

Double PArton

Varsha Ramakrishnan
Monday, January 09, 2012

SO FAR.....

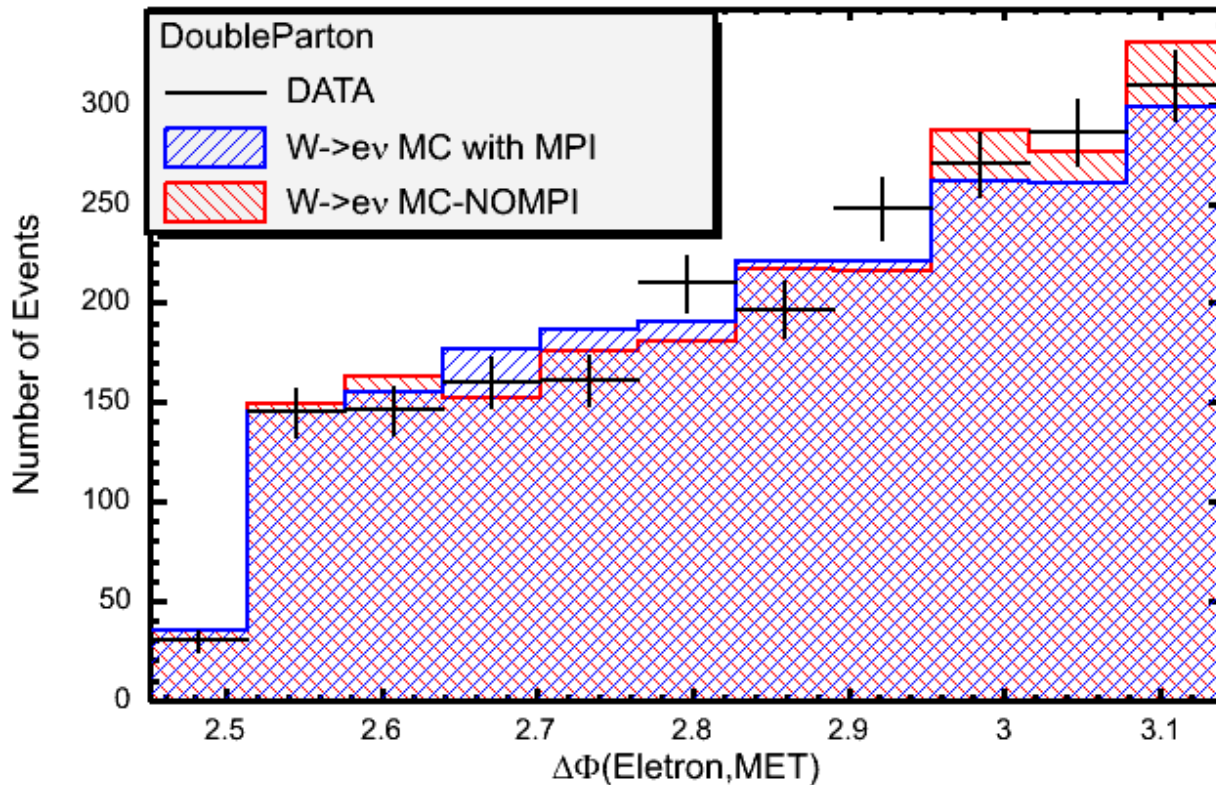
- New Bigger Sample of NO-MPI sample also used in the Plots Shown today
- Divide $\Delta\phi(\text{Electron}, \text{MET})$ into two regions $[0, 2.5]$ and $[2.5, \text{PI}]$ and Look at two $\Delta Z(\text{Electron}, \text{Leading}) < 0.04 \text{ cm} / \Delta Z(\text{Electron}, \text{Second}) < 0.04 \text{ cm} / \Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$ AND $\Delta Z(\text{Electron}, \text{Leading}) > 0.04 / \Delta Z(\text{Electron}, \text{Second}) > 0.04 / \Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$
- Future(i.e Currently Running on CAF): Remove both the $\Delta R(\text{Electron}, \text{closest-Jet}) \geq 0.92$ and $\Delta\phi$ wrt MET, Electron, Jet Plots

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 $ET > 7 \text{ GeV}$ and $|\eta| < 2$ selected
- $\Delta R(\text{Electron}, \text{Closest-Jet}) > 0.92 (1.3 * \text{radius of cone})$
- $\Delta\phi(\text{MET}, \text{All-Jets}) > 0.7$, $\Delta\phi(\text{Electron}, \text{MET}) > 0.7$
- Missing ET corrected for Muons/Jets-Selected
- 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

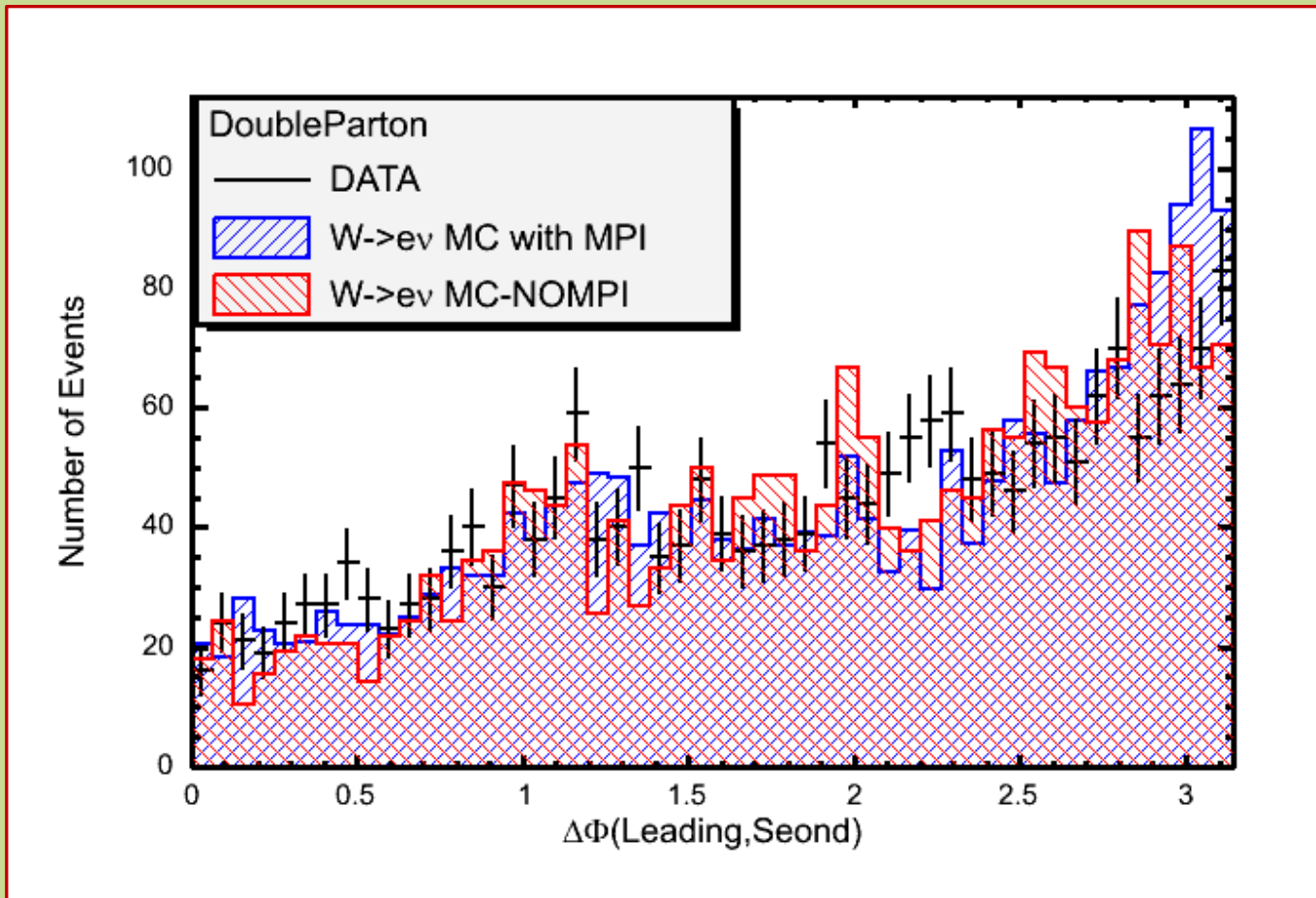
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



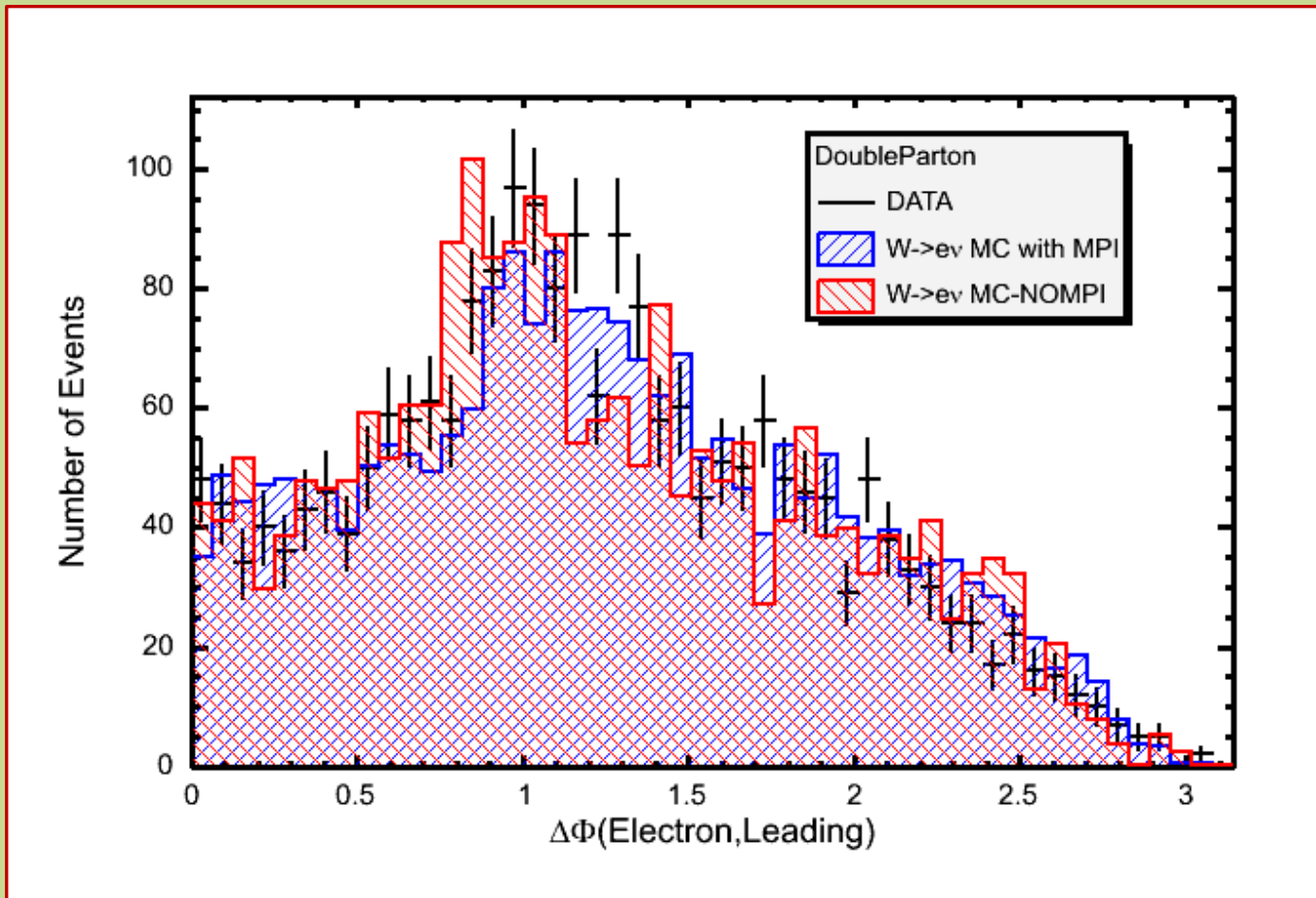
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



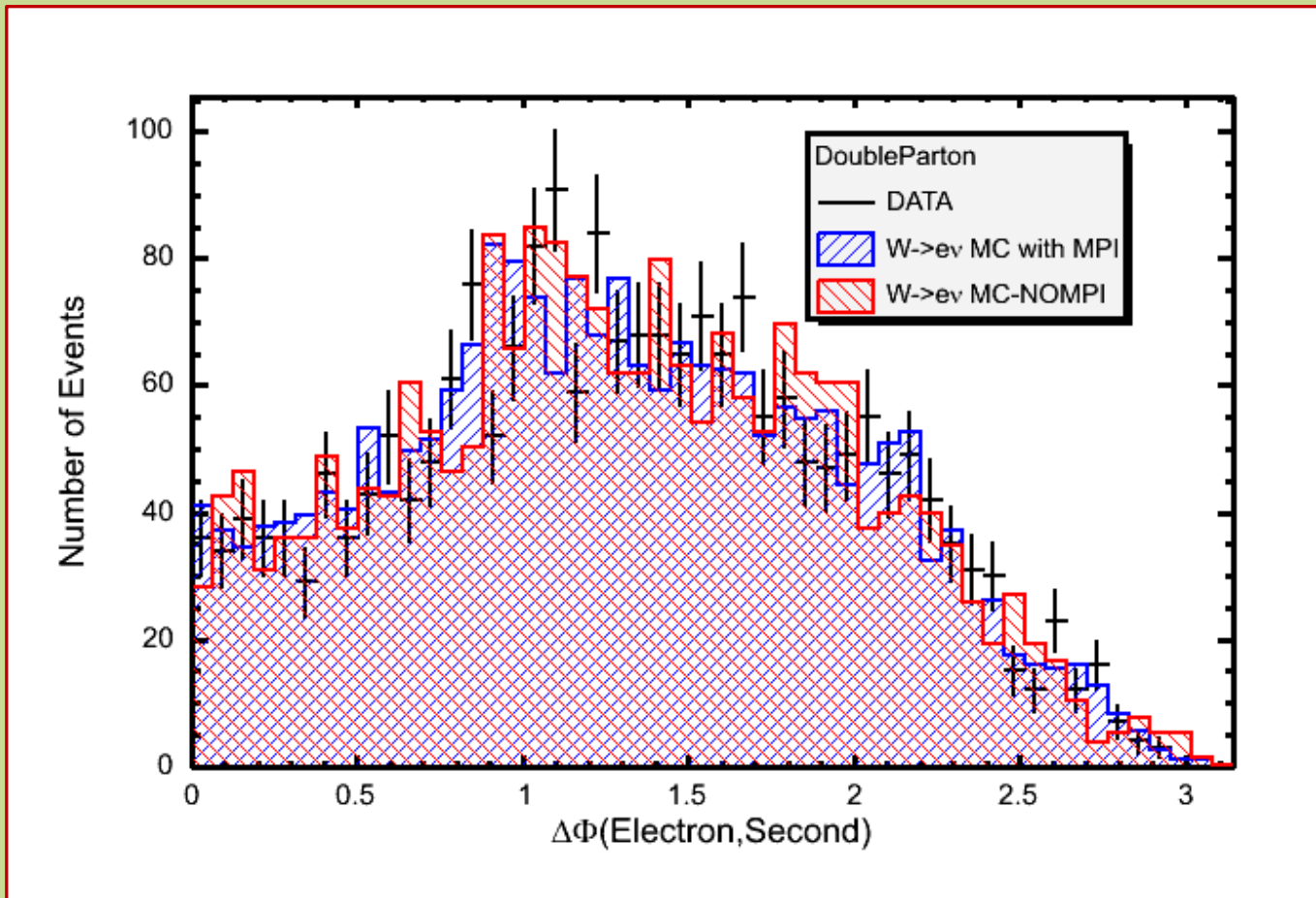
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



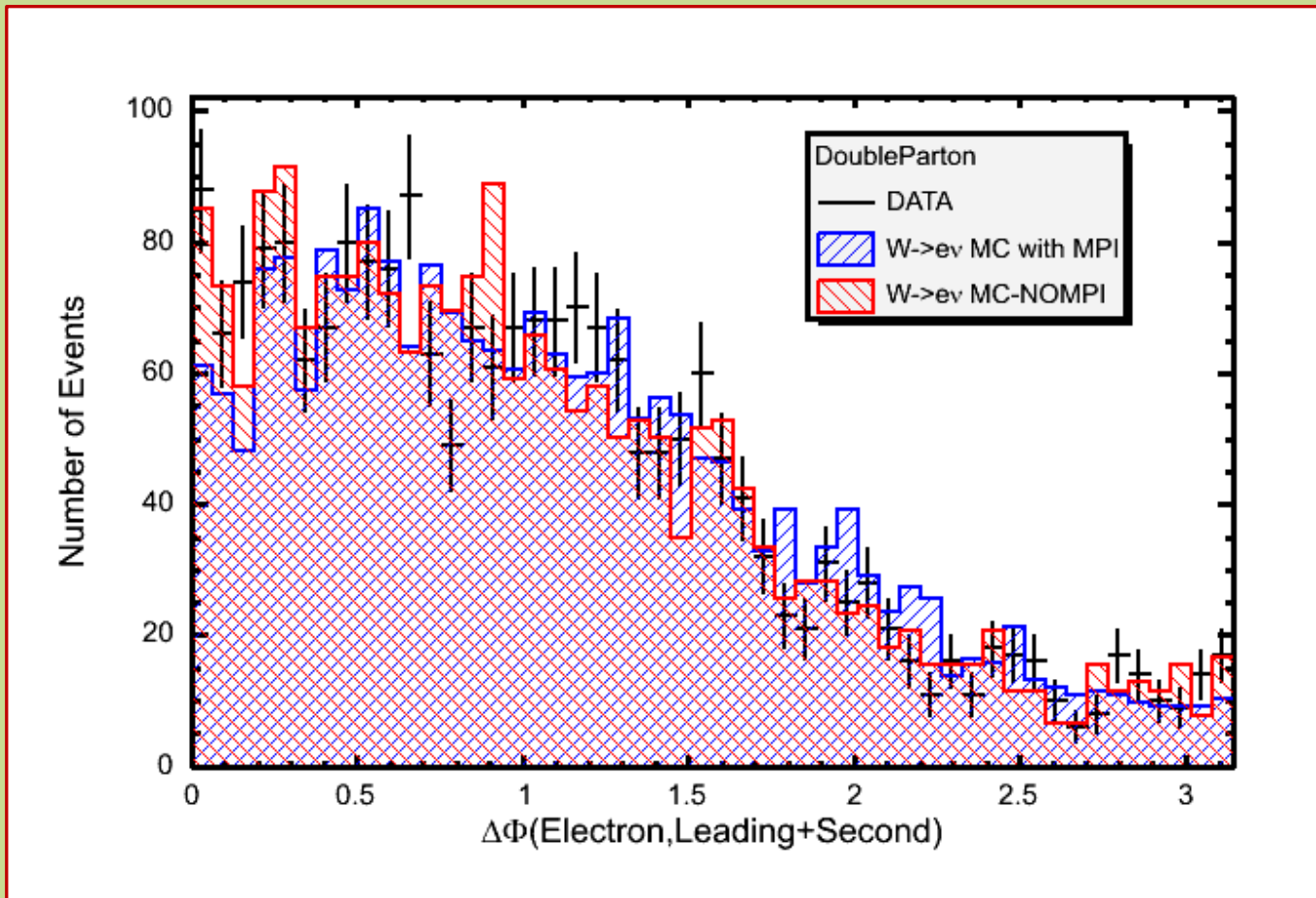
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



