

JET Z VERTEX

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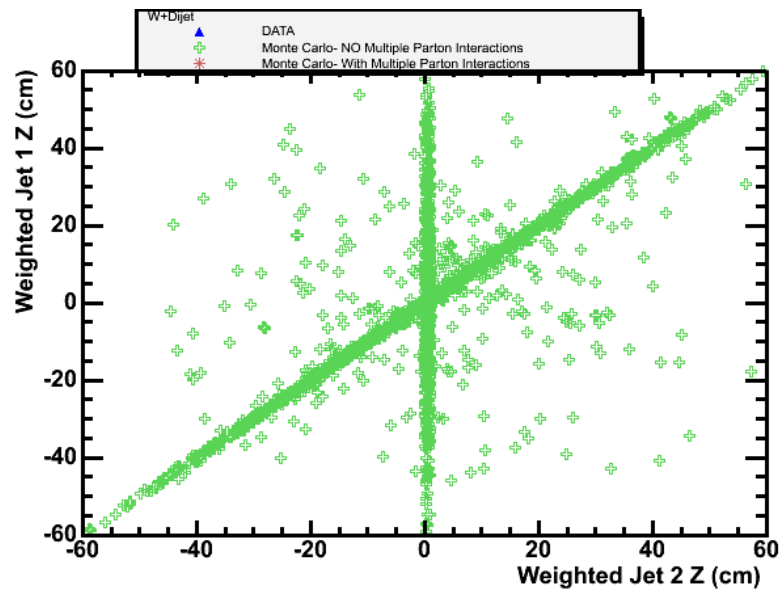
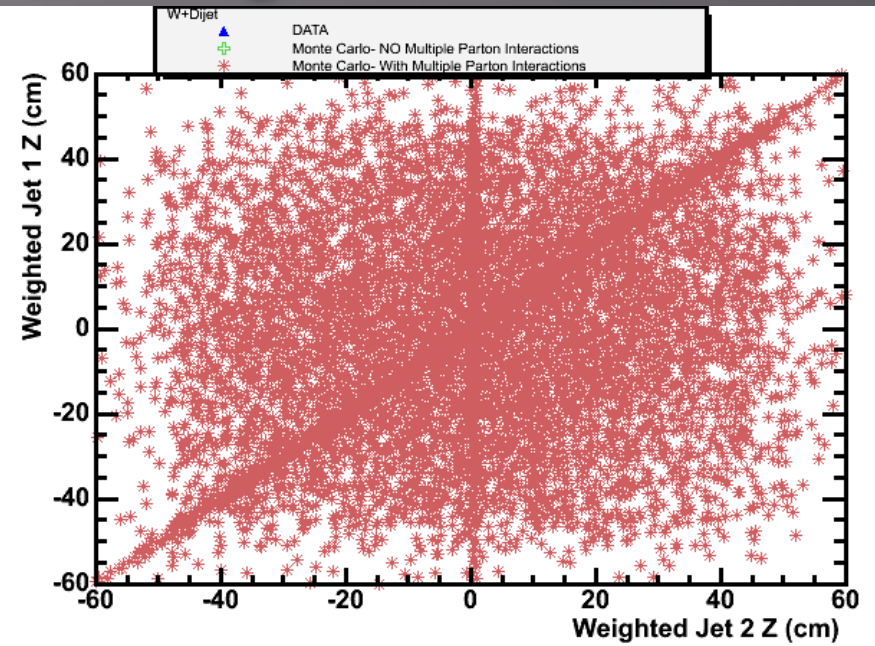
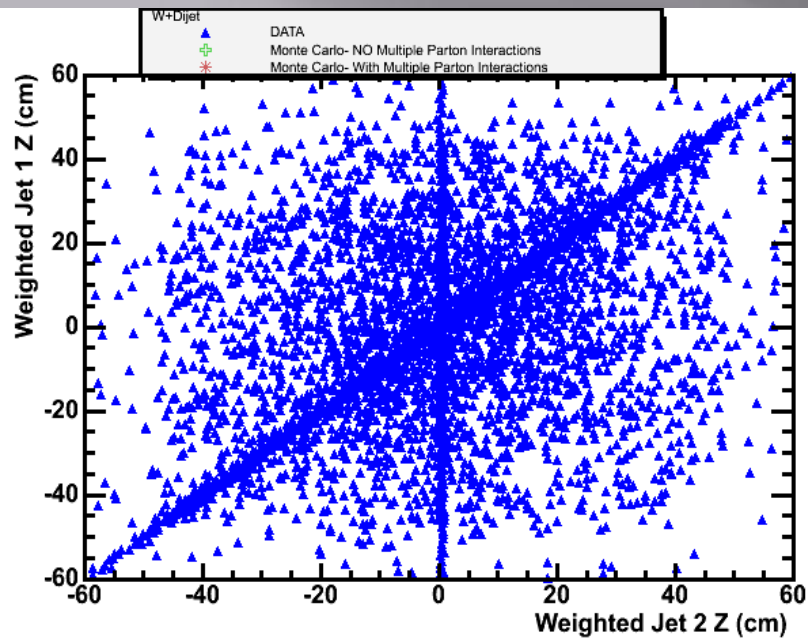
Jet Z Vertex

