

Double parton scattering

$W \rightarrow e\nu + \geq 2 \text{ Jets Channel}$
varsha ramakrishnan

PREVIOUS SELECTION CUTS

RAW JETS FROM THE
NUTPLE

REMOVE “Electron
JETS”

APPLY JET ENERGY
SCALE CORRECTION L5

SELECT JETS WITH
 $E_T > 12 \text{ GeV} / |\eta| < 2.0$

APPLY
 $\Delta R(\text{ELECTRON, CLOSEST-}$
 $\text{JET}) > 0.92$

APPLY
 $\Delta\phi(\text{ELECTRON, MET}) > 0.7$
 $\Delta\phi(\text{MET, ALL-JETS}) > 0.7$

TODAYS SELECTION CUTS

RAW JETS FROM THE
NUTPLE

REMOVE “Electron
JETS”

APPLY JET ENERGY
SCALE CORRECTION L5

SELECT JETS WITH
 $E_T > 10 \text{ GeV} / |\eta| < 2.0$

TO MET/TRANSVERSE
MASS CUTS

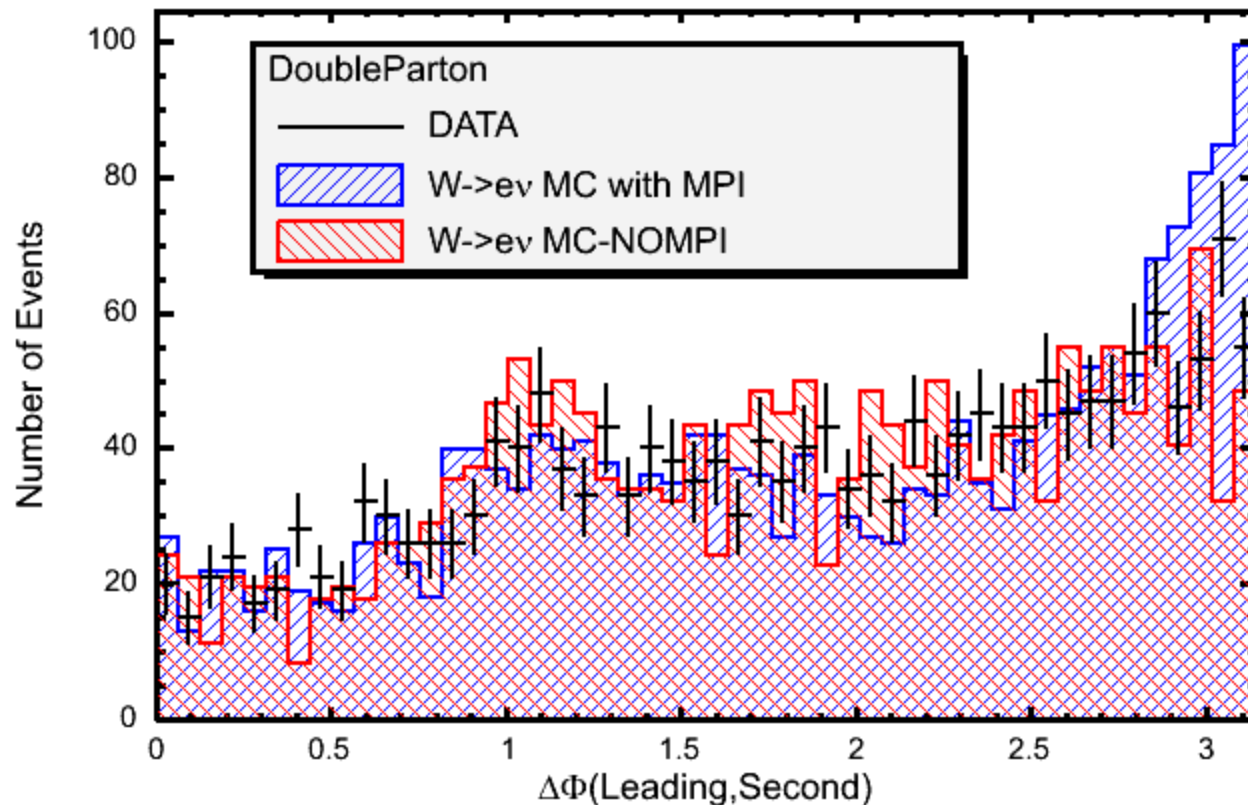
MET/Transverse Mass Selection Cuts

- ONLY ONE Tight-Electron
- $\text{MET} > 30 \text{ GeV}$
- Transverse Mass $> 50 \text{ GeV}$
- ONLY TWO Jets (as selected above)
- Above Leading/.Second Jet need to have at least TWO TRACKS in them

W+ONLY-TWOJETS/

$\Delta Z(\text{Electron, Leading}) < 0.04$ AND $\Delta Z(\text{Electron, Second}) < 0.04$ AND $\Delta Z(\text{Second, Leading}) < 0.04$ cm

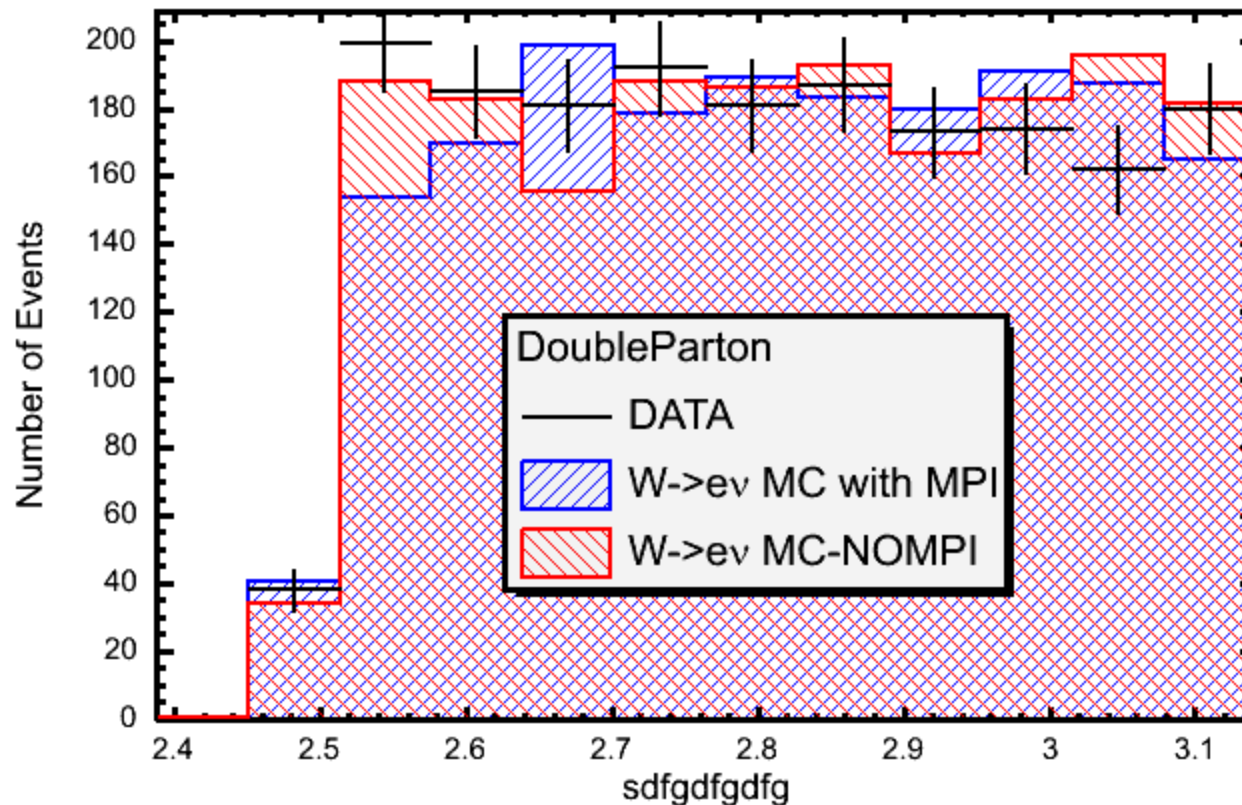
With $\Delta\phi(\text{Electron, MET}) > 0.92$ AND $\Delta\phi(\text{MET, ALL_JETS}) > 0.92$ Cut