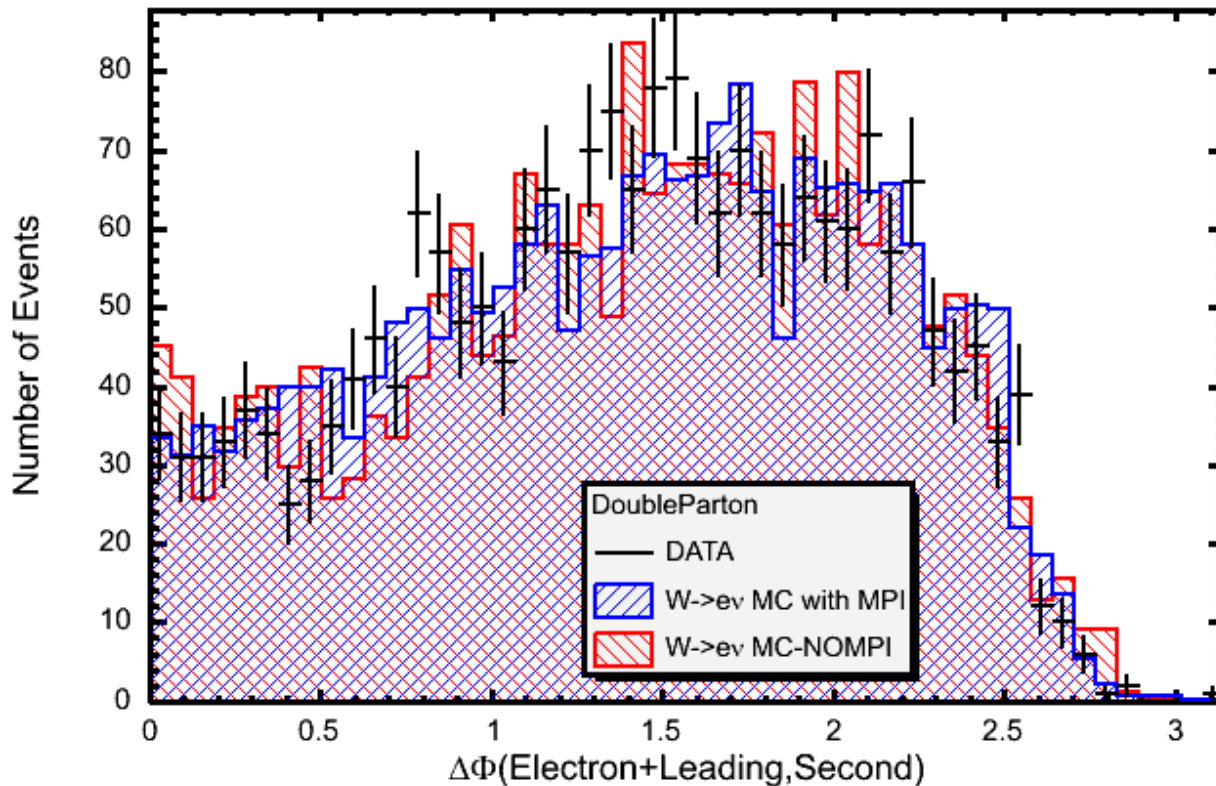
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



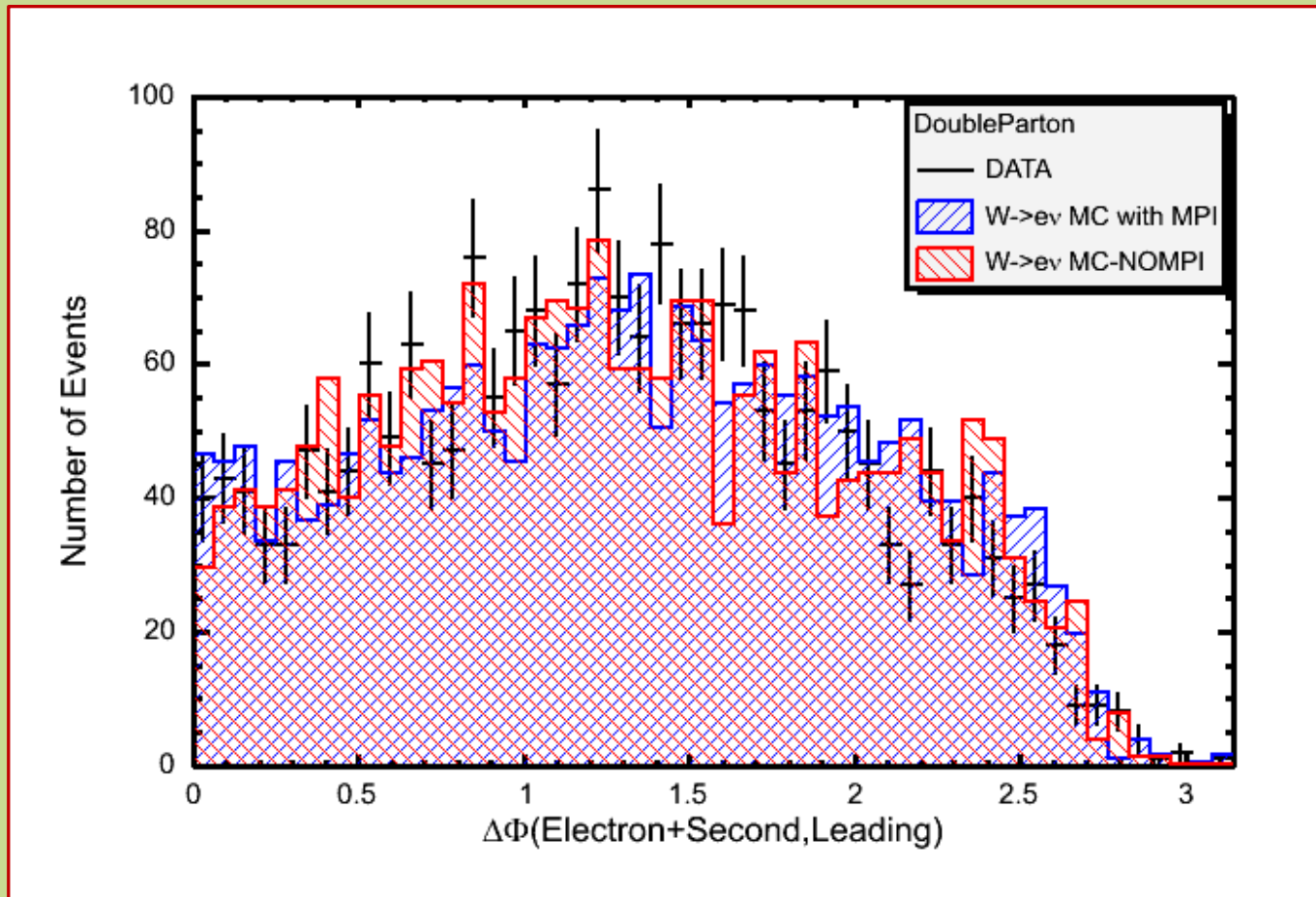
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



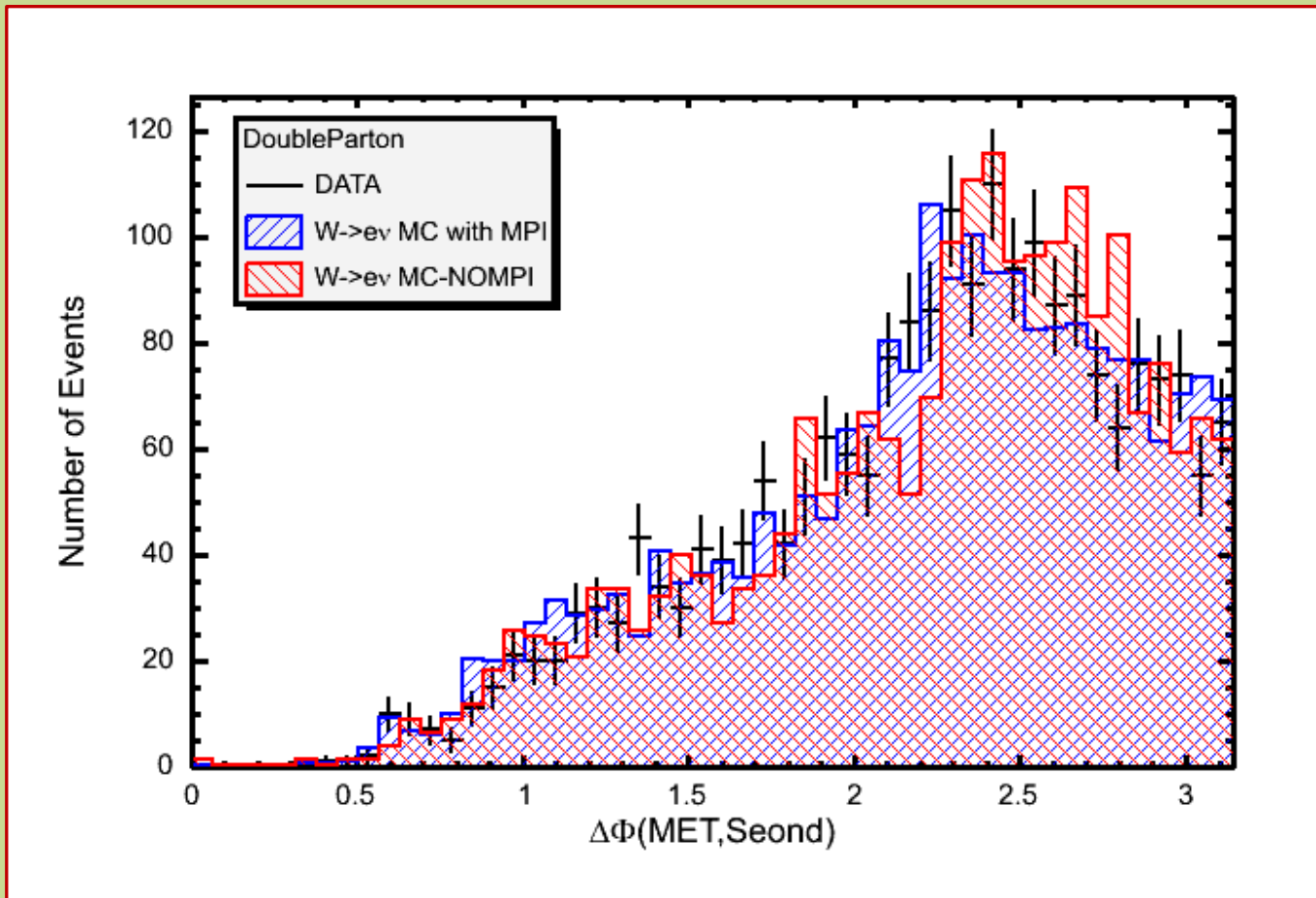
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



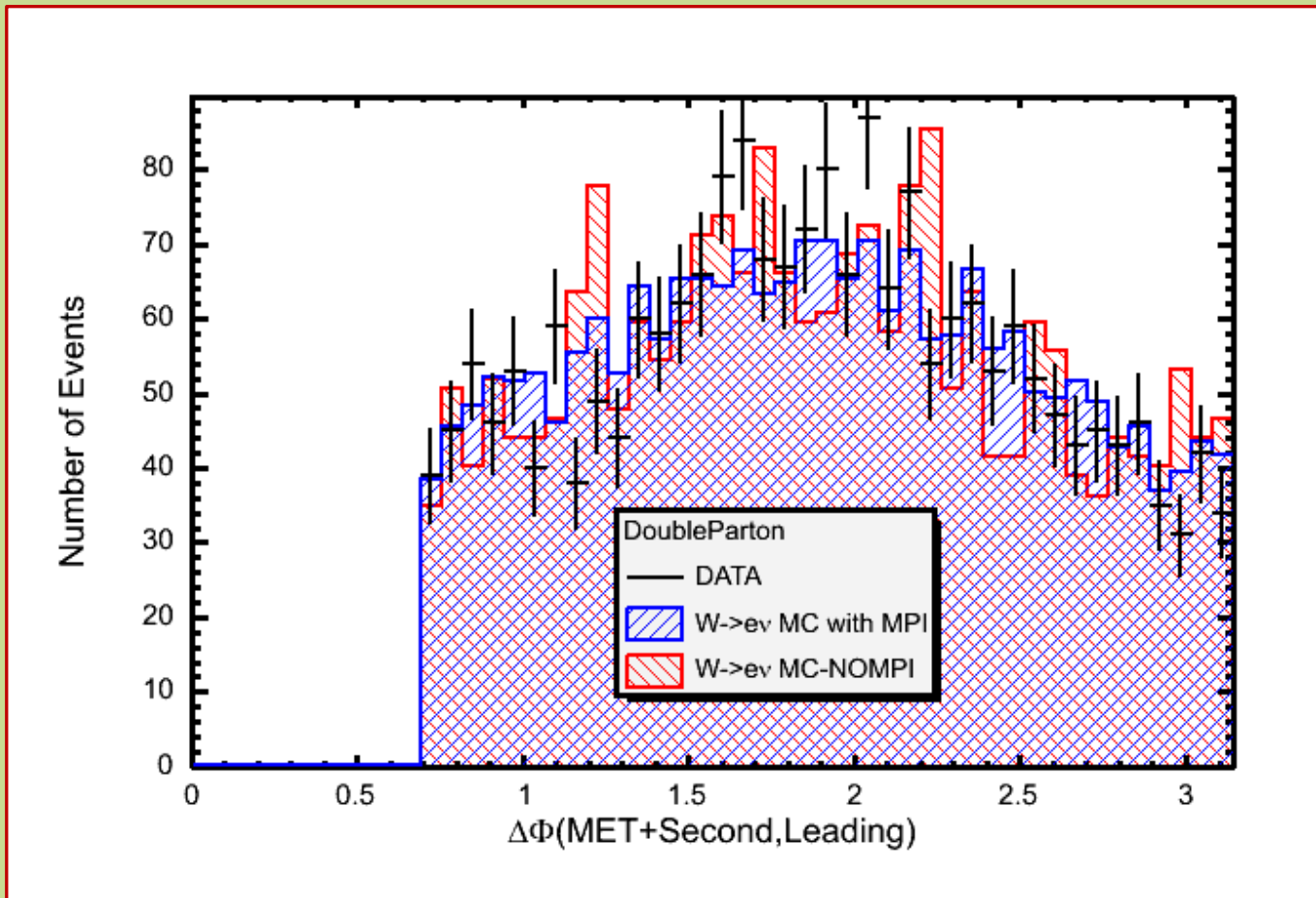
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



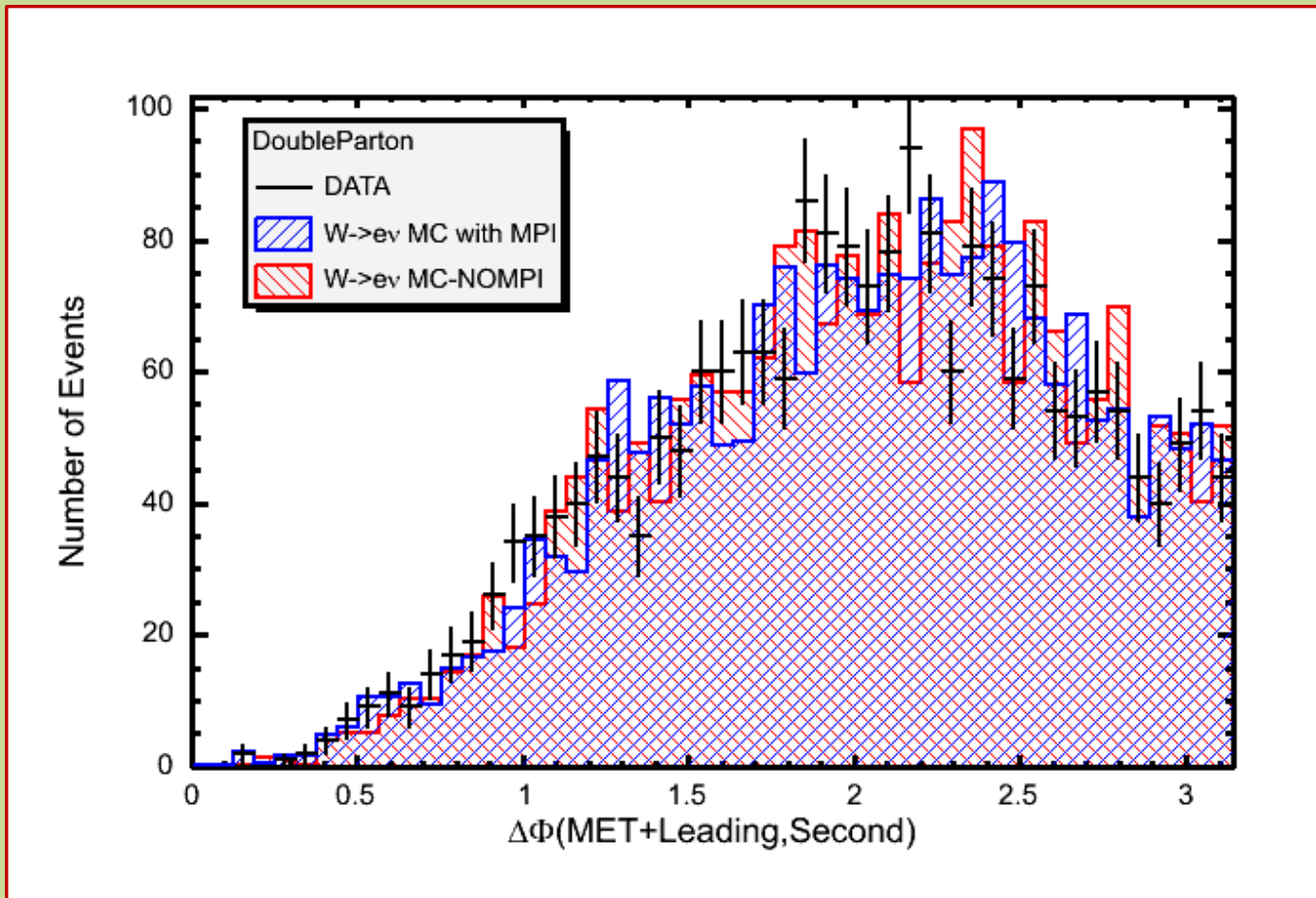
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



