

W TRANSVERSE MASS [50,70] GEV

Varsha ramakrishnan



Tight/W/MET Cuts

2

- 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 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, MET>30 GeV, Transverse Mass>50 GeV
- Atleast TWO Jets (as selected above)
- Above Leading/.Second Jet need to have atleast TWO TRACKS in them

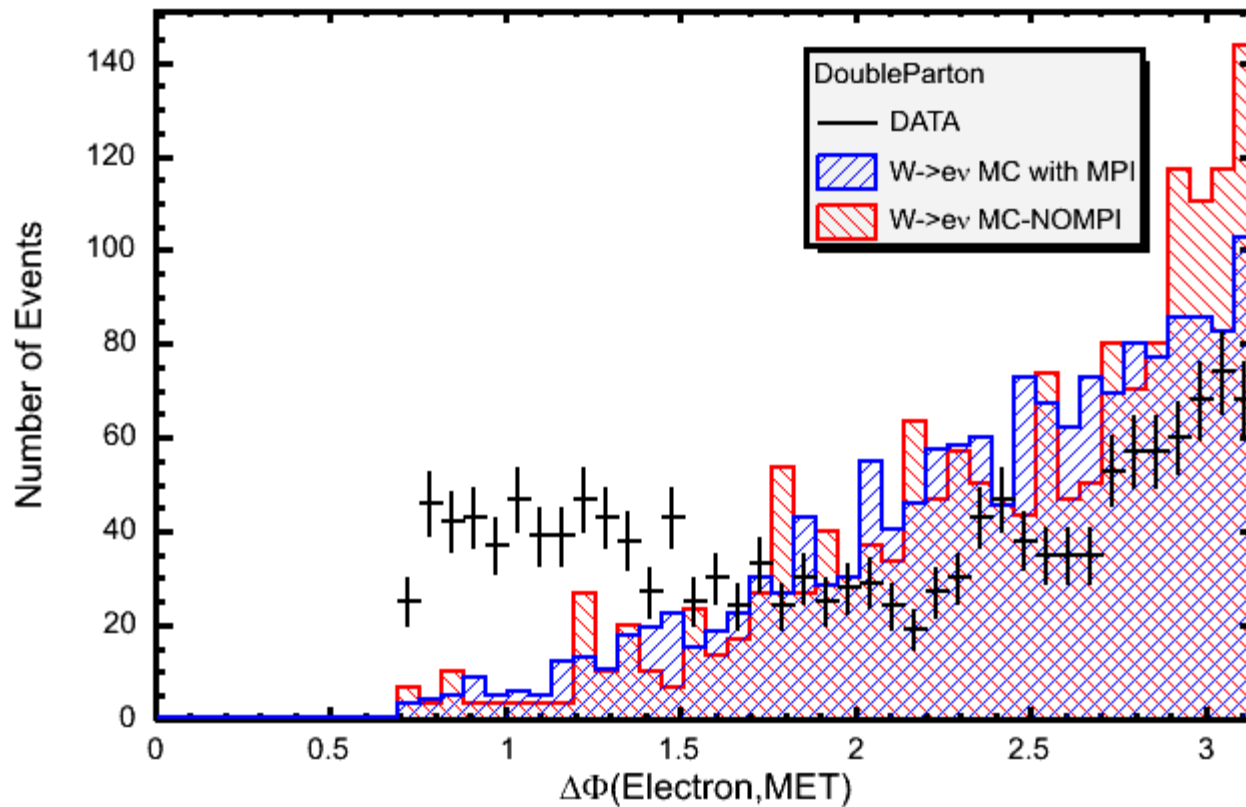
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

3



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

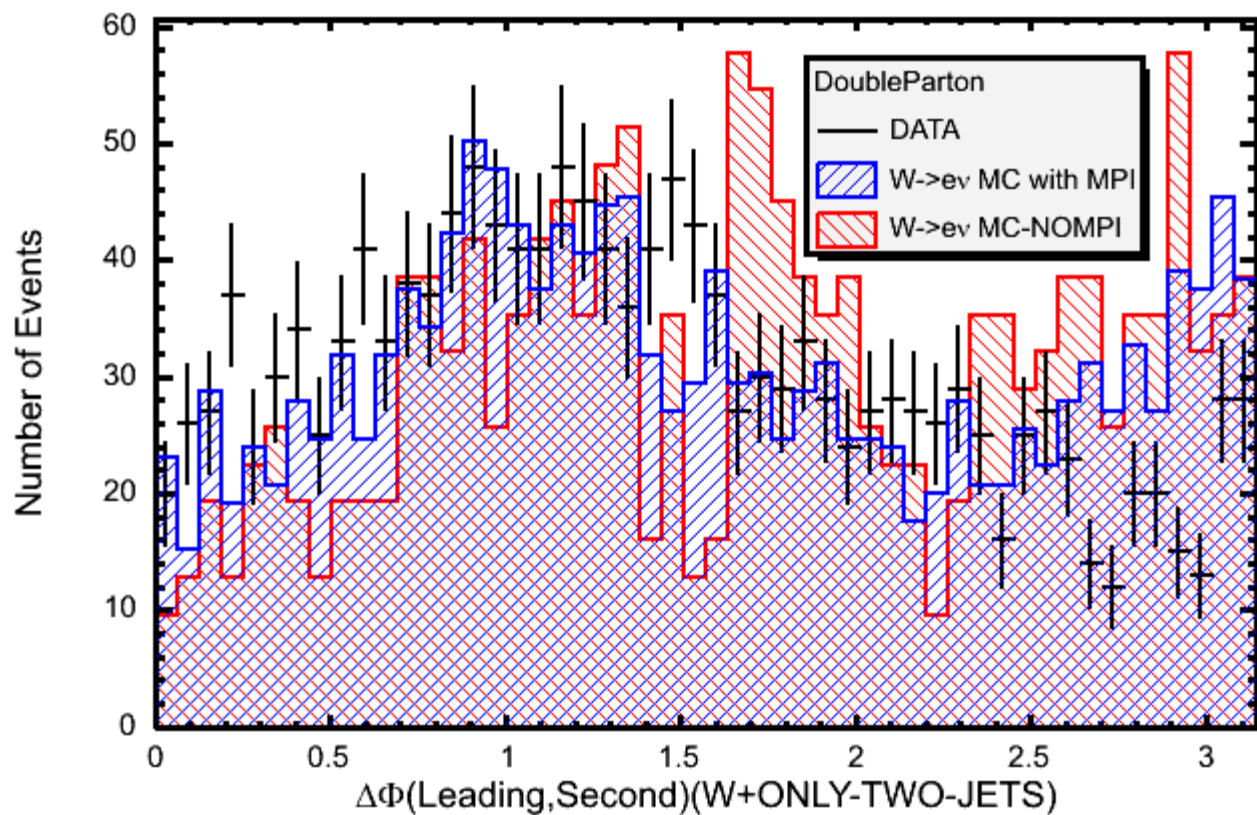
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

4



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

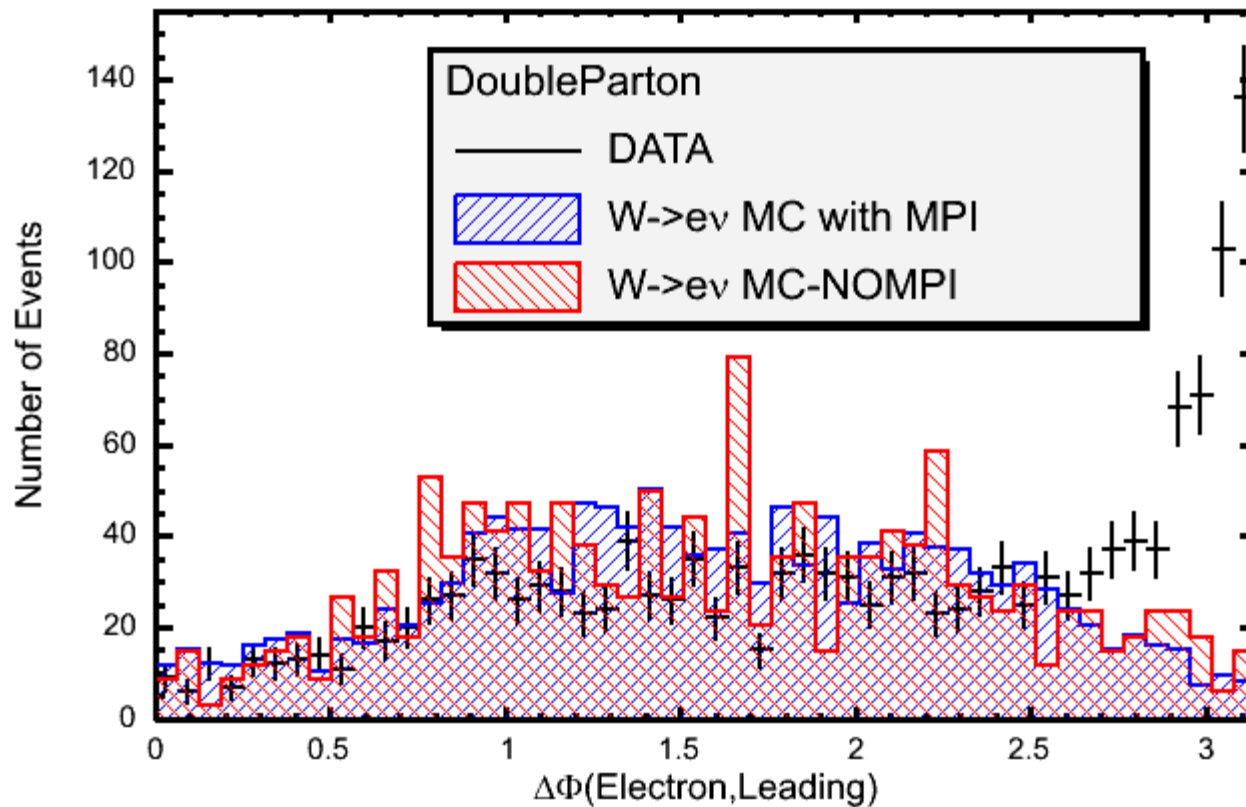
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