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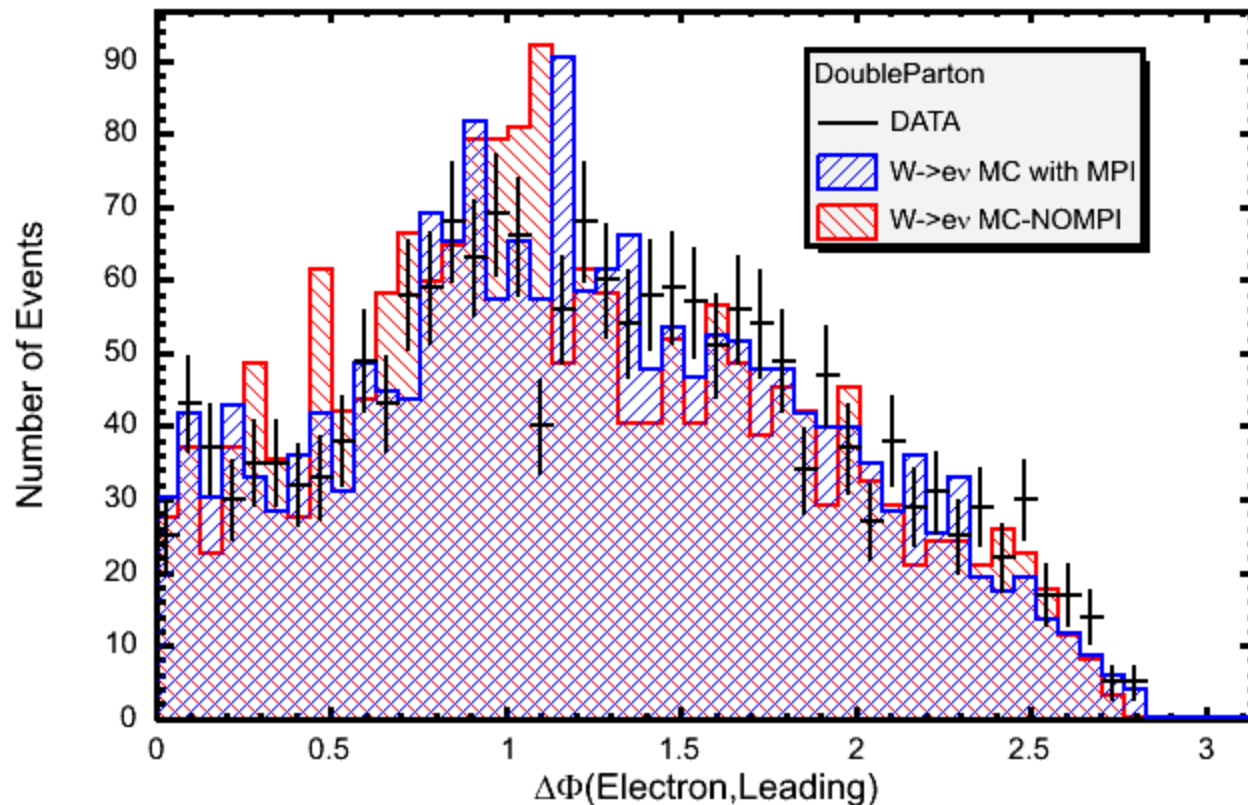
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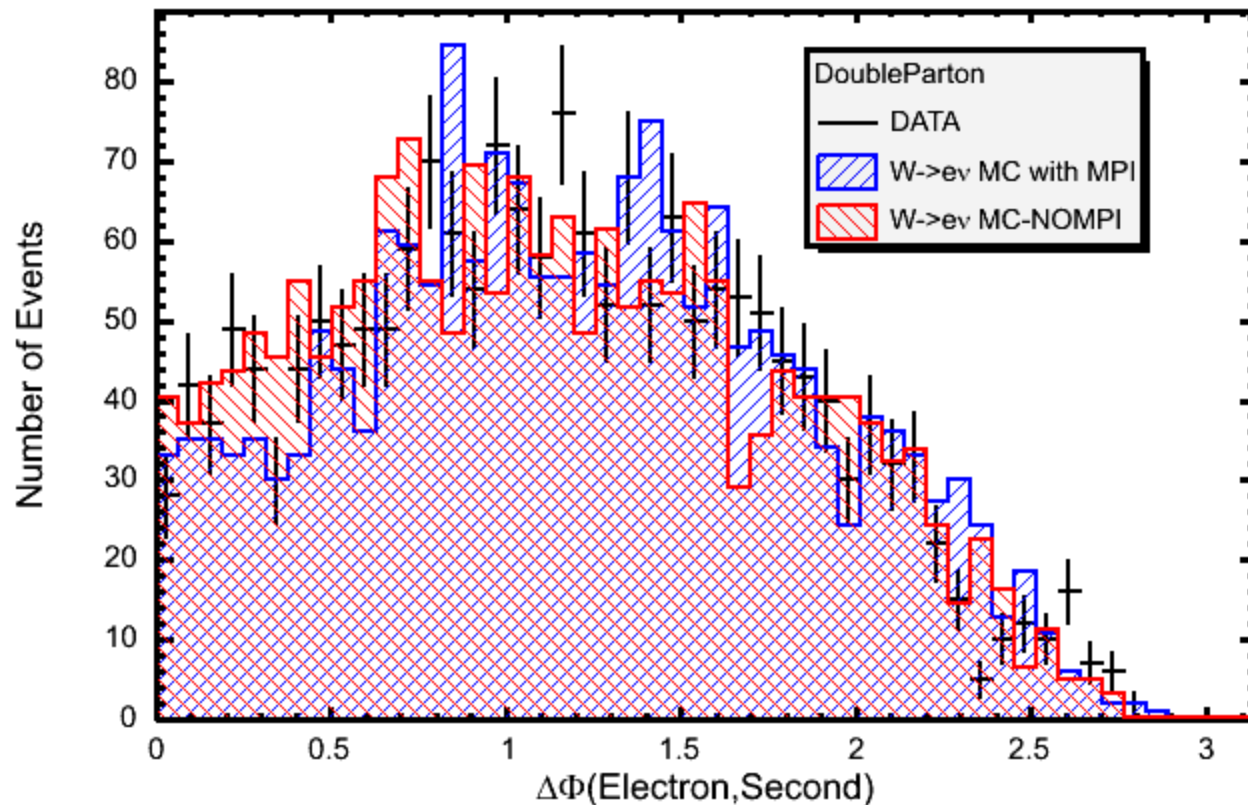
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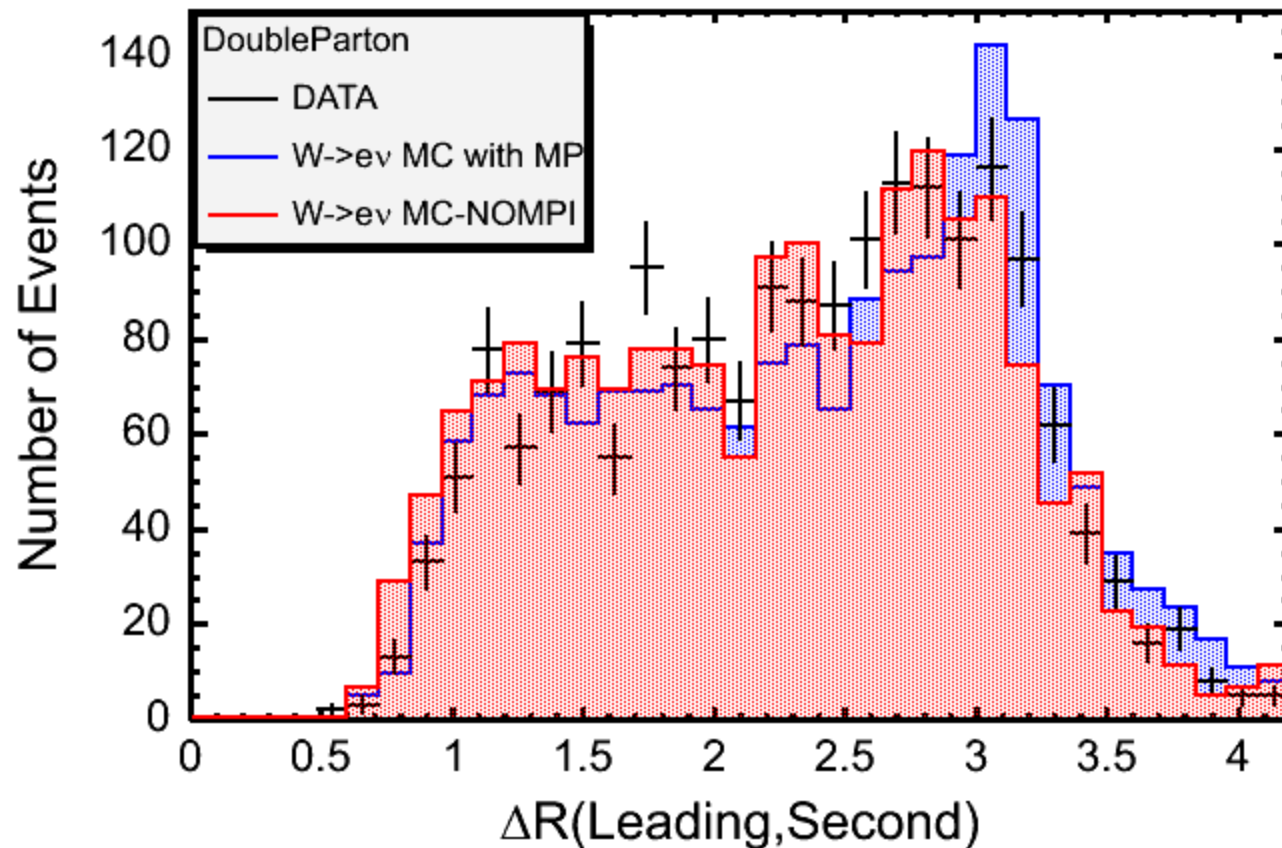
