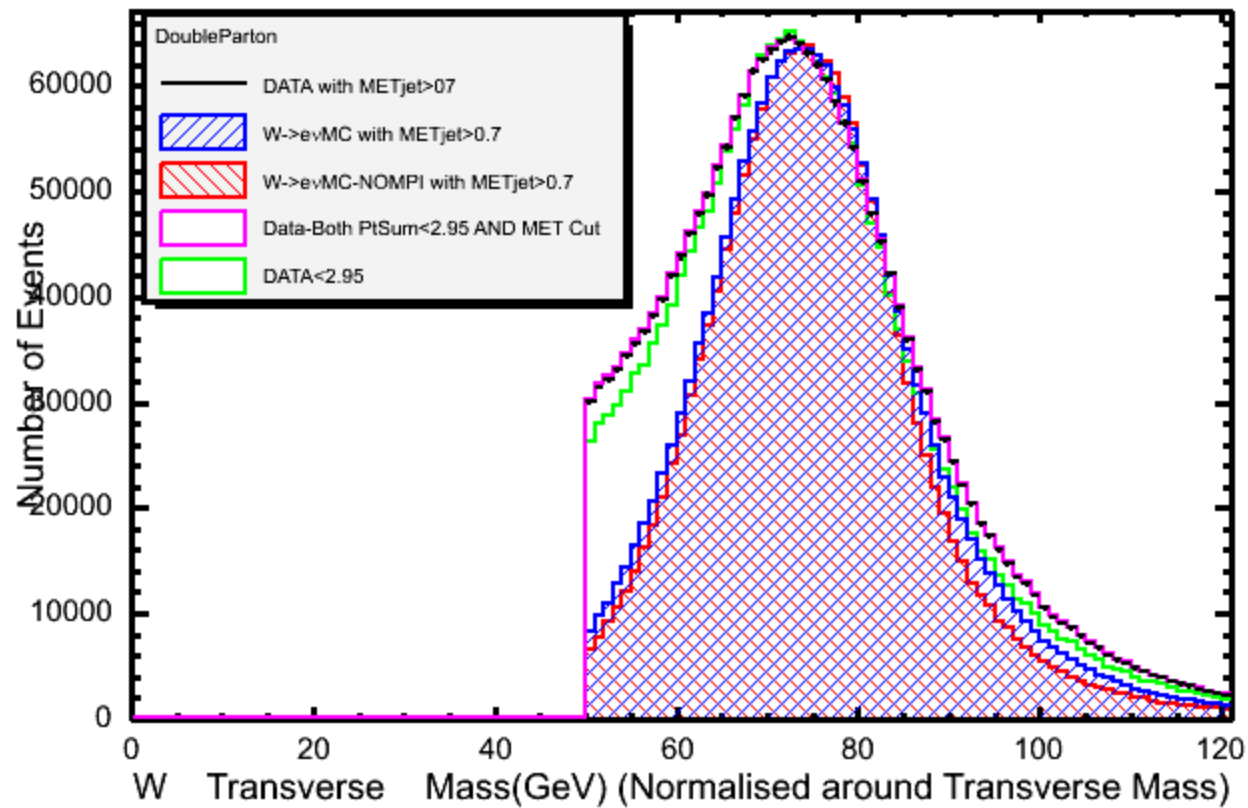
After Transverse Mass Cut with $\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$



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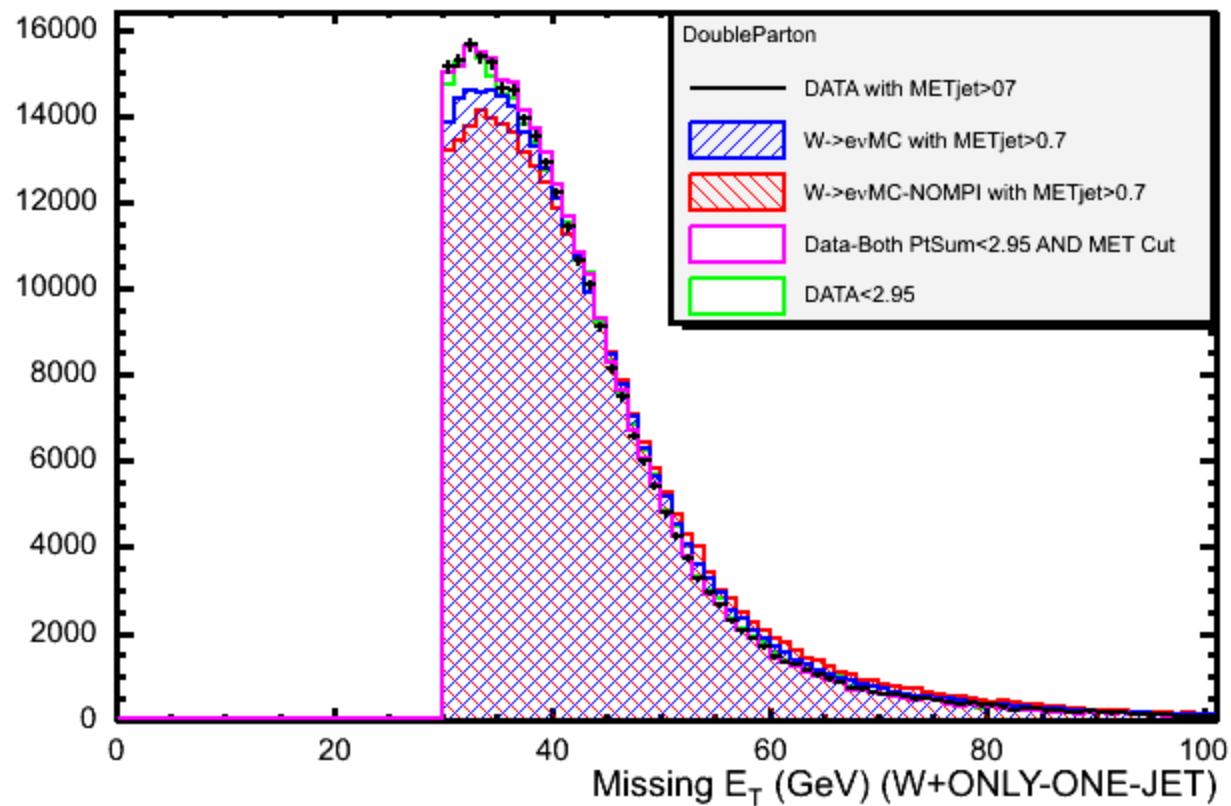
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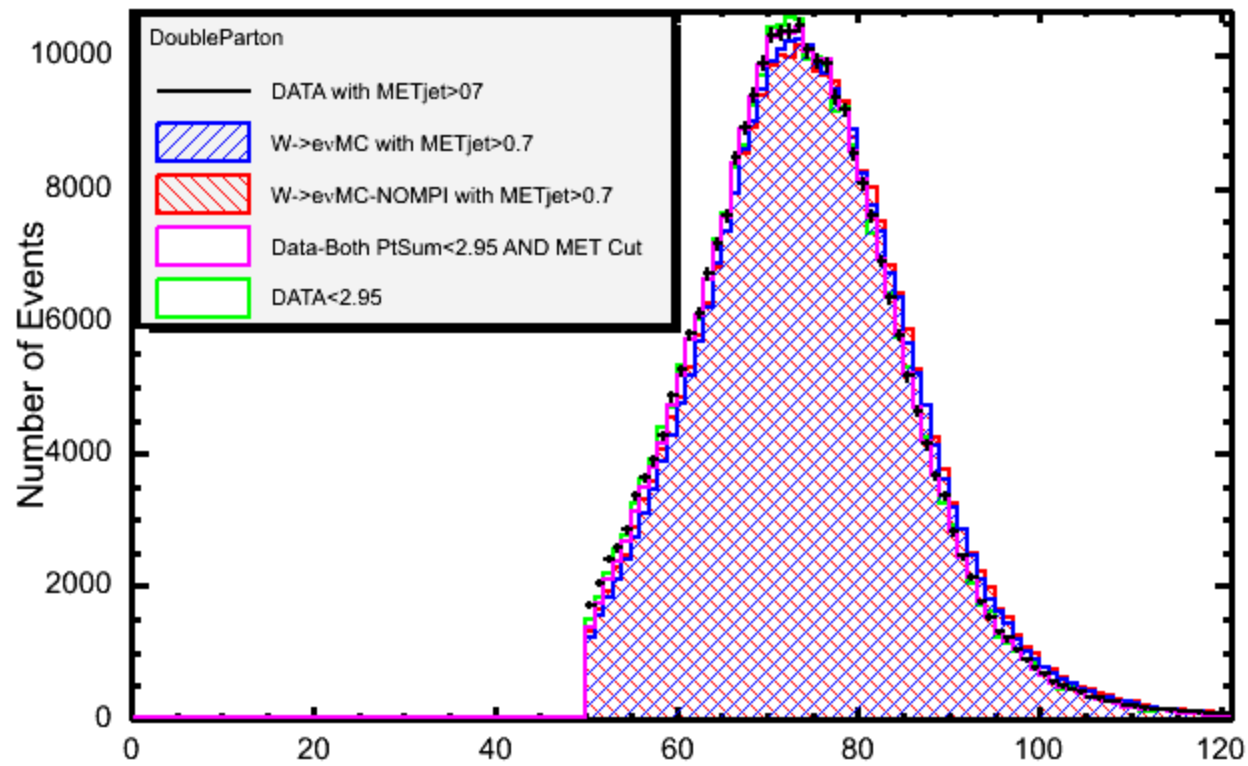
W+ONLY ONE JET



