

JET Z VERTEX

Varsha Ramakrishnan

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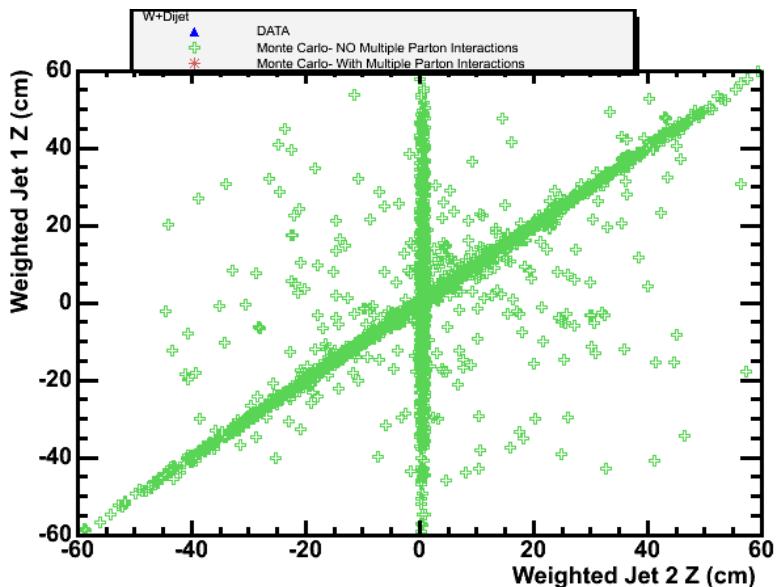
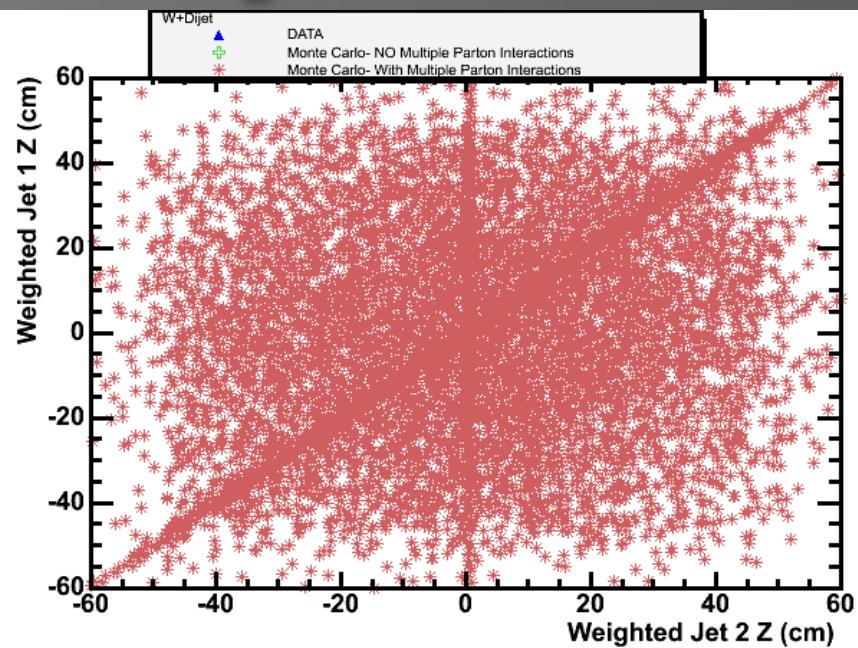
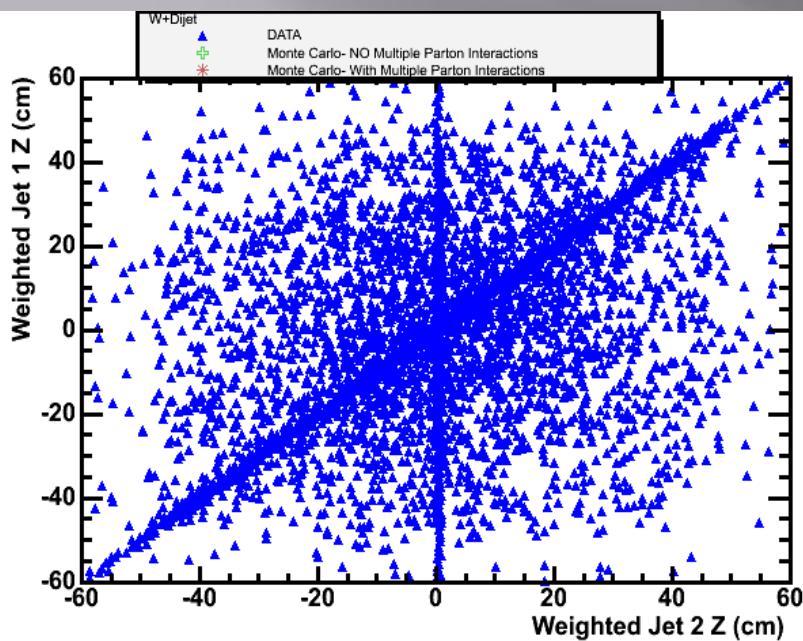
Jet Z Vertex