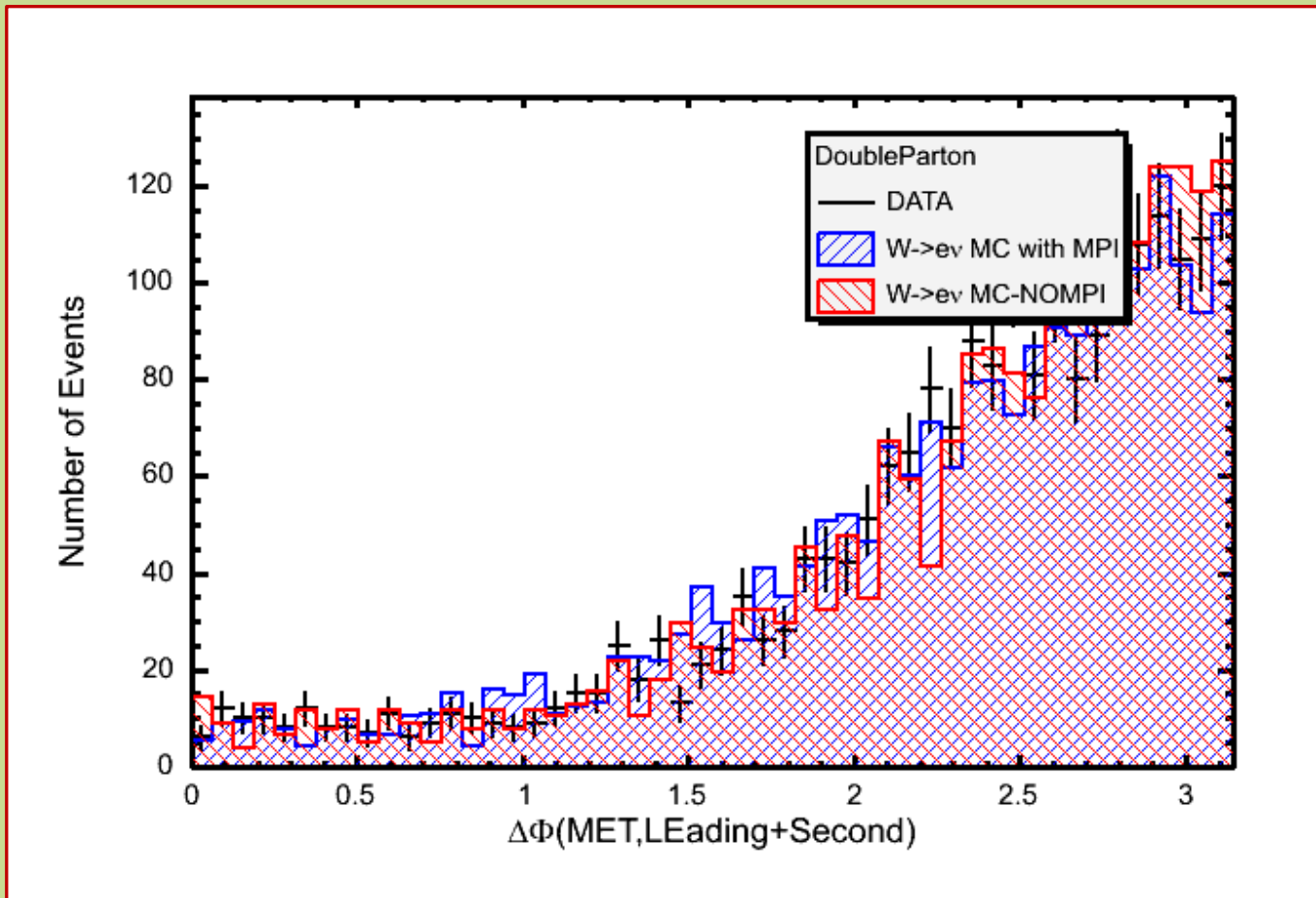
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



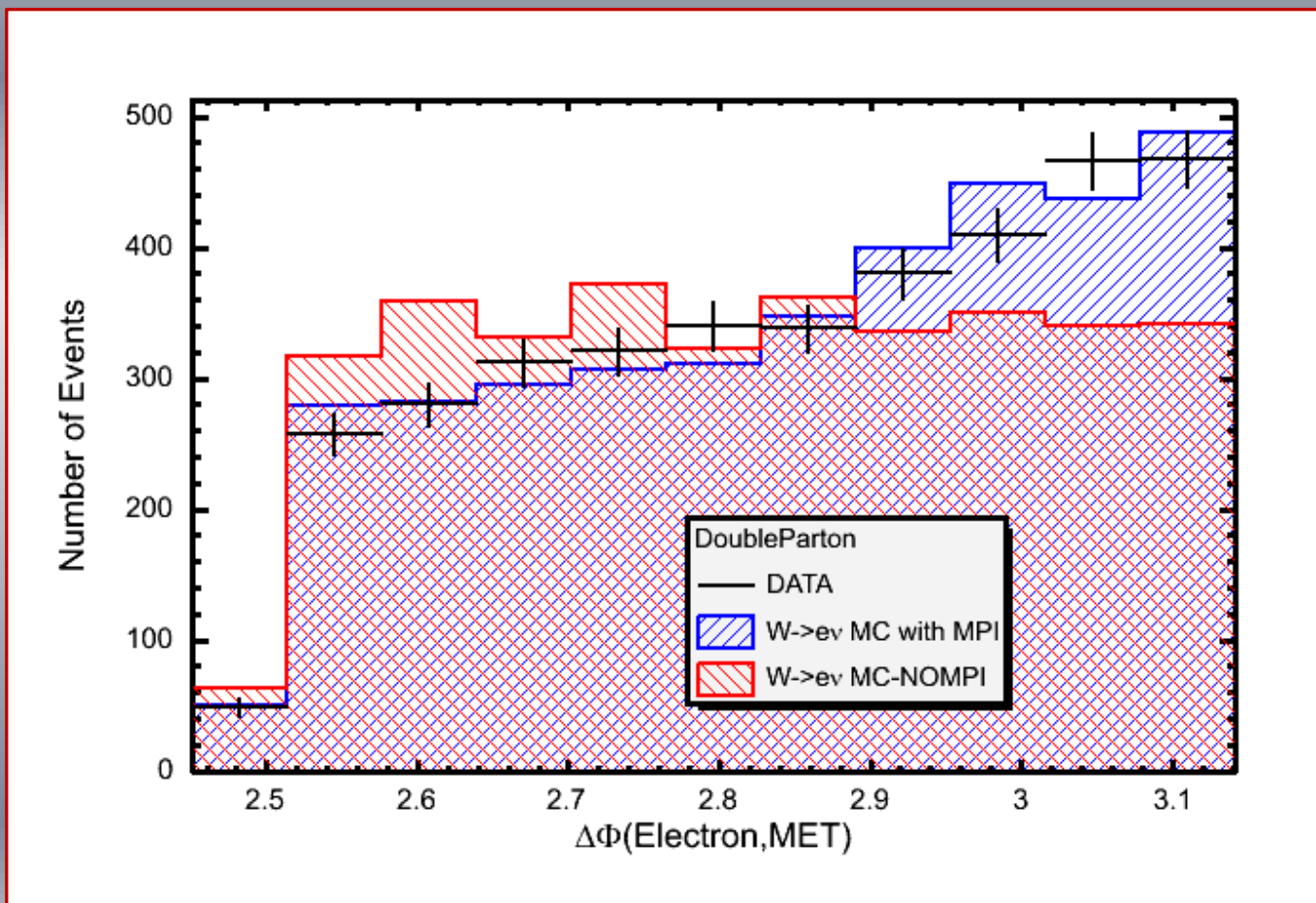
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



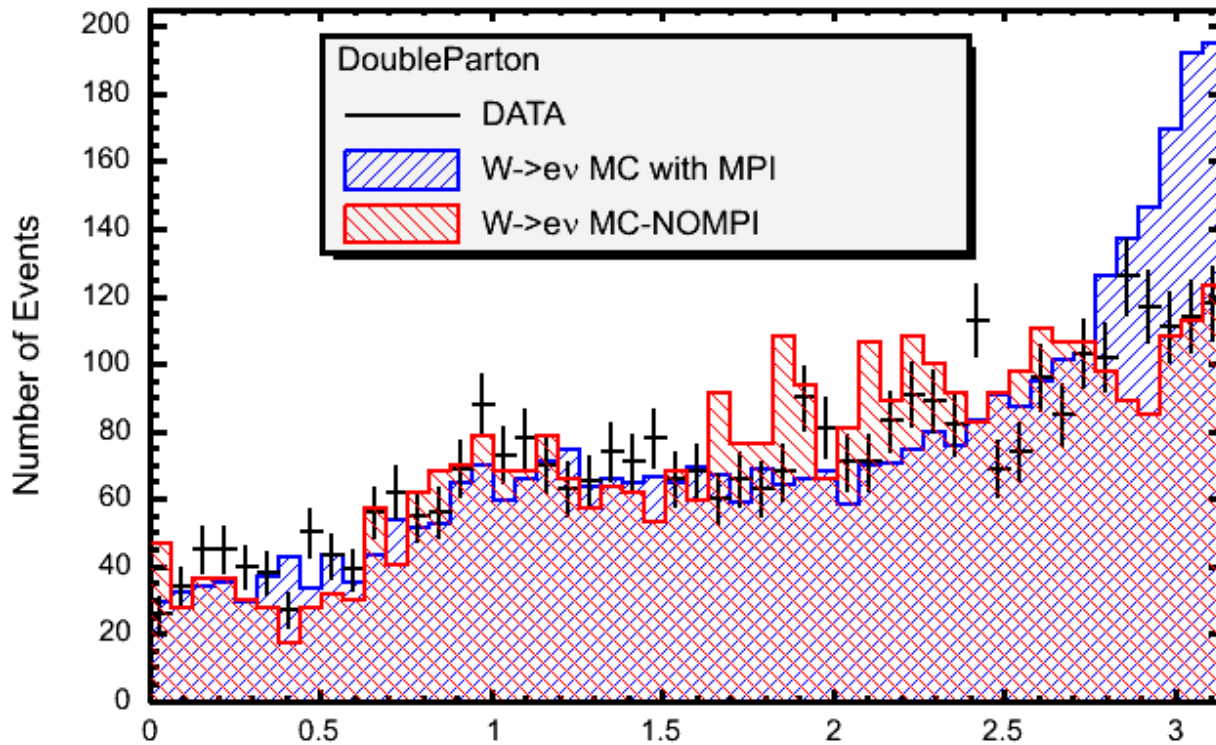
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



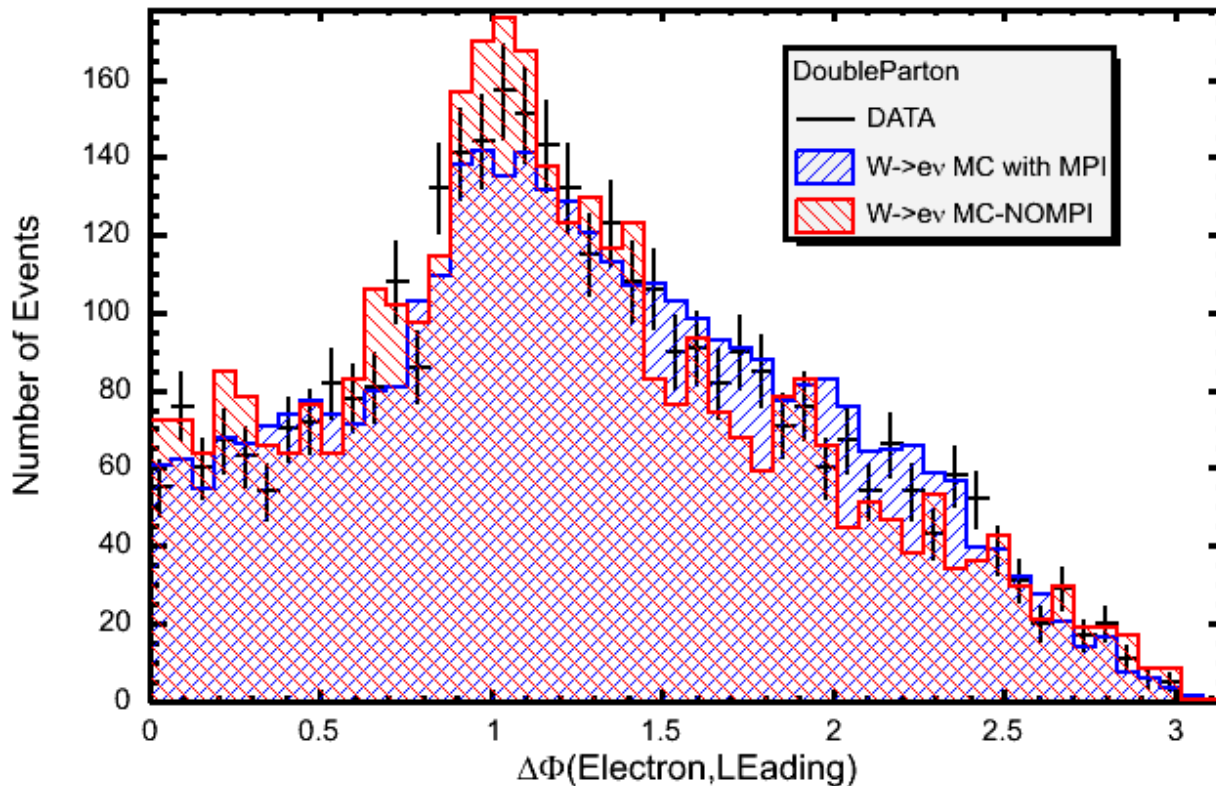
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



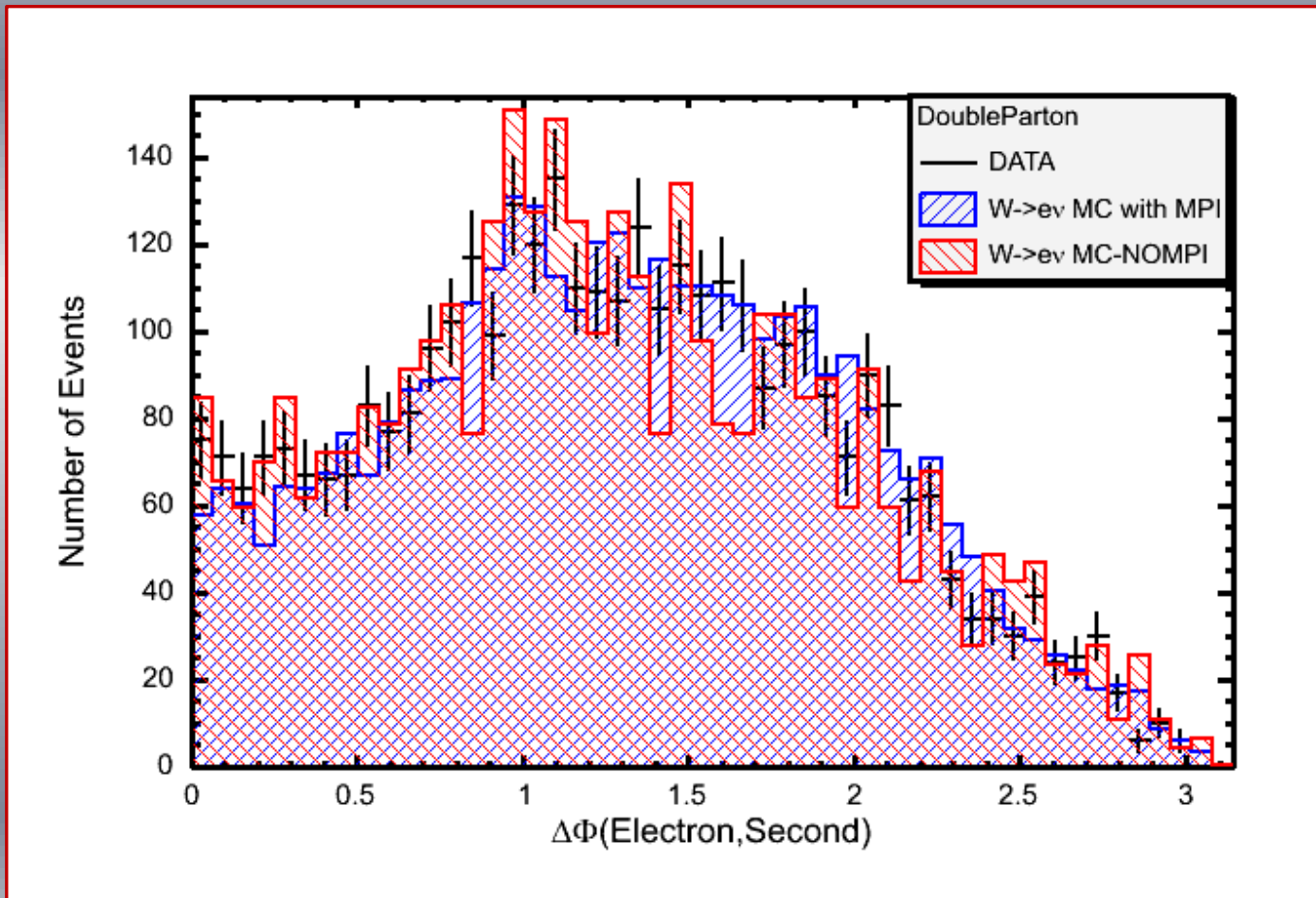
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



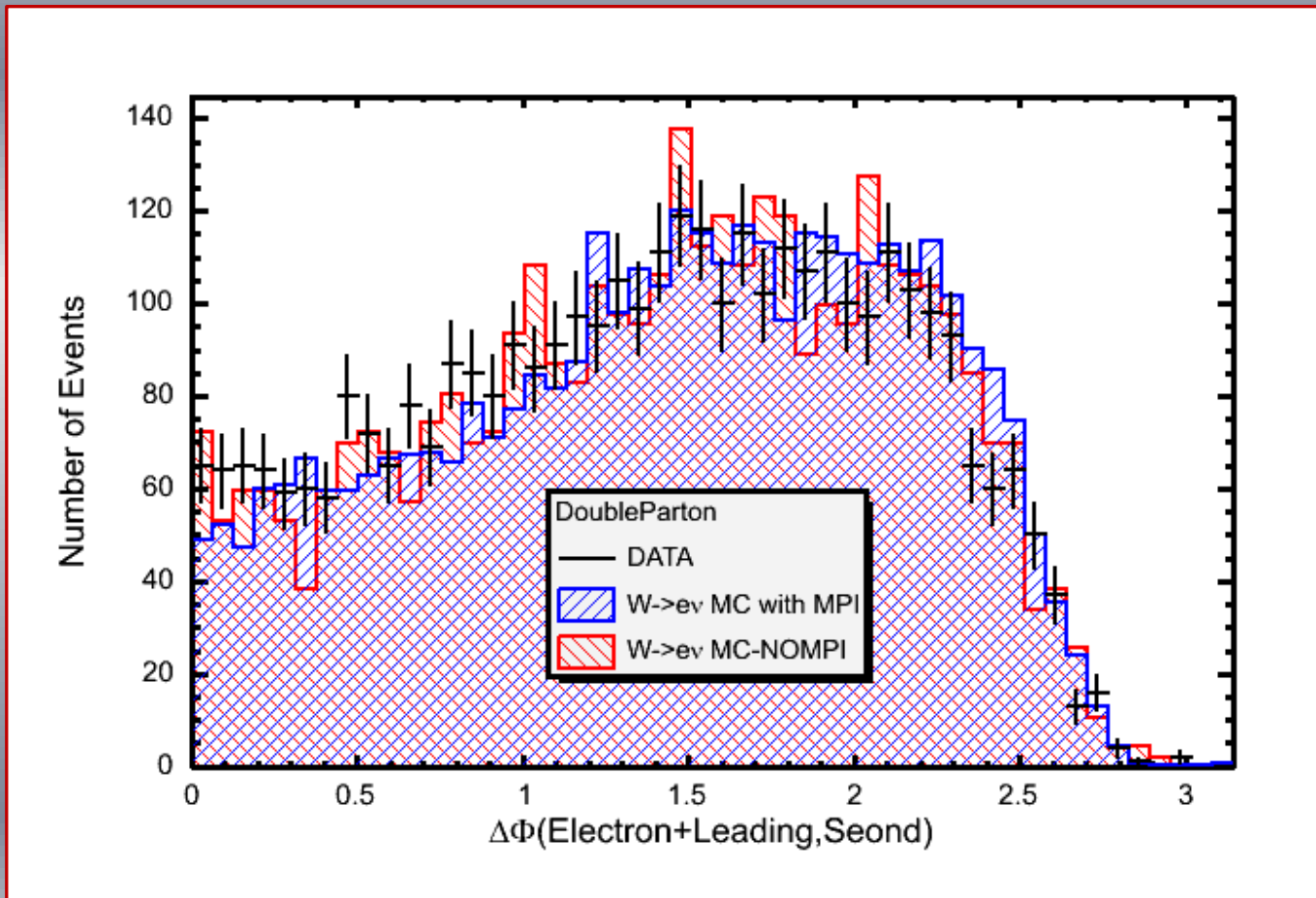
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