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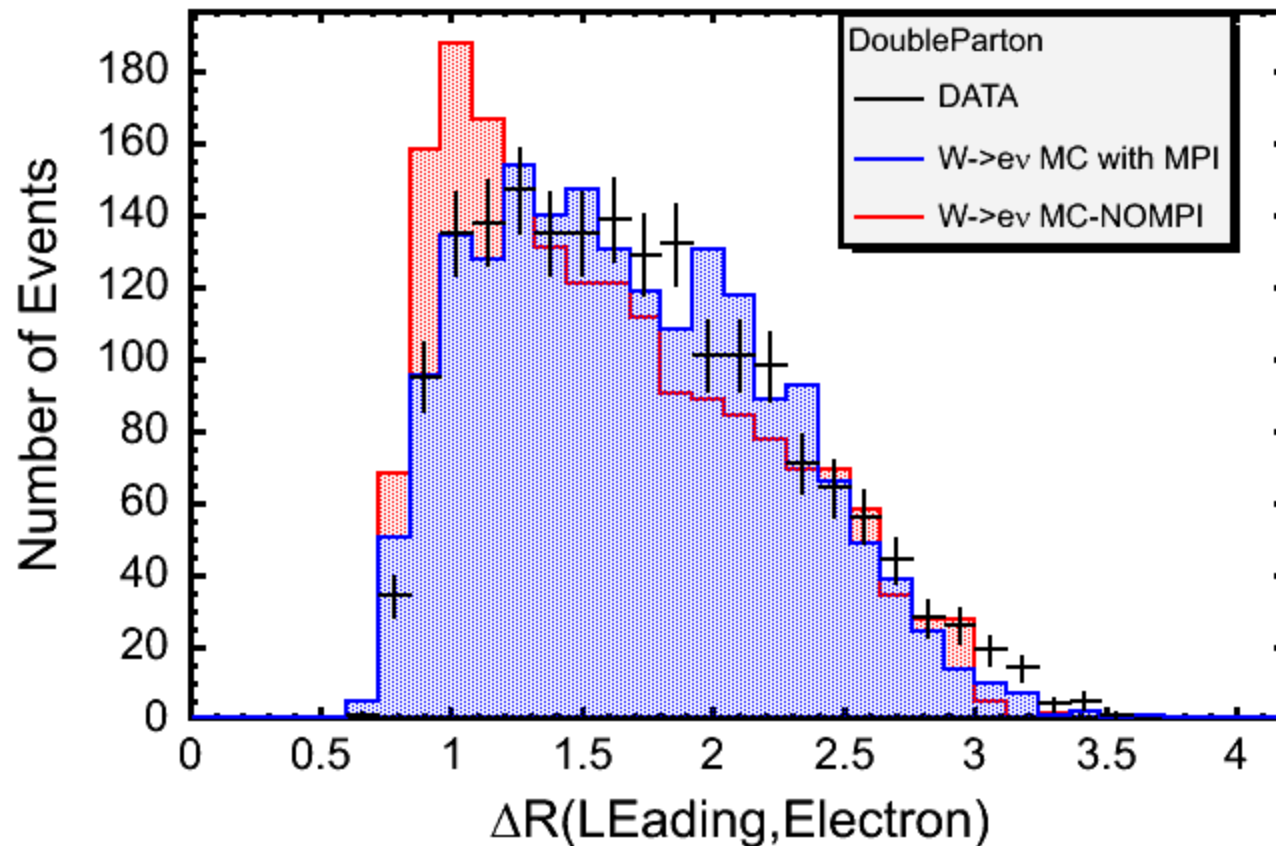
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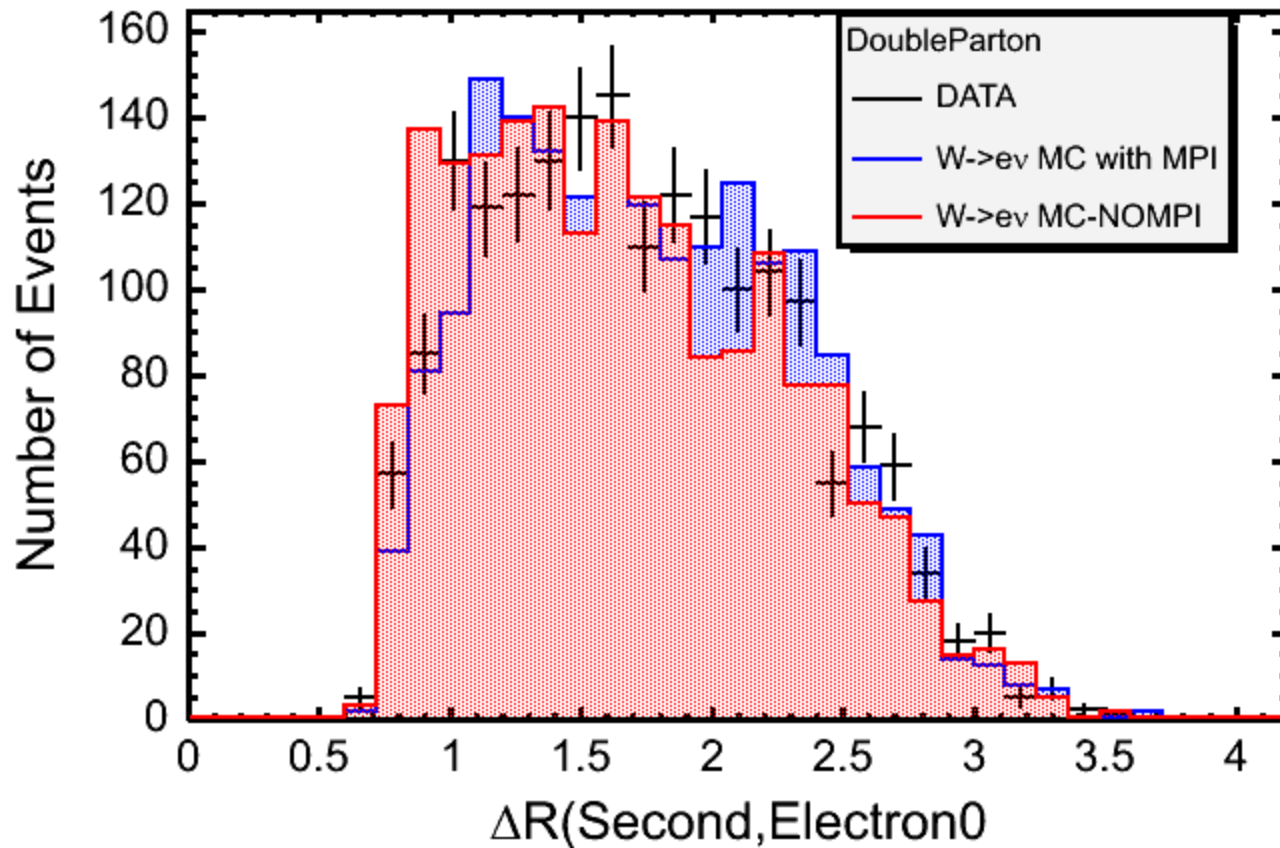
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