- ▣ Only Jets with Atleast One Track or More are Included
- ▣ Atleast one of these Tracks in the Each of the Two Jets making up the Dijet sholud be # 11
- ▣ The Other track Algorithms could be either 17,11,22,23
- ▣ Average Z is calculated using all the Included Track algorithms and Only using # 11
- ▣ The above average ,calculated both ways is considered as the Jet Z

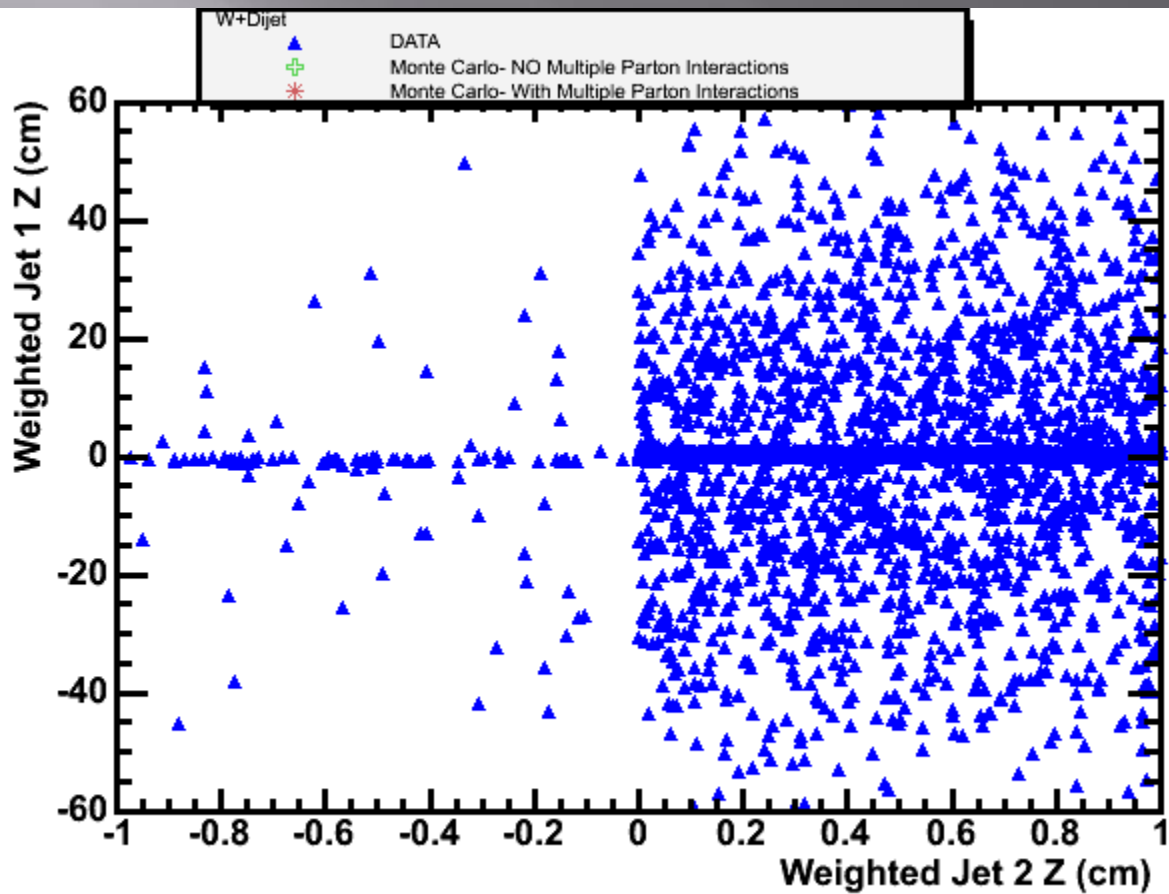
Calculating Weighted Average Z

- ▣ Obtain the the Track Z error (σ) using the TMatrix55 for each Track Algorithm i.e say zresol_11
