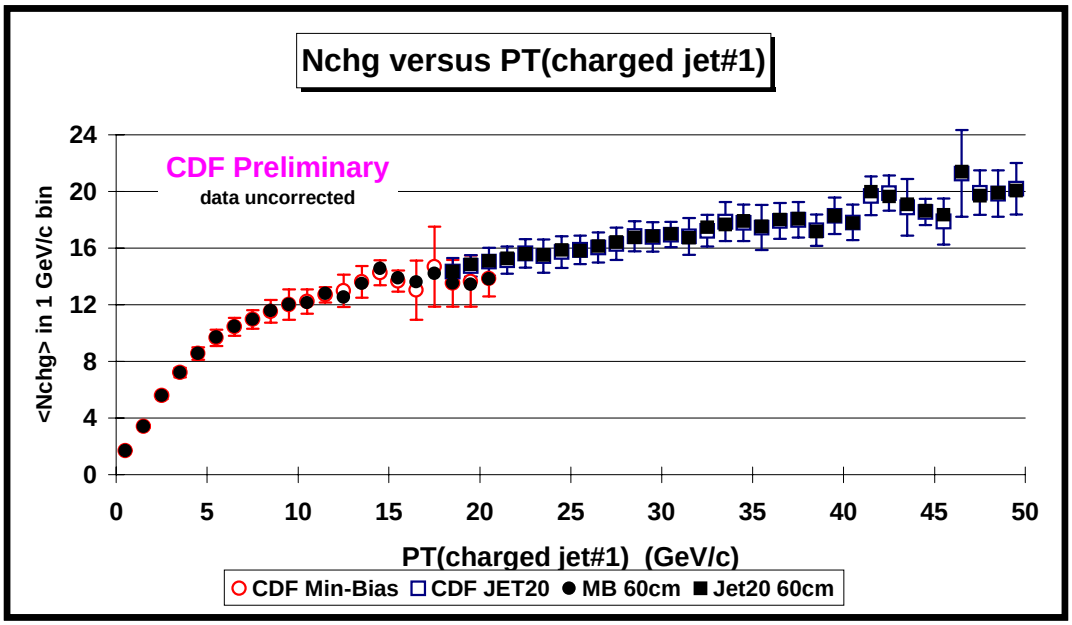
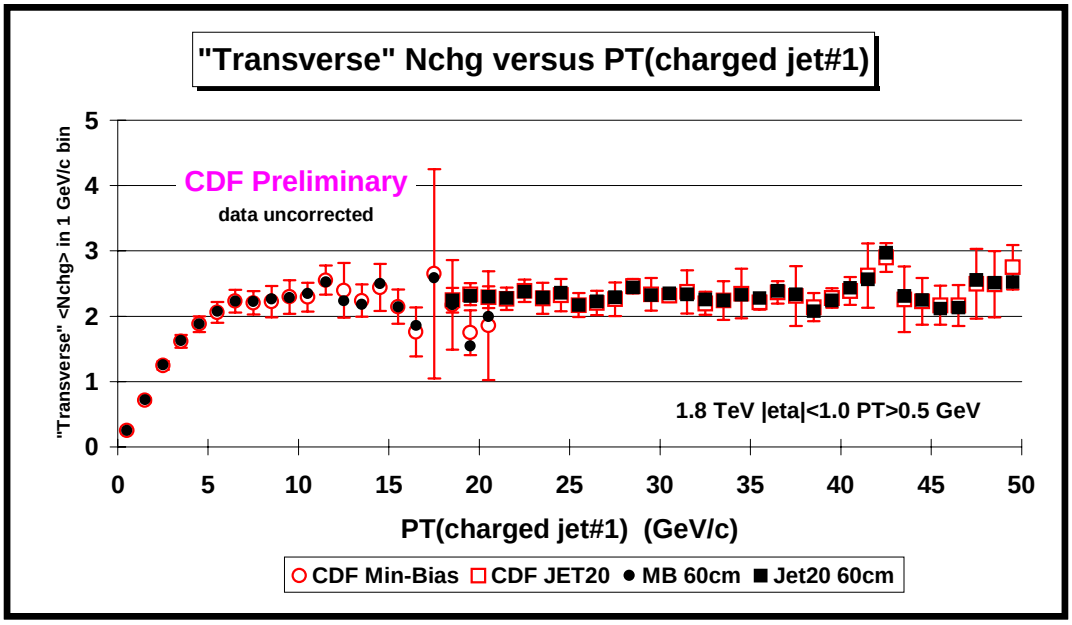
Vertex Cut

In our paper we selected zero or one vertex in $|z| < 100$ cm with $|z-z_v| < 2$ cm, $|\text{CTC } d_0| < 1$ cm, $P_T > 0.5$ GeV/c, and $|\eta| < 1$. Here we study the effect of requiring $|z| < 60$ cm instead of 100 cm. In addition, we look at an $|z| < 10$ cm cut to see if the size of the interaction region ($\sigma_z = 30$ cm) has a big effect on the data.

Plot 1: Average charged particle multiplicity ($P_T > 0.5$ GeV/c, $|\eta| < 1$) versus PT(chgjet#1). The open circles (open squares) correspond to the Min-Bias (JET20) data presented in our paper. The solid black dots and solid black squares are data with a 60 cm vertex cut.