5



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

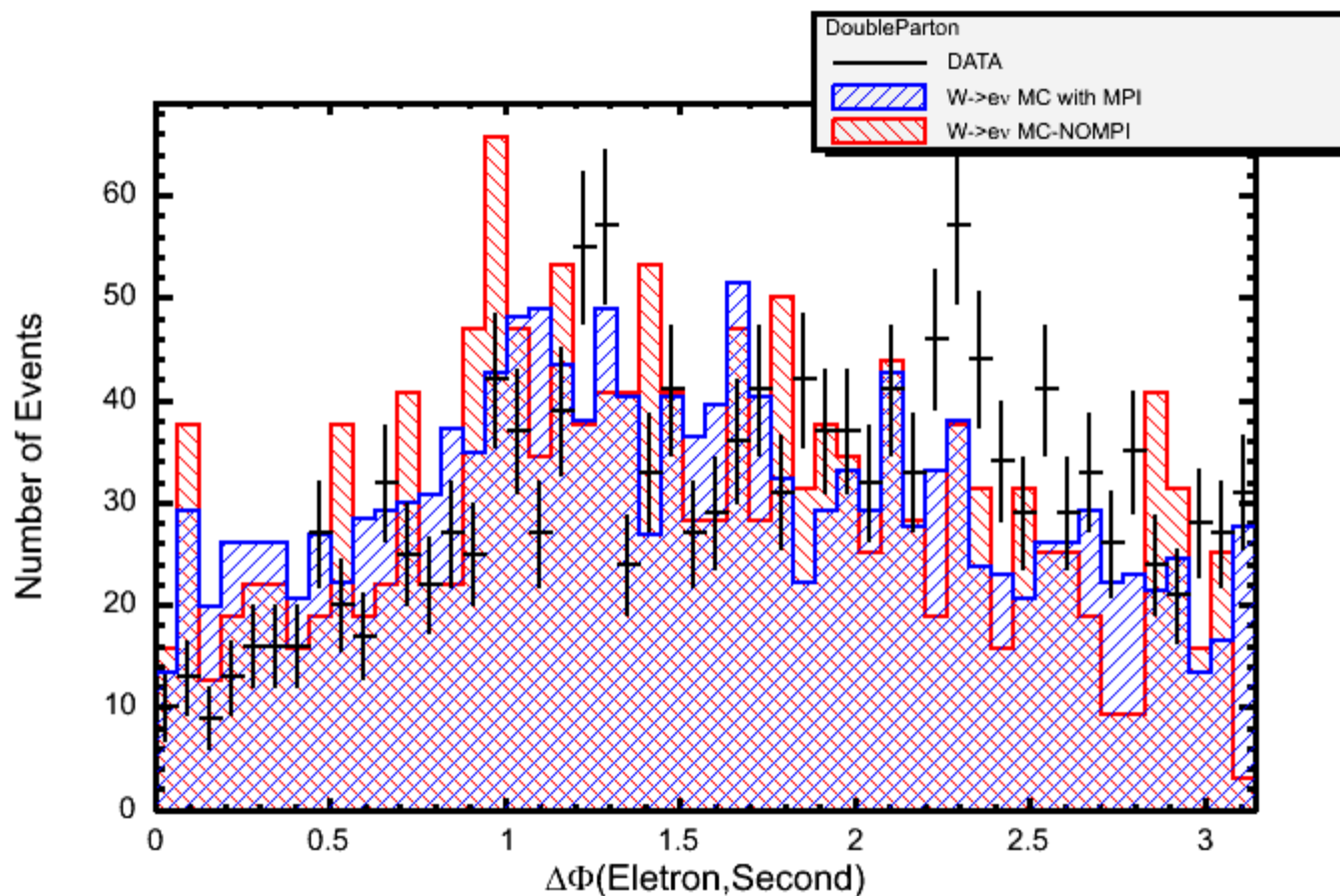
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

6



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

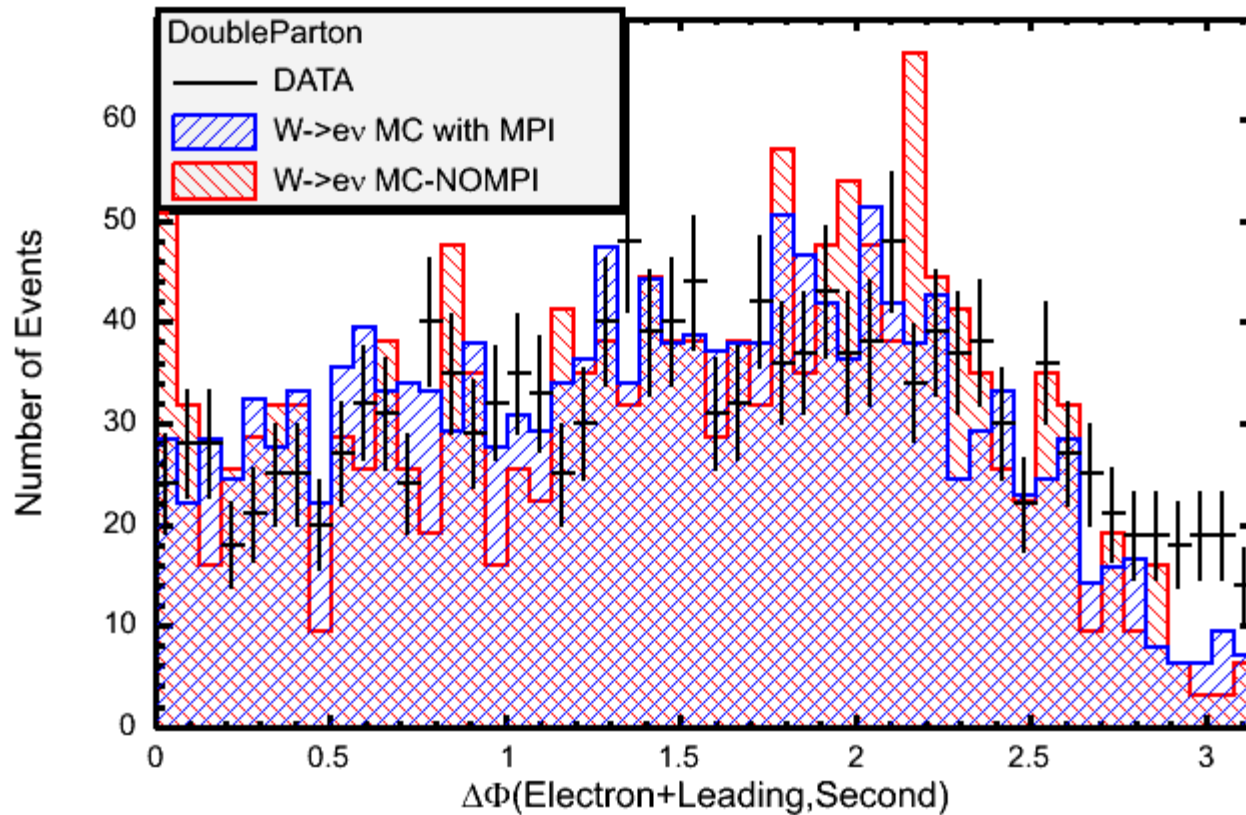
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

7



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

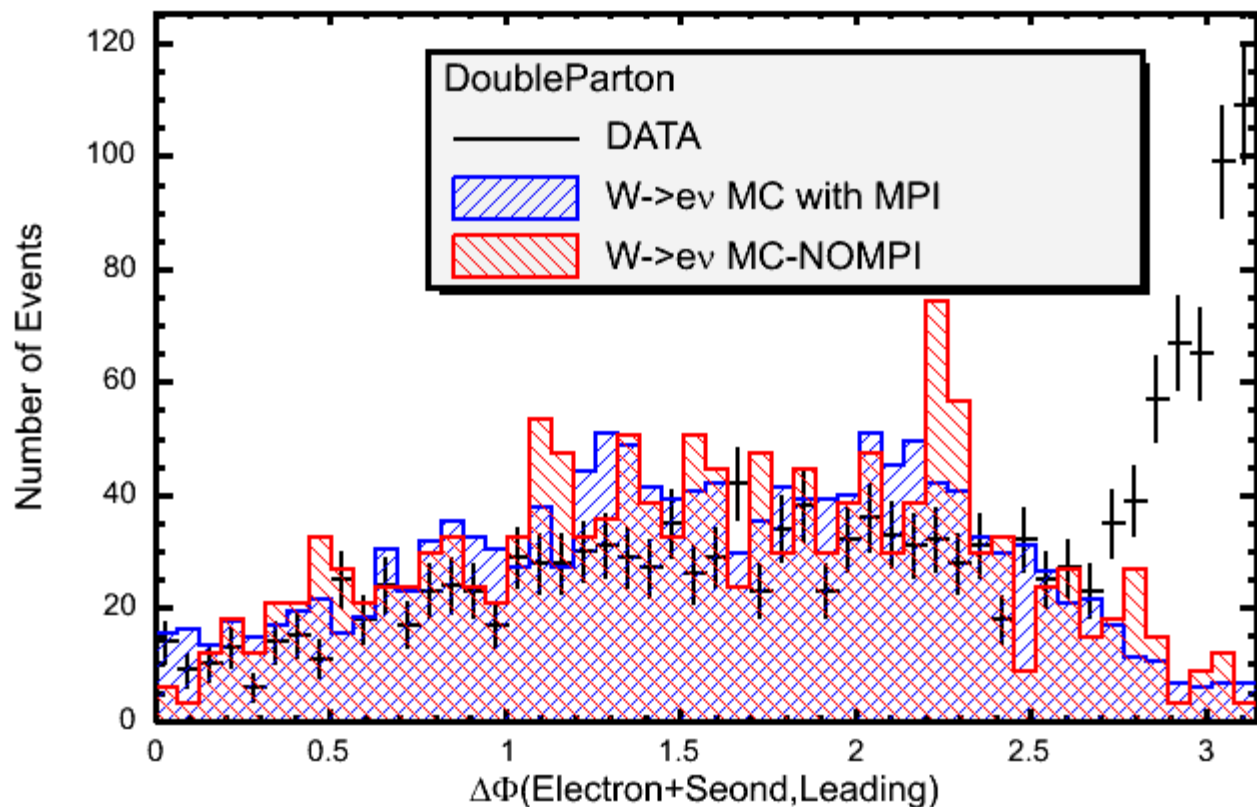
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

8



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

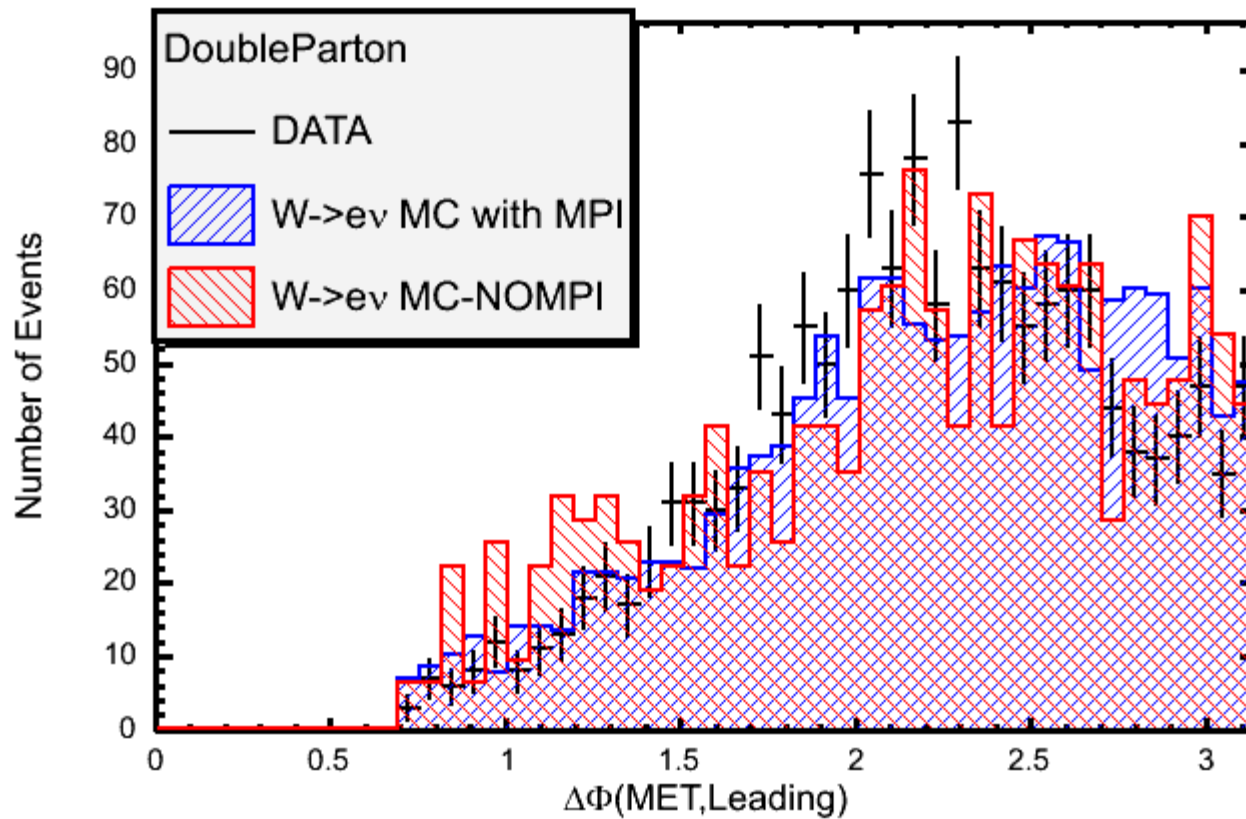
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