- ❑ 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

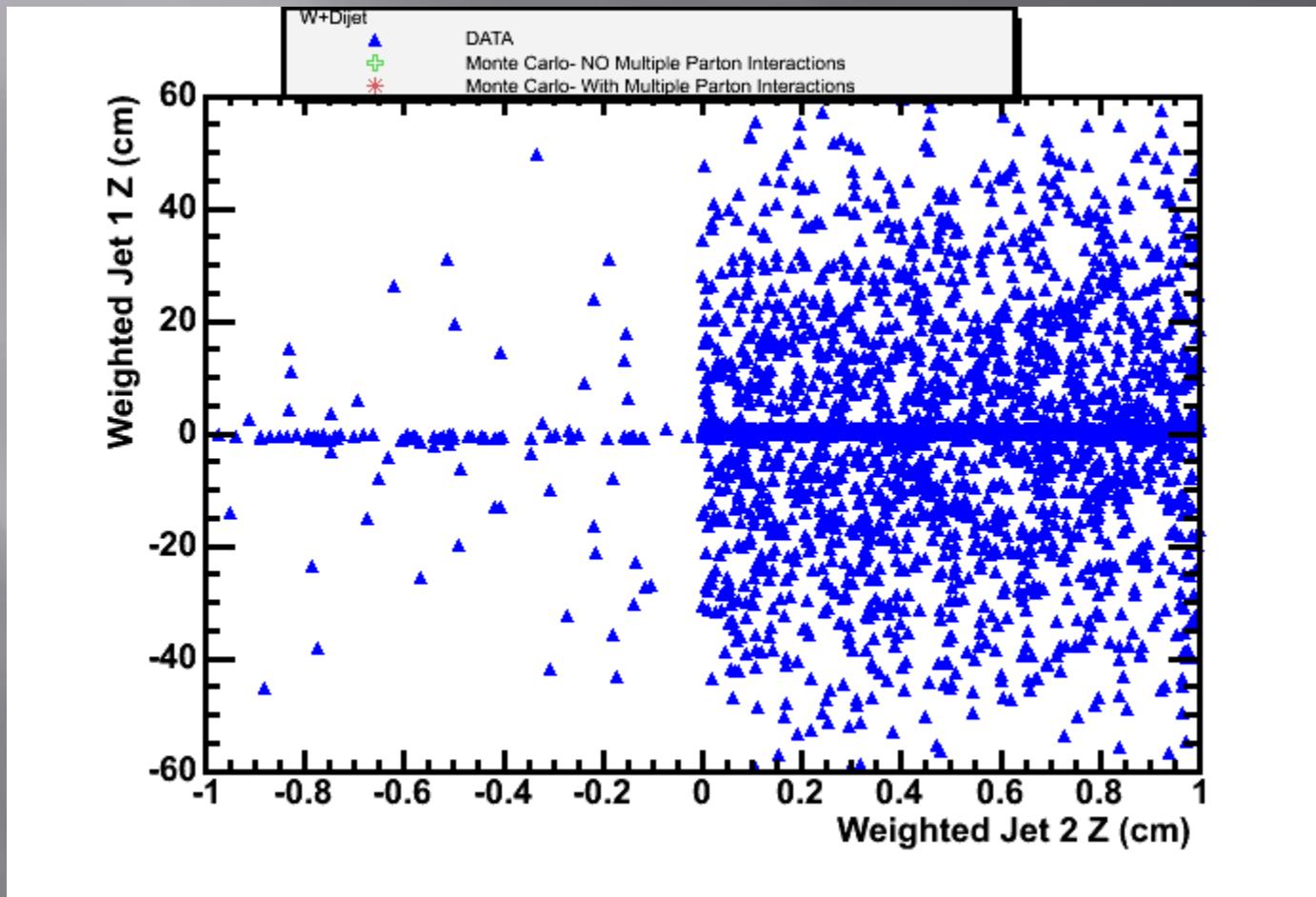
Calculating Weighted Average Z

- ❑ 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 $Average Z = Trk_SumZ / 4$