After Transverse Mass Cut With

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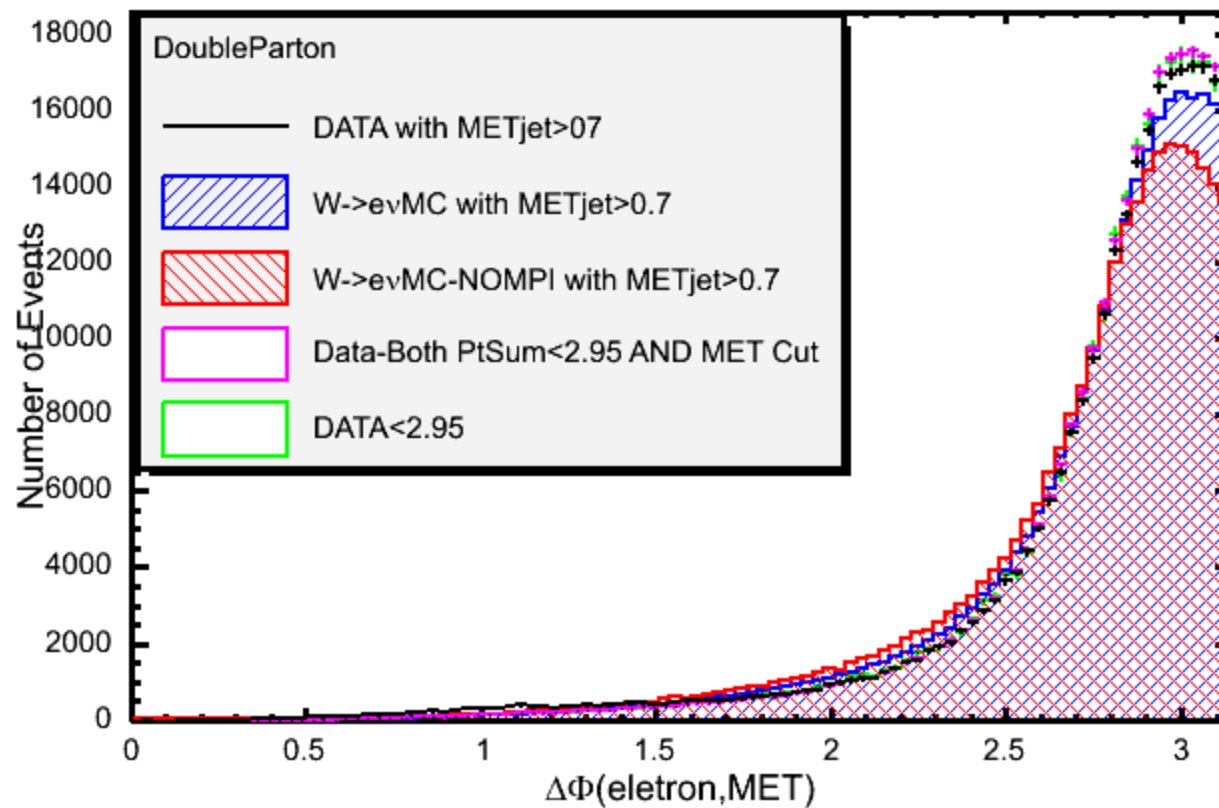
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After Transverse Mass Cut With