9



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

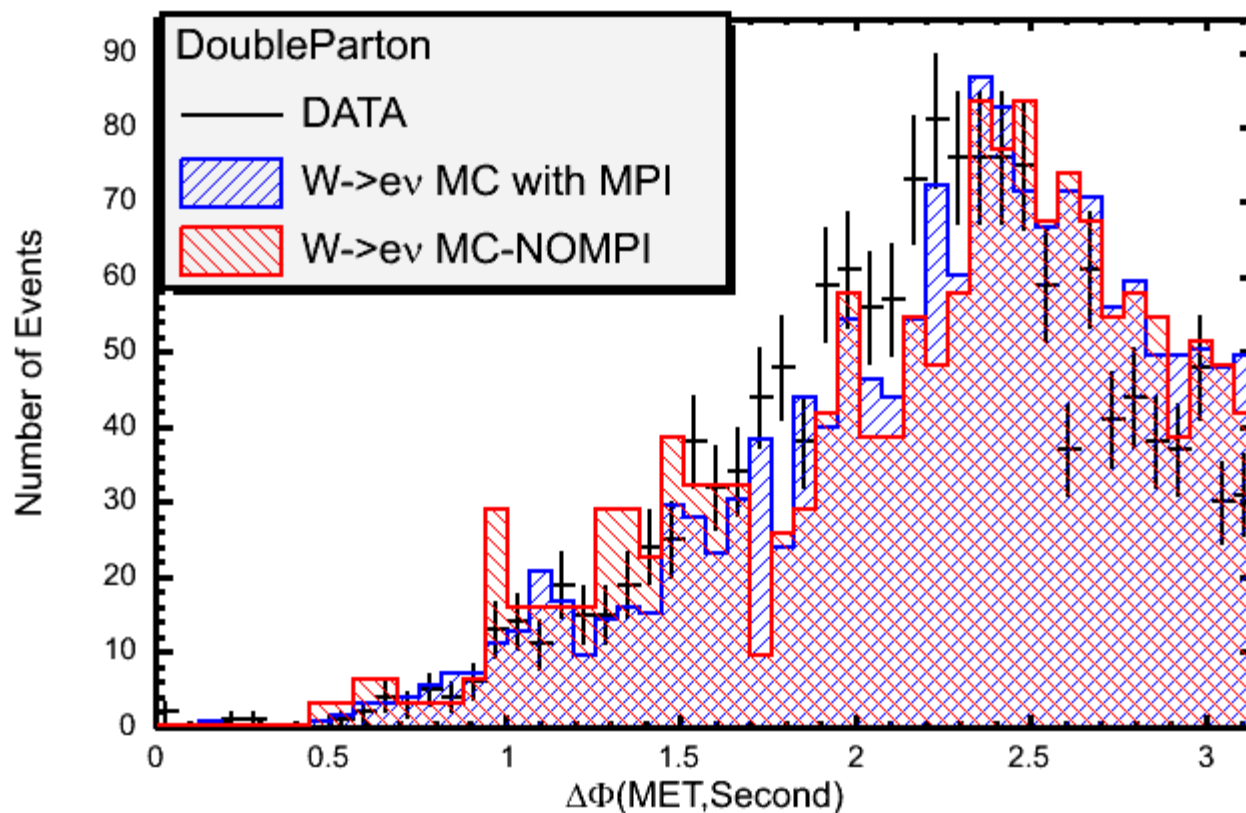
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron, Leading})| > 0.04$ and

$|\Delta Z(\text{Electron, Second})| > 0.04$ and

10

$|\Delta Z(\text{Leading, Second})| < 0.04$



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

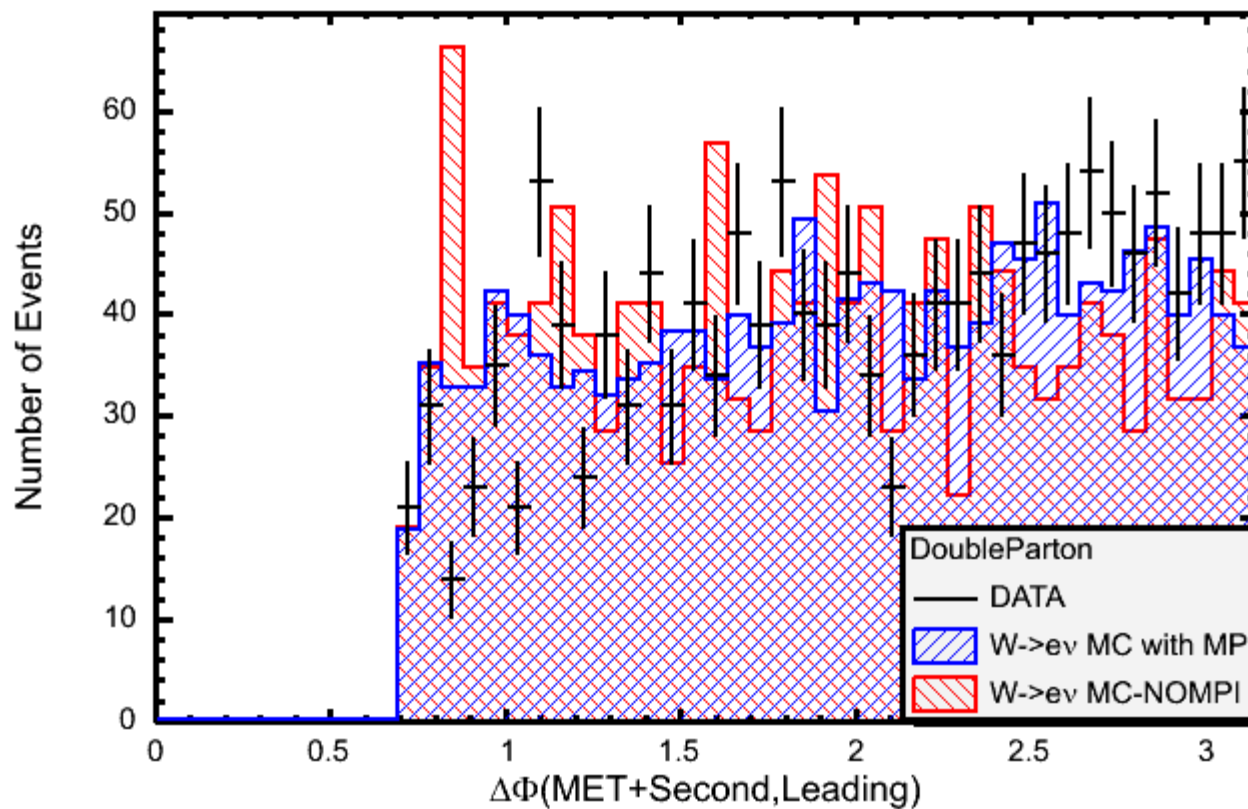
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

11

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

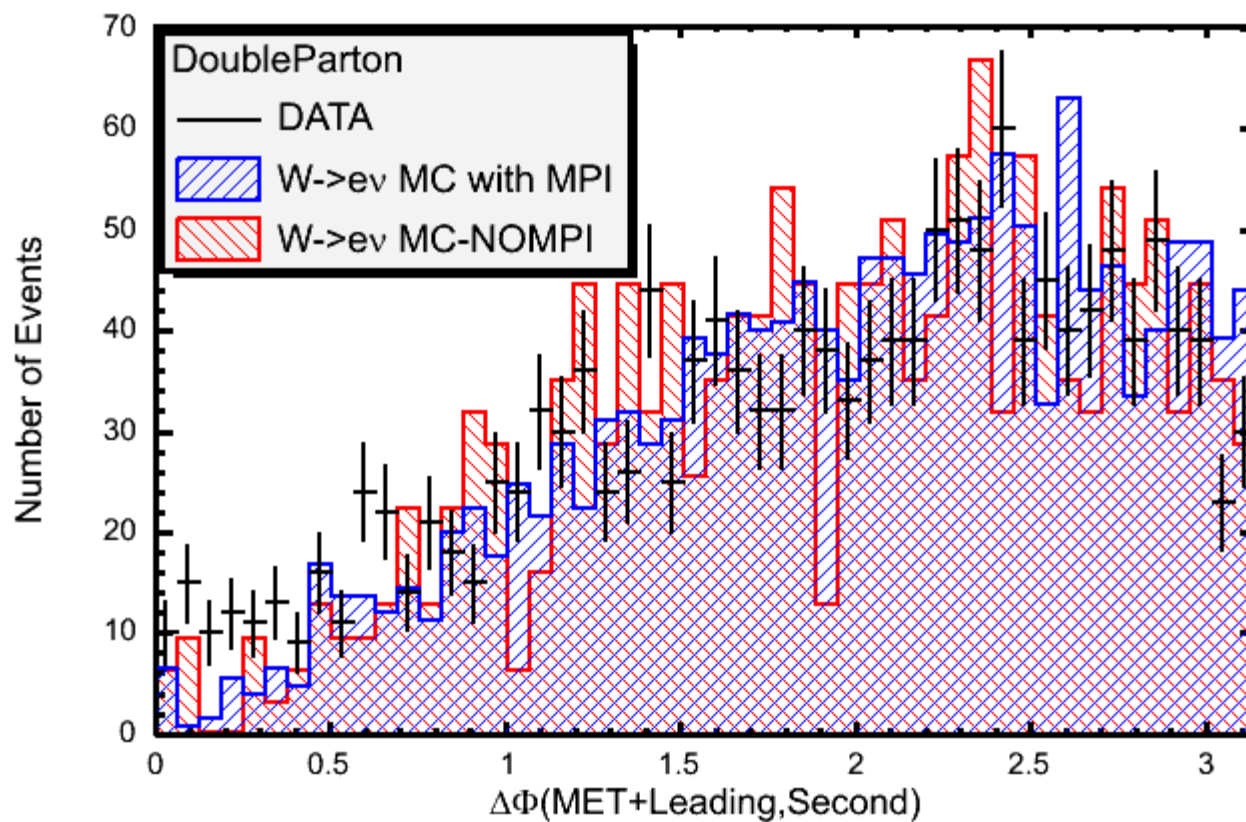
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