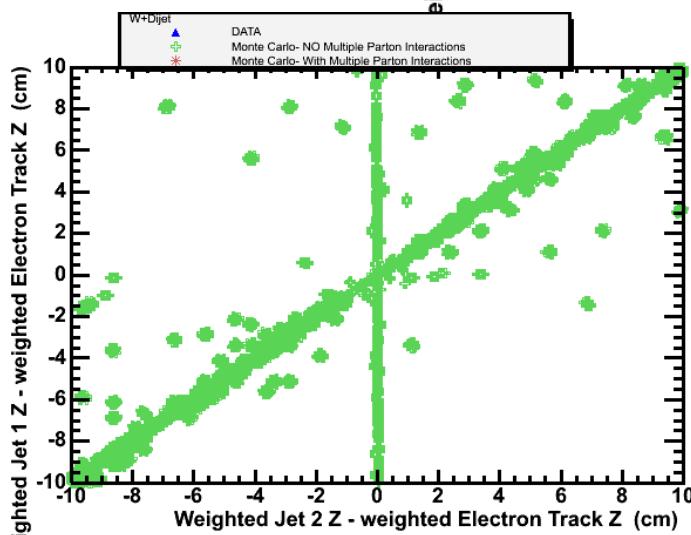
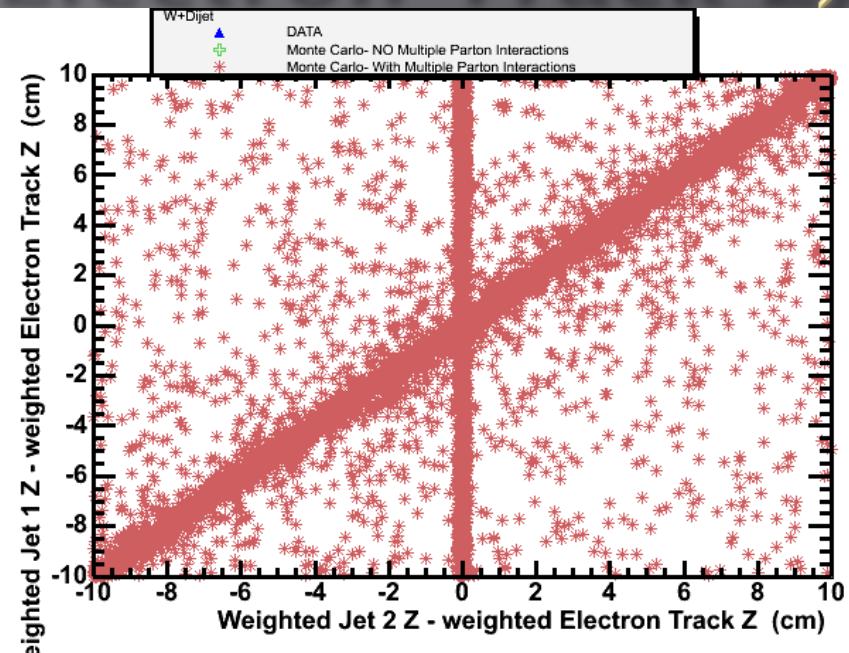
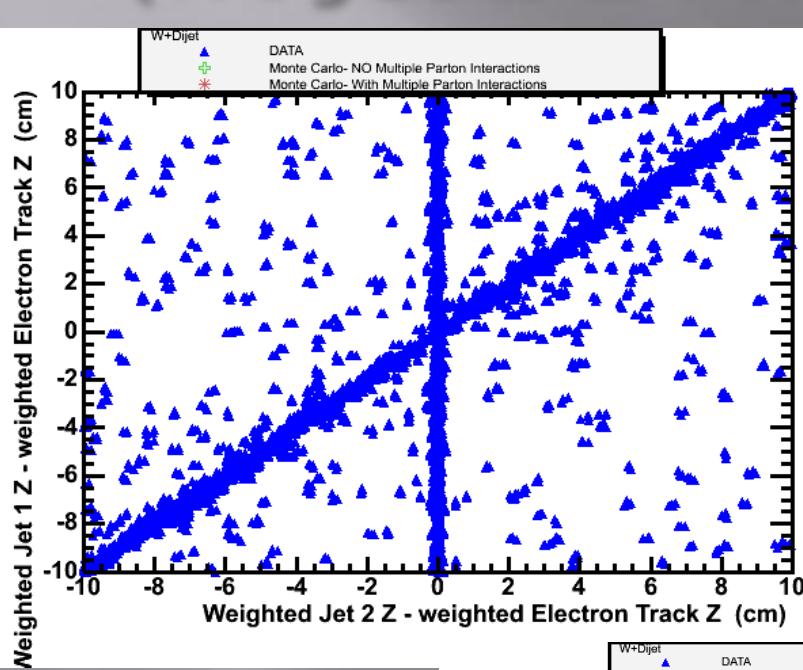
Wt Jet 1 Z Vs Wt Jet 2 Z