$$\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$$

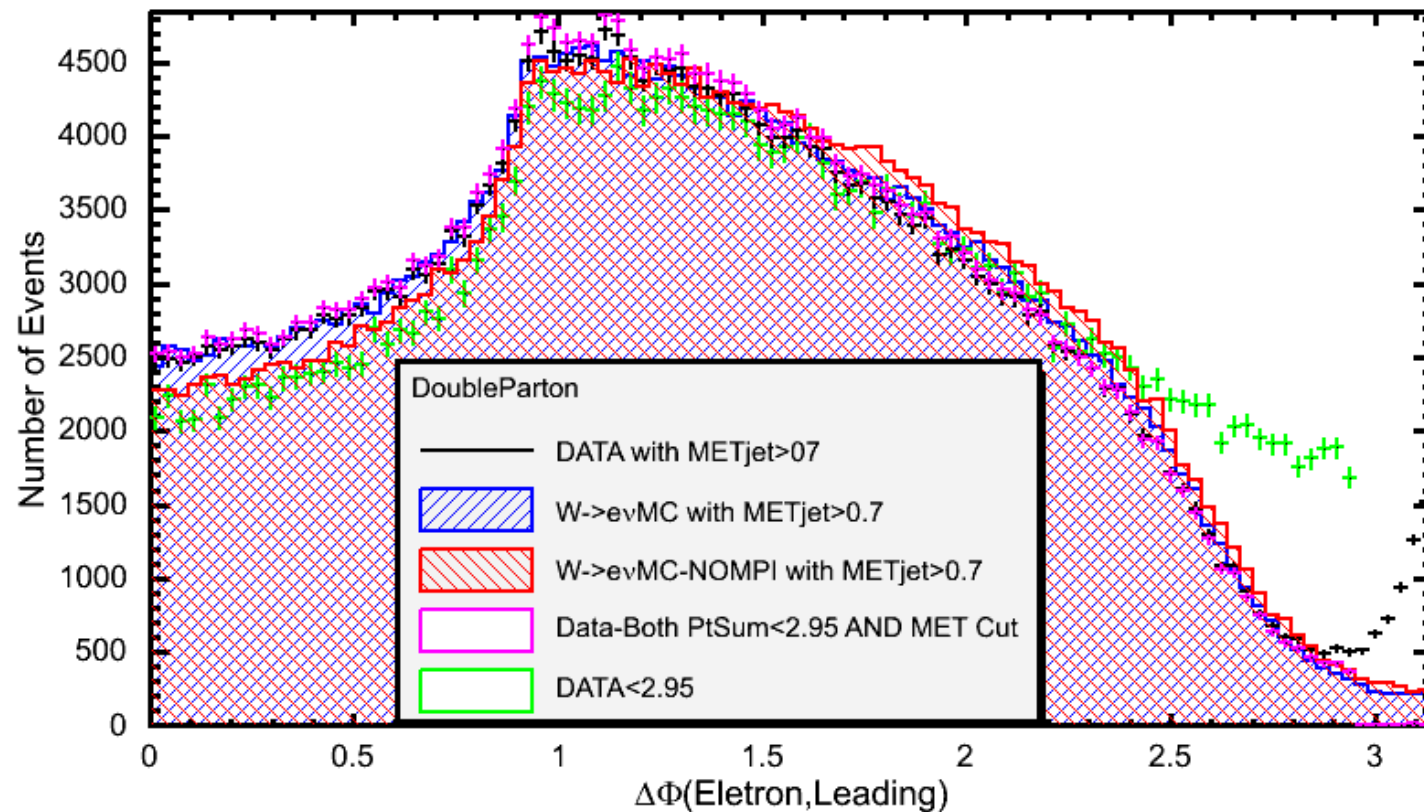
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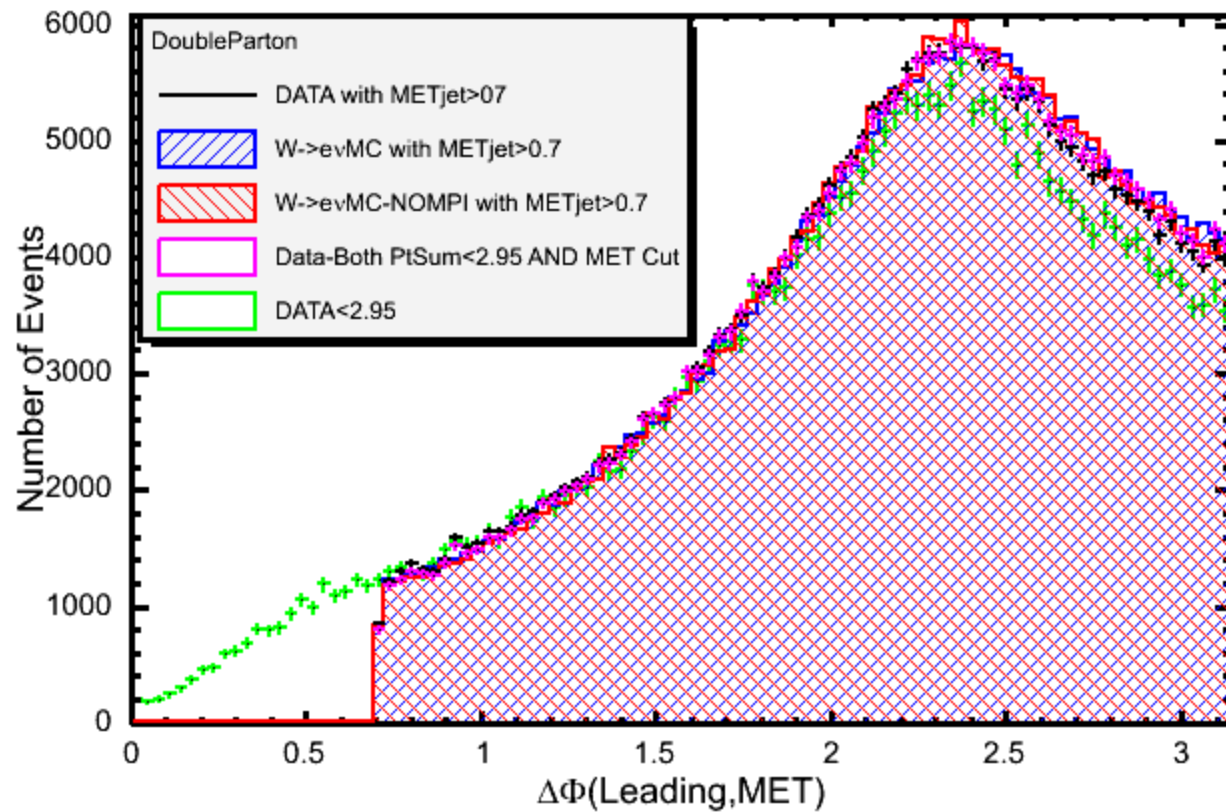
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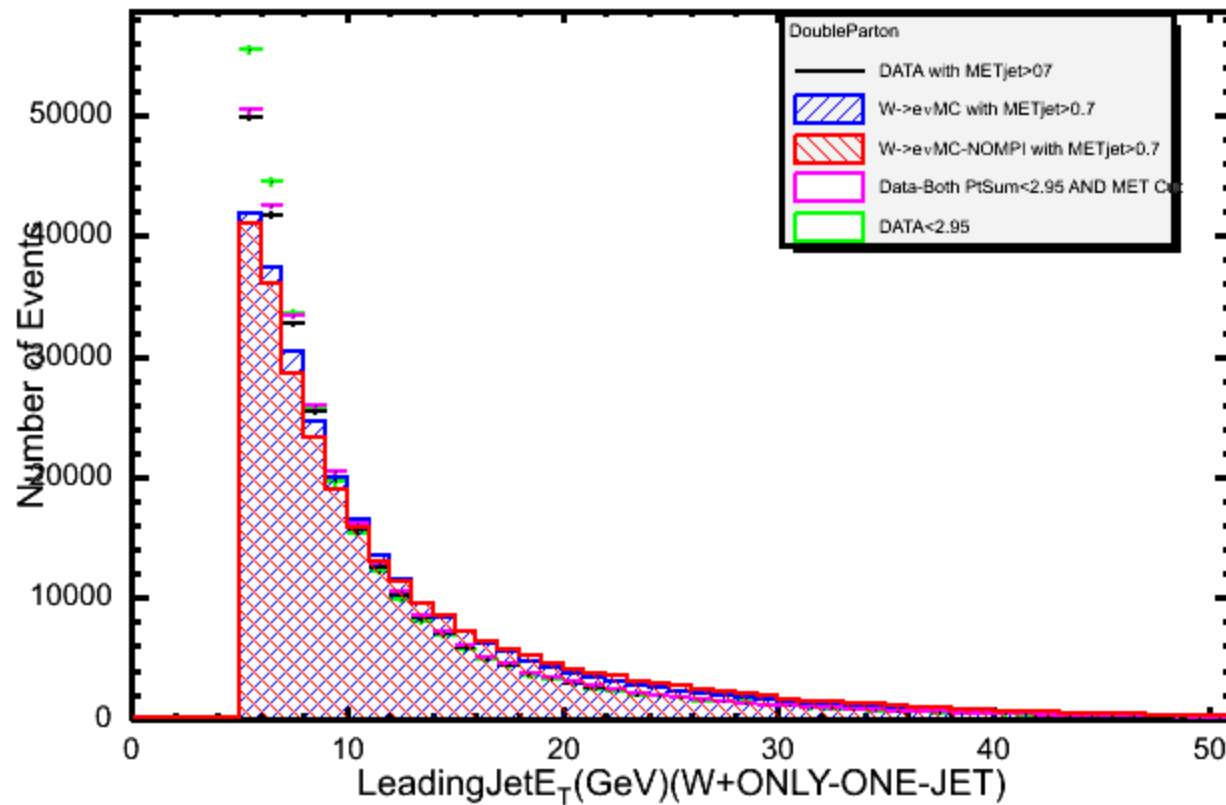