12



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

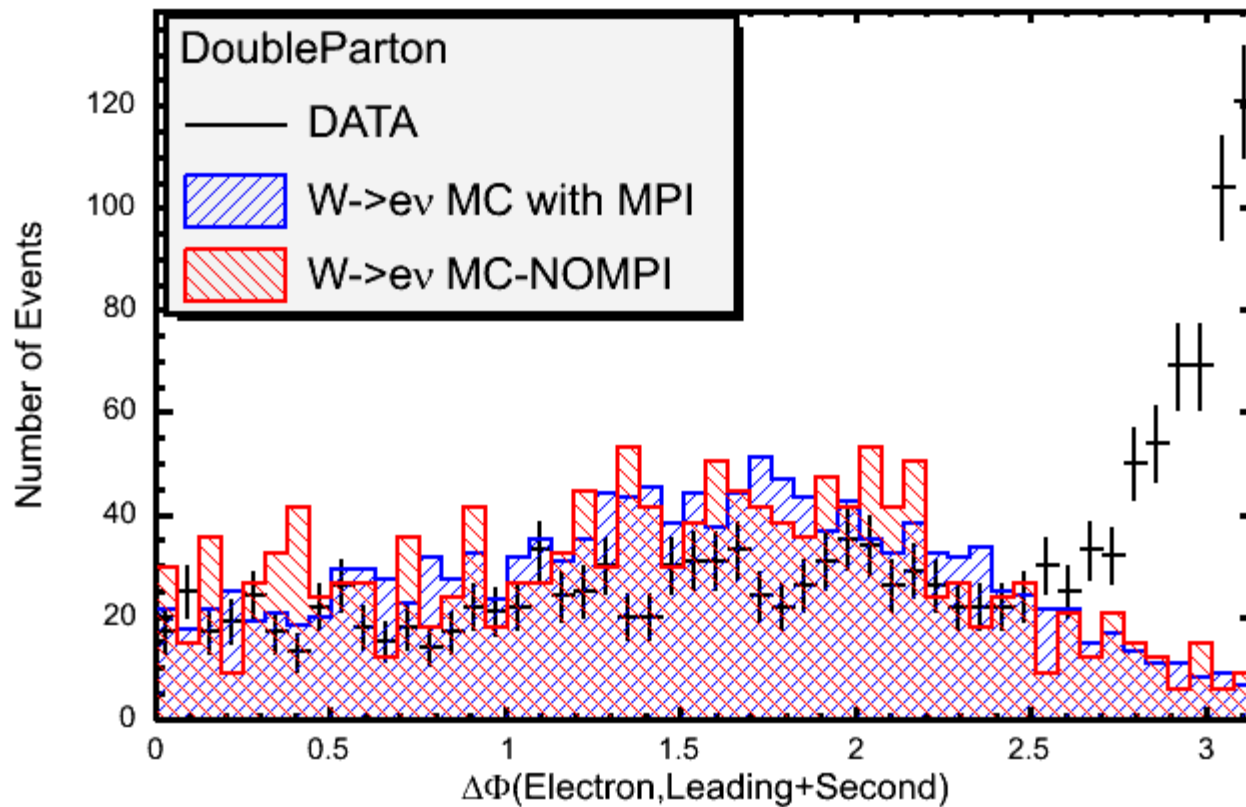
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

13



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

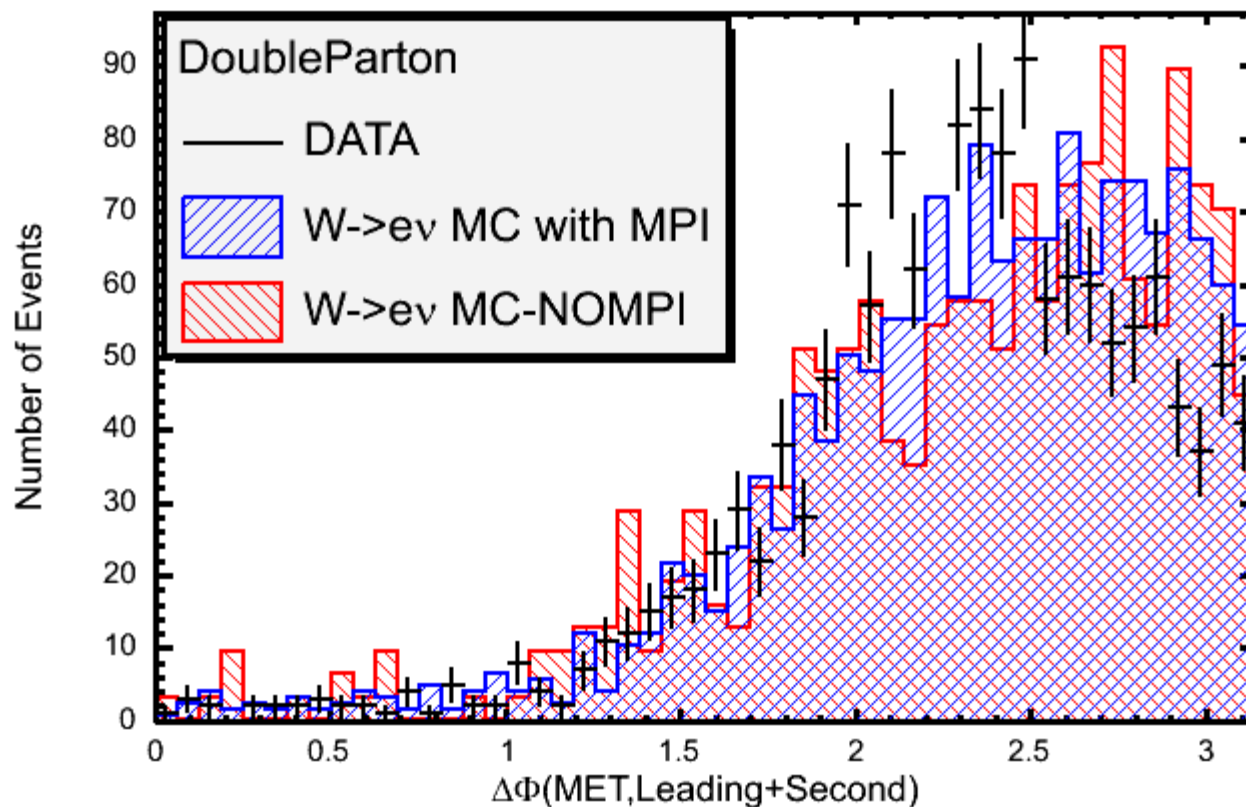
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

14



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

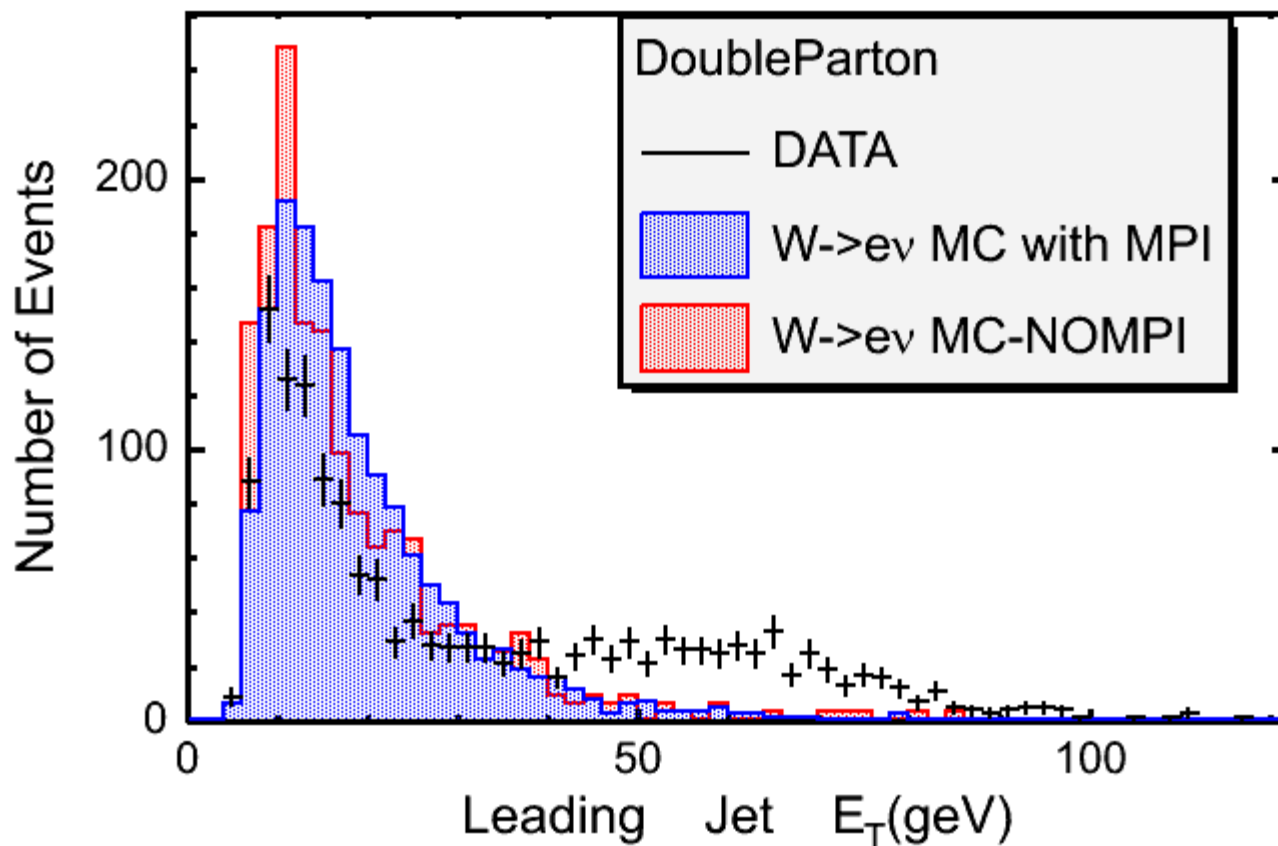
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

15



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

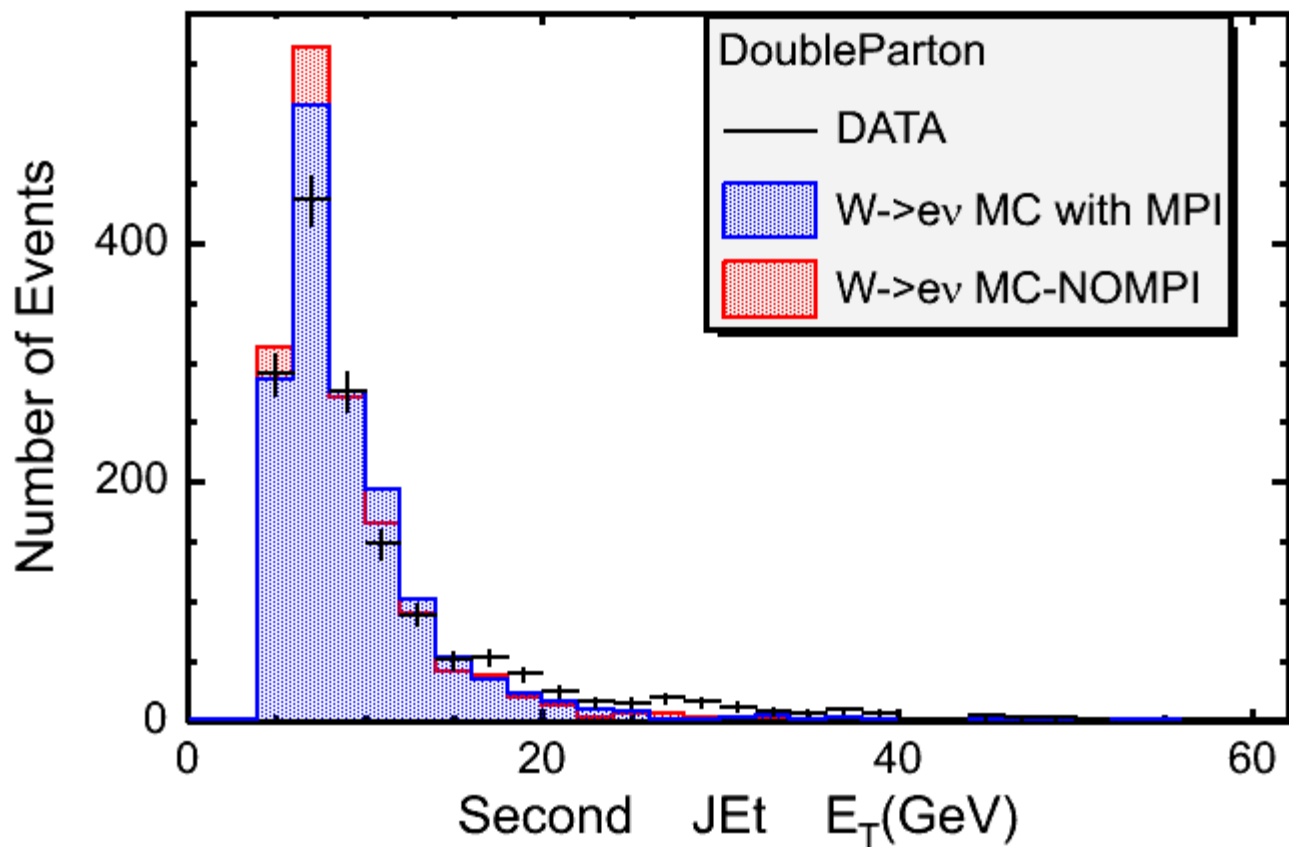
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