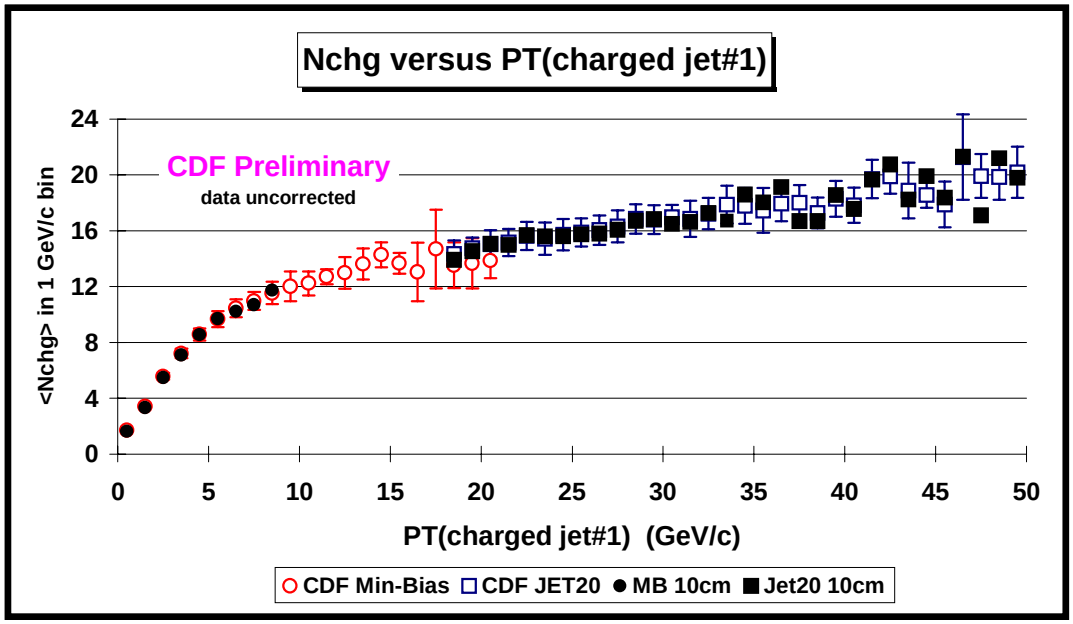


Plot 2: Same as Plot 1 but for the average "transverse" multiplicity ($P_T > 0.5$ GeV/c, $|\eta| < 1$).

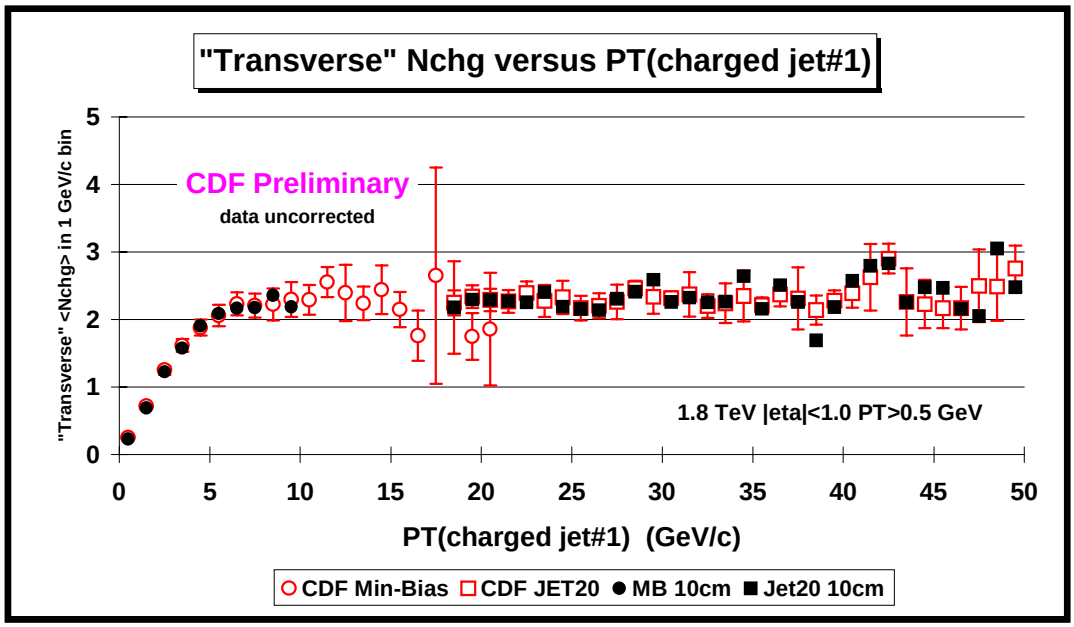


Vertex Cut

Plot 3: Average charged particle multiplicity (P_T > 0.5 GeV/c, |η| <1) versus PT(chgjet#1). The open circles (open squares) correspond to the Min-Bias (JET20) data presented in our paper. The solid black dots and solid black squares are data with a 10 cm vertex cut.



Plot 2: Same as Plot 3 but for the average "transverse" multiplicity (P_T > 0.5 GeV/c, |η| <1).



Conclusion: Changing the vertex cut from 100 cm to 60 cm has essentially no effect on the data. In fact, changing to a 10 cm cut has very little effect except to reduce the statistics.