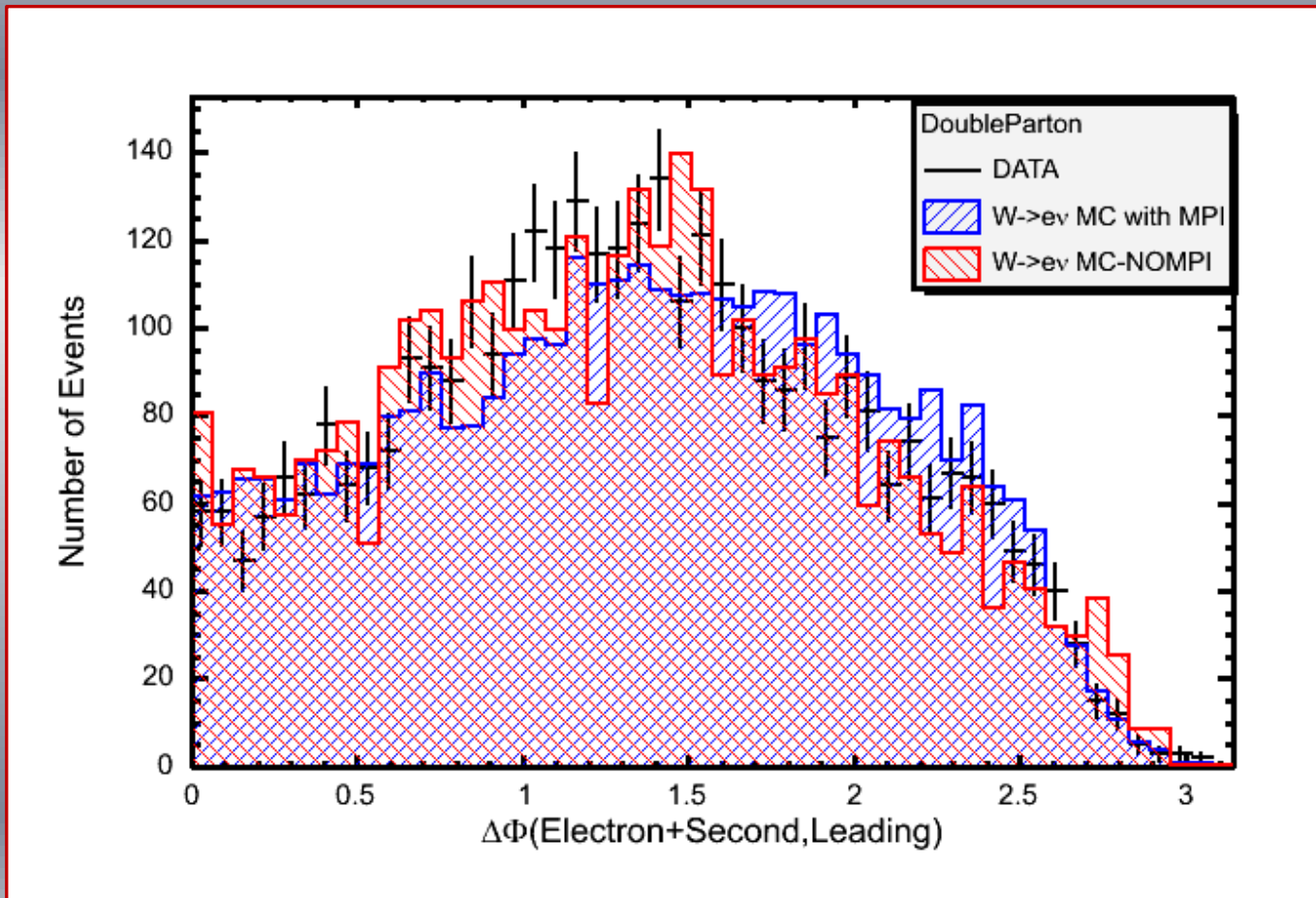
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



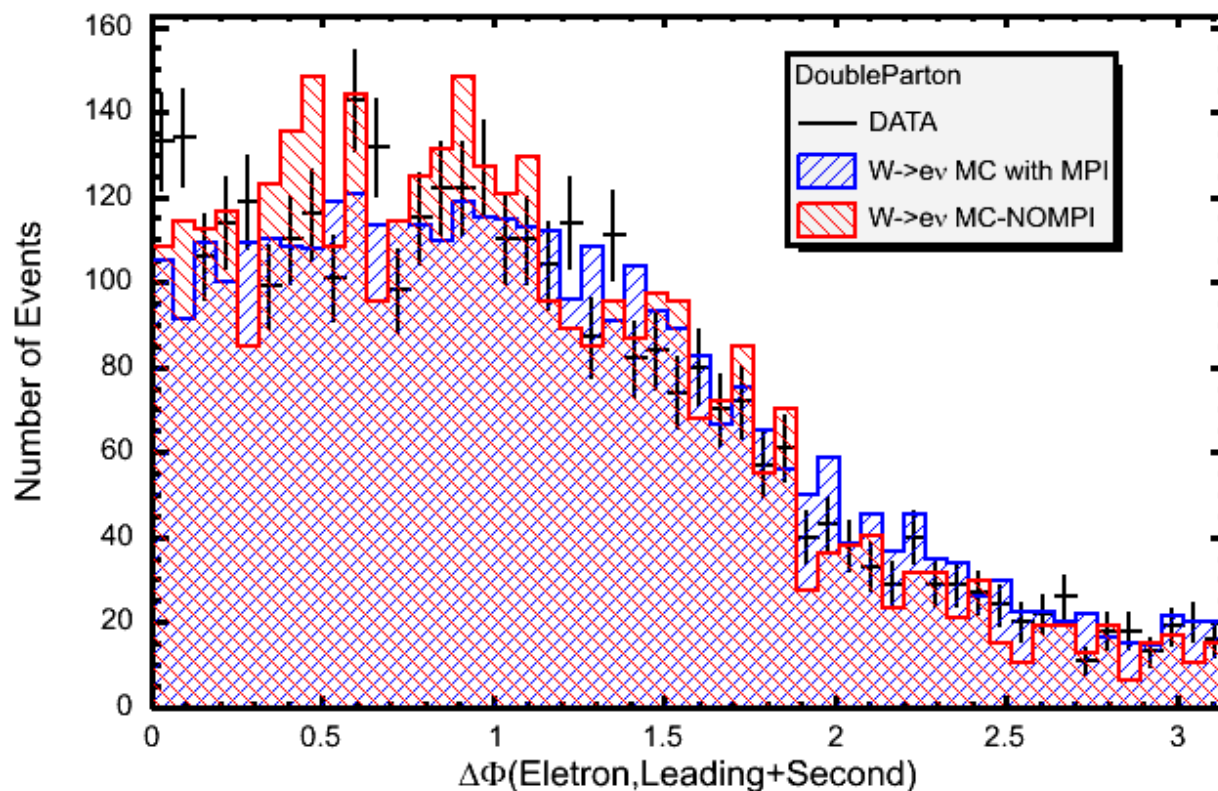
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



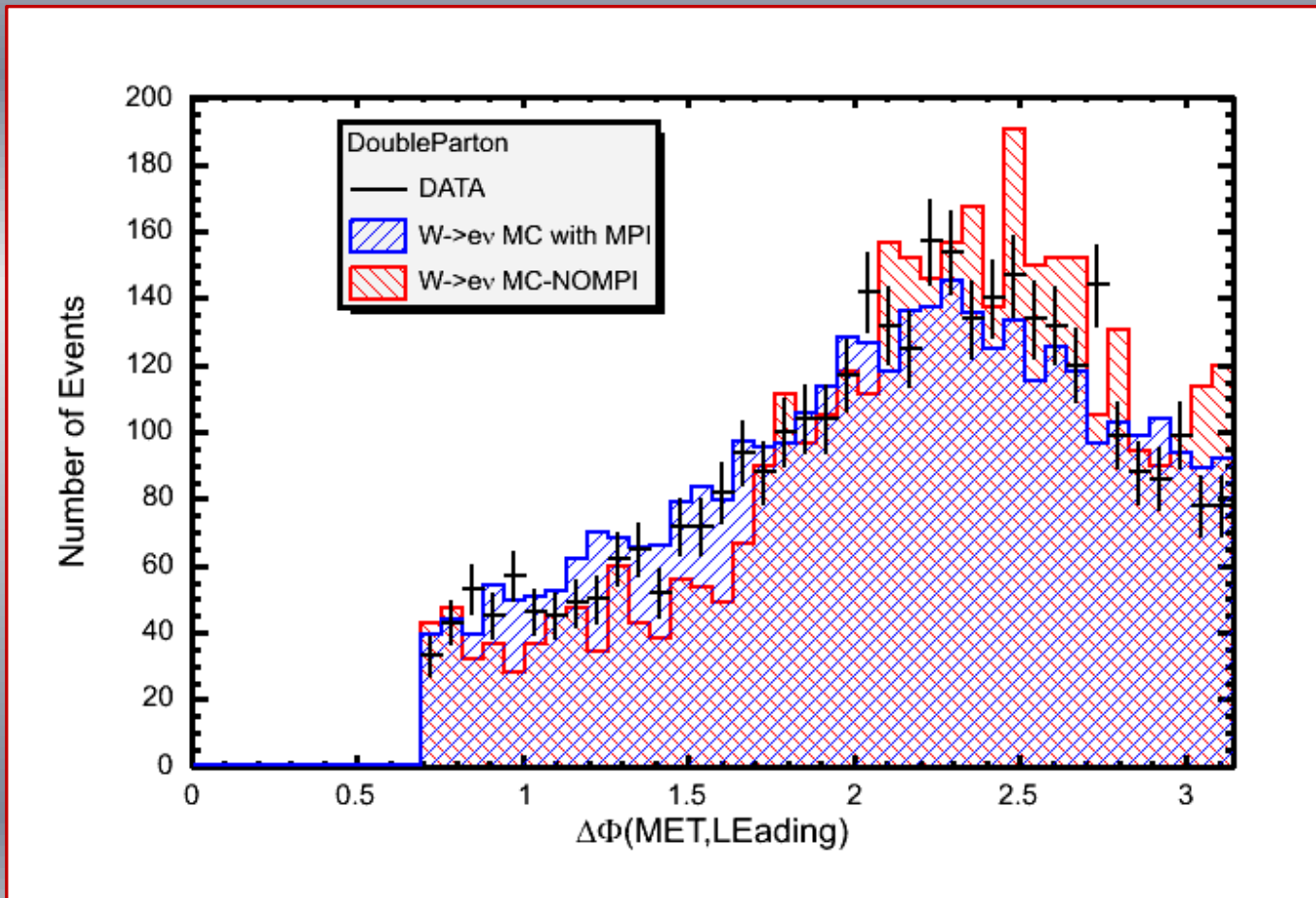
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



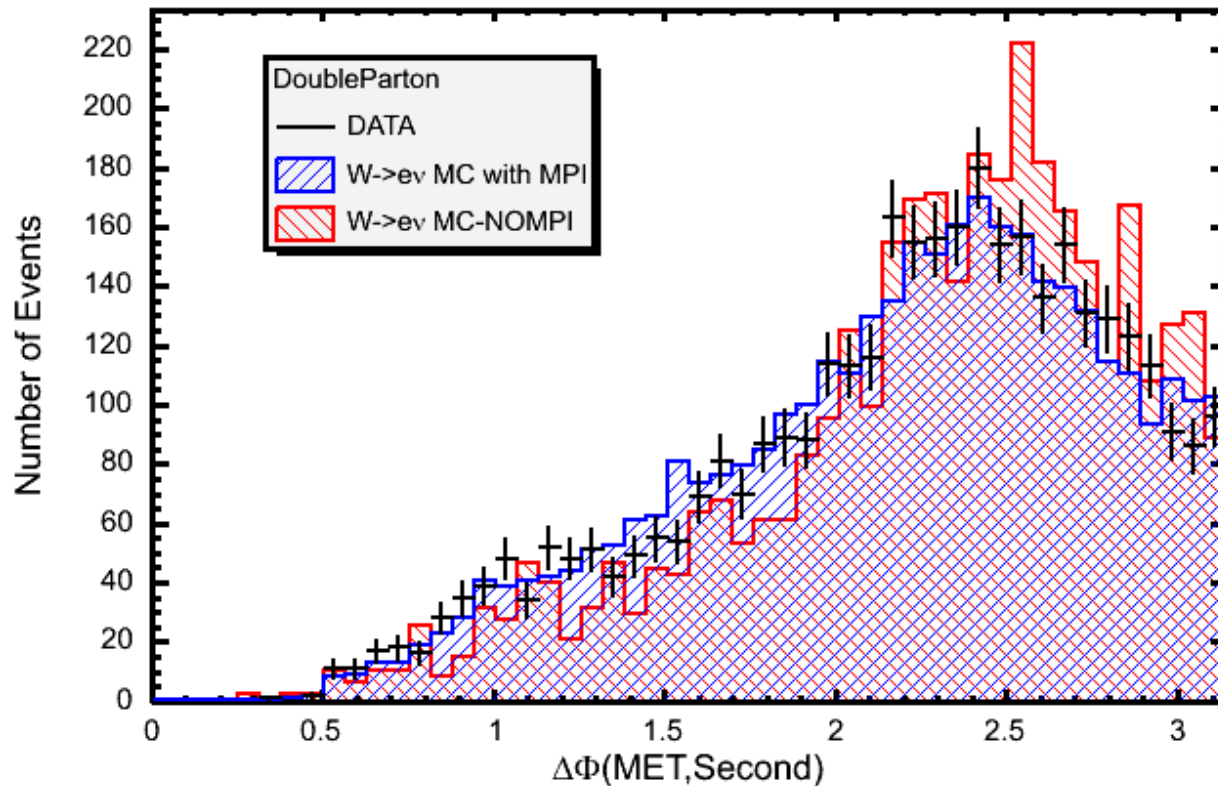
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



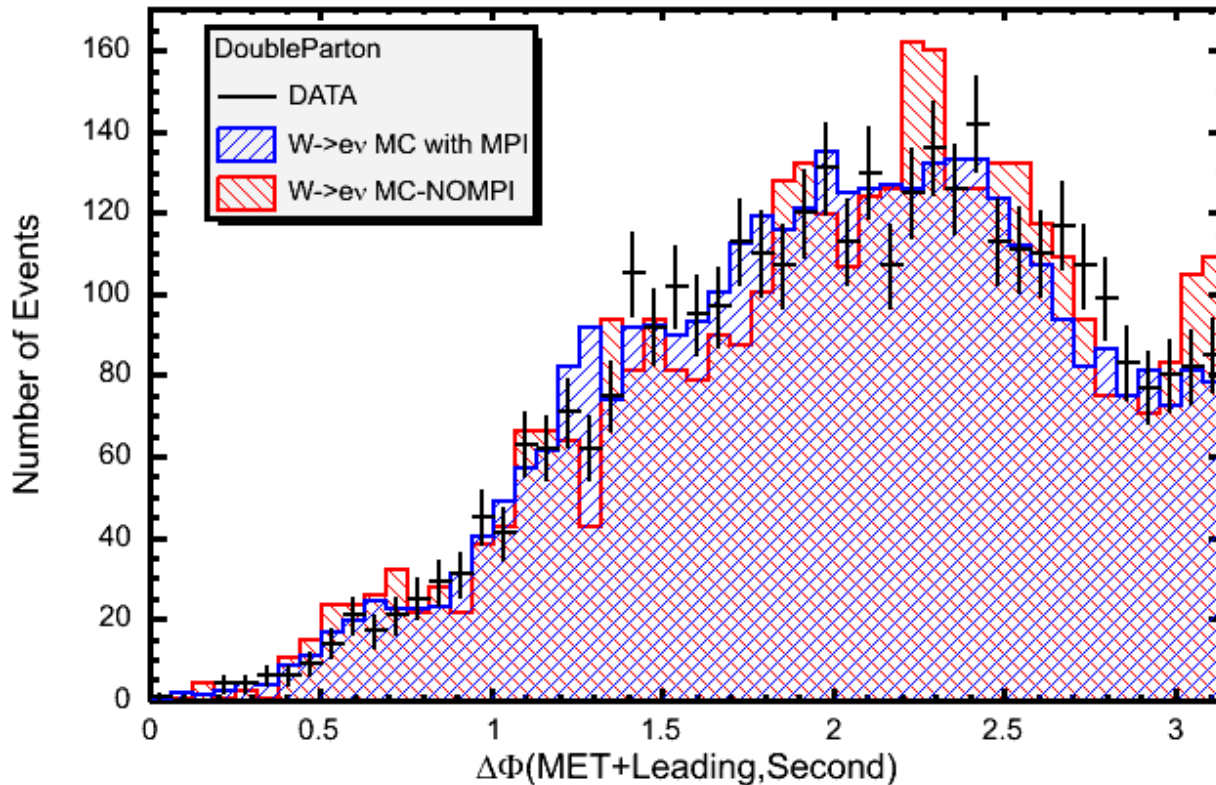
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



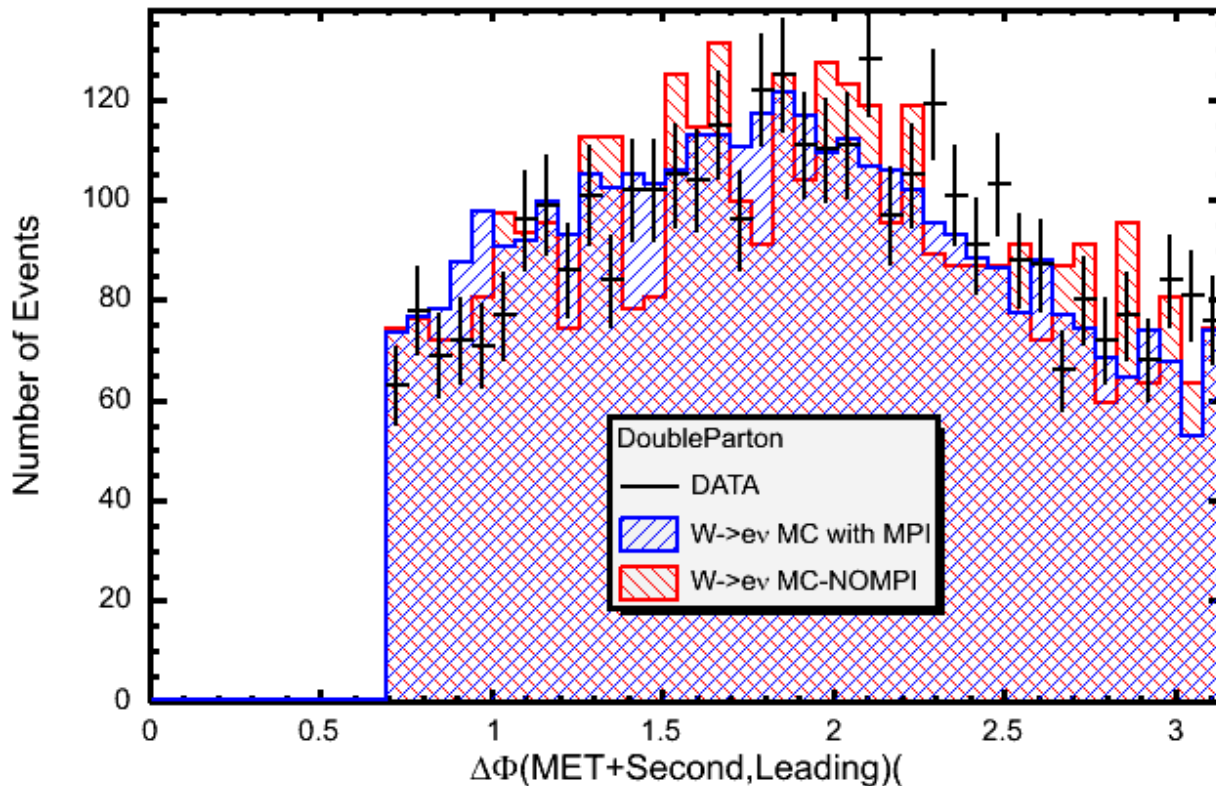
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