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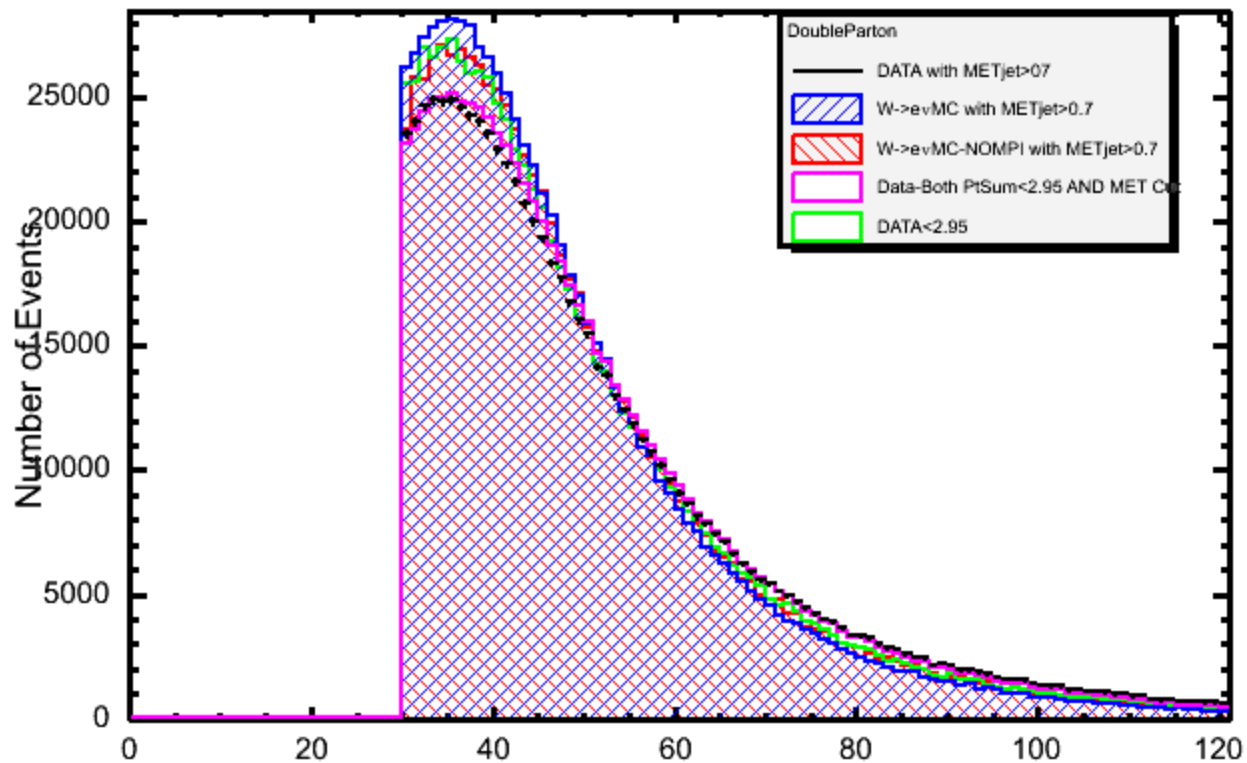
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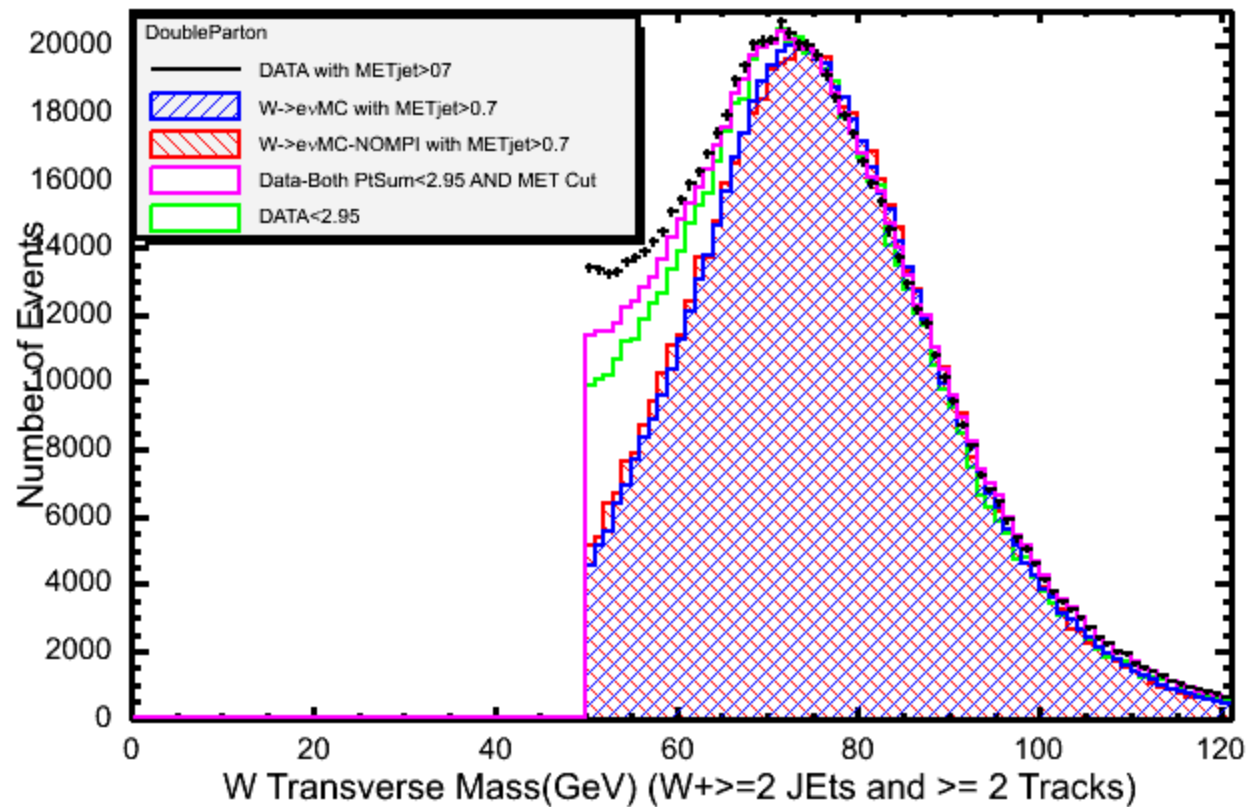
After Transverse Mass Cut with $\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$ $W \rightarrow \geq 2 \text{ JETS} - \text{MET}$