- ▣ Weight to be Used in Average Calculation:
 1. $Wt_Trk11 = (1 / \sigma^2)$;
 2. $Trk_SumZ = (Wt_Trk11 * Trk11_Z) + (Wt_Trk17 * Trk17_Z) + (Wt_Trk22 * Trk22_Z) + (Wt_Trk23 * Trk23_Z)$;
 3. Average Z = $Trk_SumZ / (Wt_Trk11 + Wt_Trk17 + Wt_Trk22 + Wt_Trk23)$;
 4. For instance when all the Weights are equal in the above equation, trivially Average Z get reduced to
 $Average\ Z = Trk_SumZ / 4$

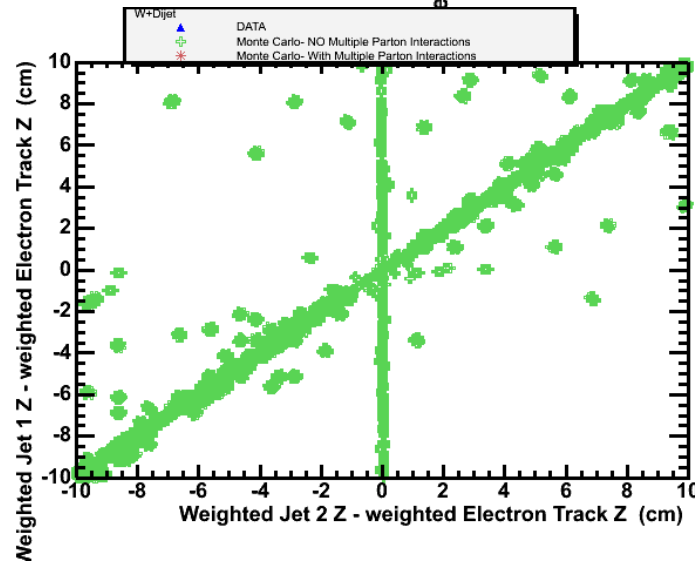
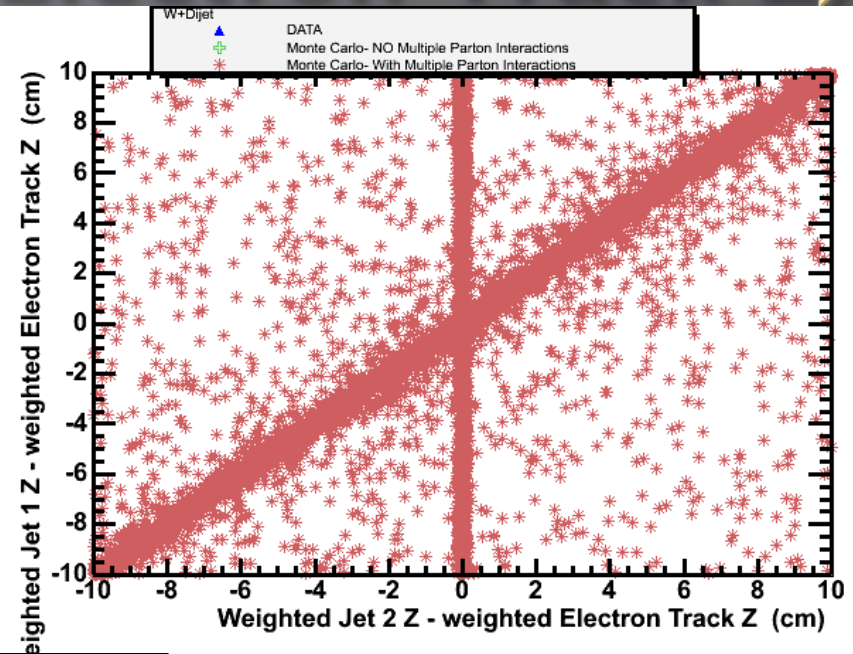
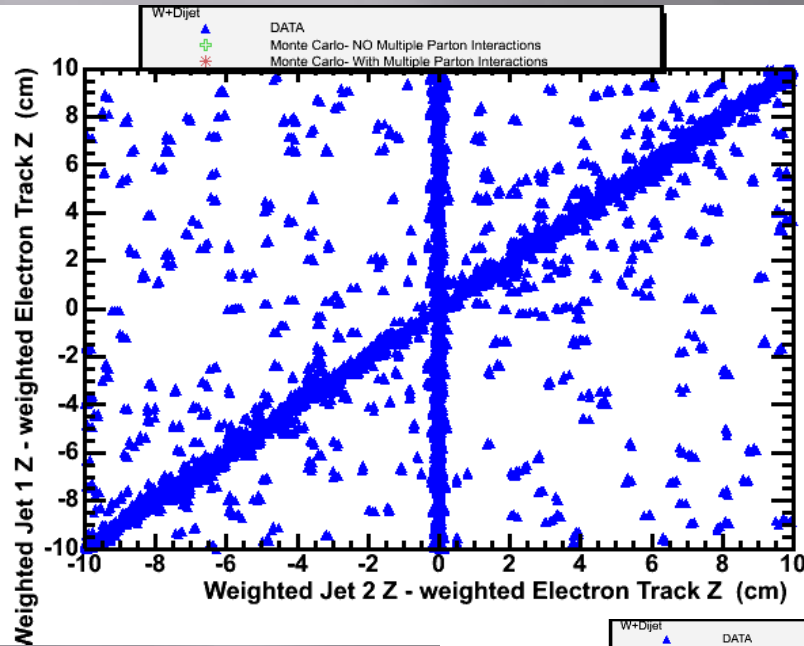
Wt Jet 1 Z Vs Wt Jet 2 Z