16



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

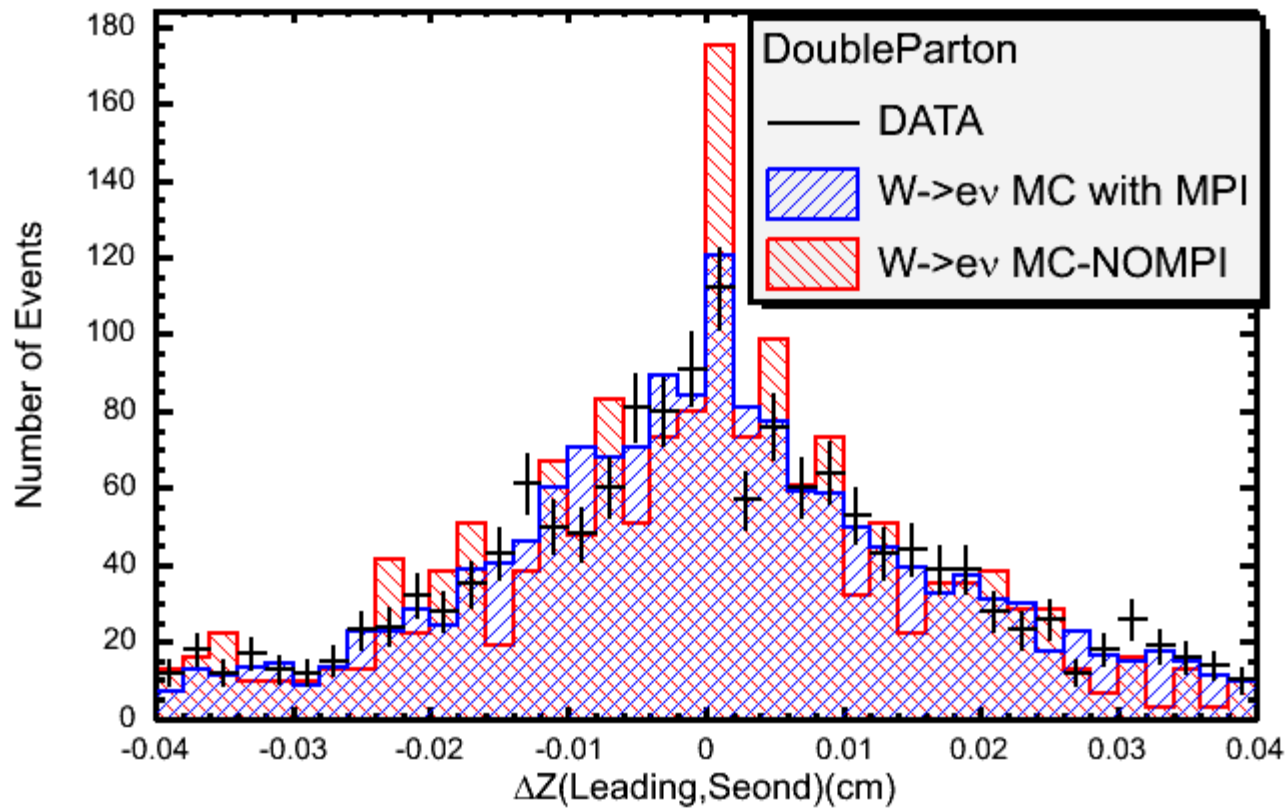
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

17



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

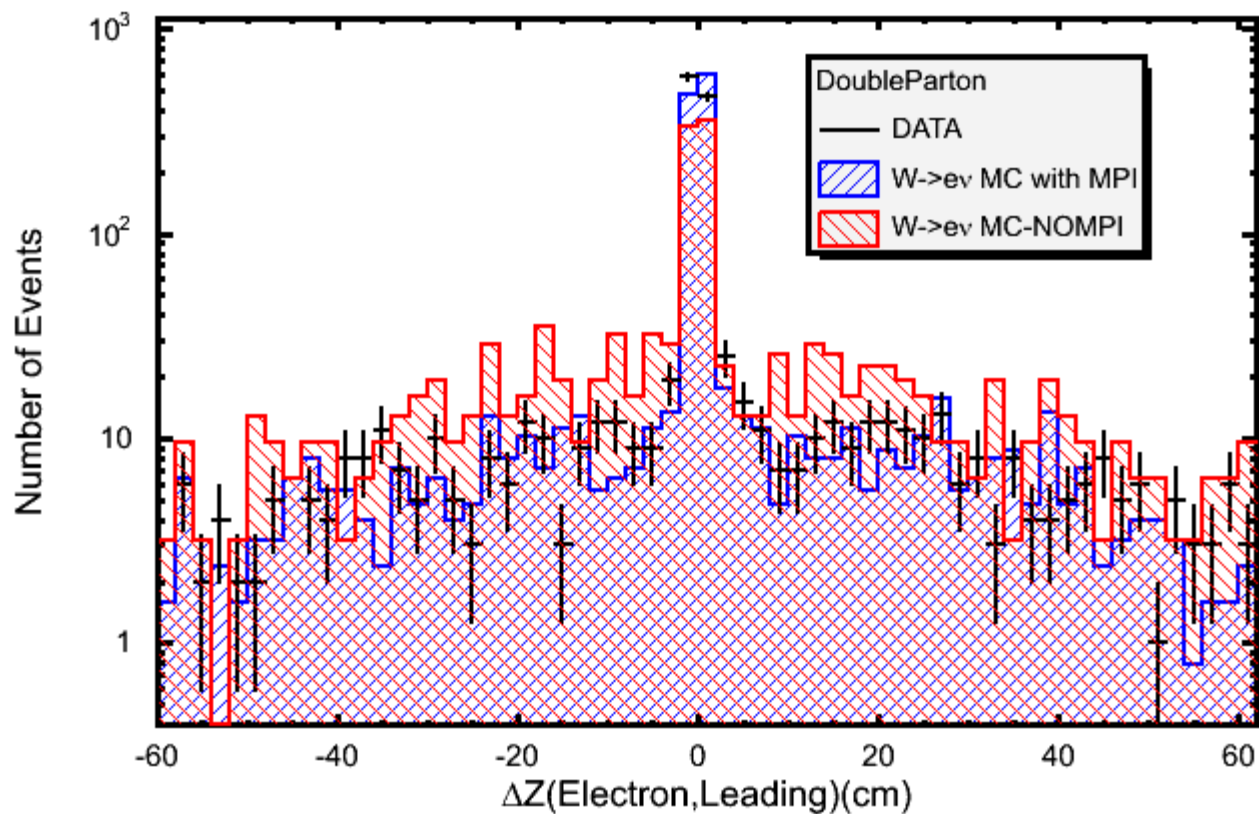
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

18



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

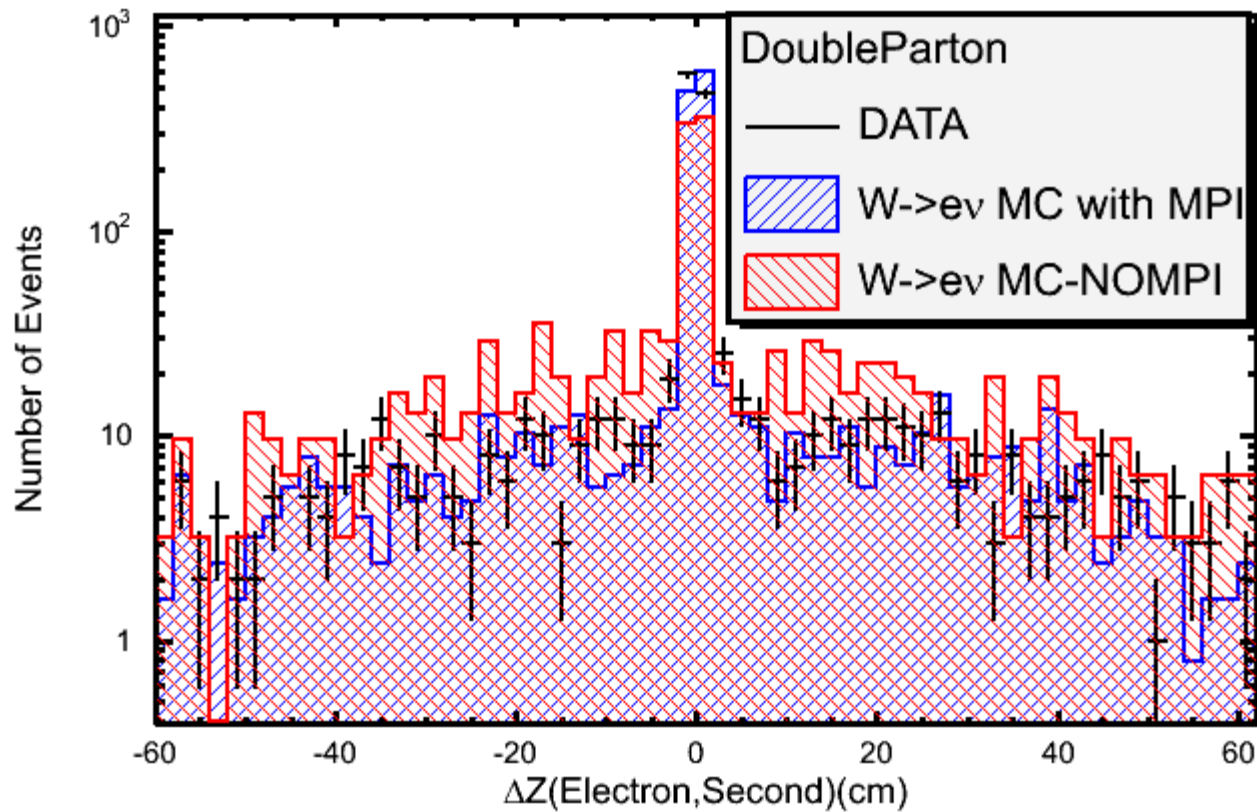
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