After Transverse Mass Cut With

$\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$

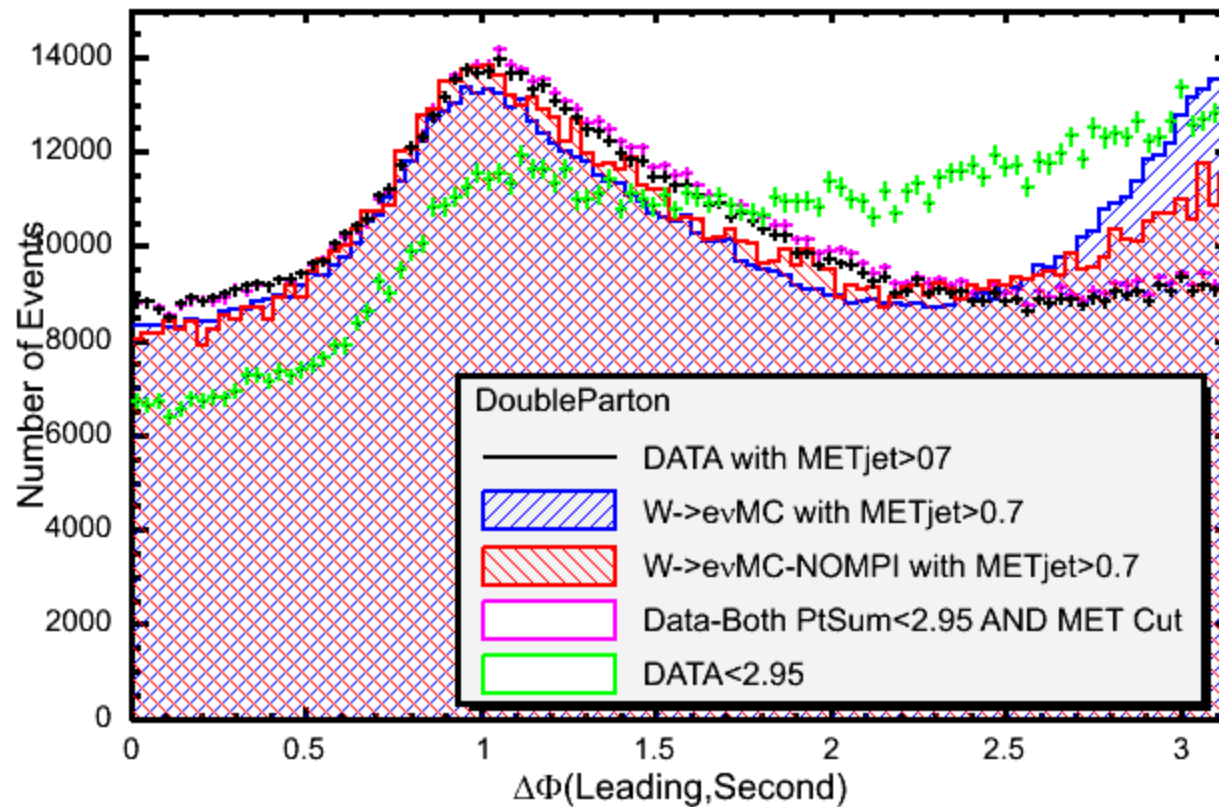
$W + \geq 2 \text{ JETS}$



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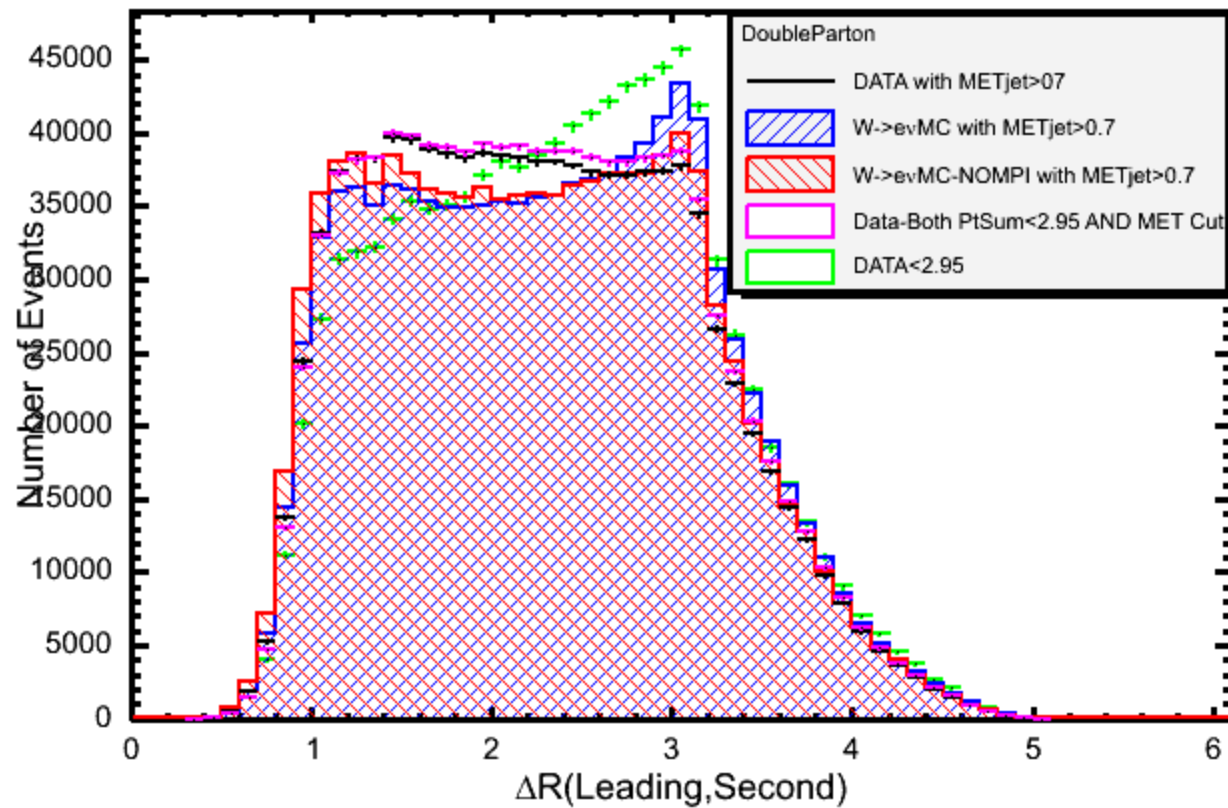
$W + \geq 2 \text{ Jets}$