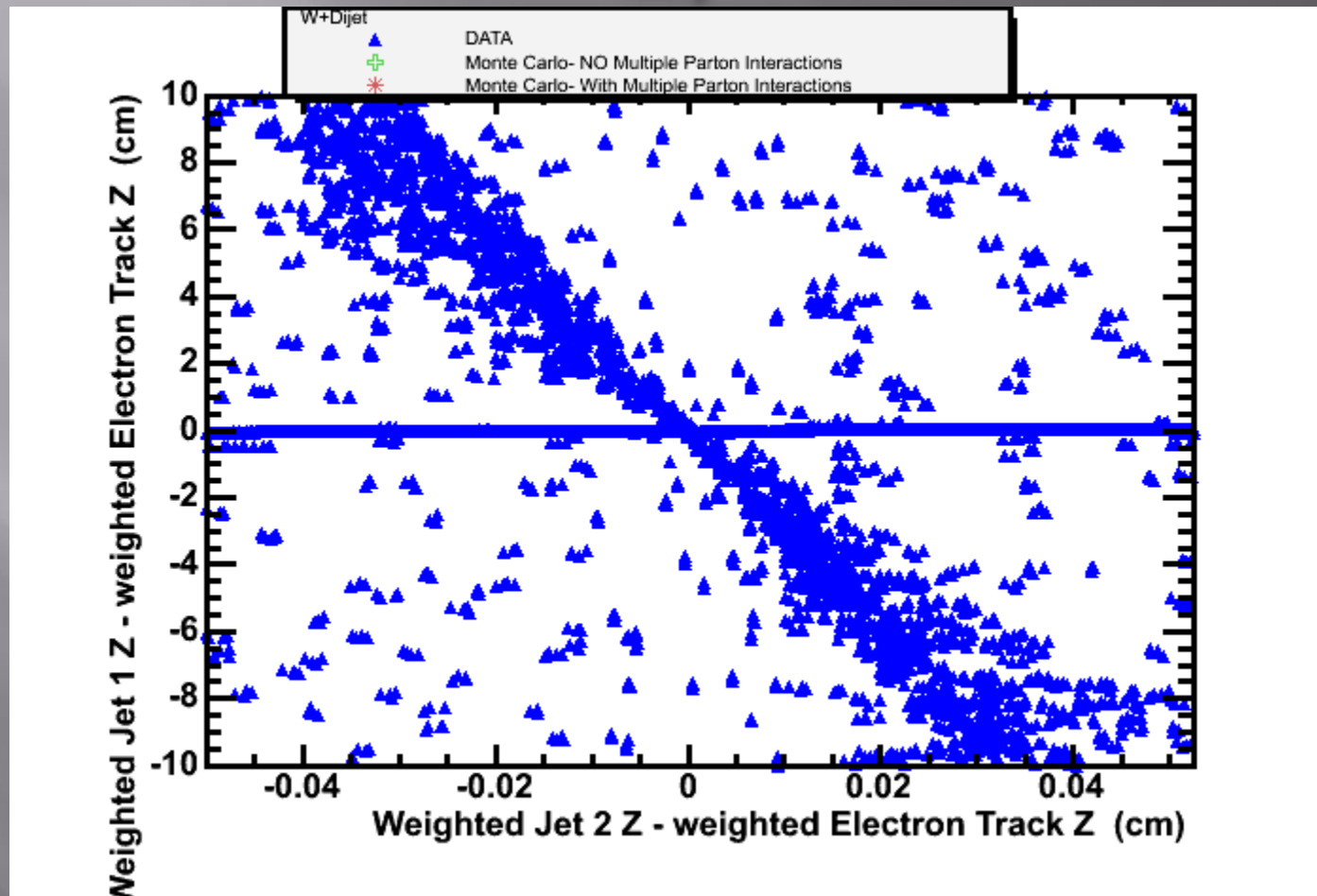
Wt Jet 1 Z Vs Wt Jet 2 Z



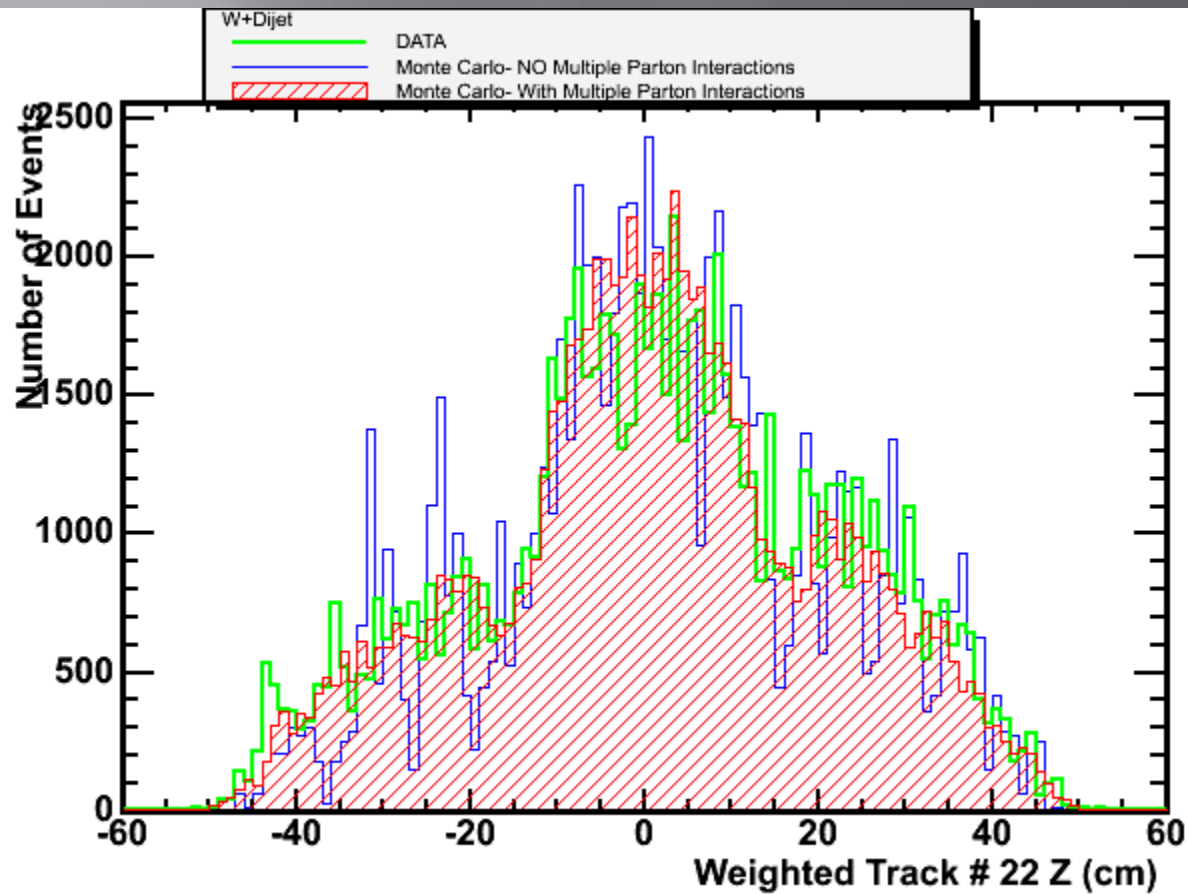
(Wt Jet 1 Z - Wt Electron Track Z) Vs (Wt Jet 2 Z - Wt Electron Track Z)