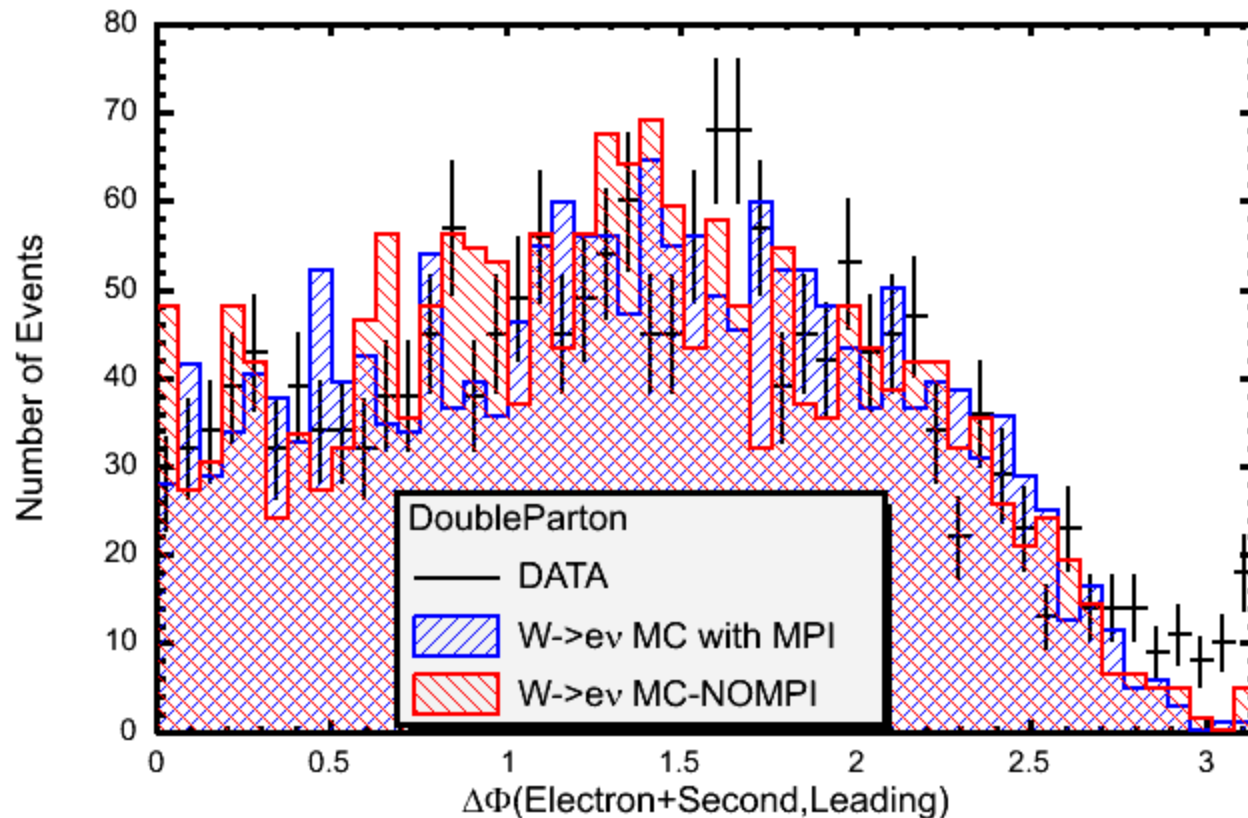
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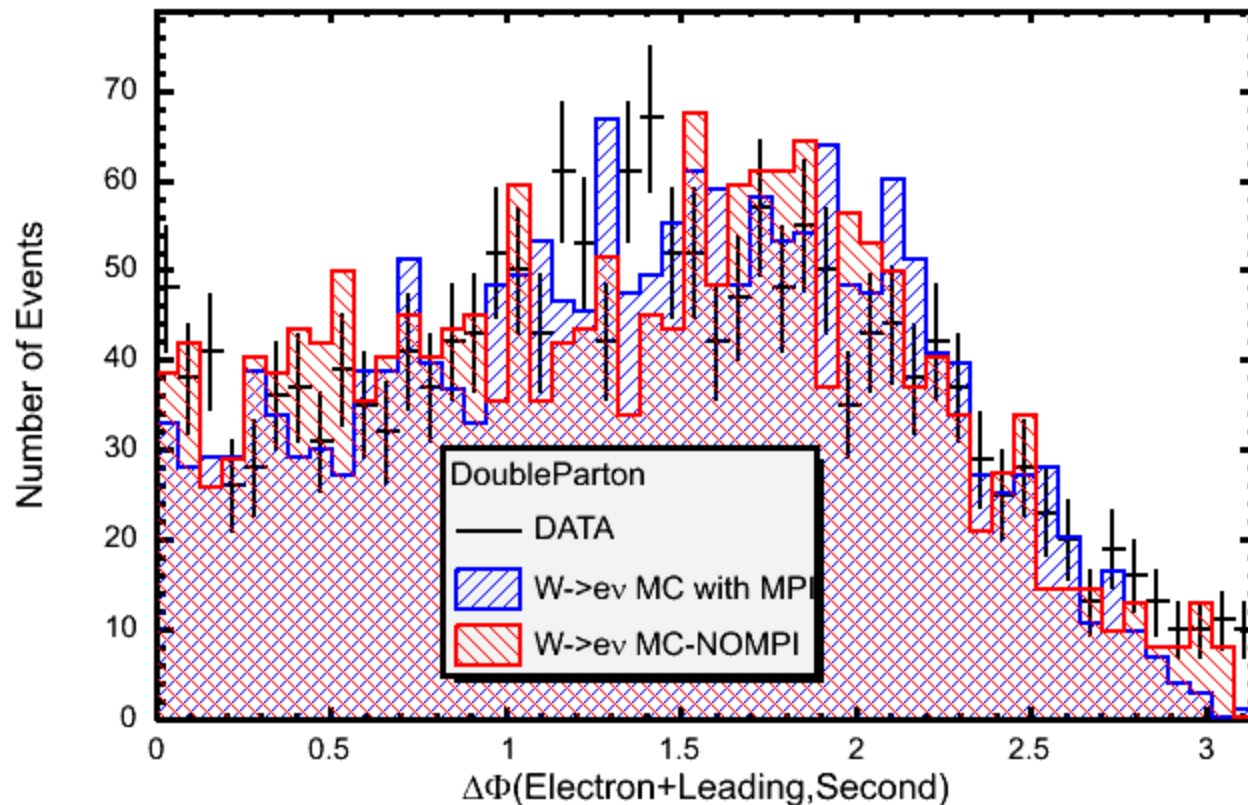
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W+ONLY-TWOJETS/ $\Delta\phi(\text{Electron}, \text{MET}) > 2.5$ /