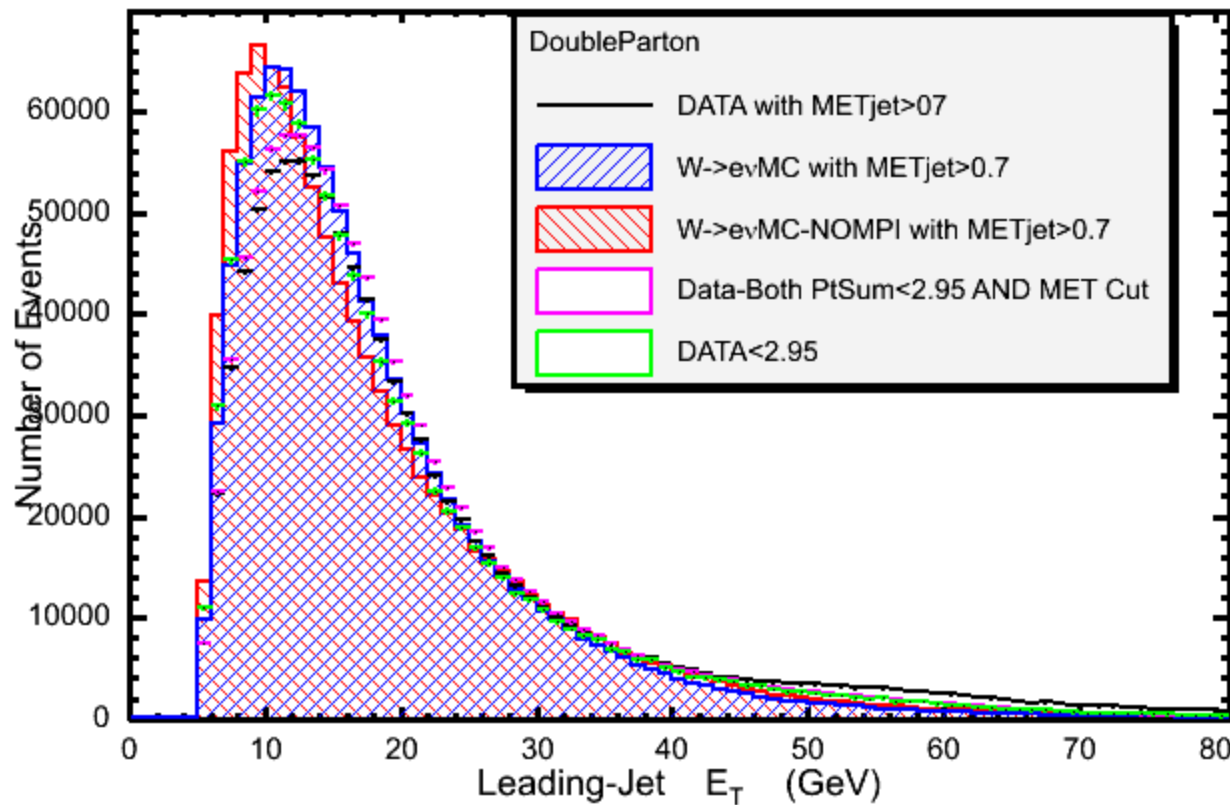
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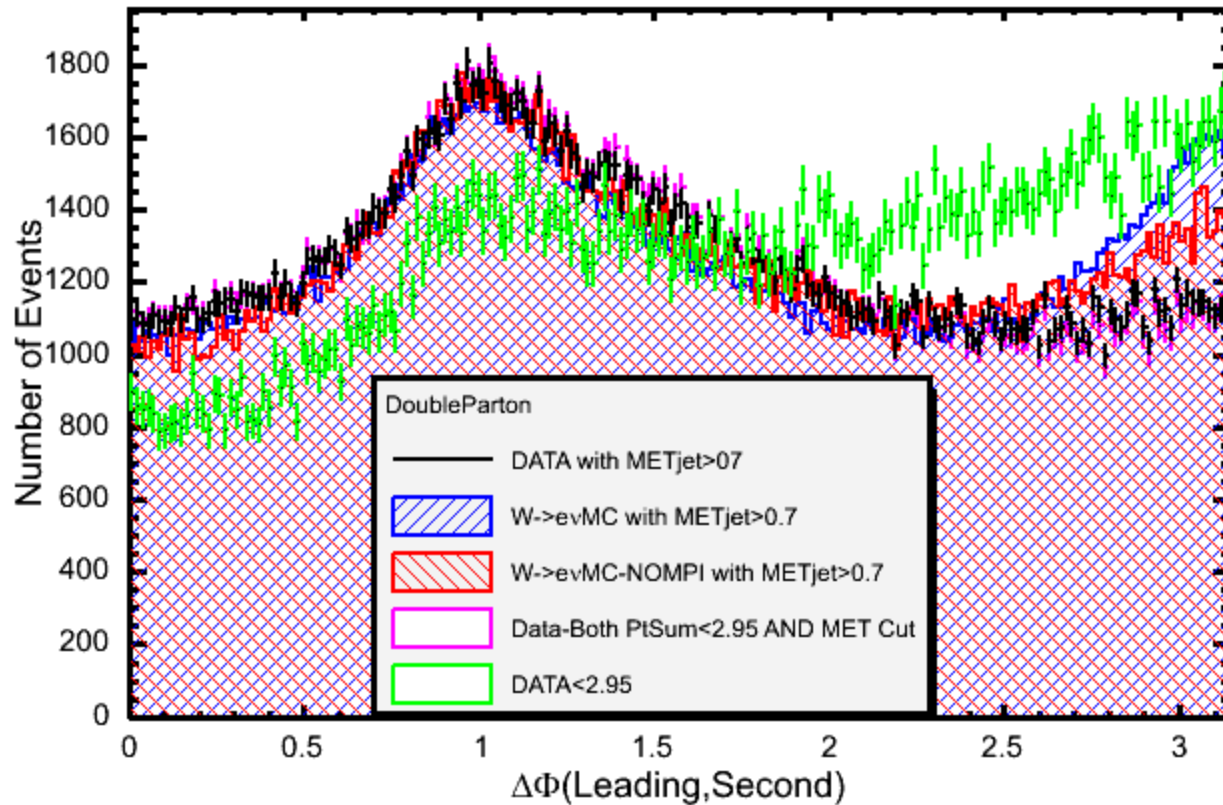
$W \rightarrow \geq 2 \text{ Jets}$



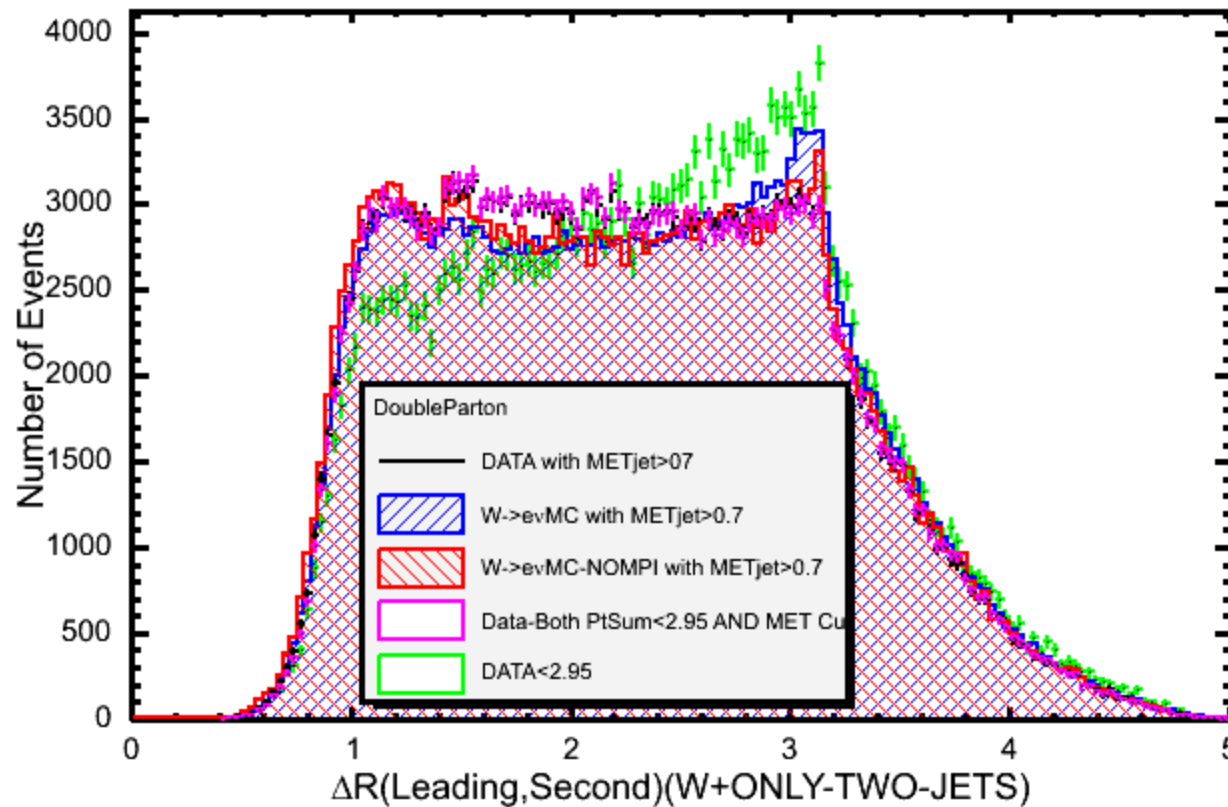
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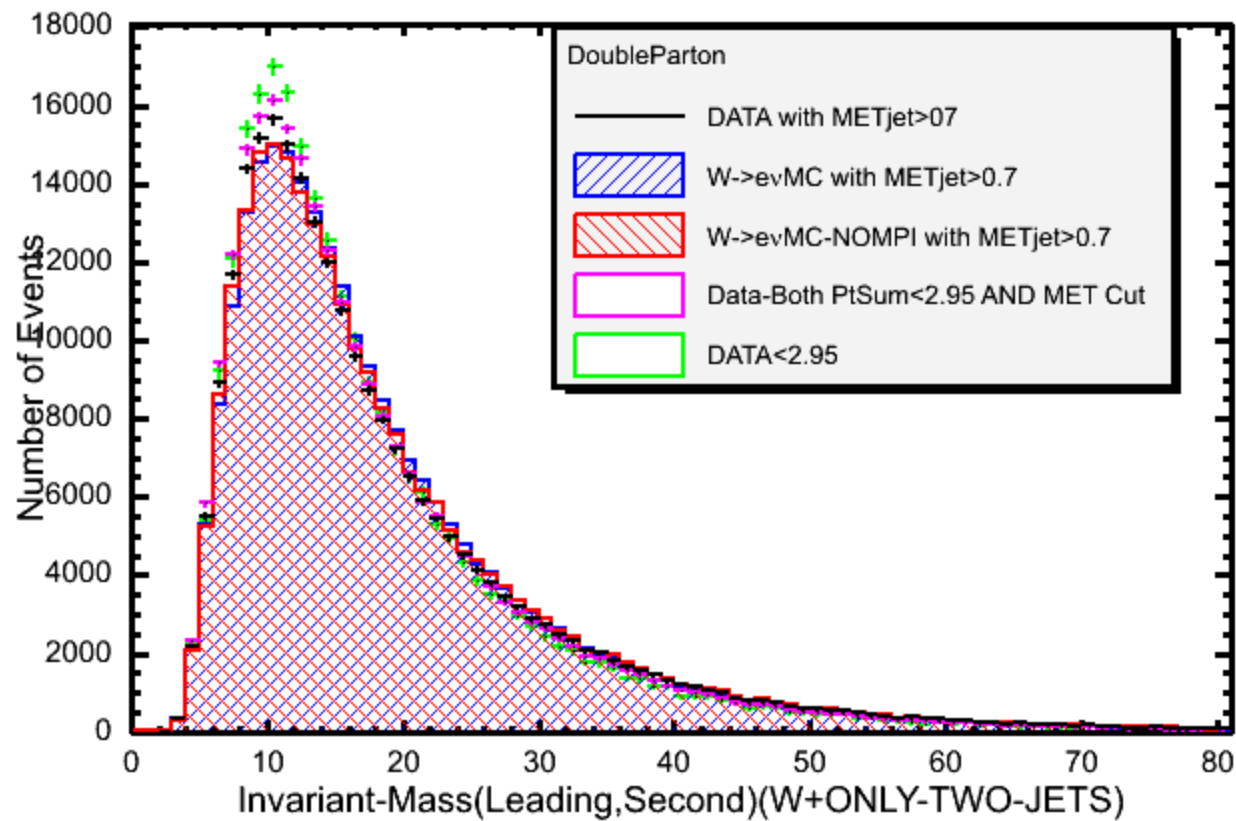
After Transverse Mass Cut with $\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$ W+ONLY TWO Jets