19



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

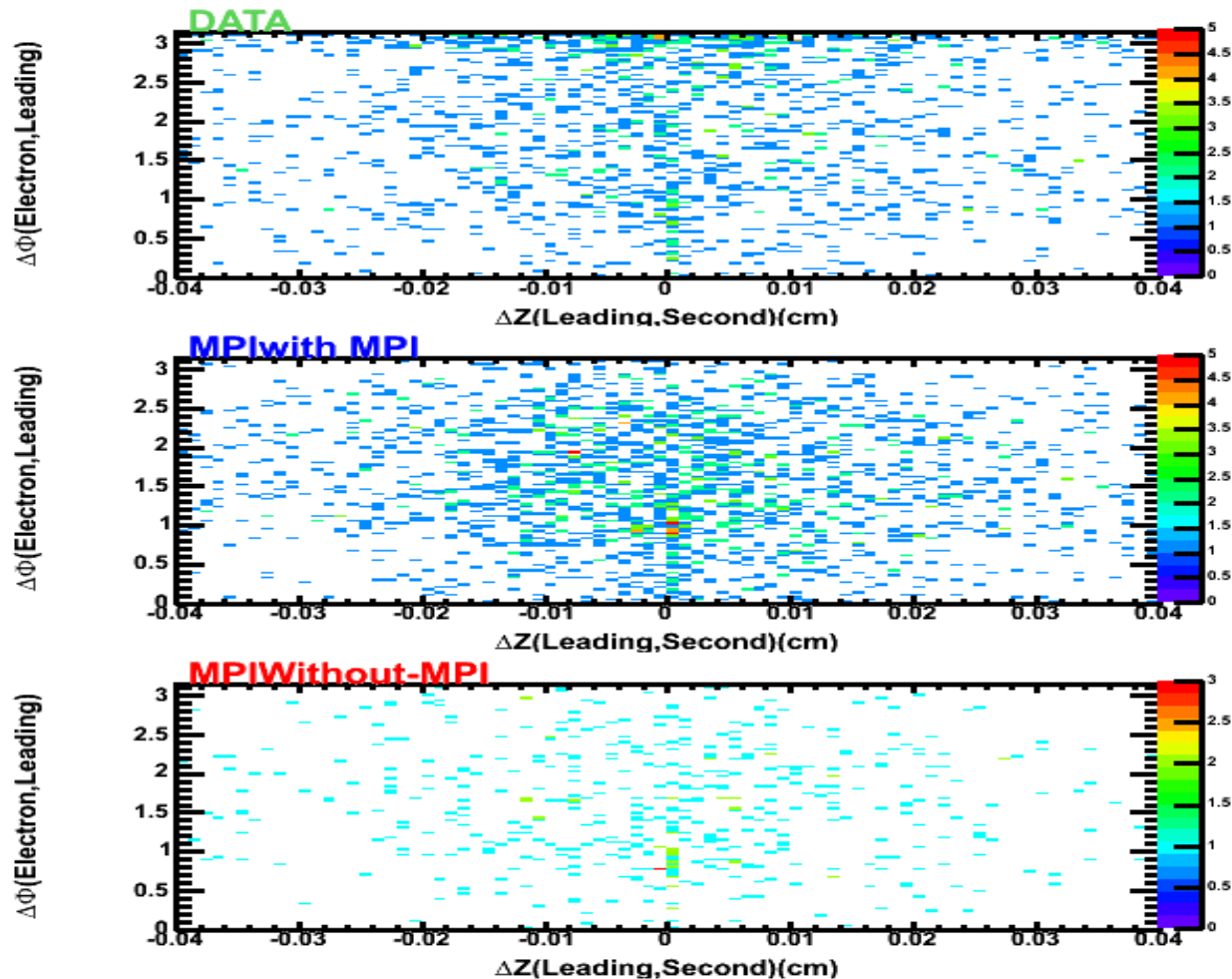
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron, Leading})| > 0.04$ and

$|\Delta Z(\text{Electron, Second})| > 0.04$ and

$|\Delta Z(\text{Leading, Second})| < 0.04$

20



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

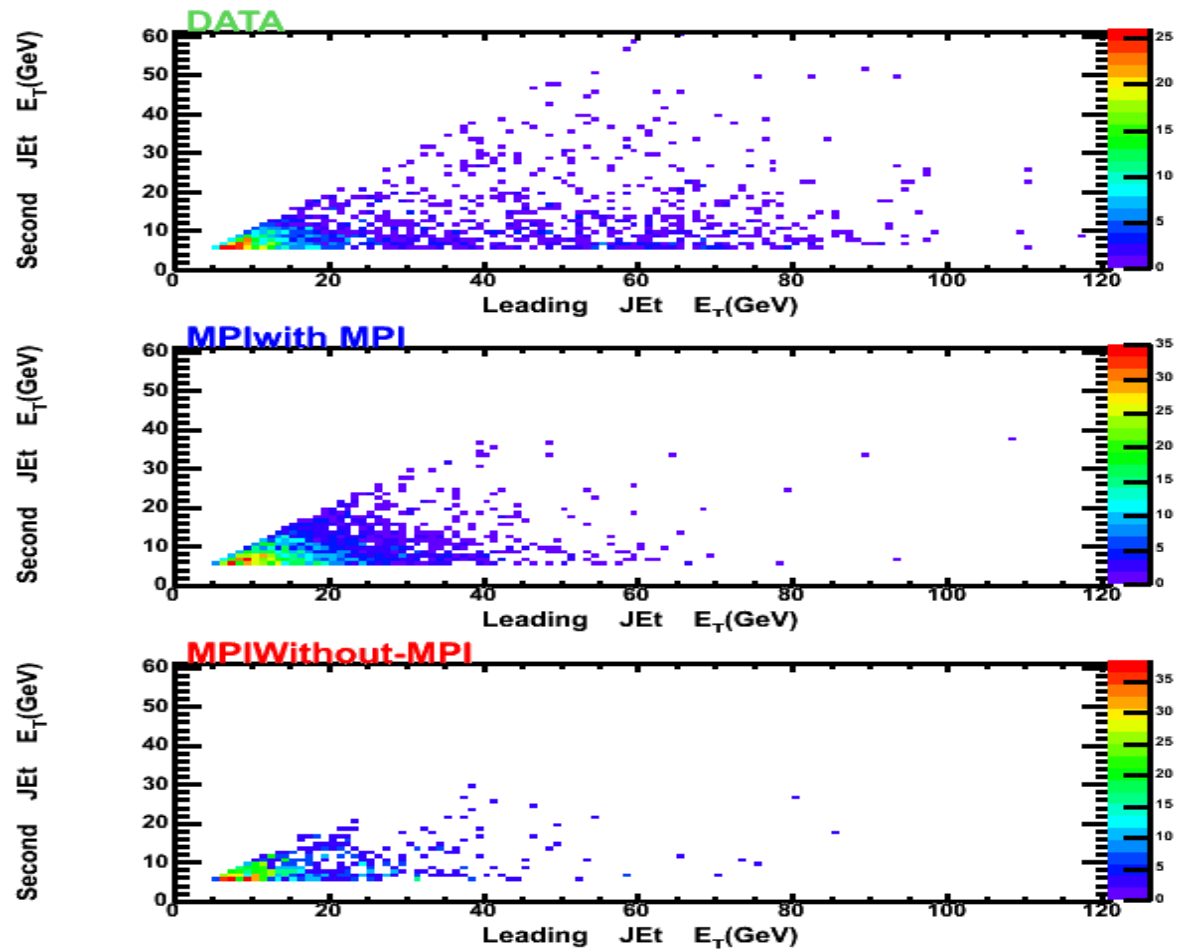
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

21



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

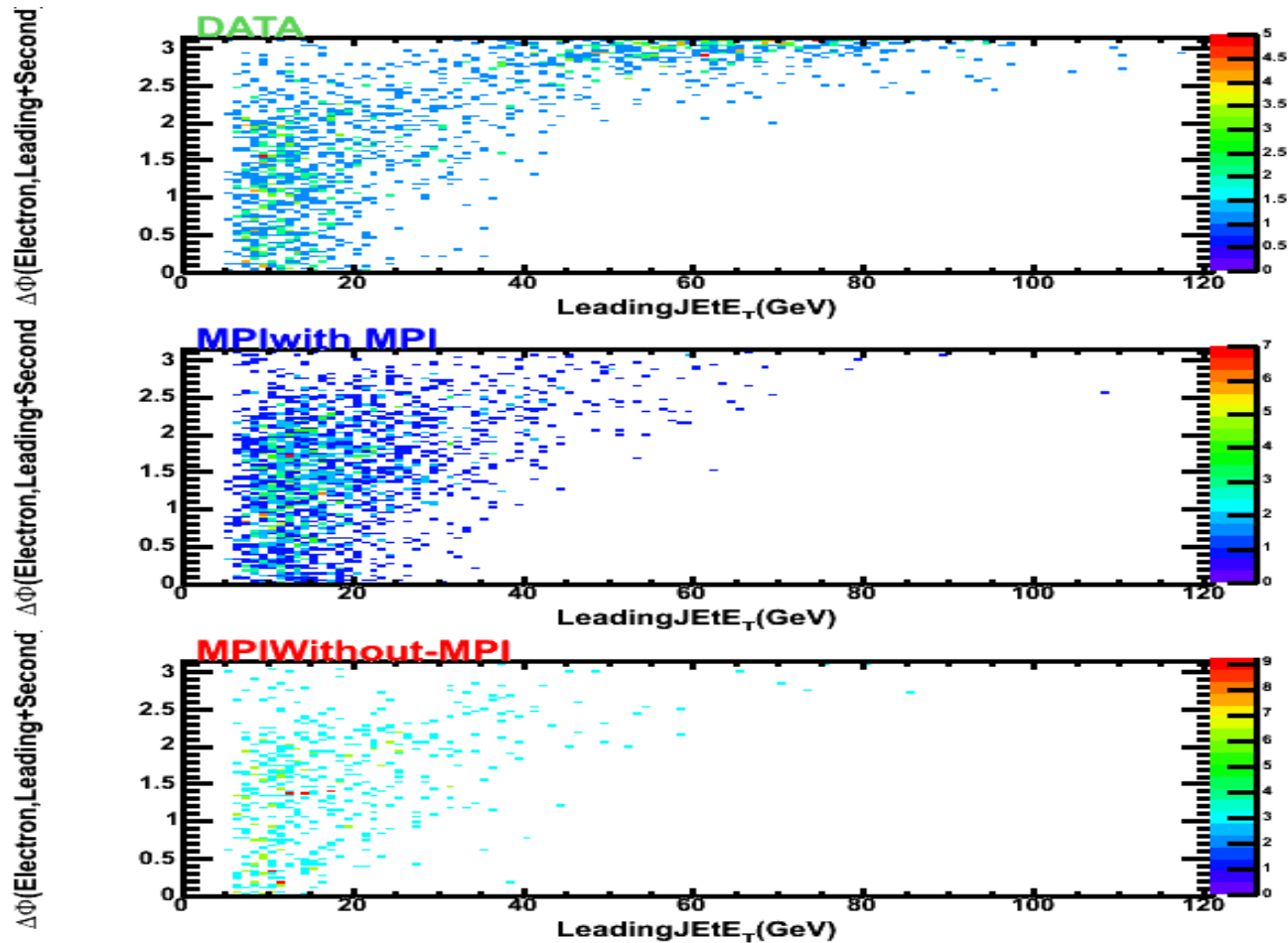
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