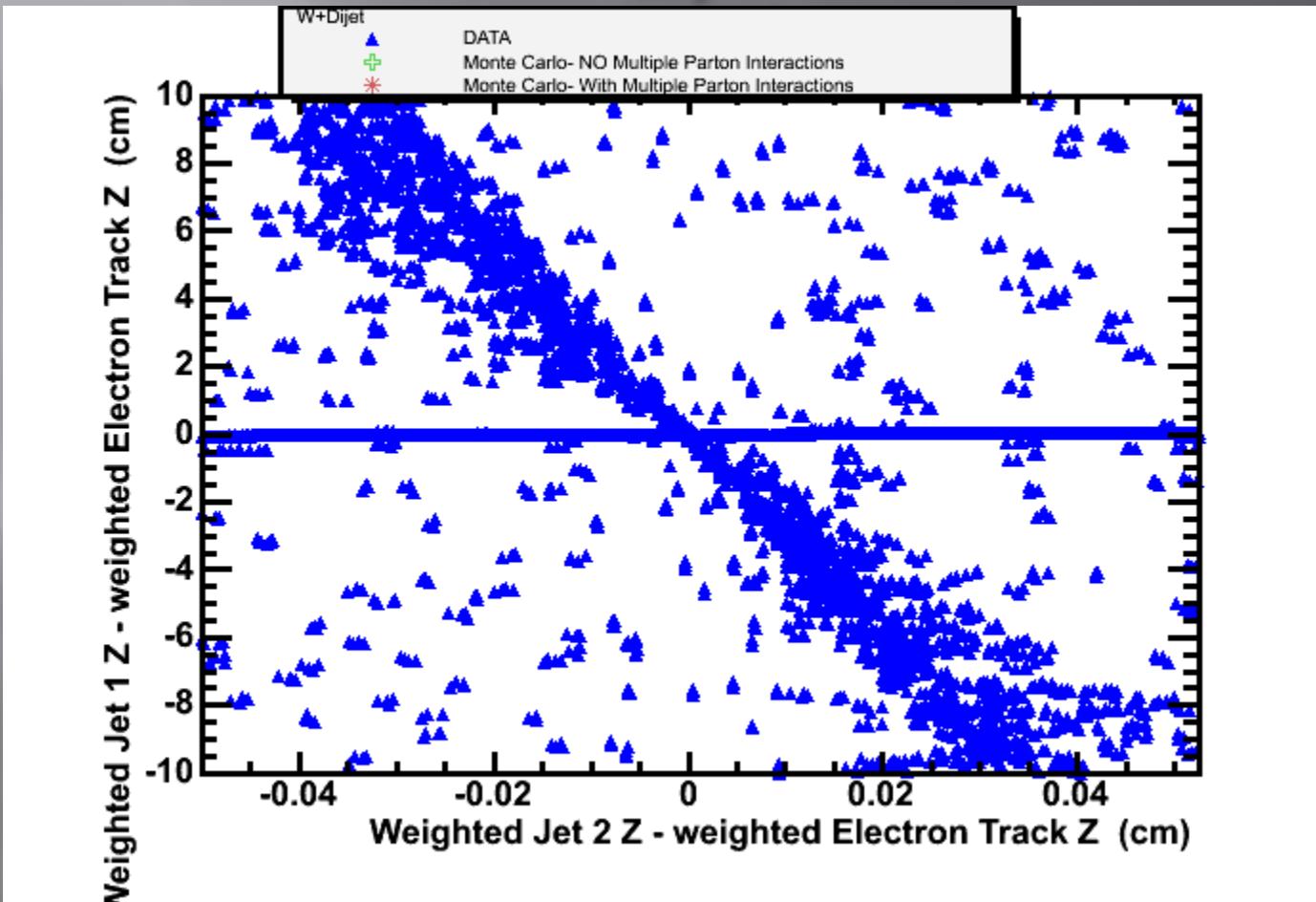
Wt Jet 1 Z Vs Wt Jet 2 Z



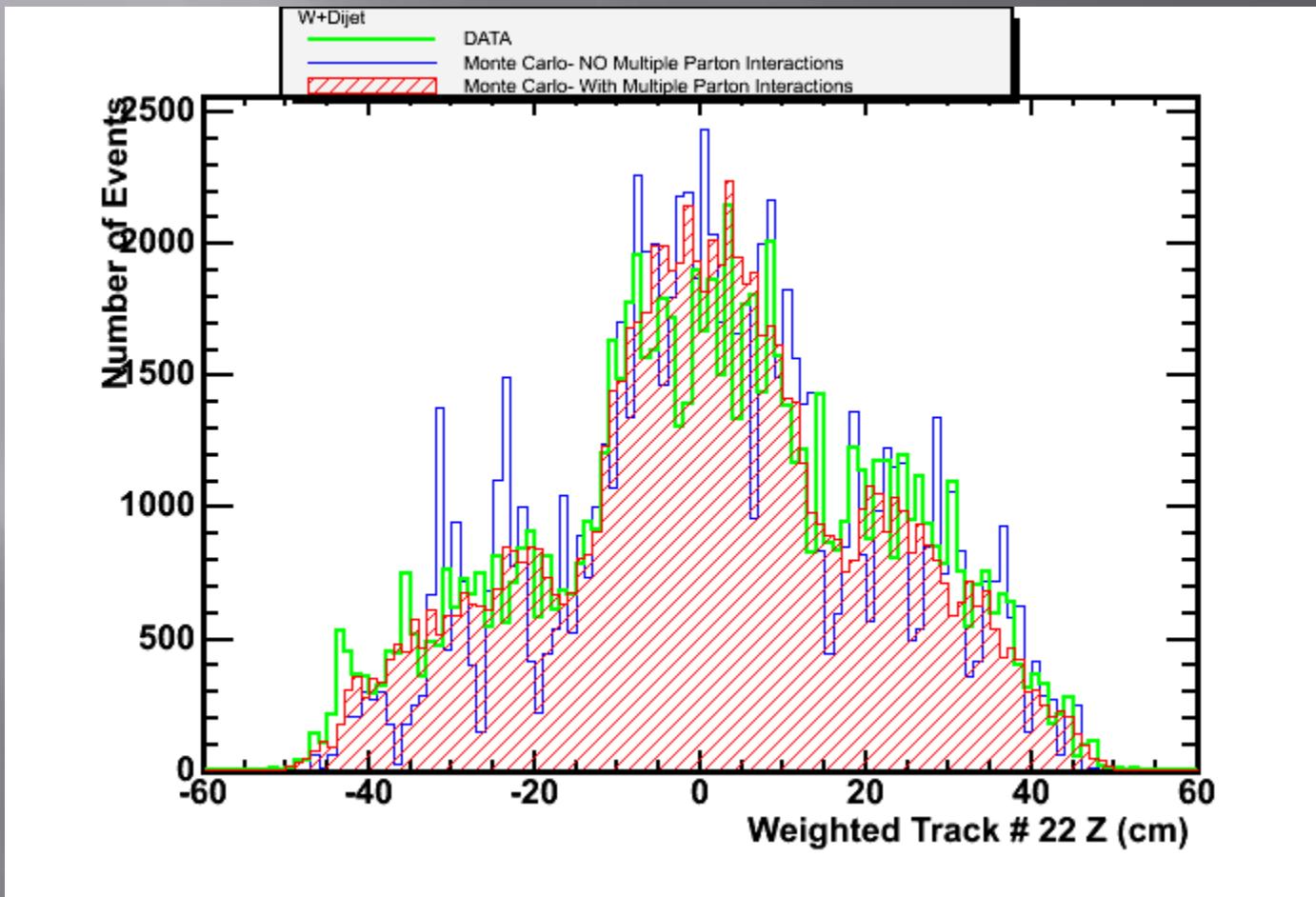
(Wt Jet 1 Z -Wt Electron Track Z) Vs (Wt Jet 2 Z -Wt Electron Track Z)