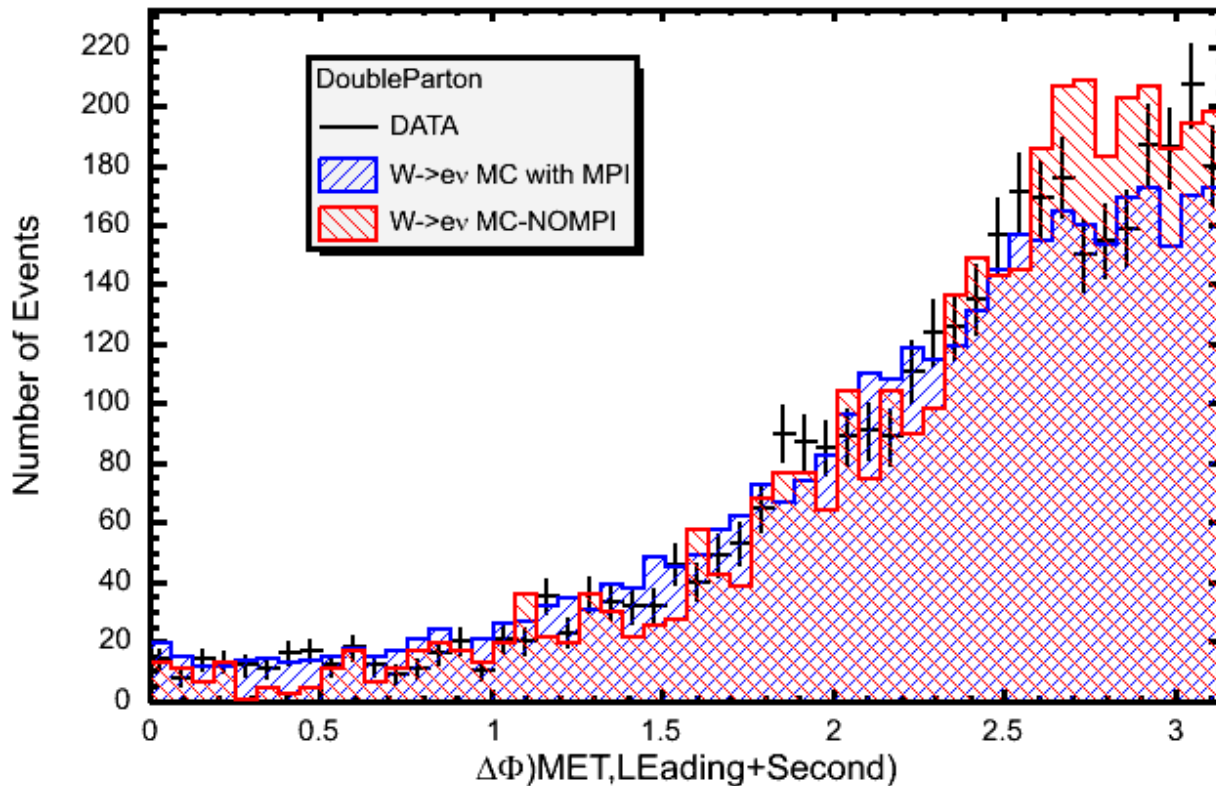
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



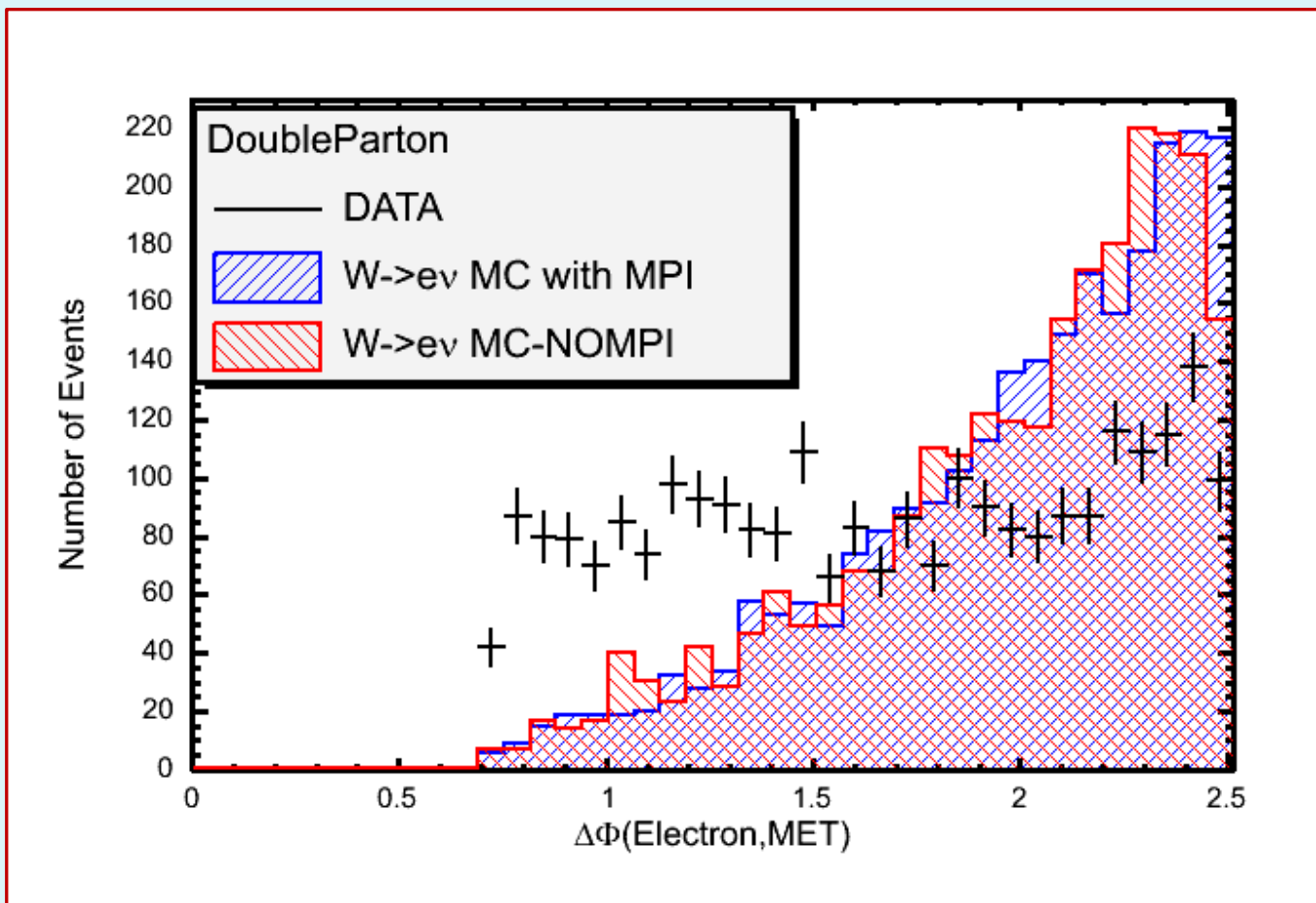
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) > 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



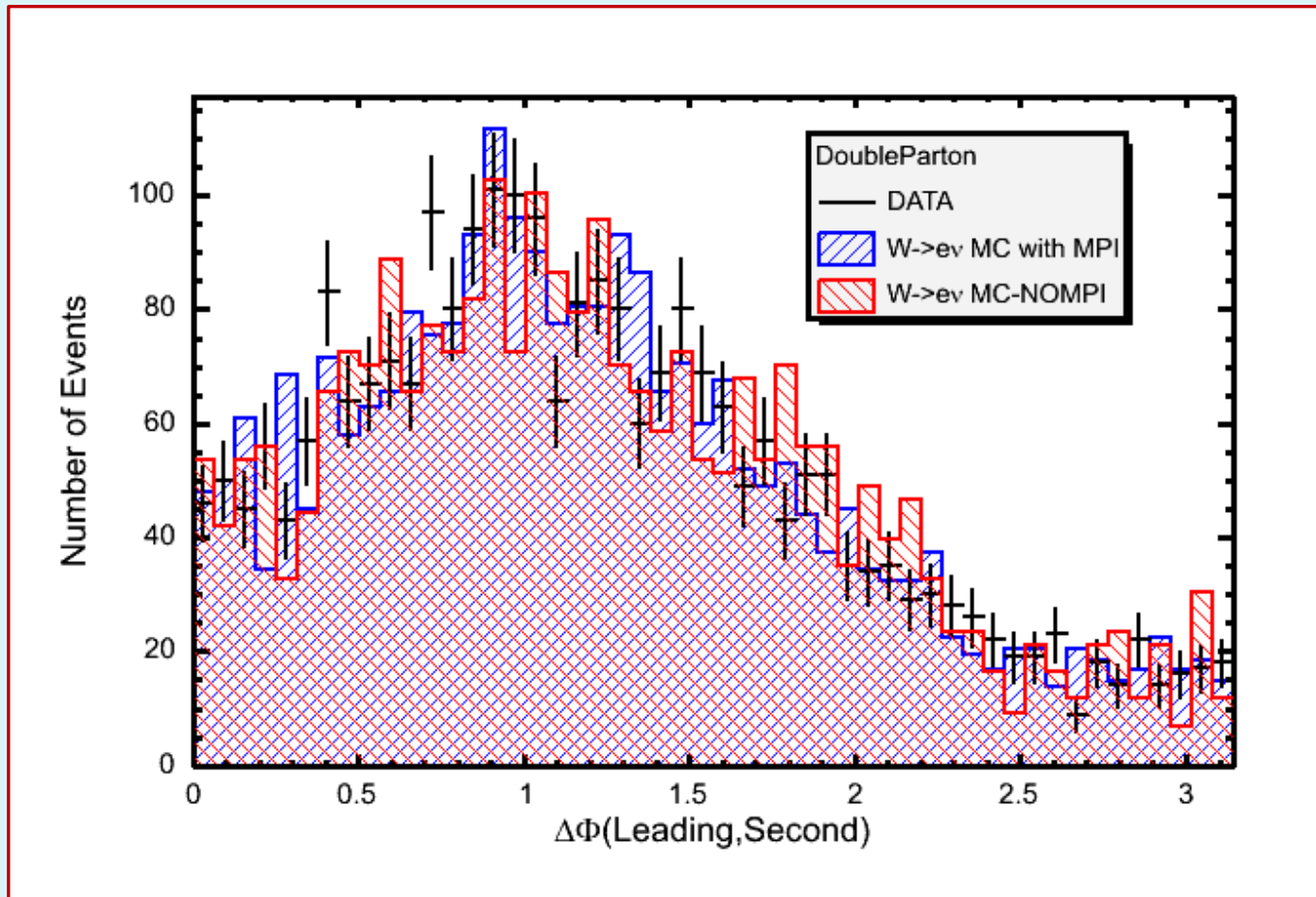
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



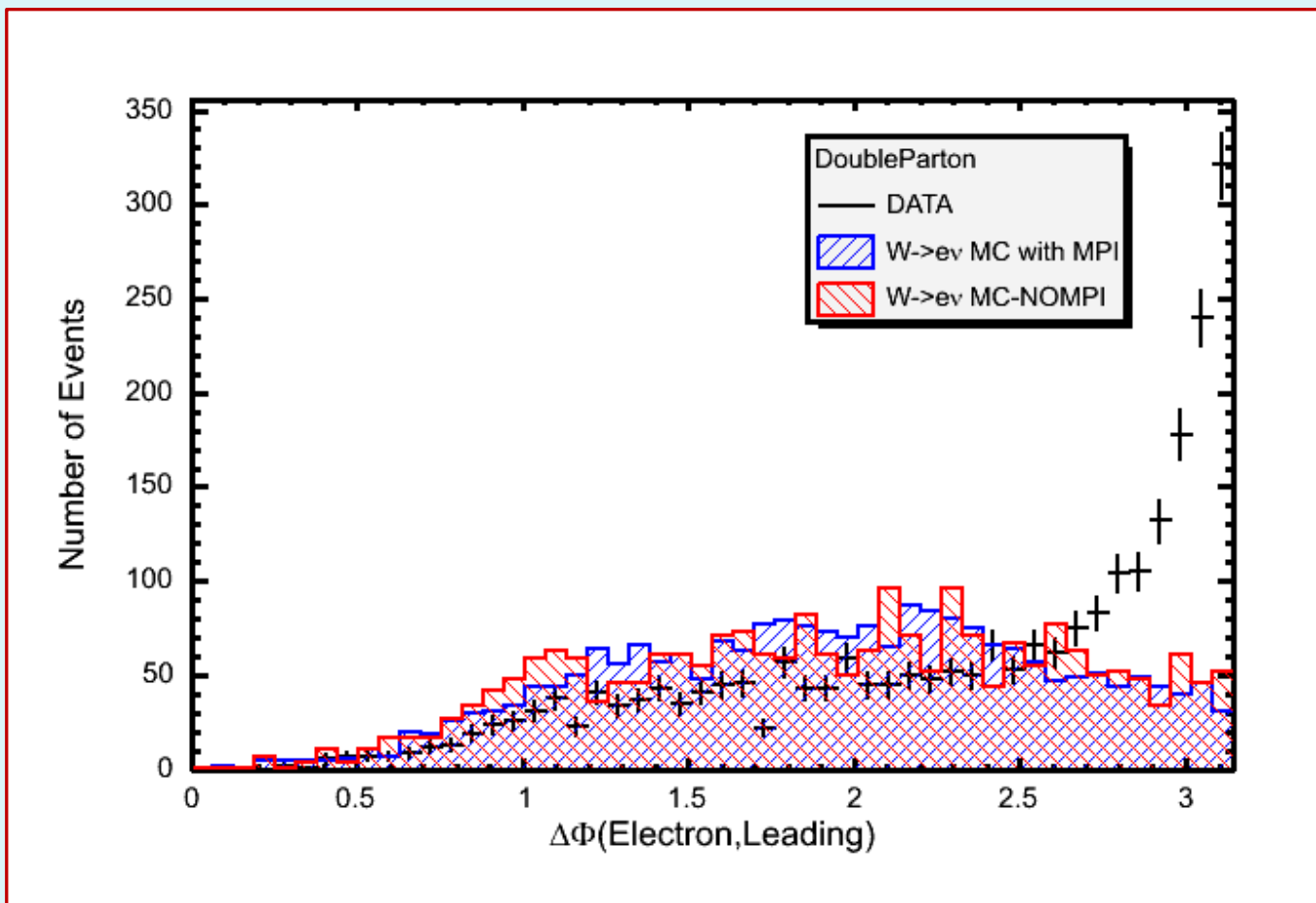
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



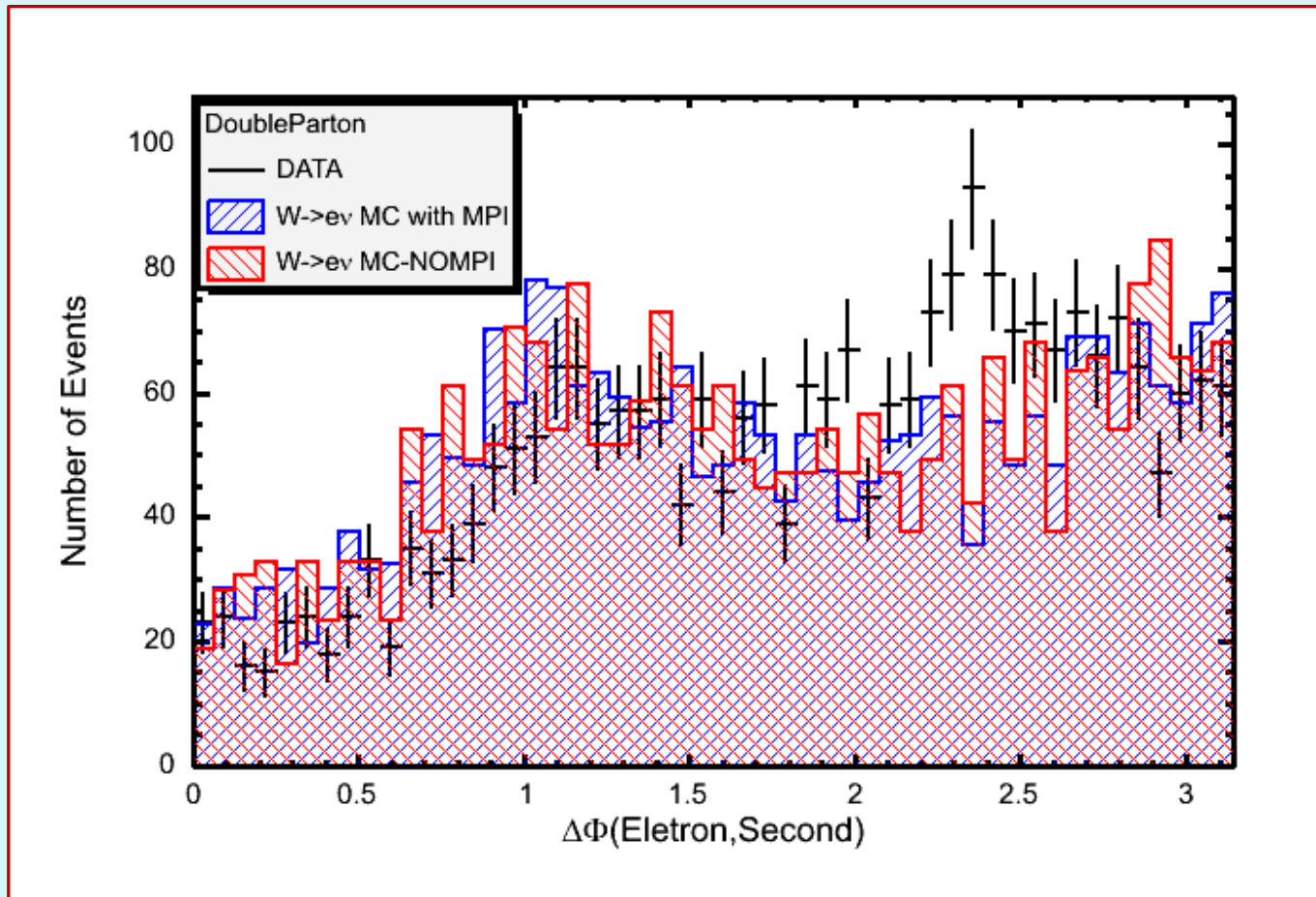
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