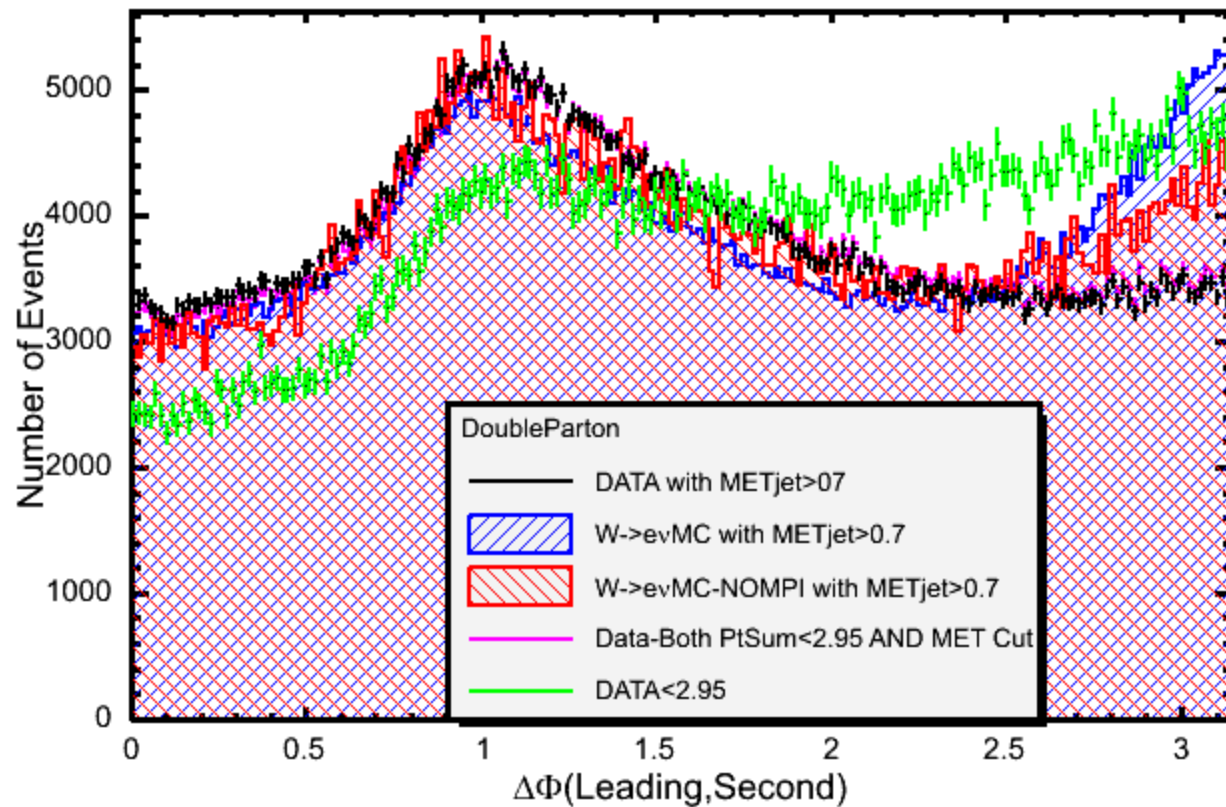
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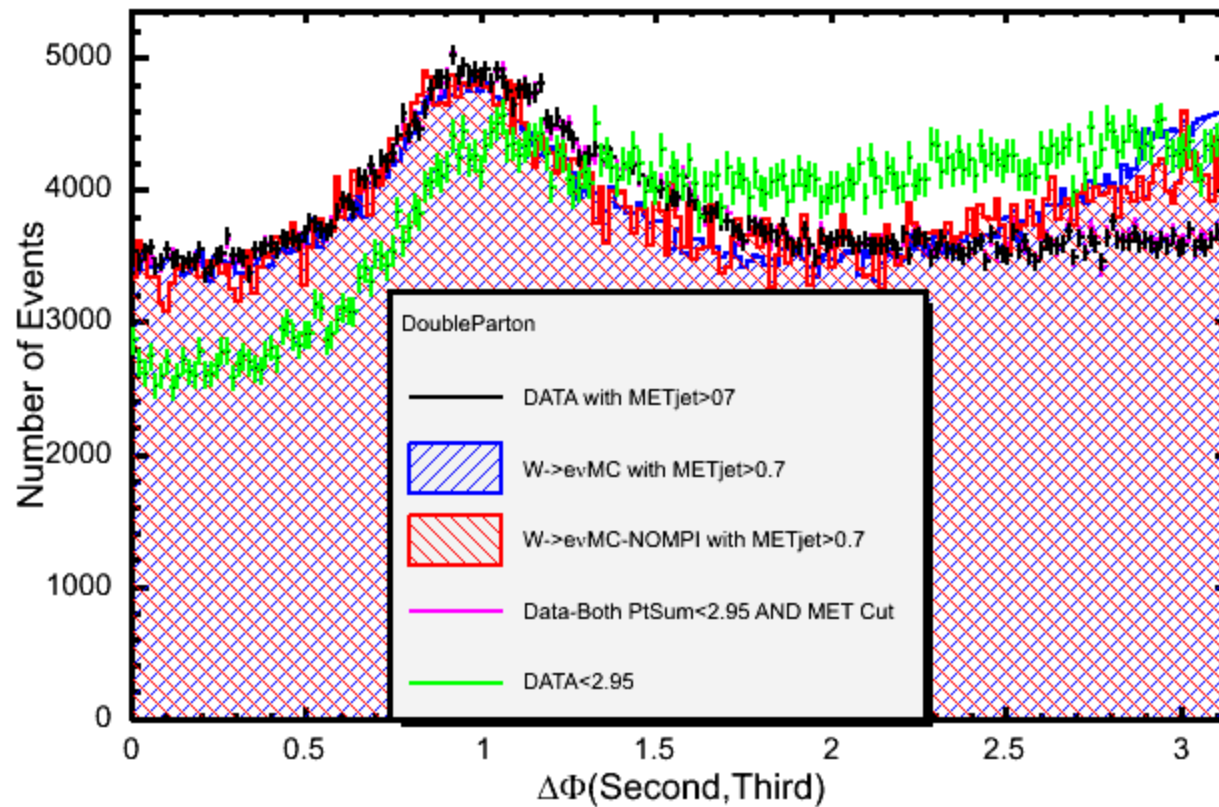
After Transverse Mass Cut With $\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$ W+ONLY TWO Jets