22



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

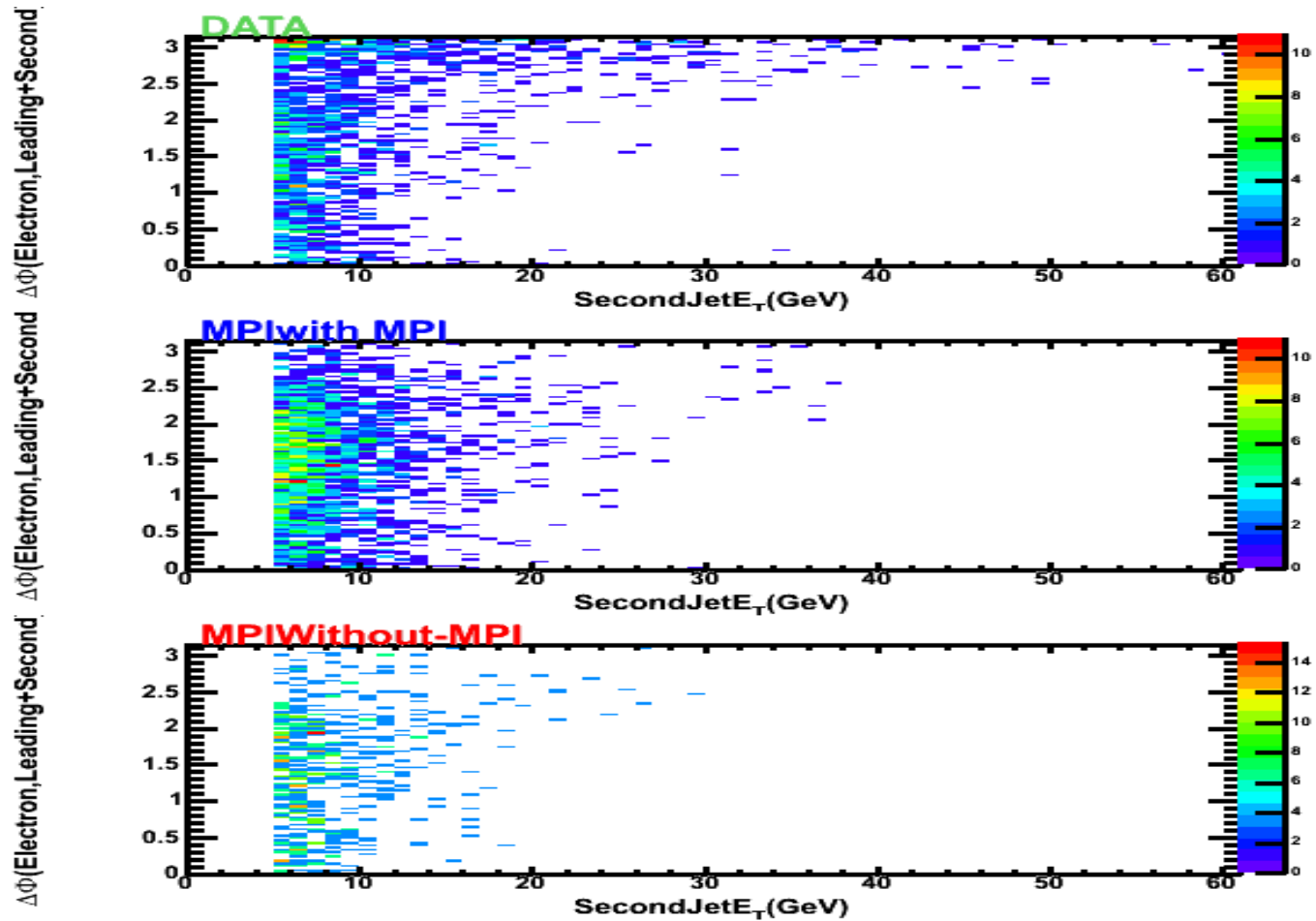
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

23



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

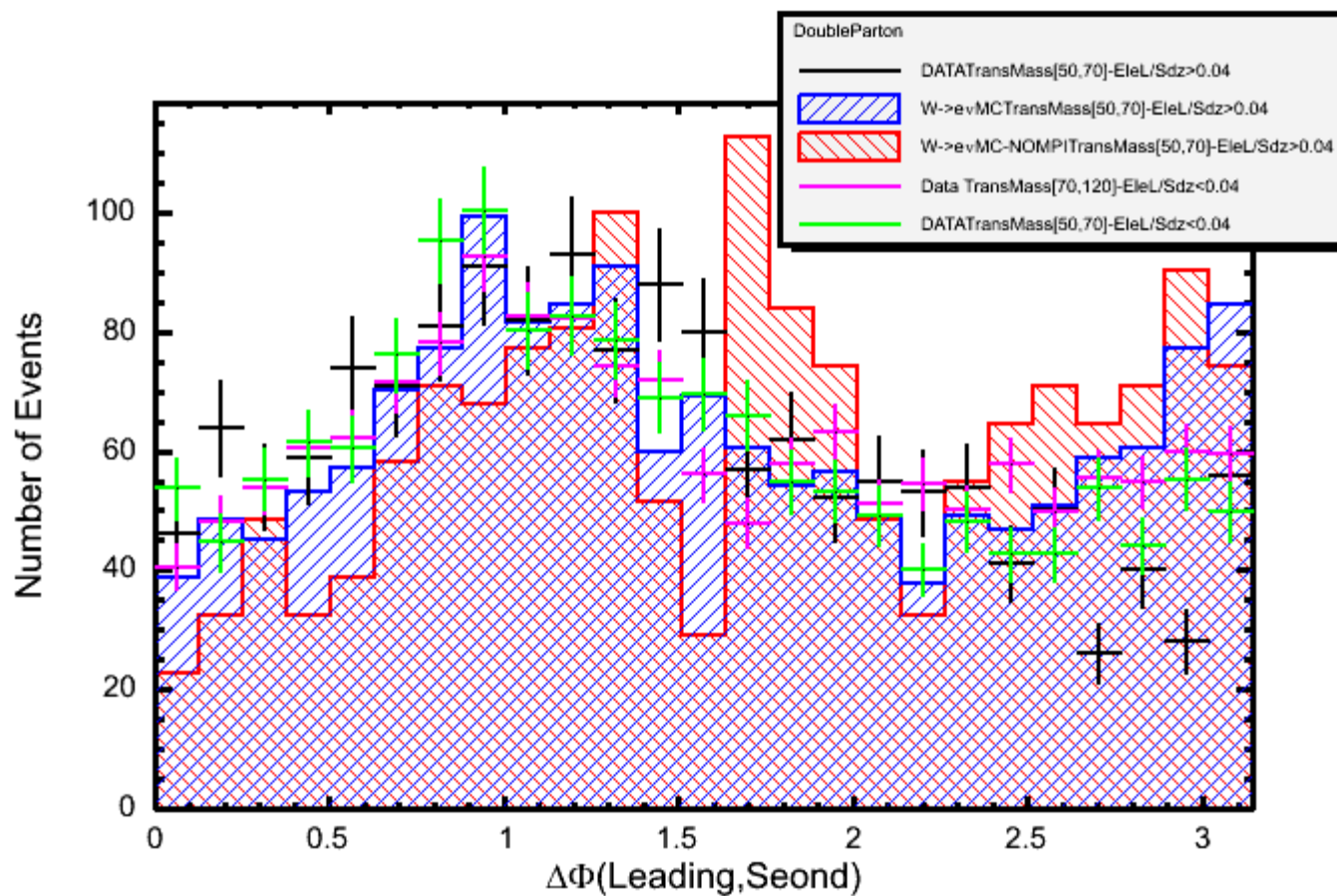
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

24



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

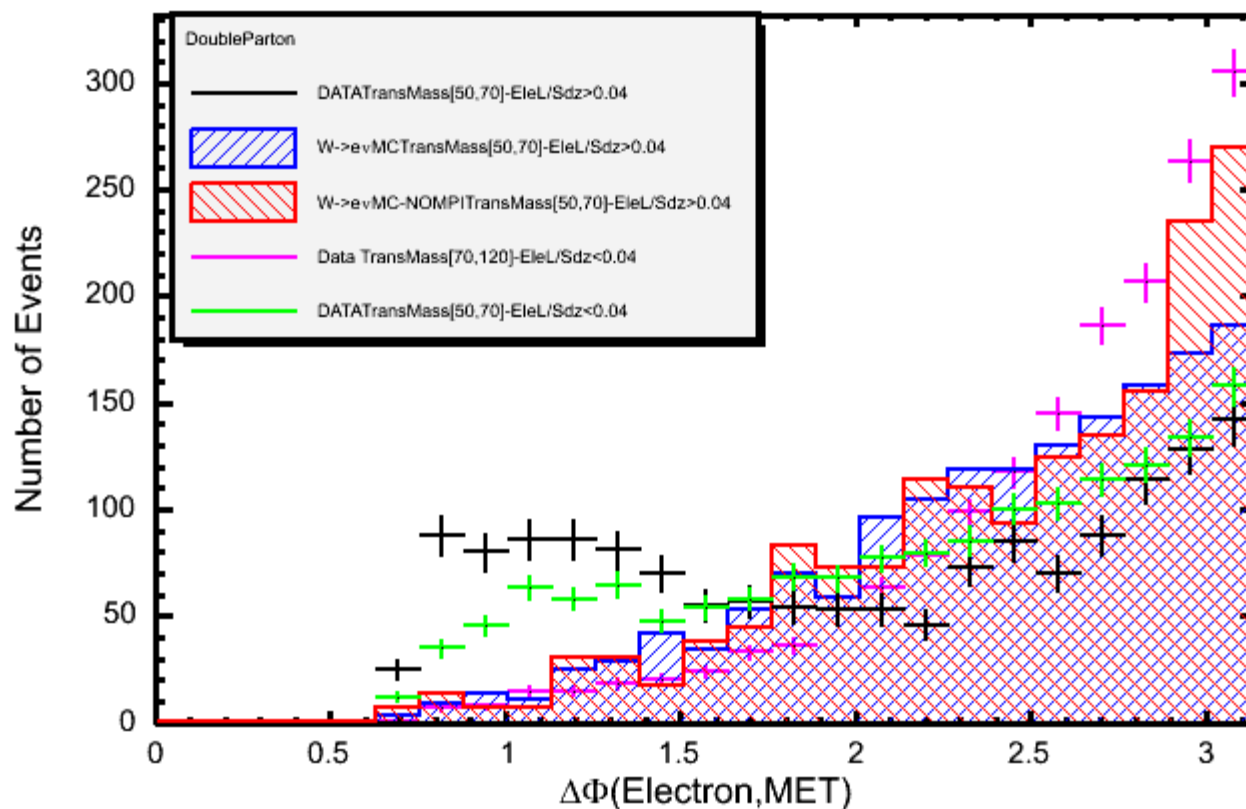
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

25



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

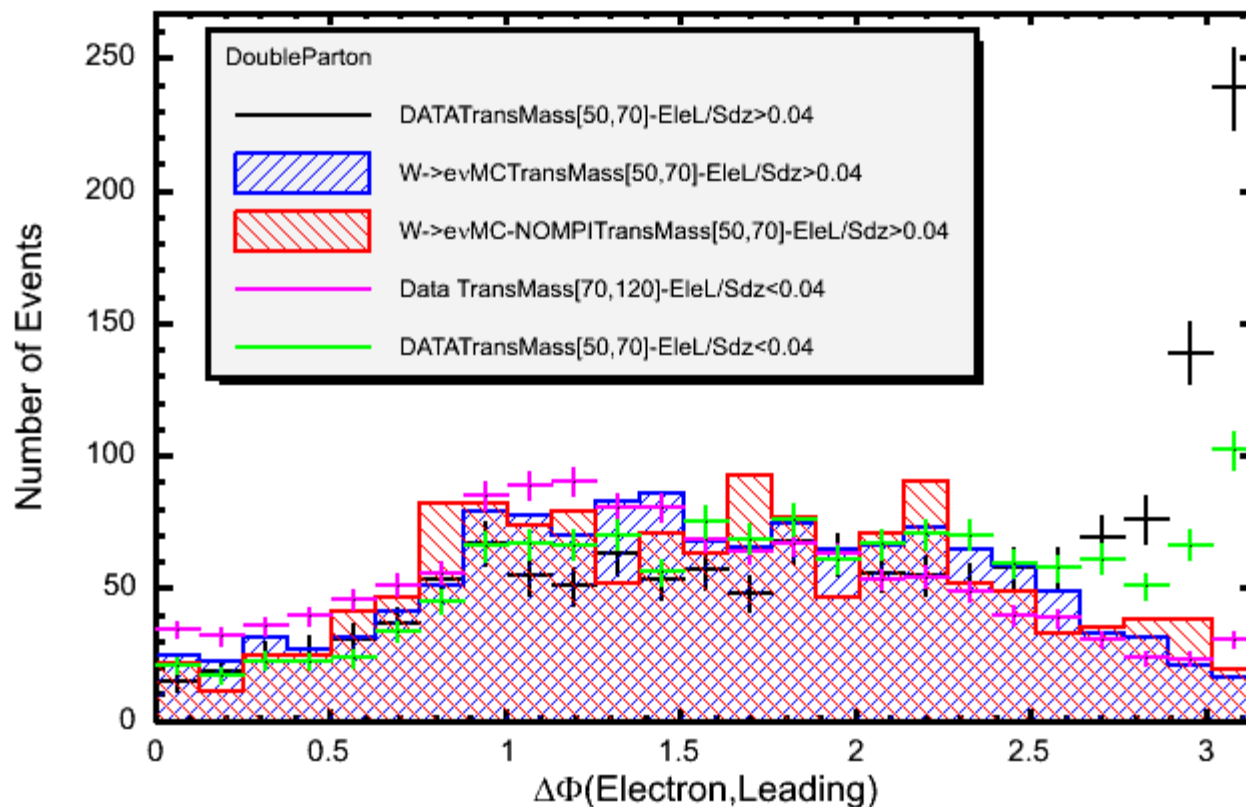
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