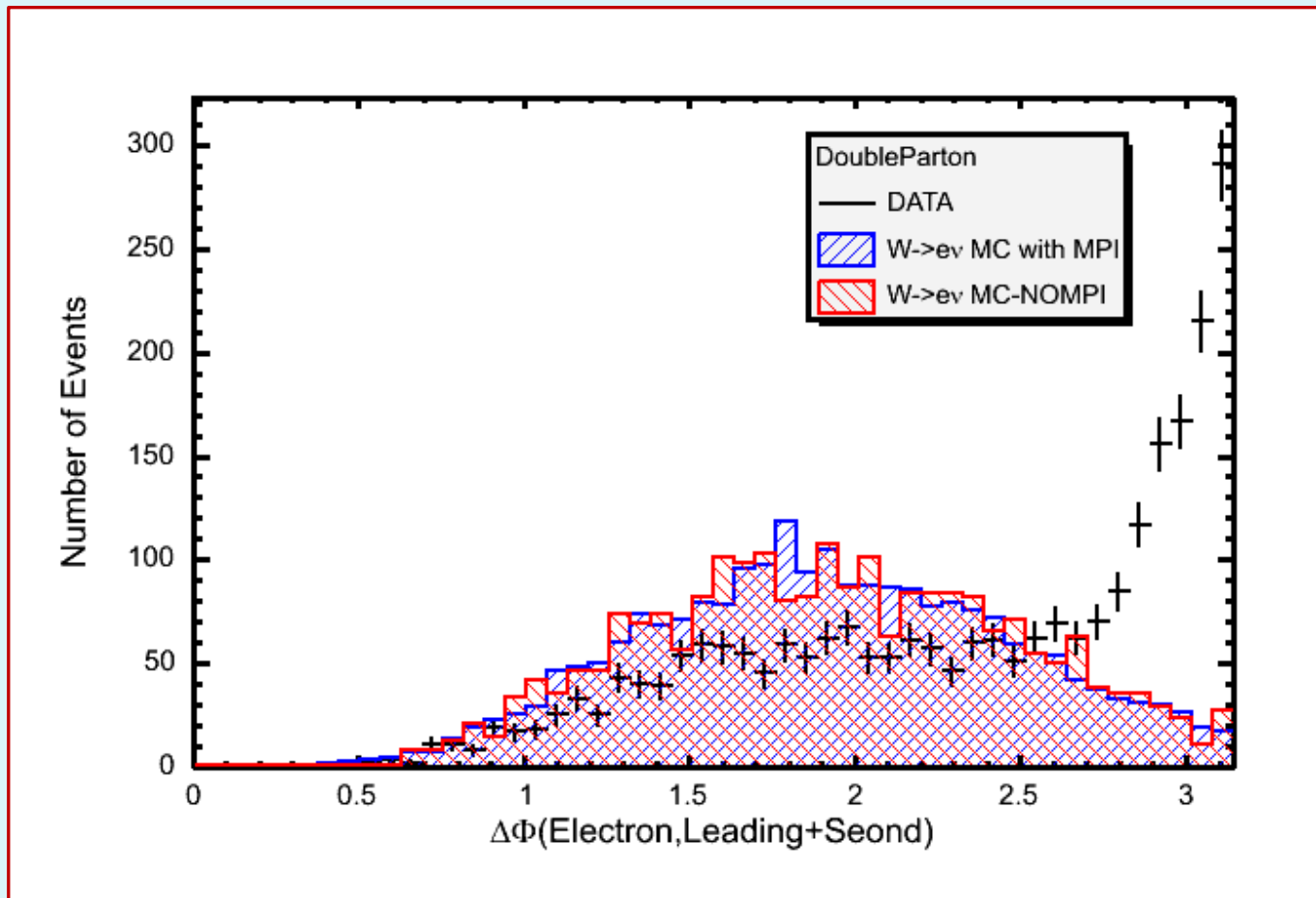
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



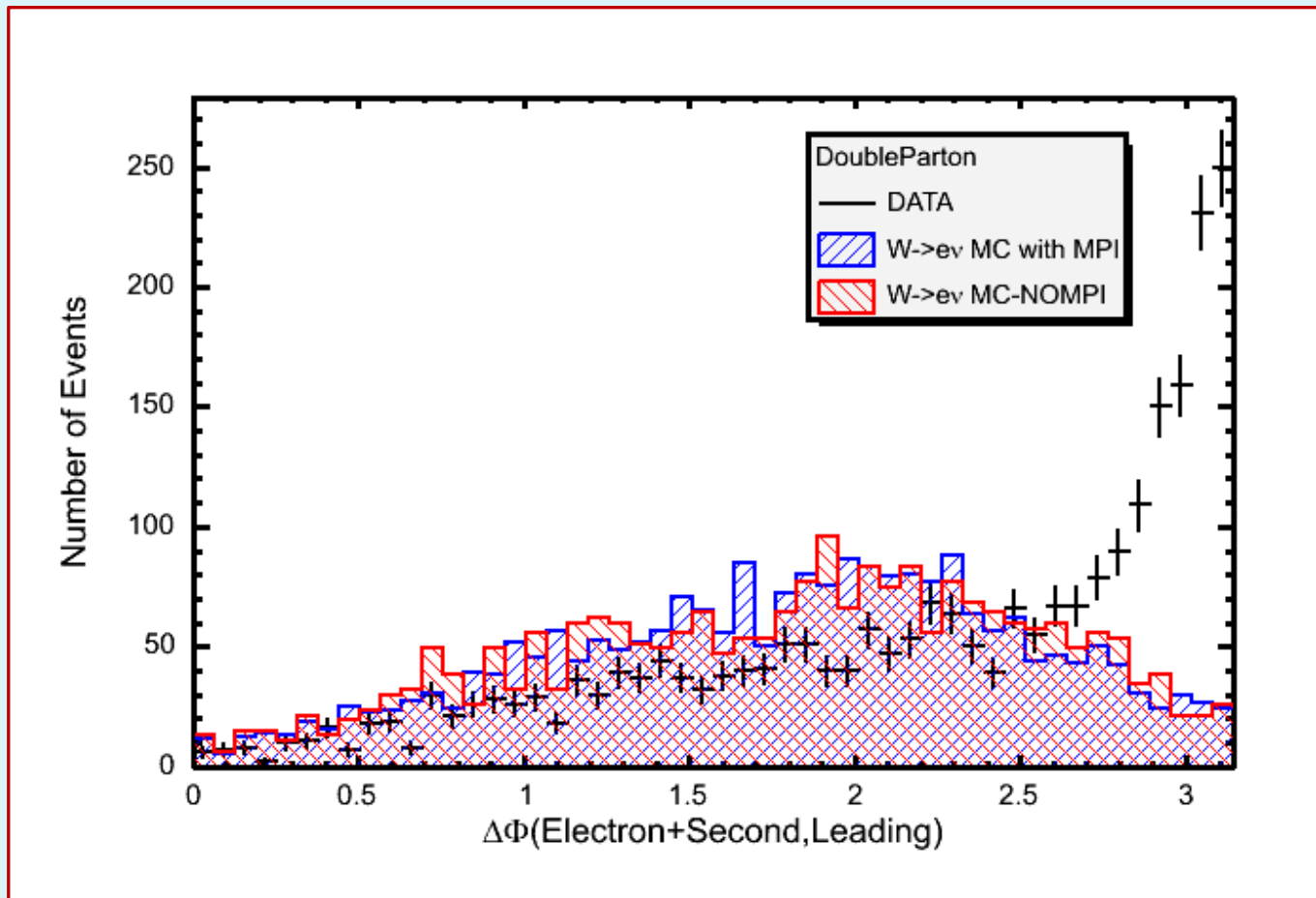
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



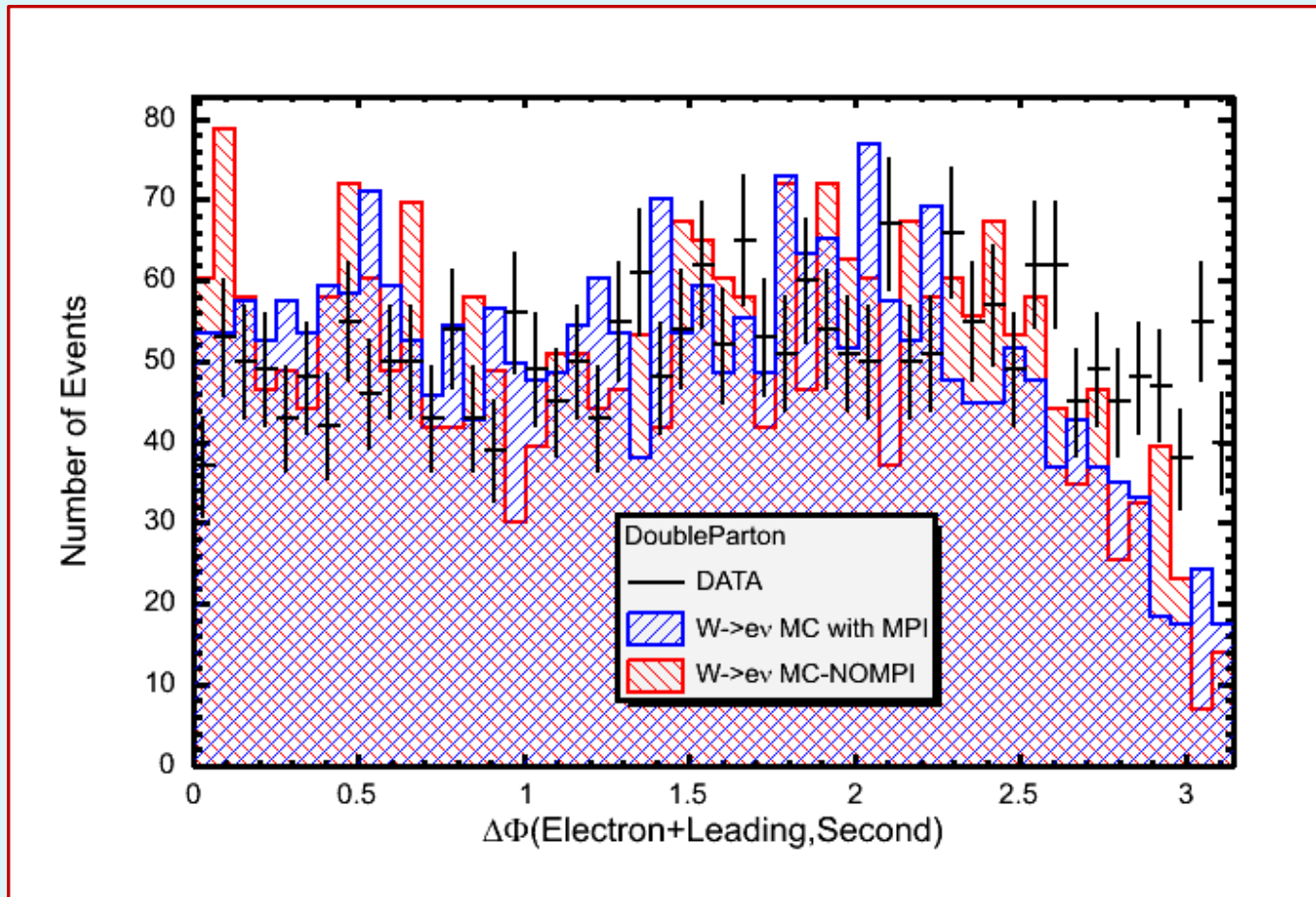
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



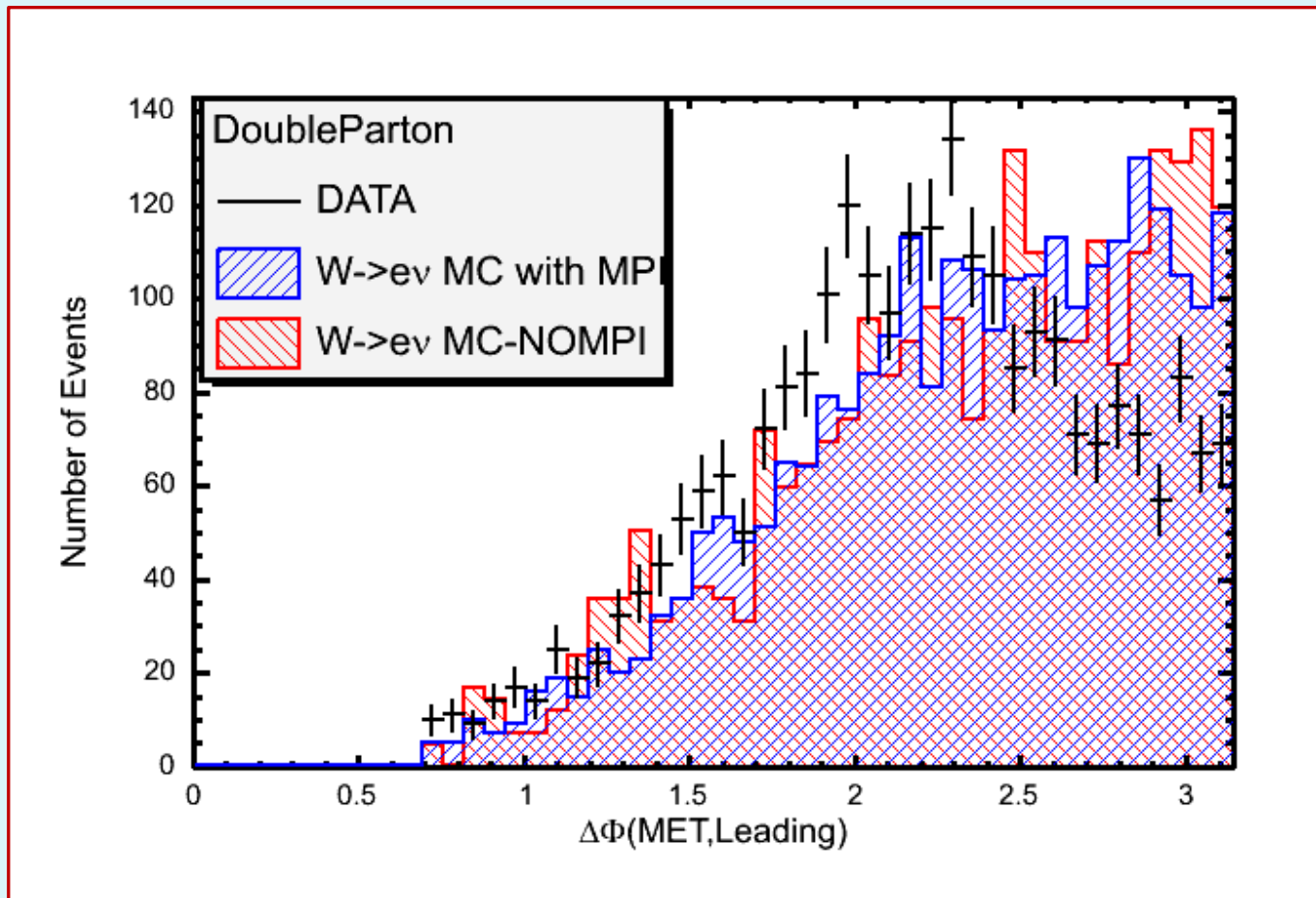
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



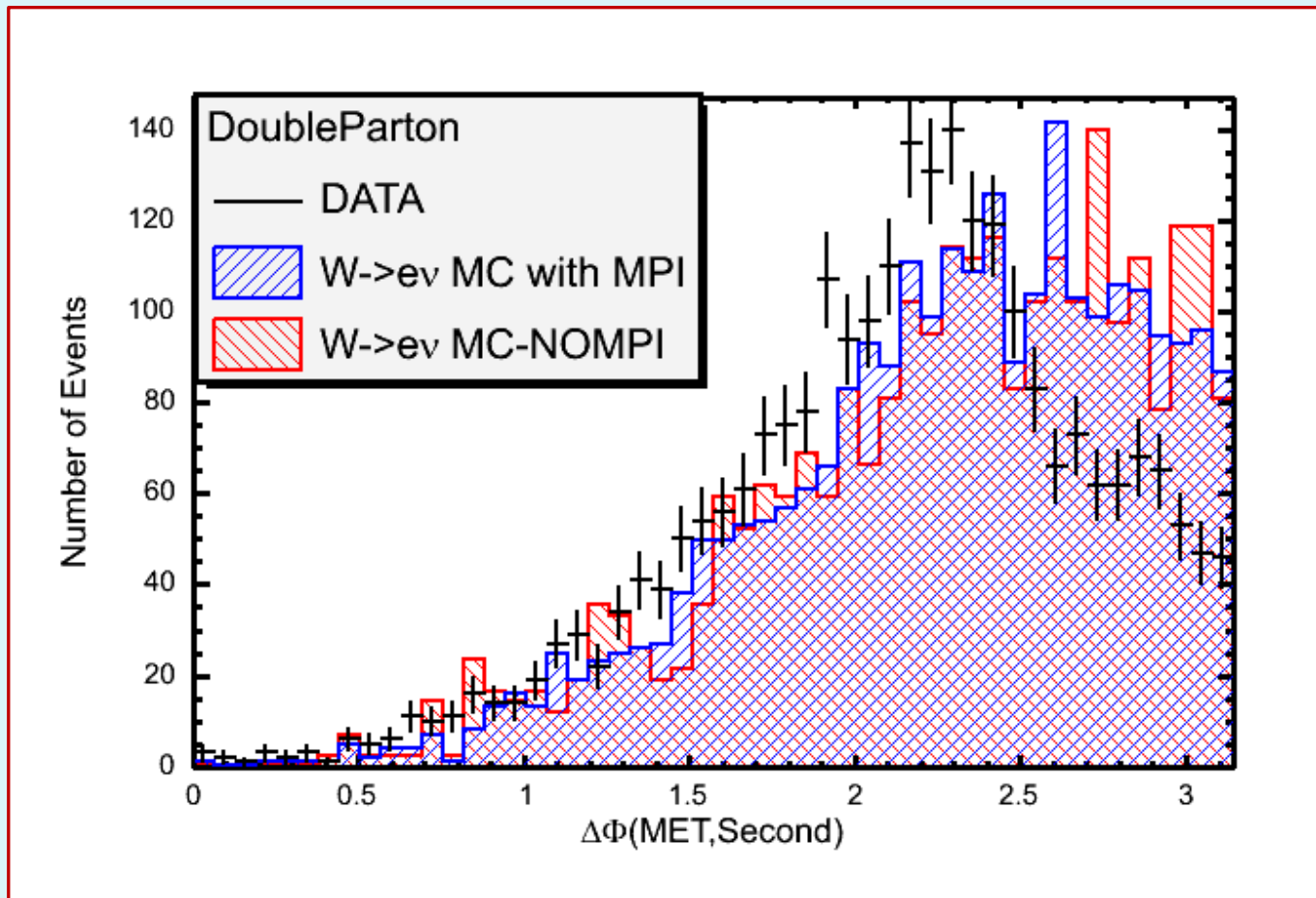
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



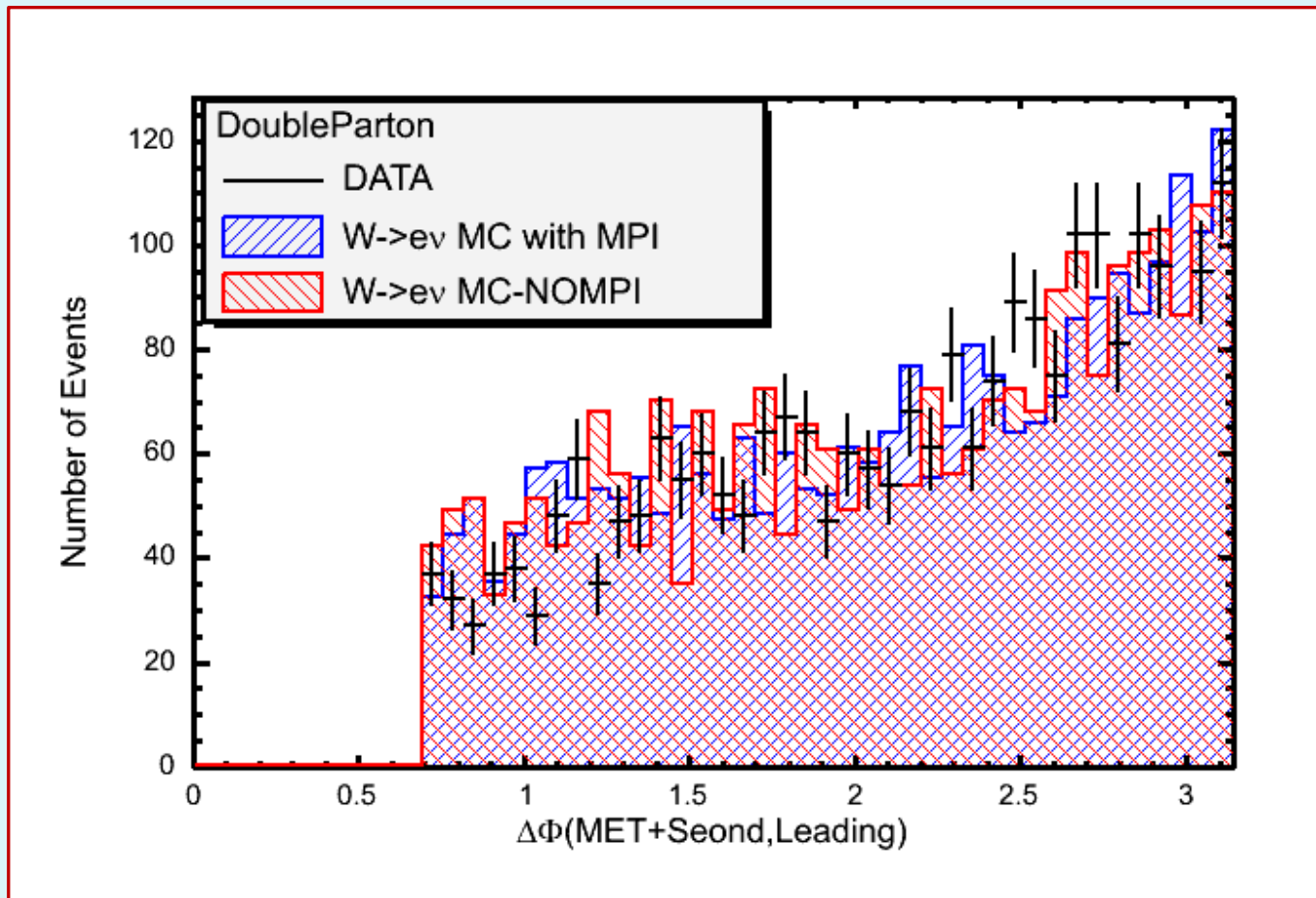
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