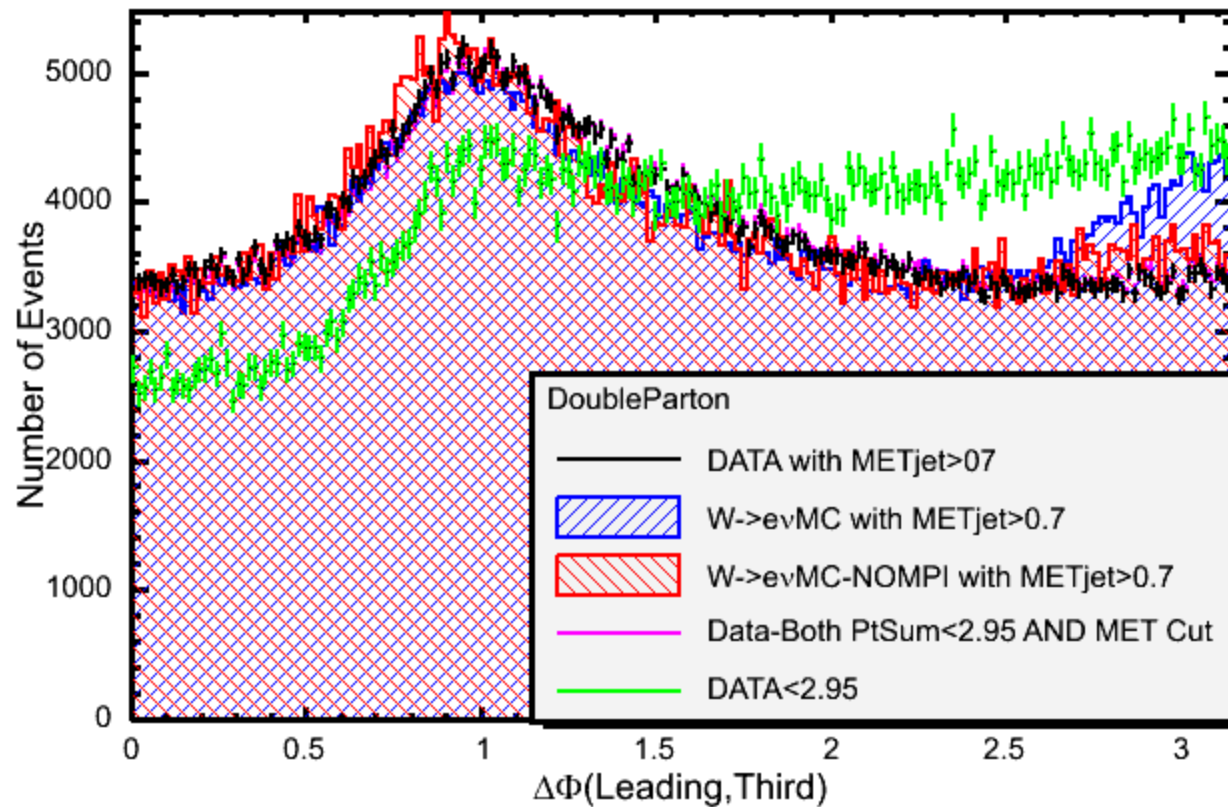
After Transverse Mass Cut with $\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$ $W \rightarrow \geq 3 \text{ JETS}$



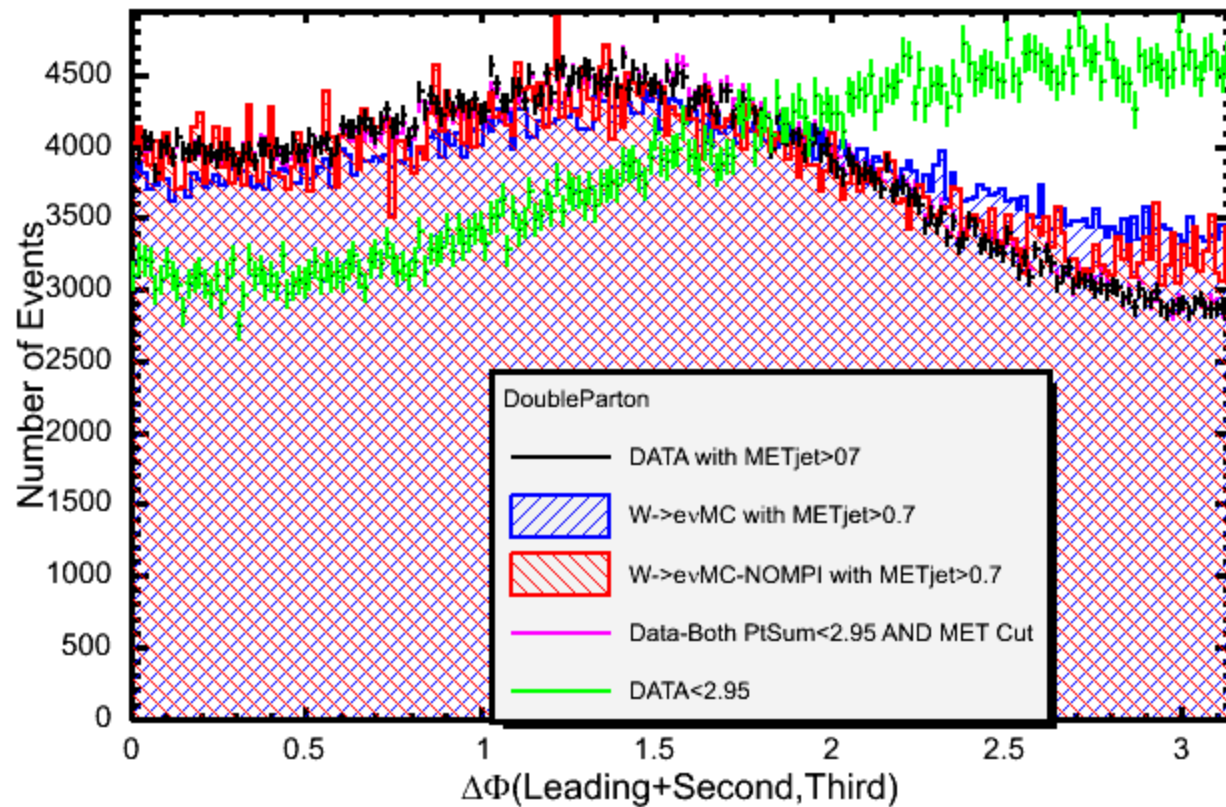
After Transverse Mass Cut with $\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$ $W \rightarrow \geq 3 \text{ JETS}$



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