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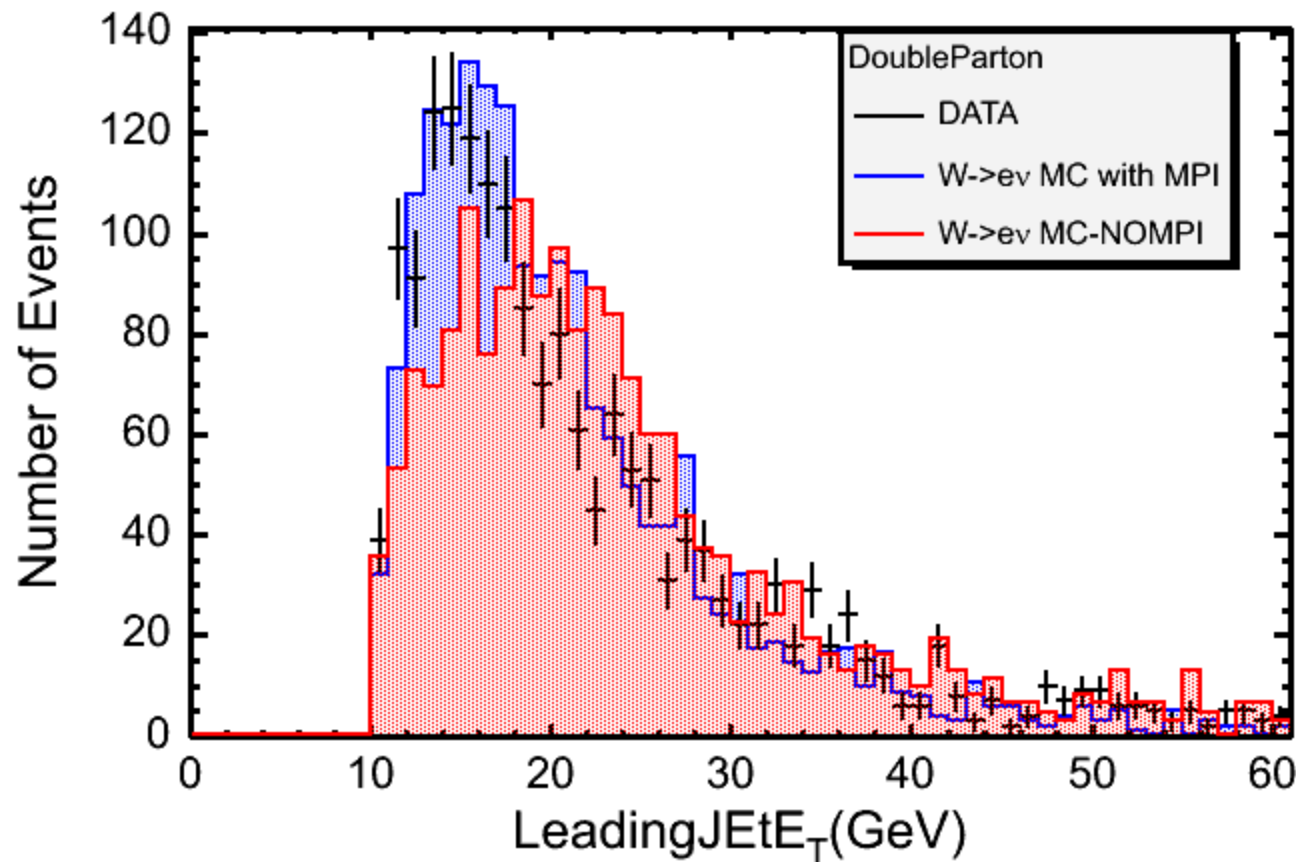
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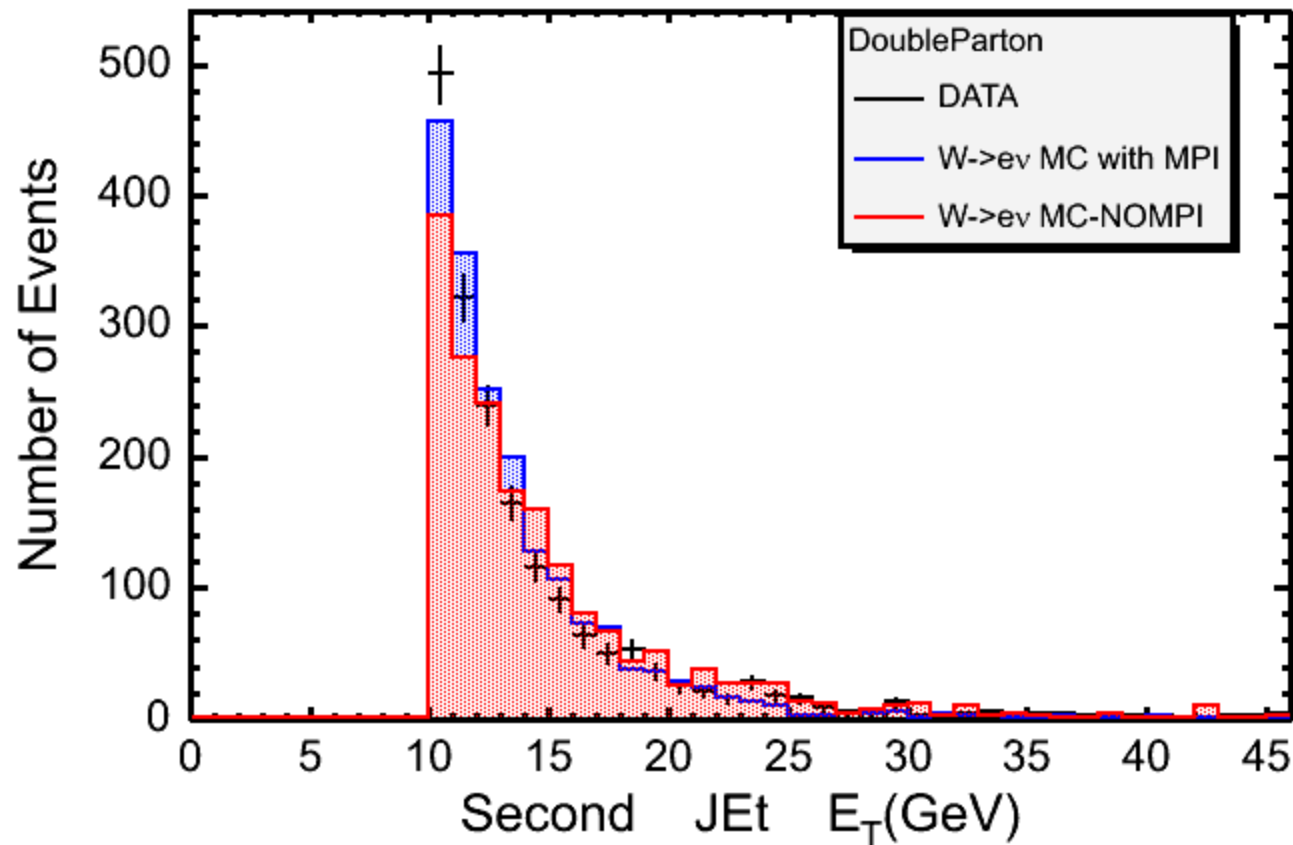
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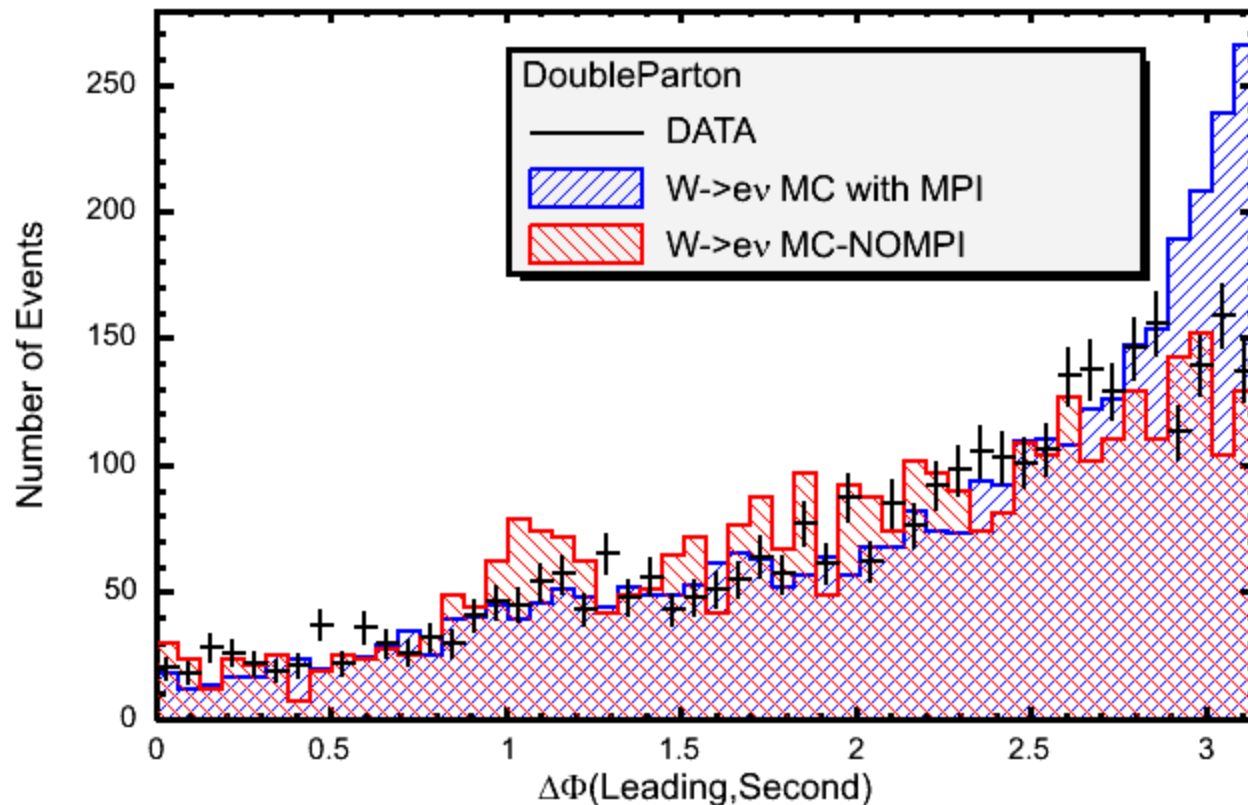