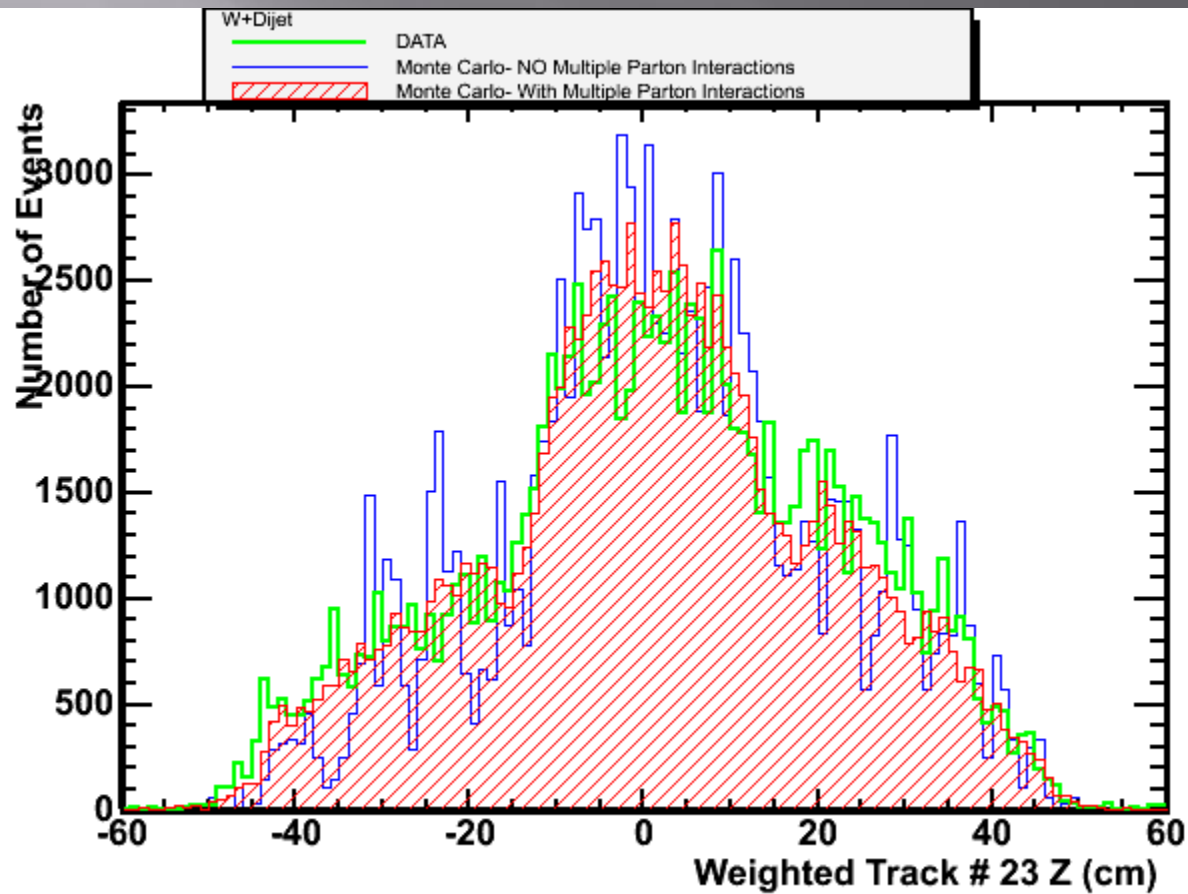
(Wt Jet 1 Z - Wt Electron Track Z) Vs (Wt Jet 2 Z - Wt Electron Track Z)