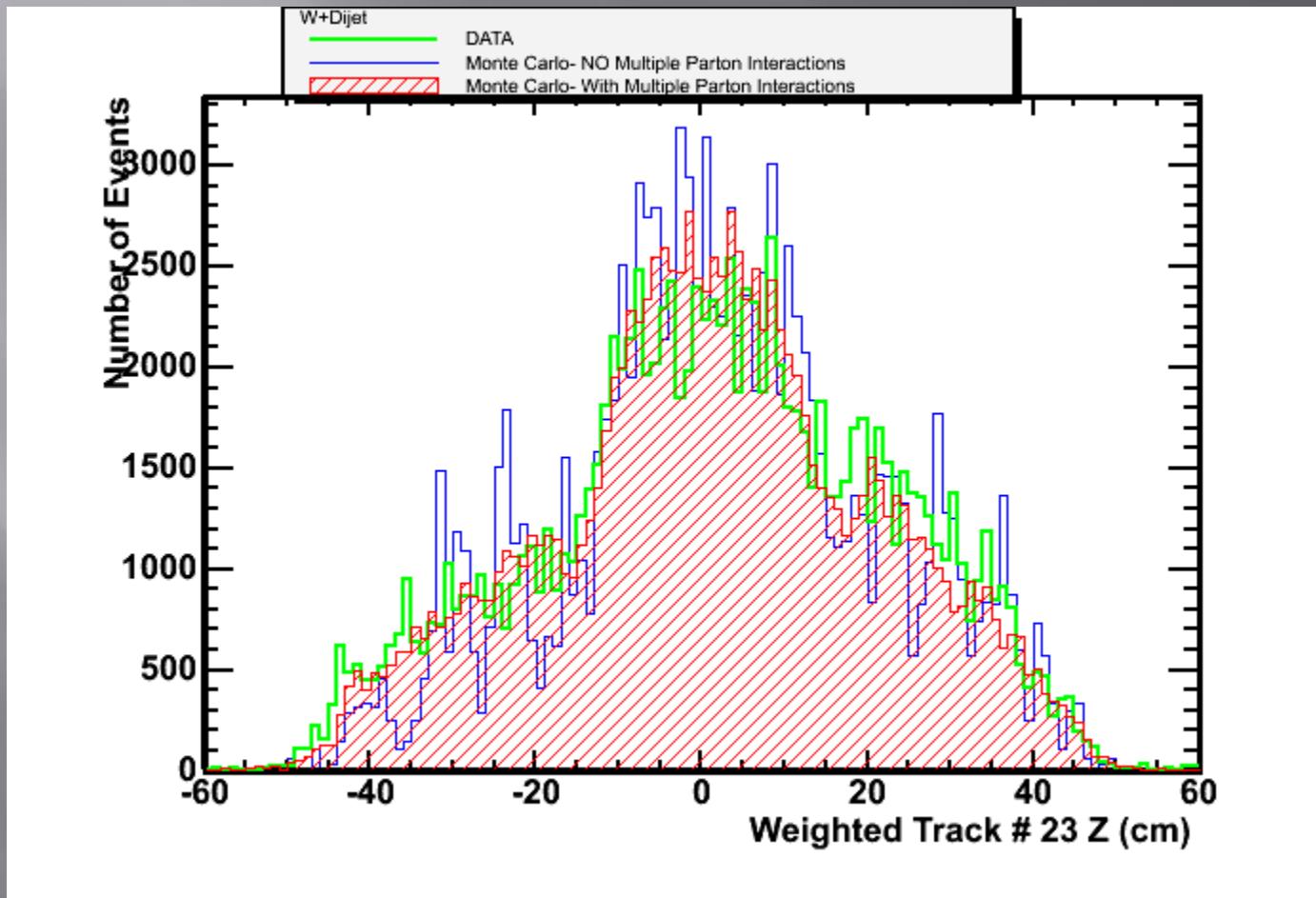
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