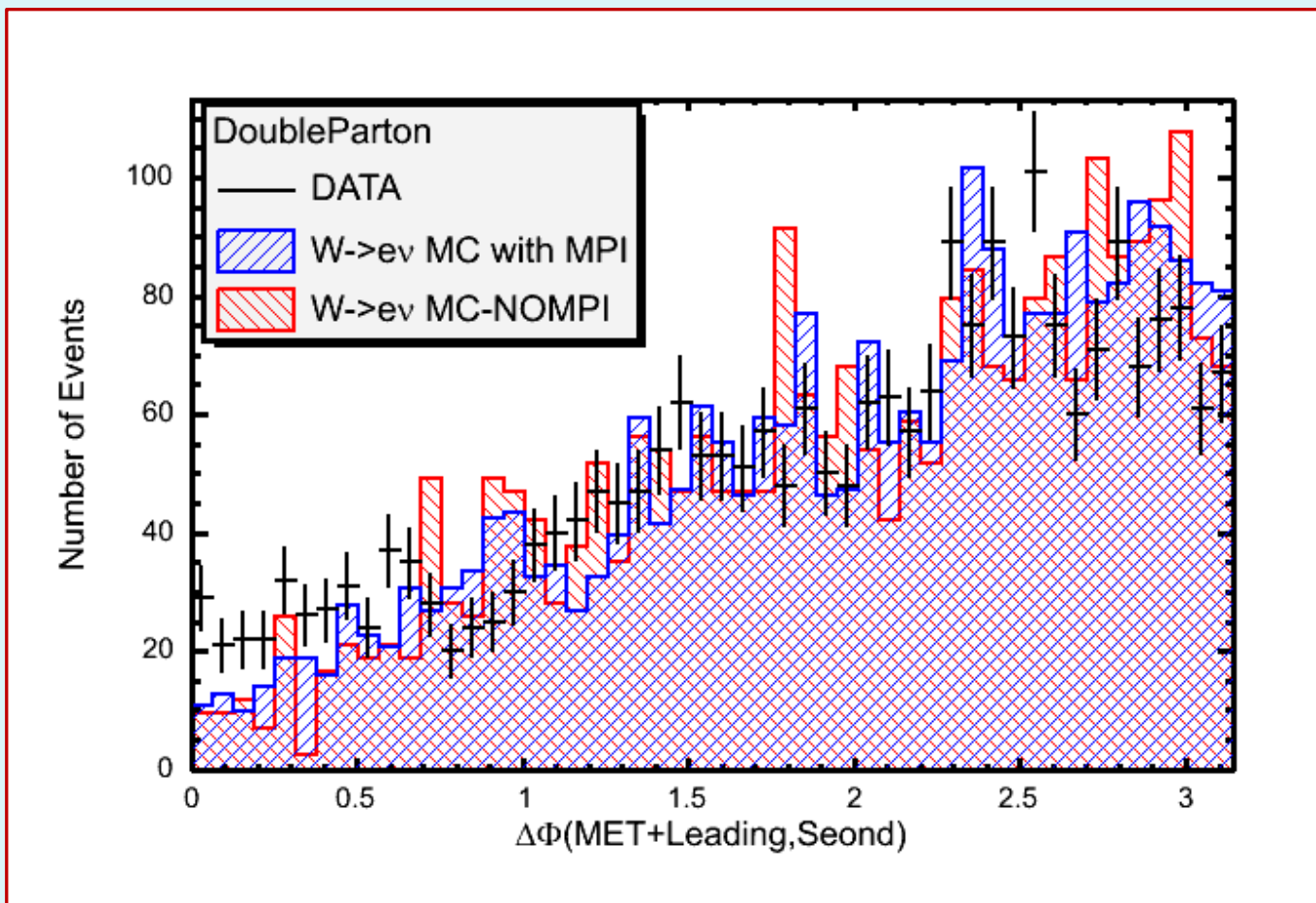
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



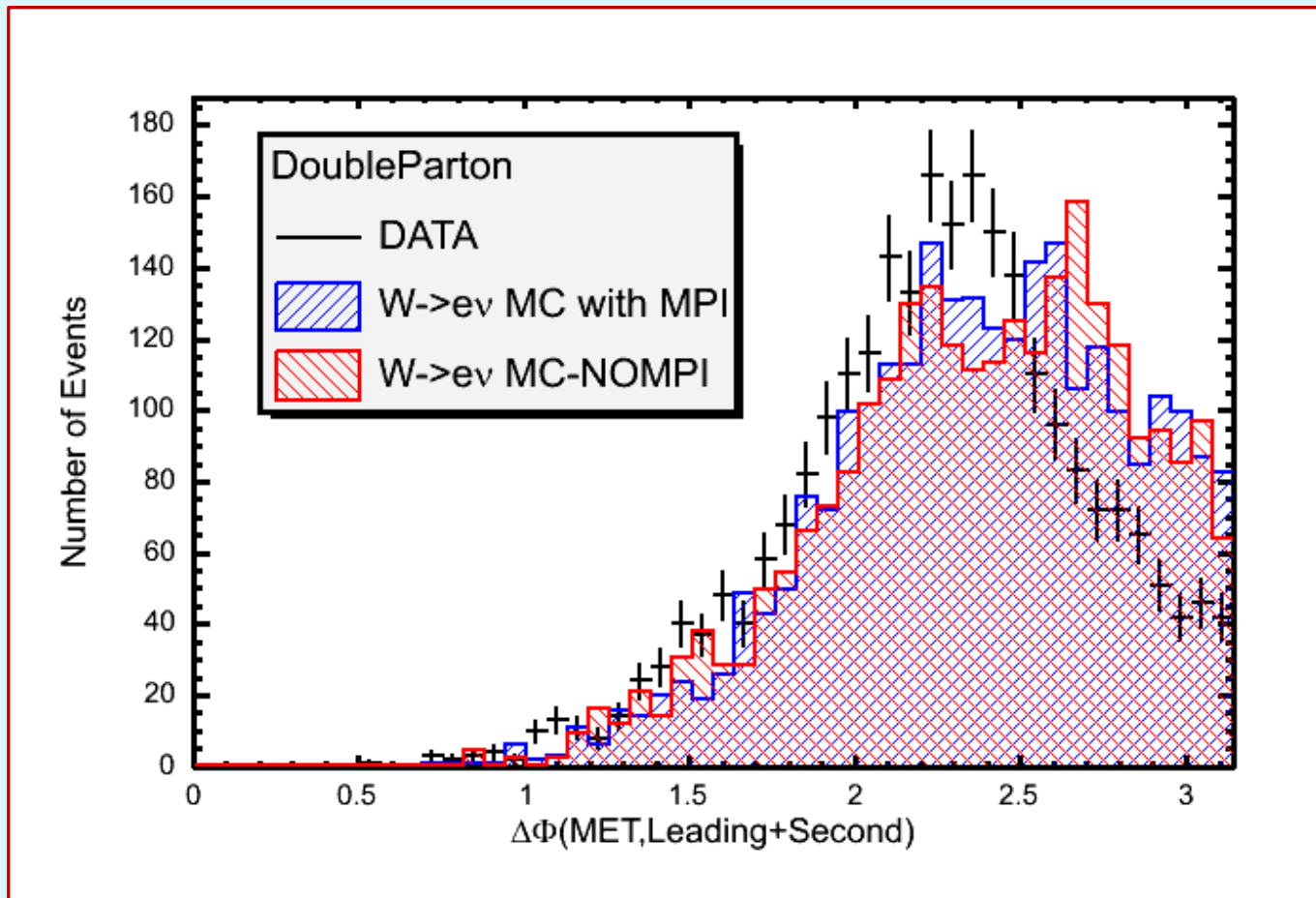
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



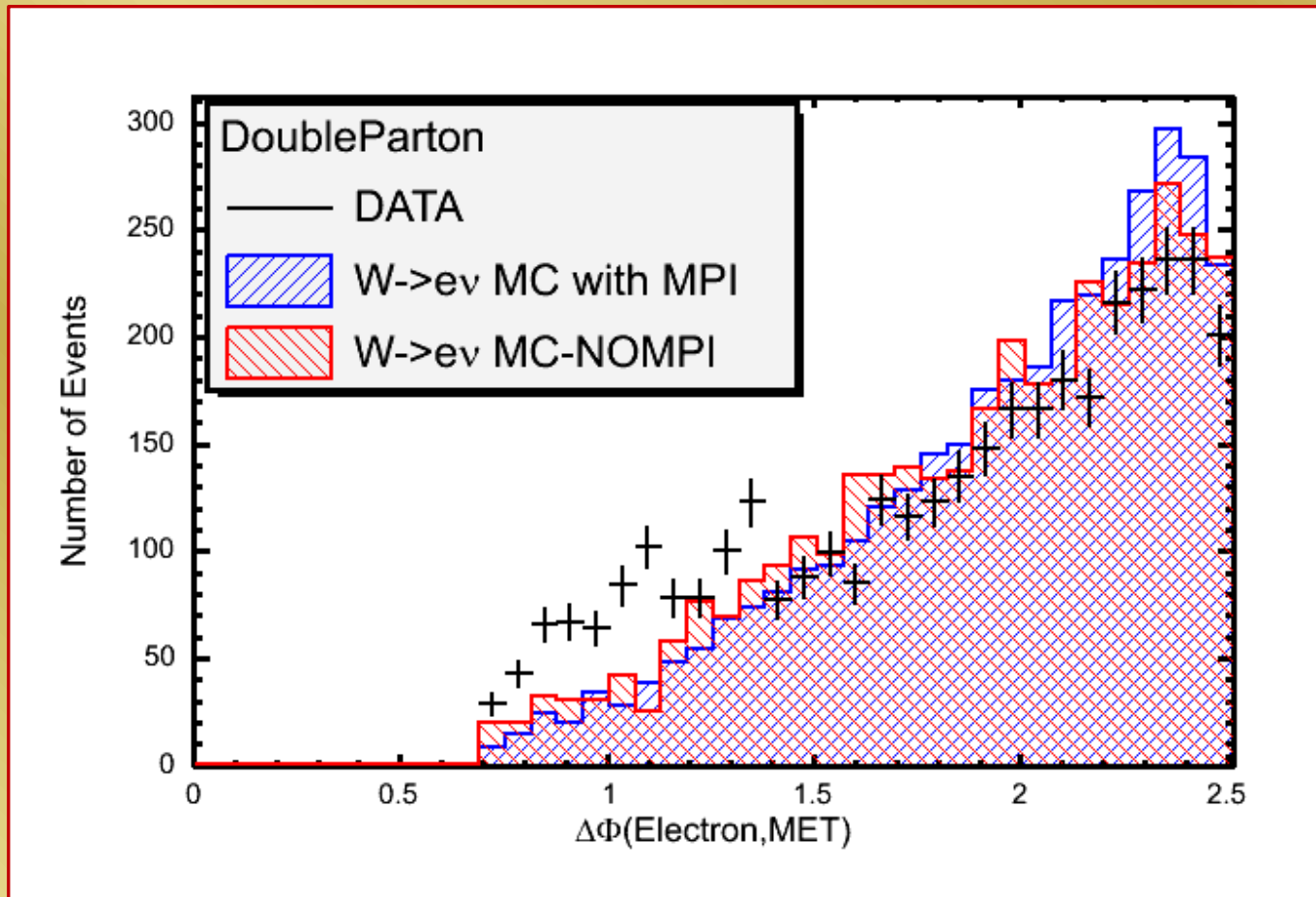
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) > 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) > 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04 \text{ cm}$



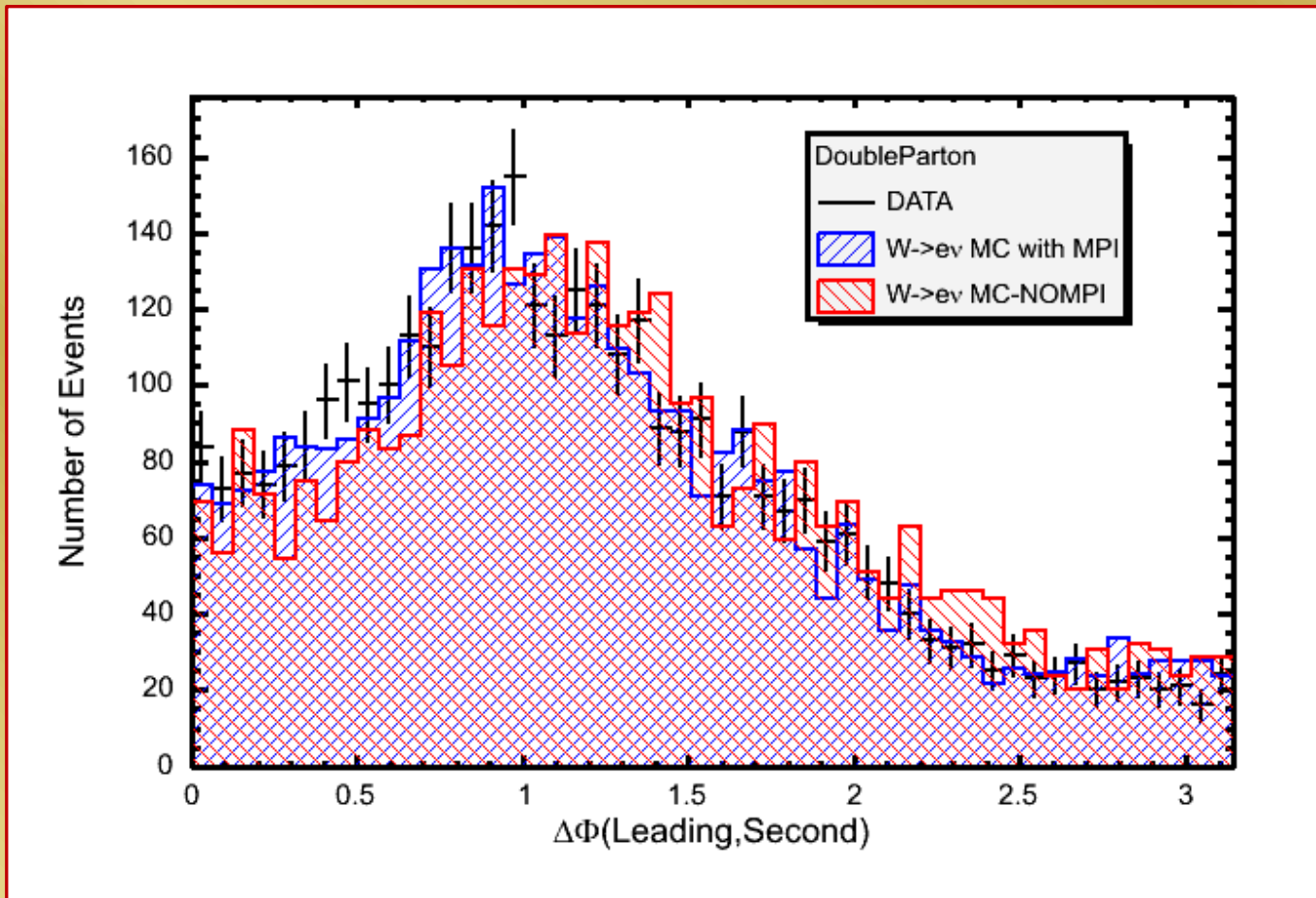
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04 \text{ cm}$



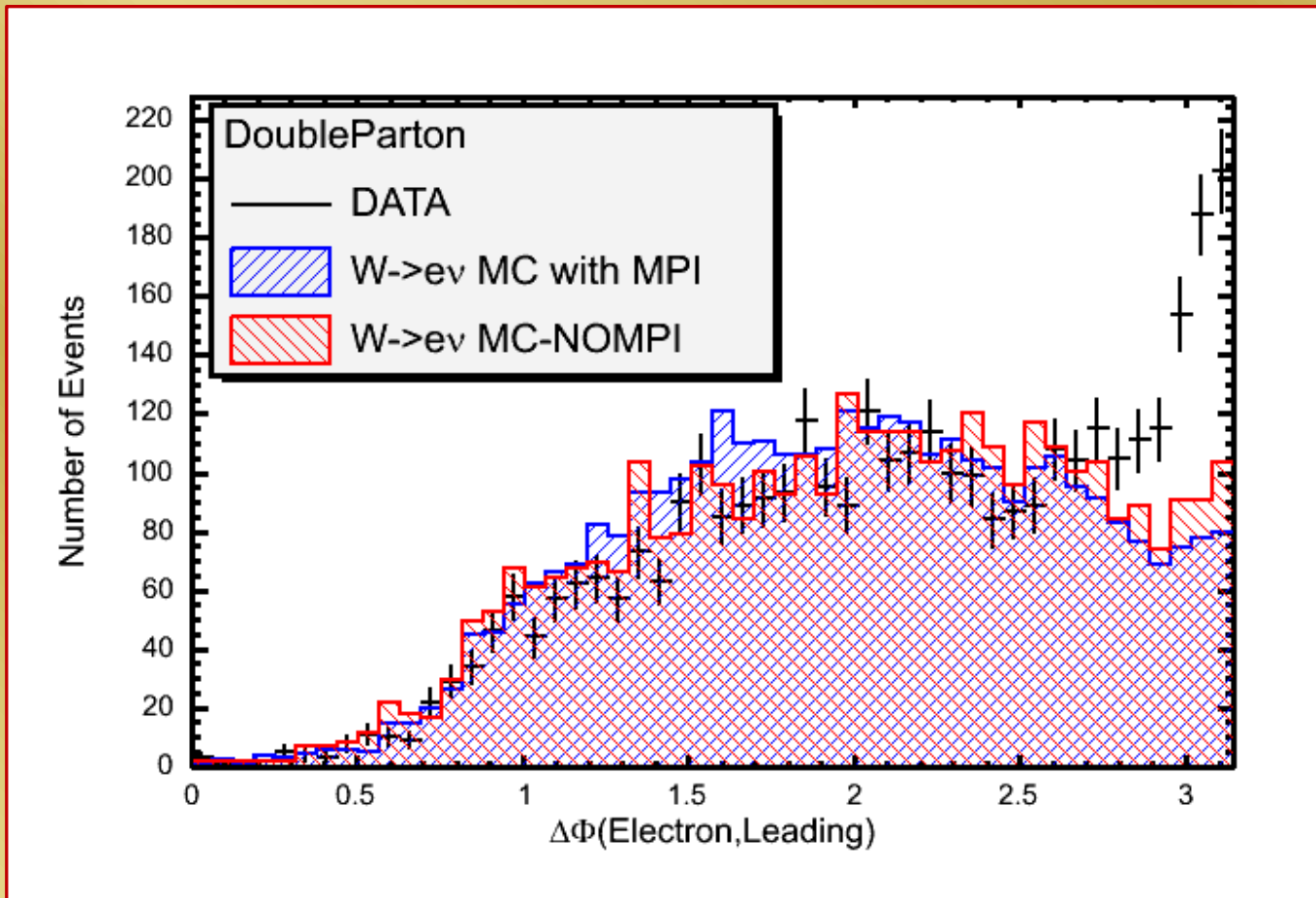
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