26



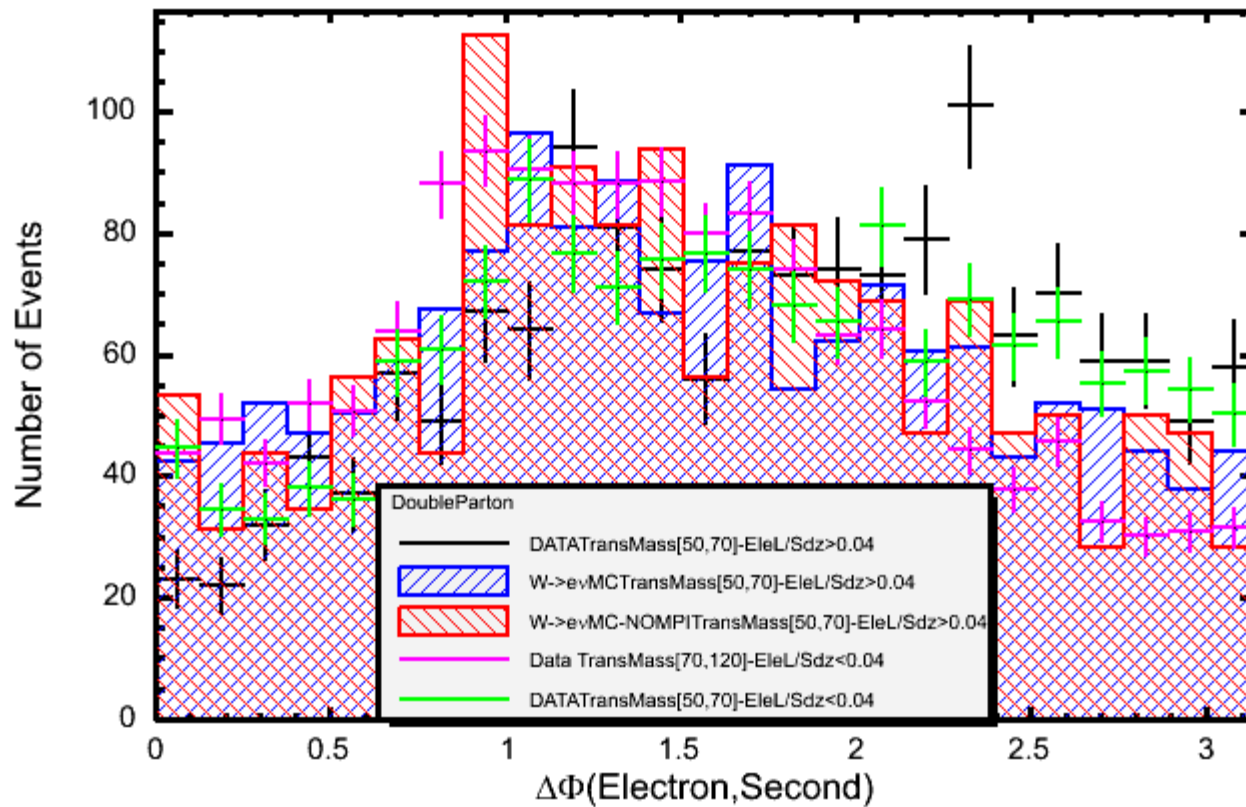
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

27



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

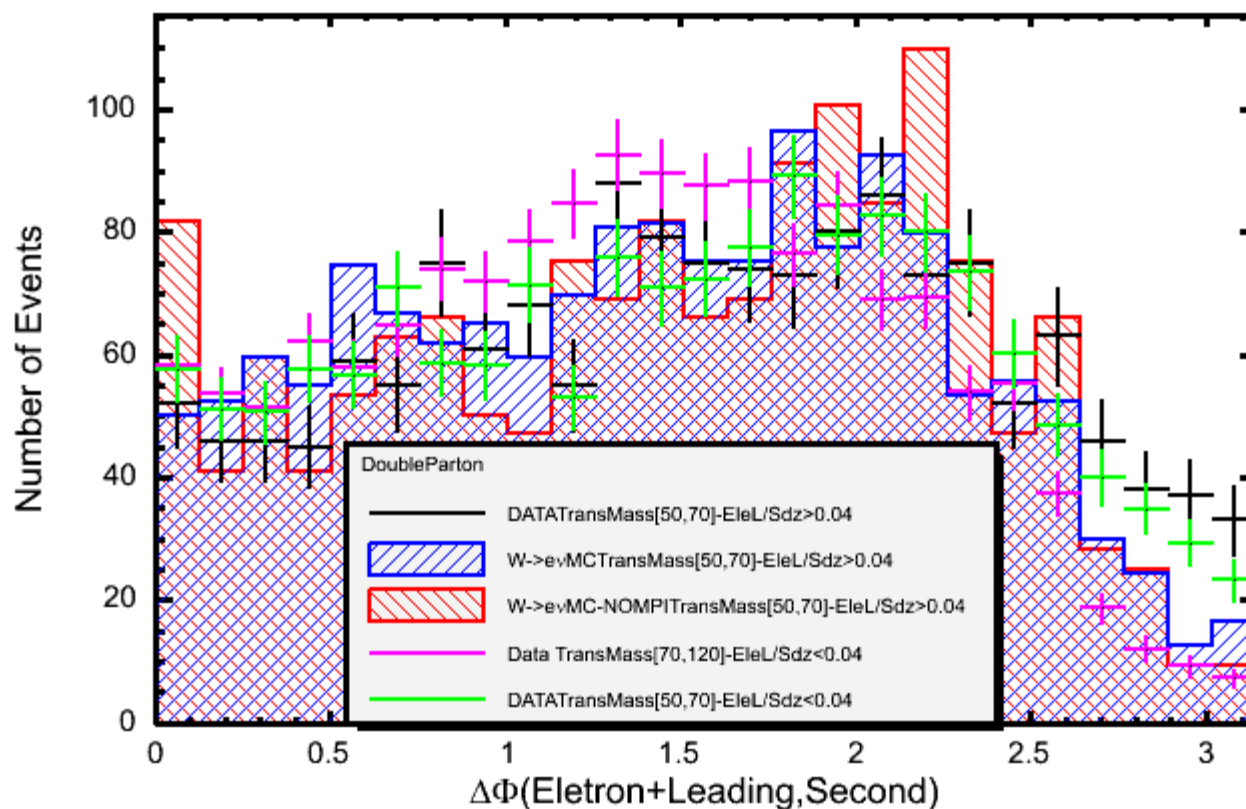
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

28



W-TRANSVERSE-MASS-[50,70]GeV

11/14/2011

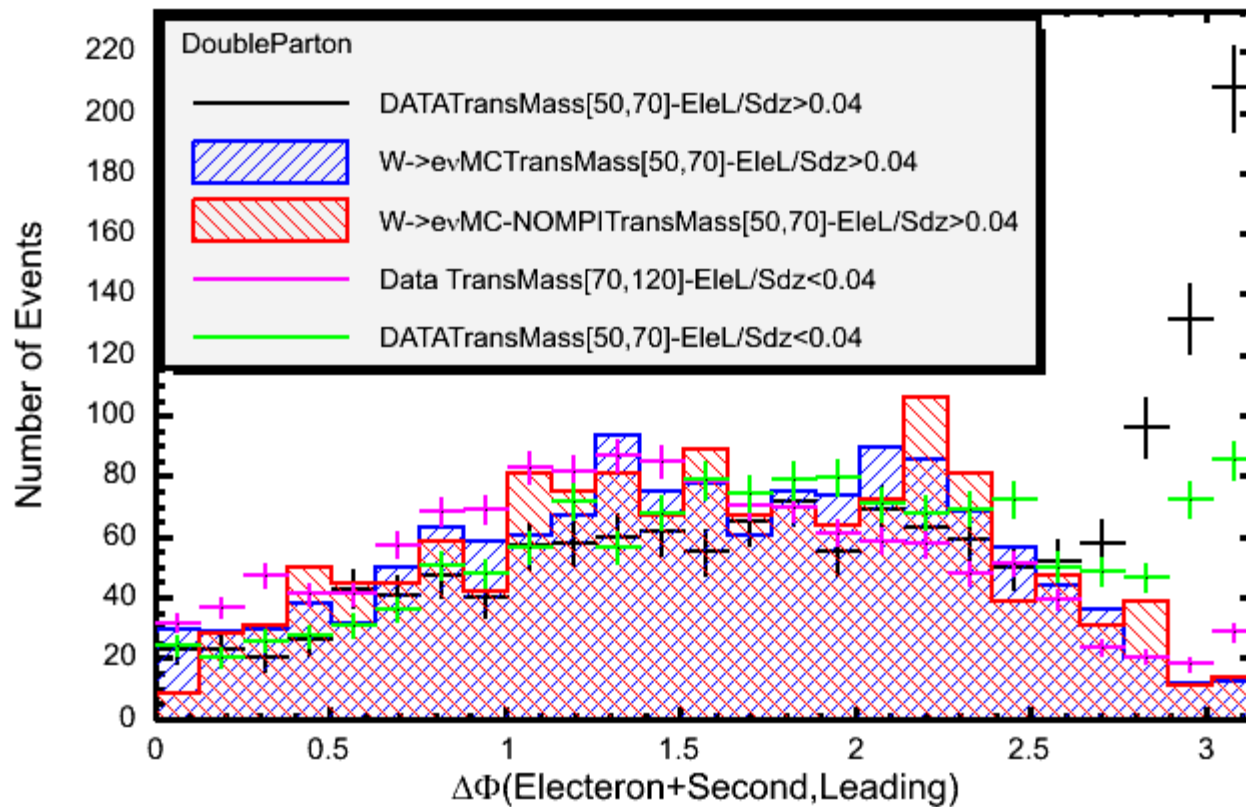
W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

29



W+ONLY-TWO-JETS

$|\Delta Z(\text{Electron}, \text{Leading})| > 0.04$ and

$|\Delta Z(\text{Electron}, \text{Second})| > 0.04$ and

$|\Delta Z(\text{Leading}, \text{Second})| < 0.04$

30