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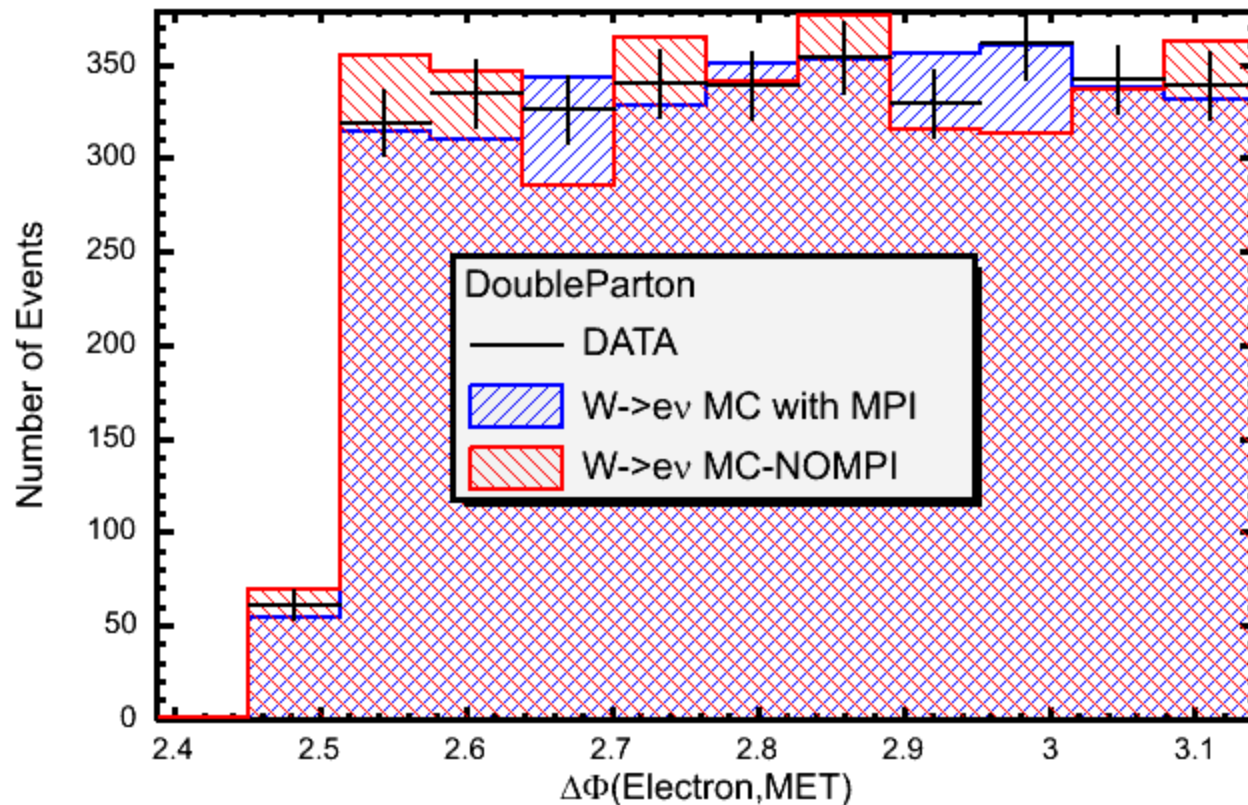
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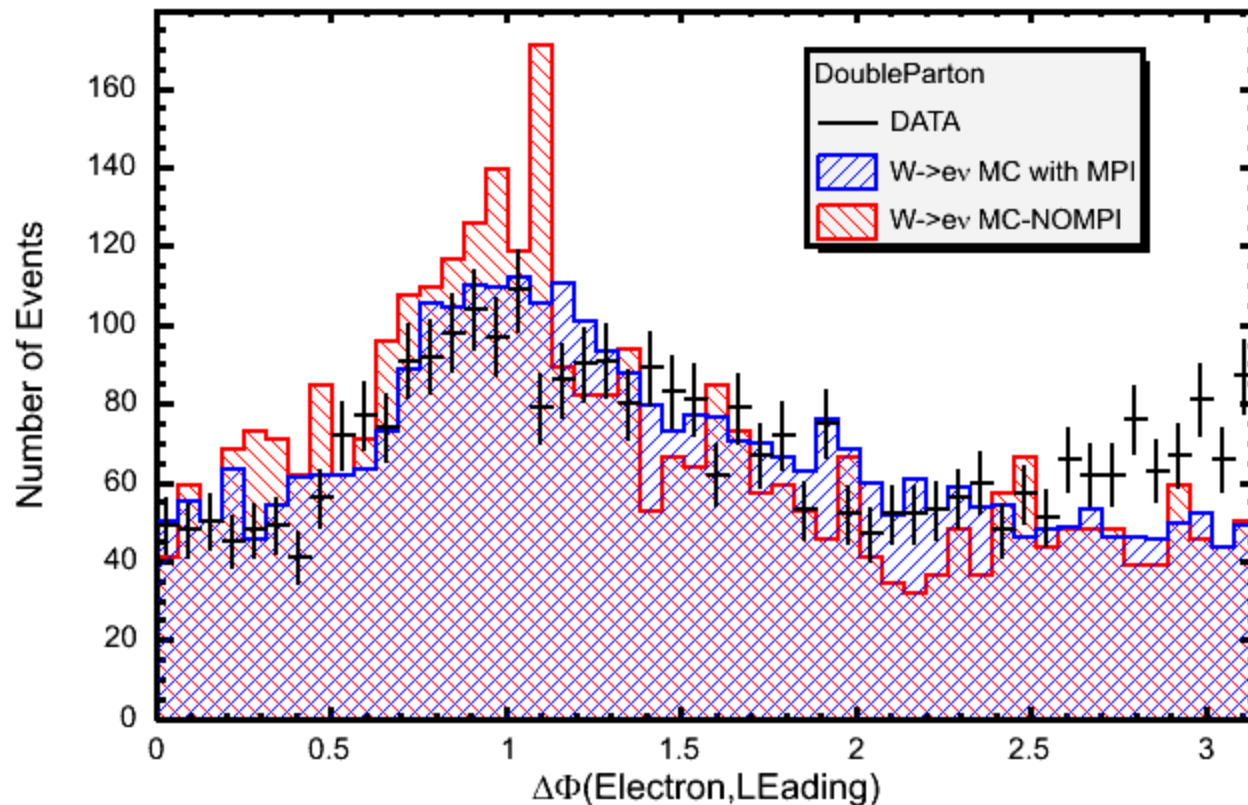
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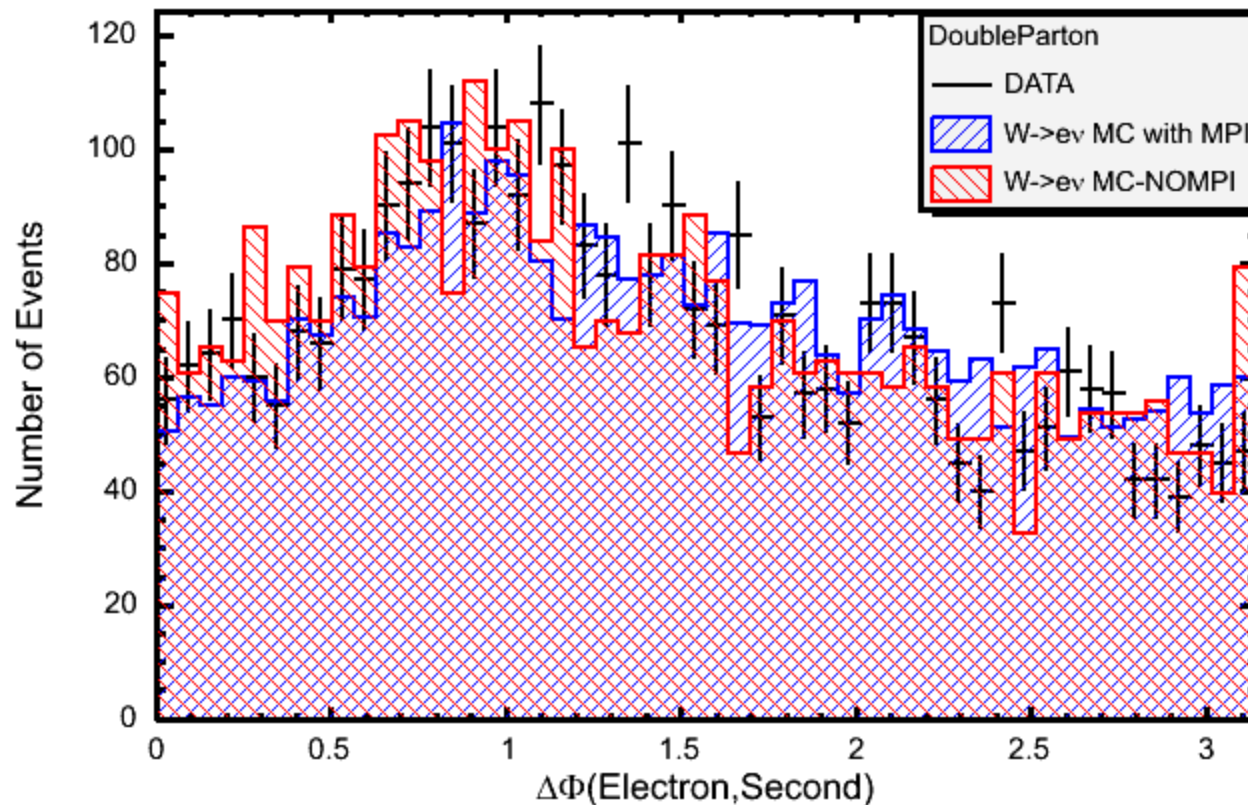