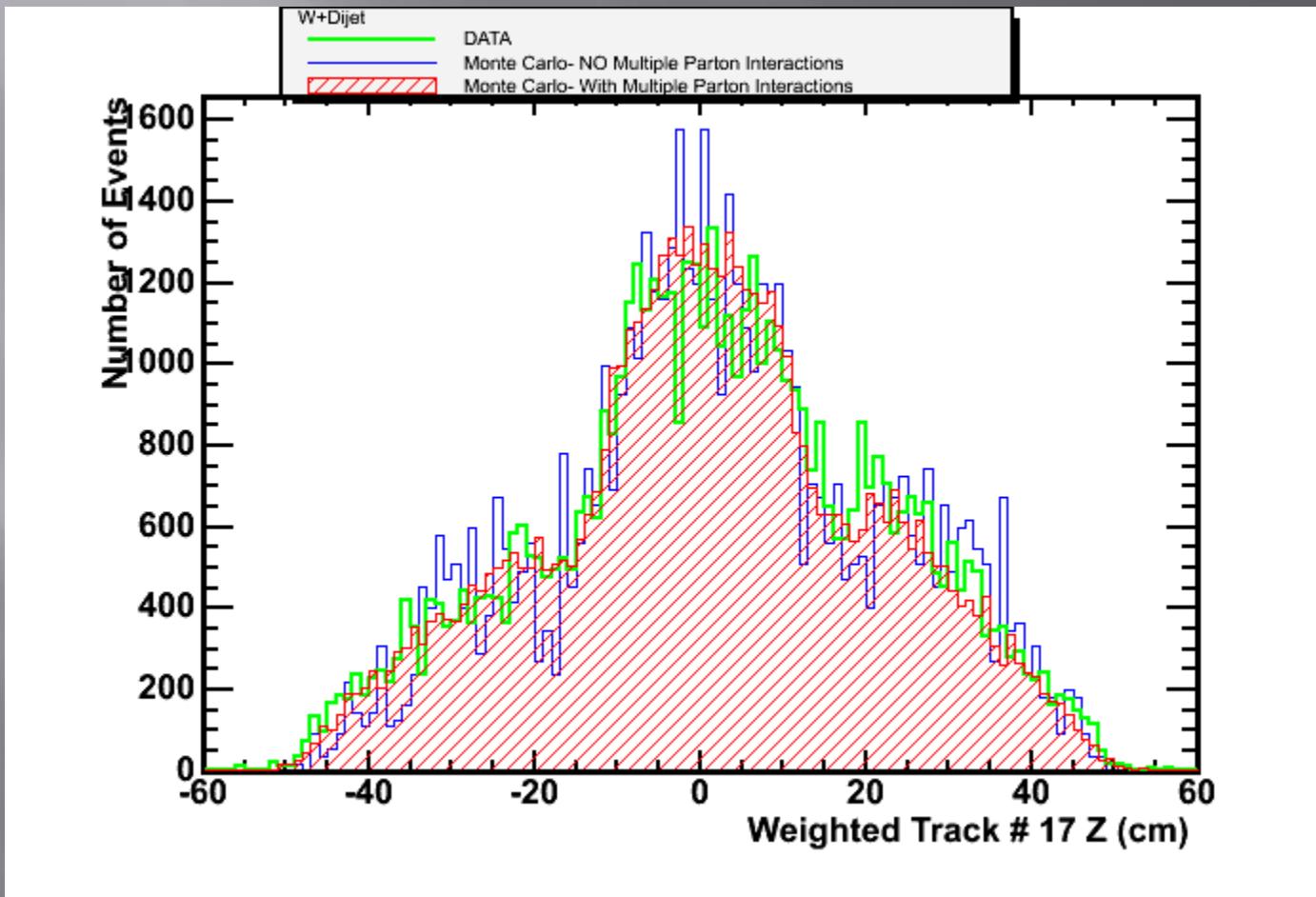
Weighted Track 22 Z



Weighted Track 22 Z



Weighted Track 17 Z



Weighted Track 11 Z