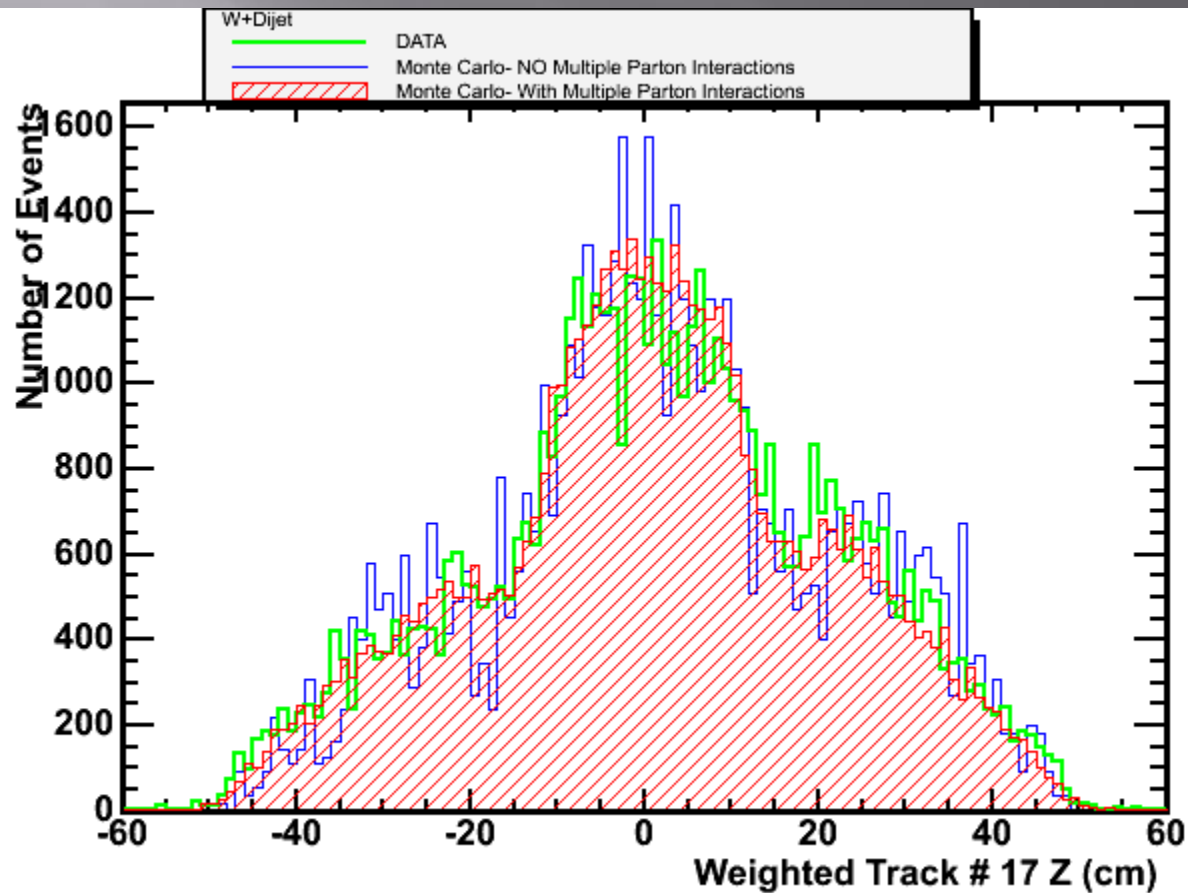
Weighted Track 22 Z



Weighted Track 22 Z



Weighted Track 17 Z



Weighted Track 11 Z