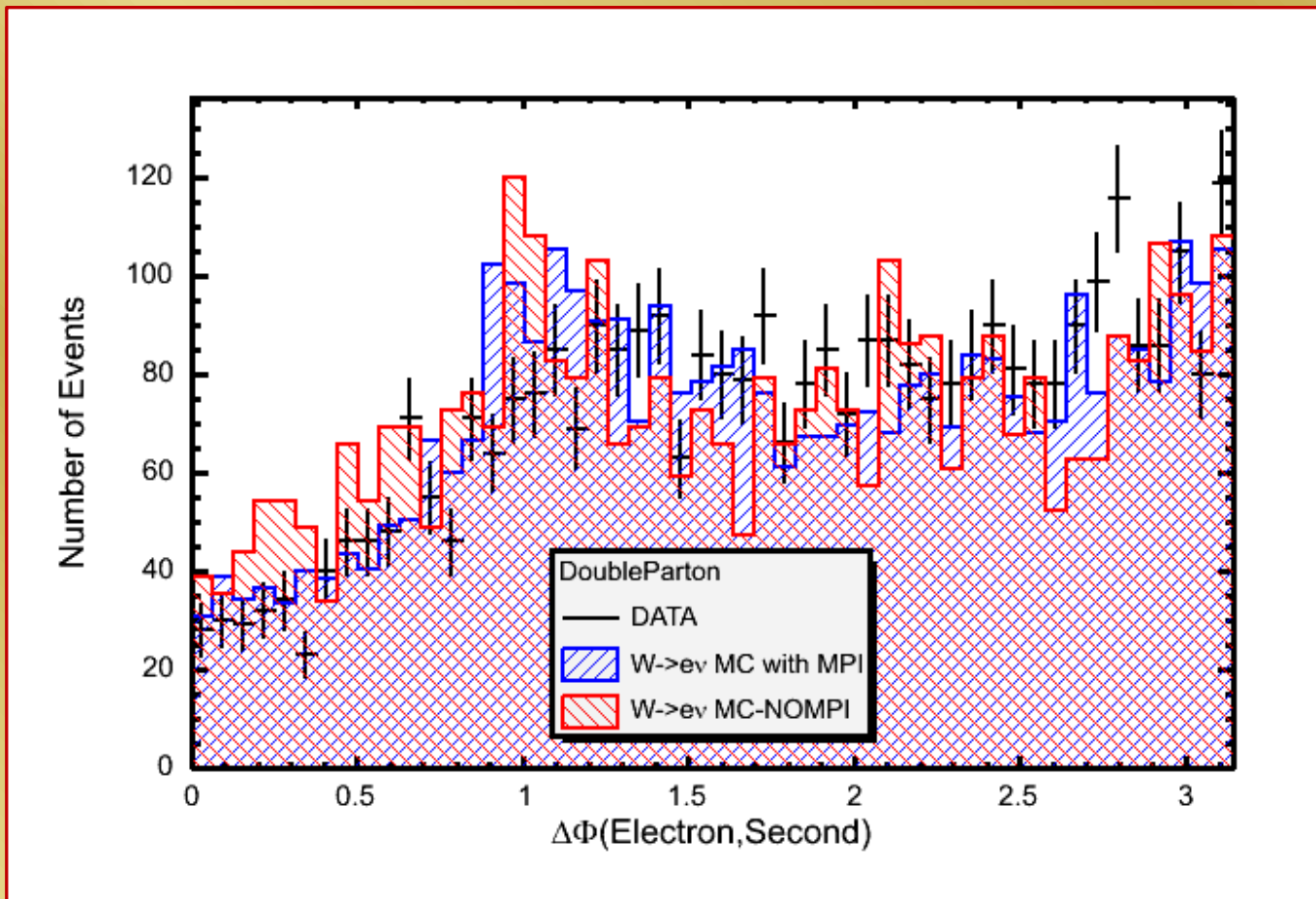
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



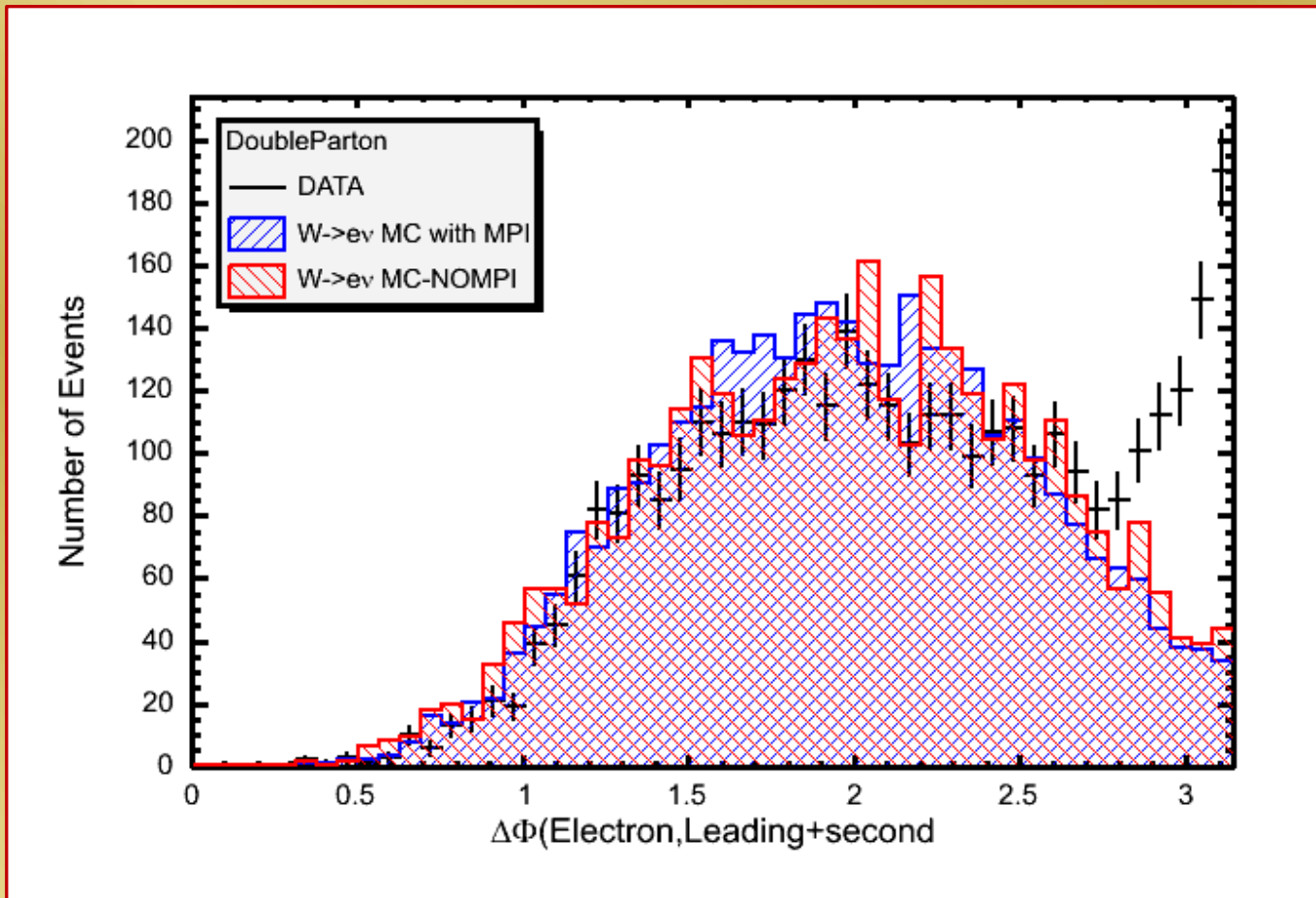
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



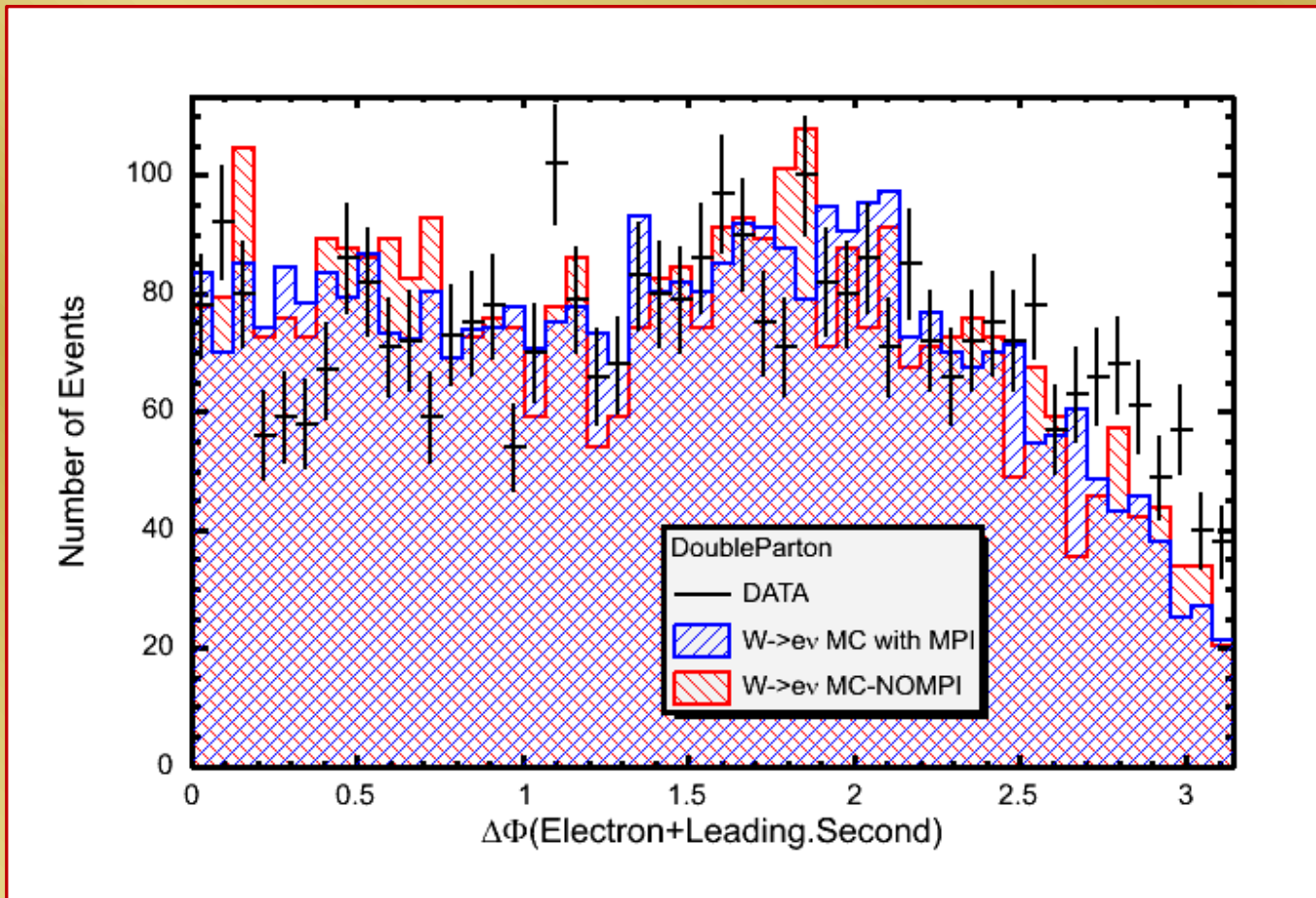
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04$ cm



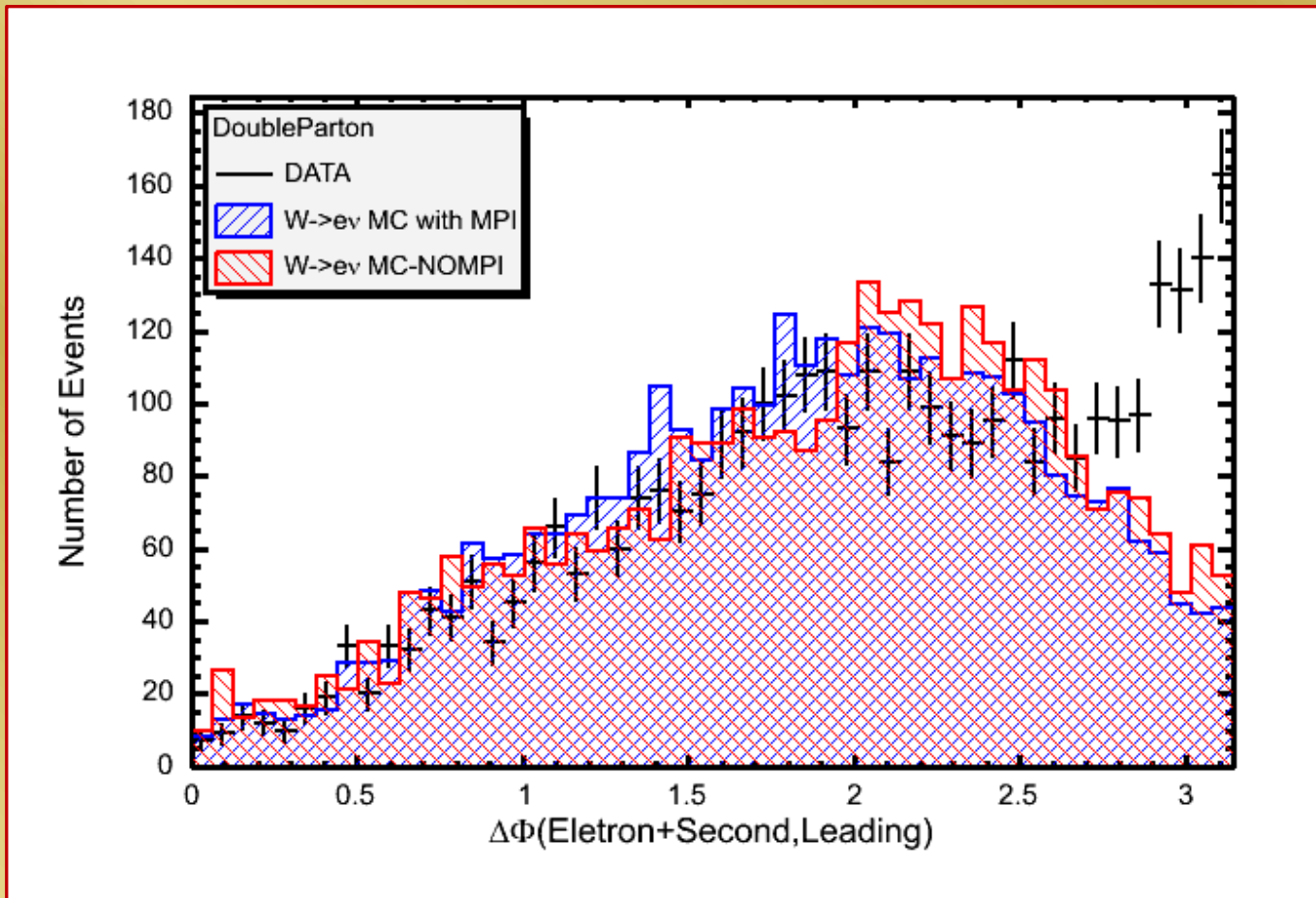
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



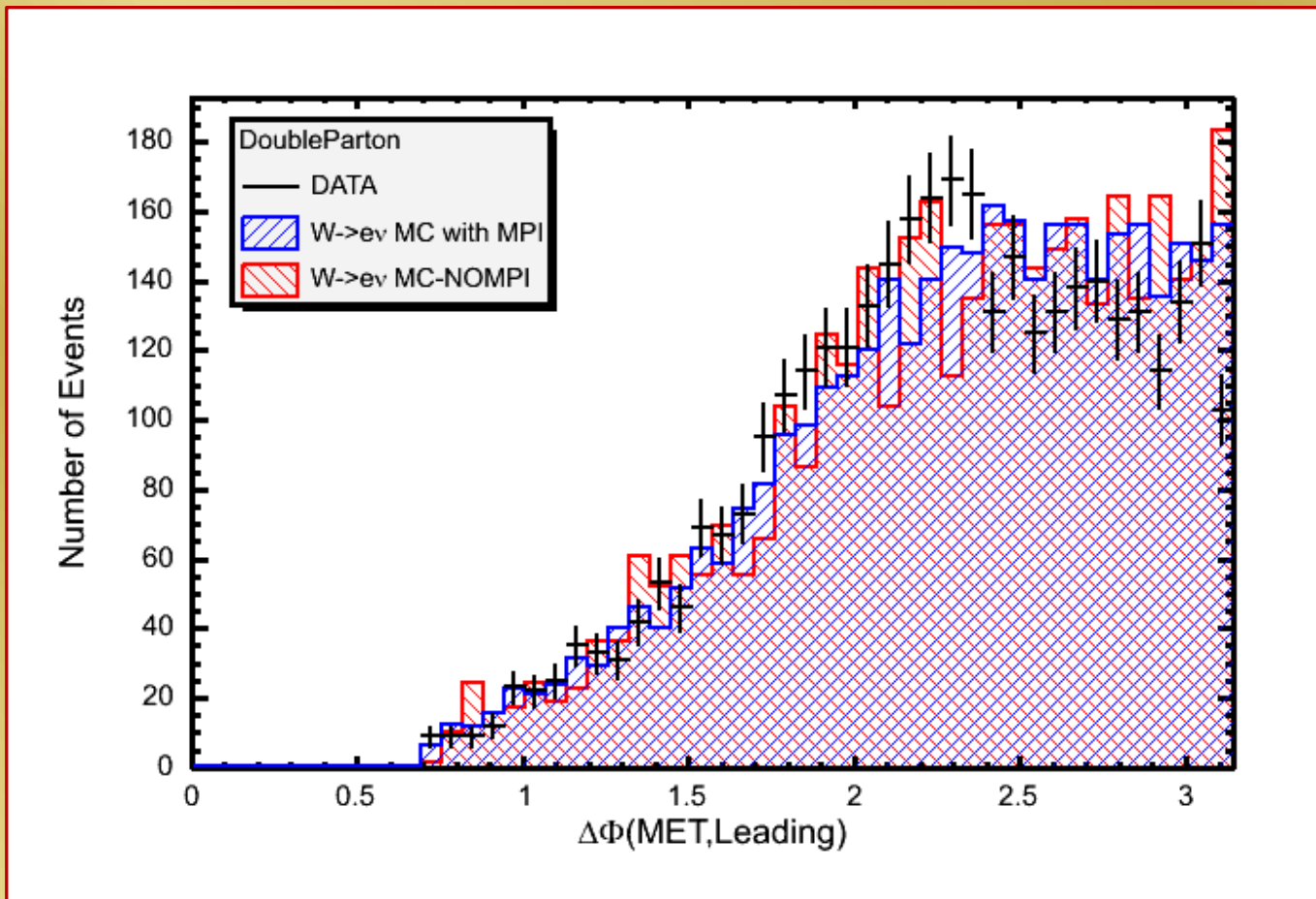
W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm



W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Seond}, \text{Leading}) < 0.04$ cm



W+ONLY-TWO-JETS/

$\Delta\phi(\text{Electron}, \text{MET}) < 2.5 / \Delta Z(\text{Electron}, \text{Leading}) < 0.04$
AND $\Delta Z(\text{Electron}, \text{Second}) < 0.04$ AND
 $\Delta Z(\text{Second}, \text{Leading}) < 0.04$ cm