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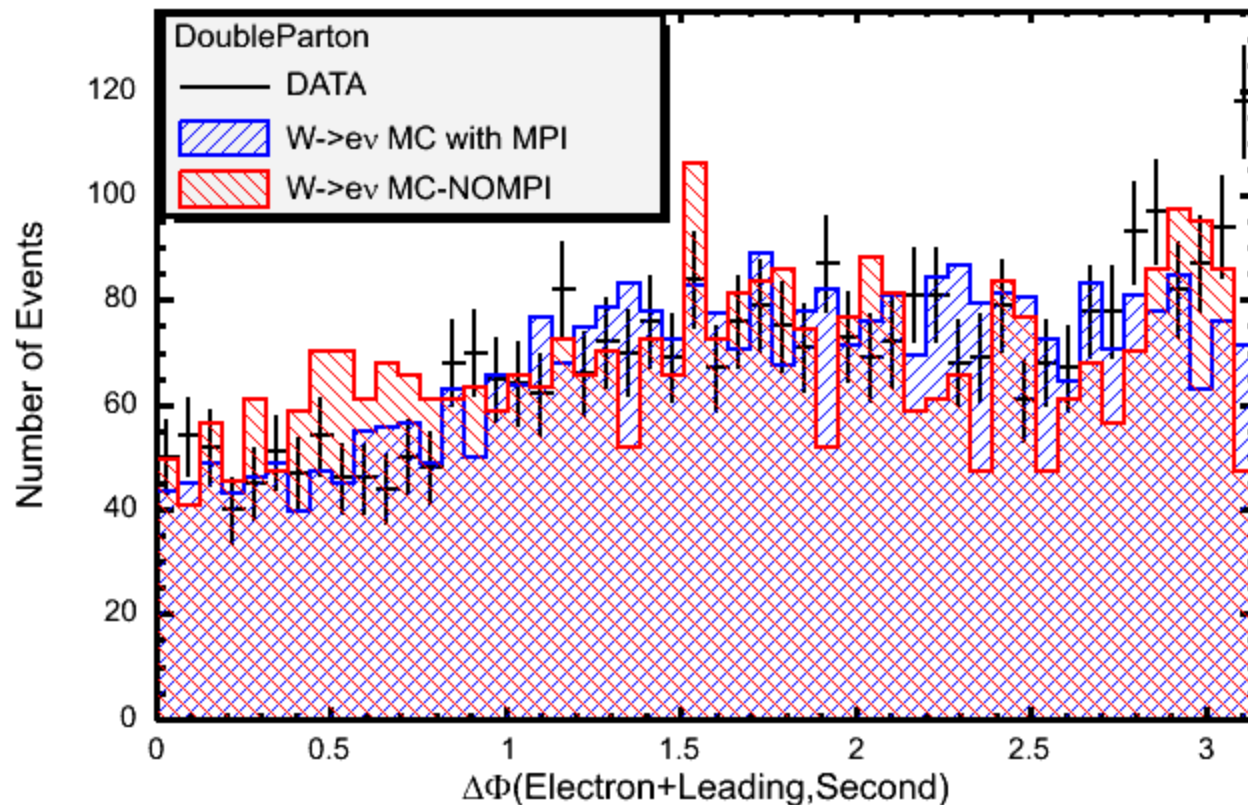
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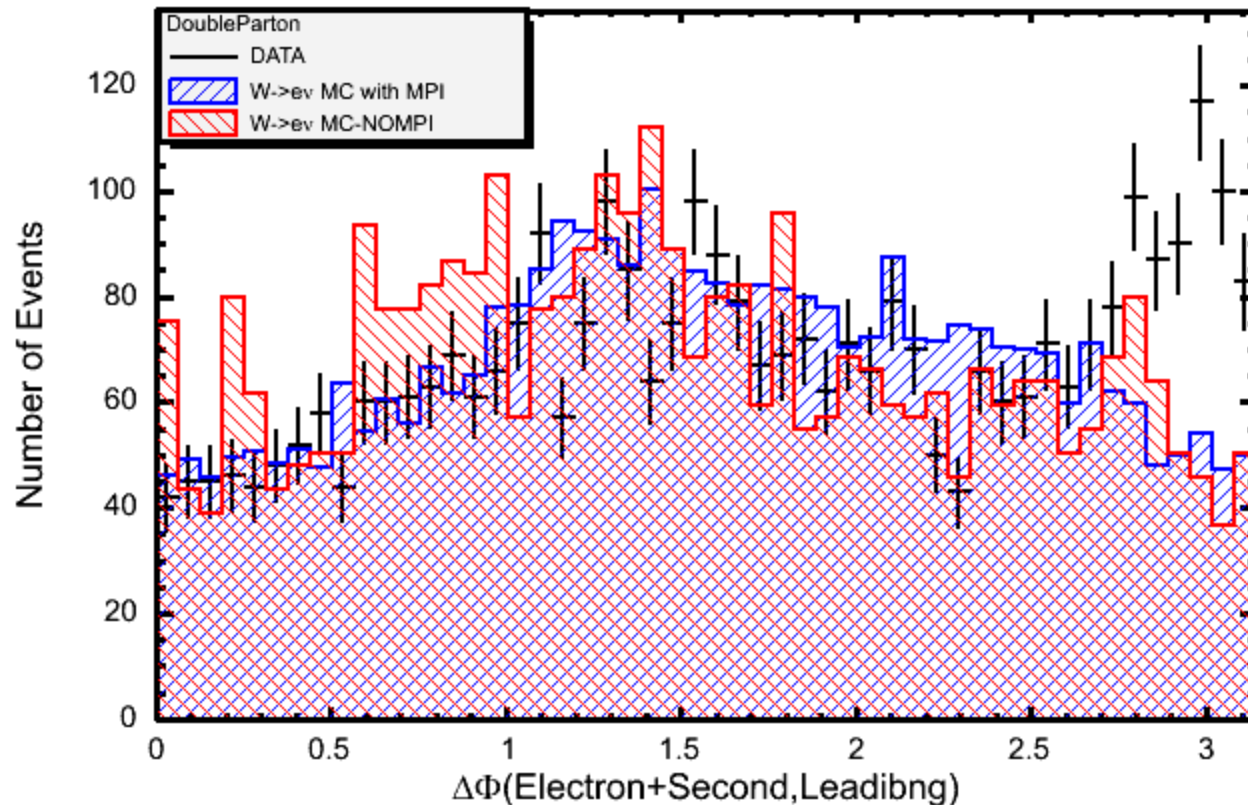
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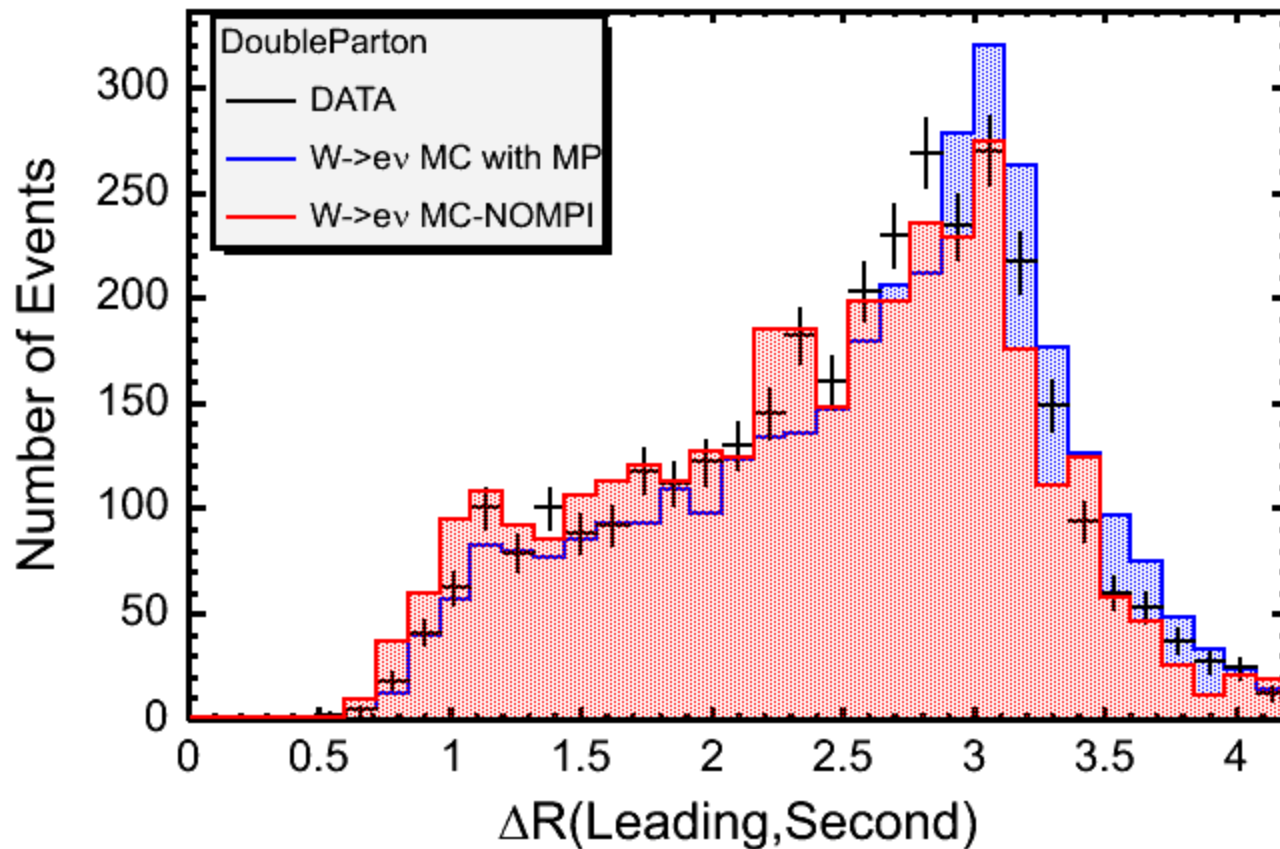
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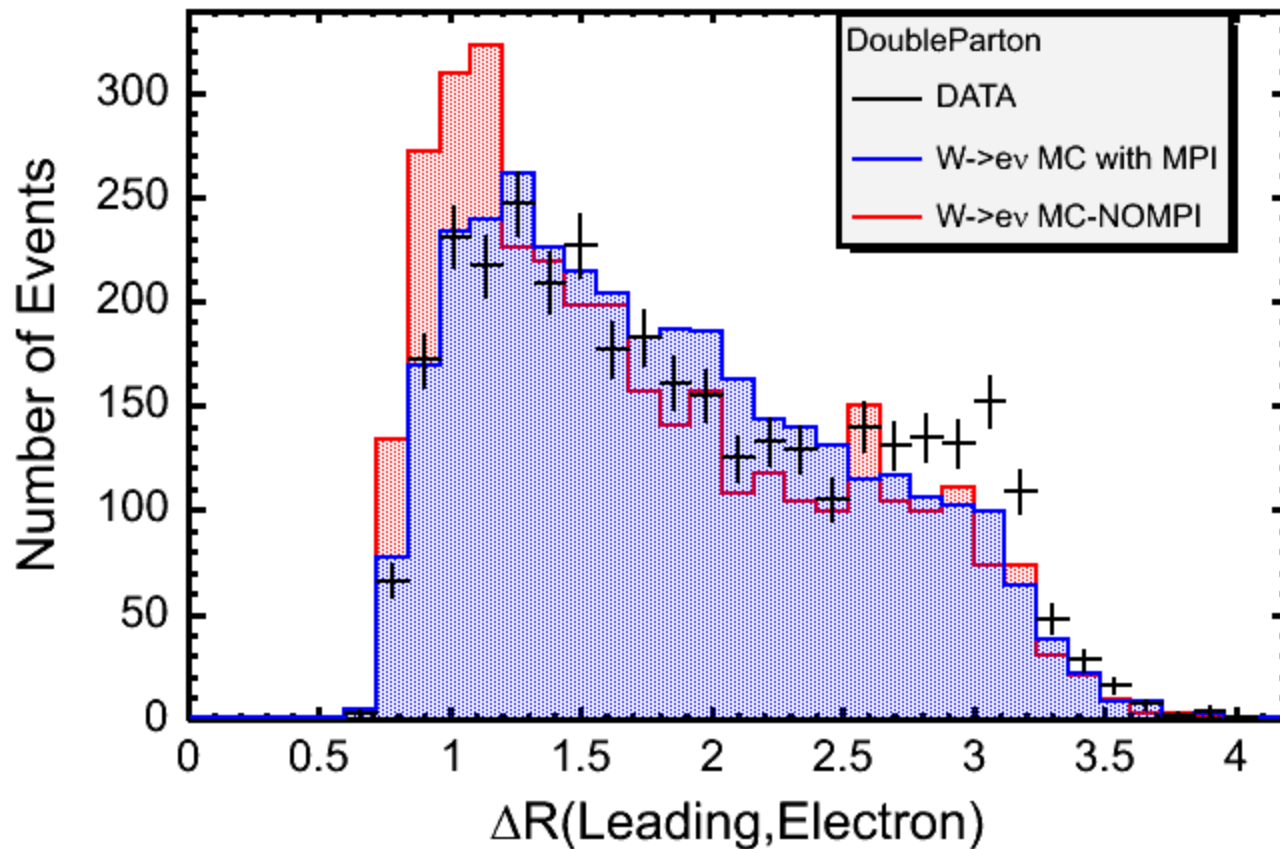
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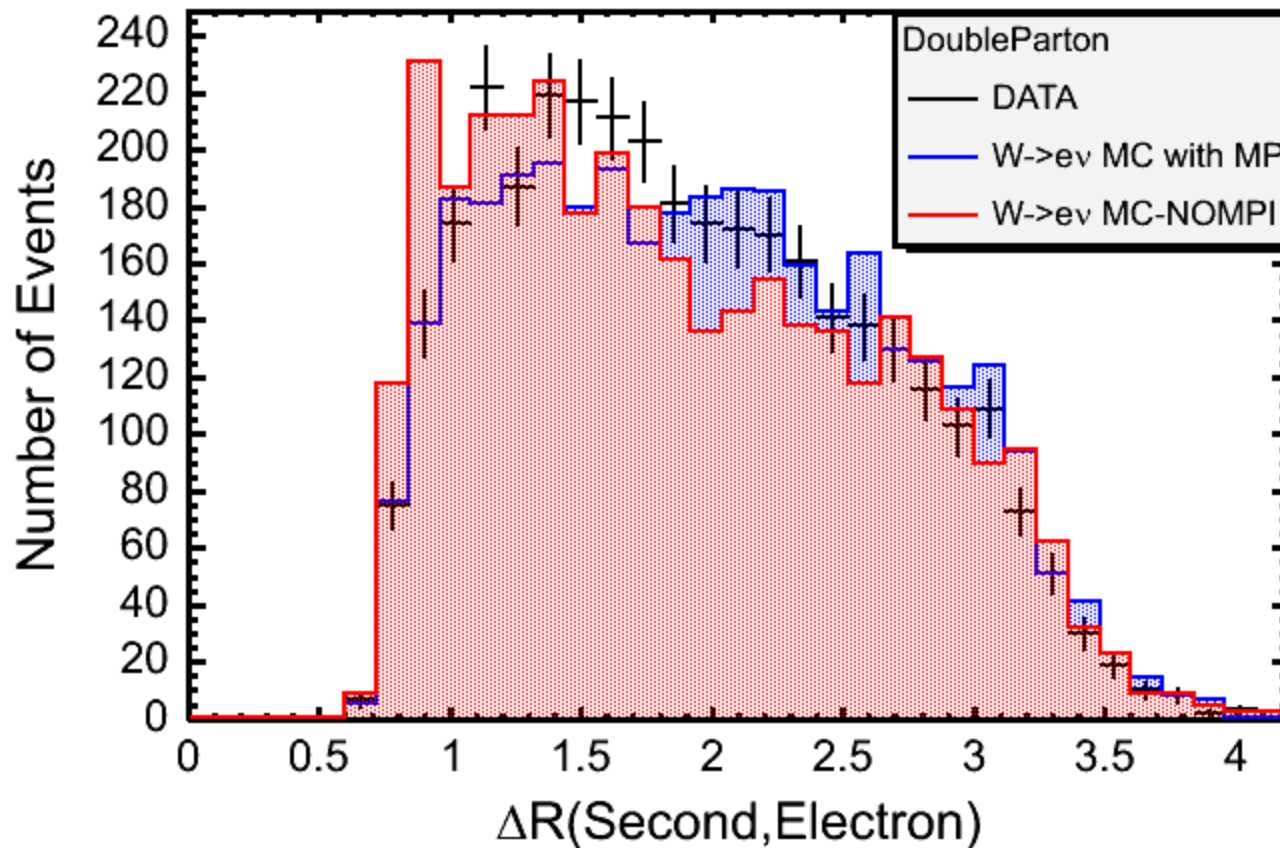
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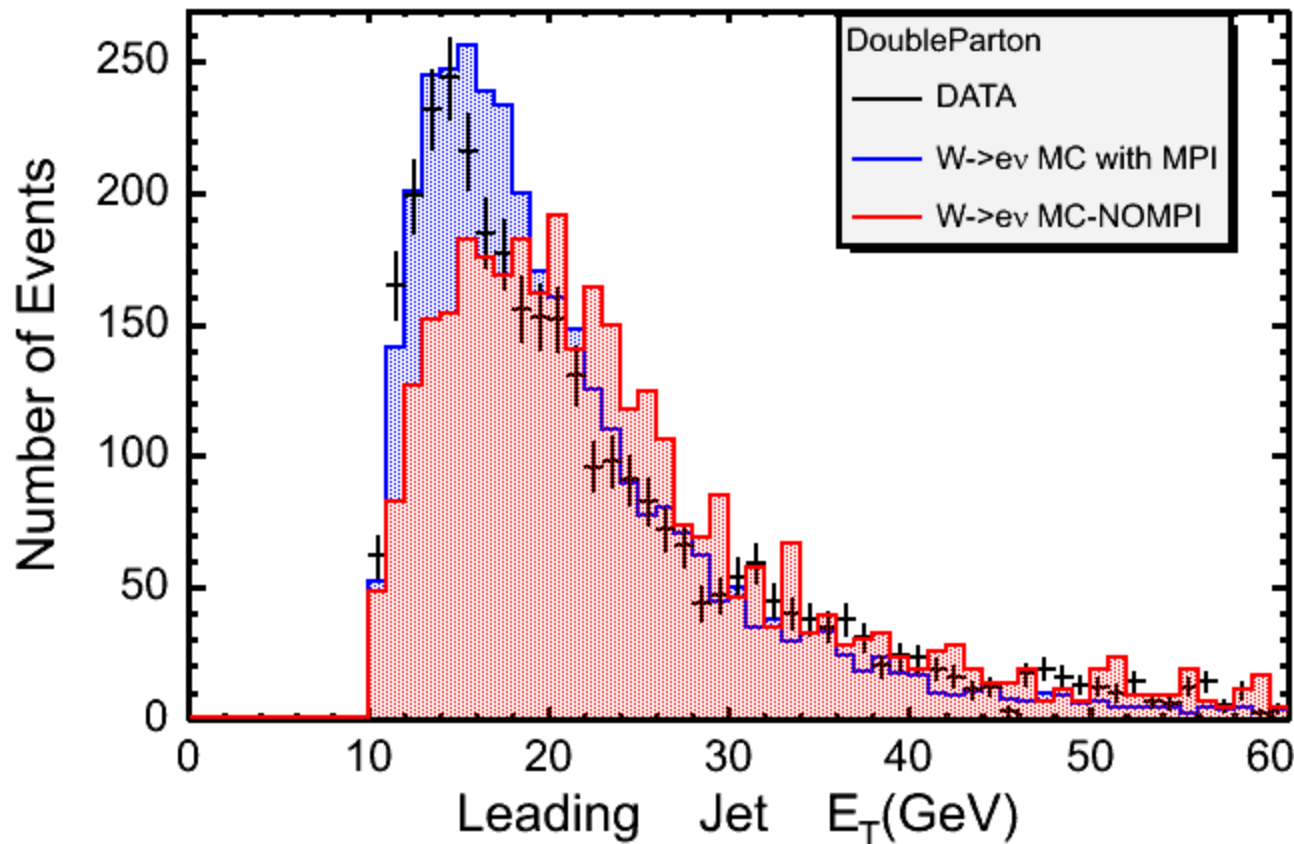
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