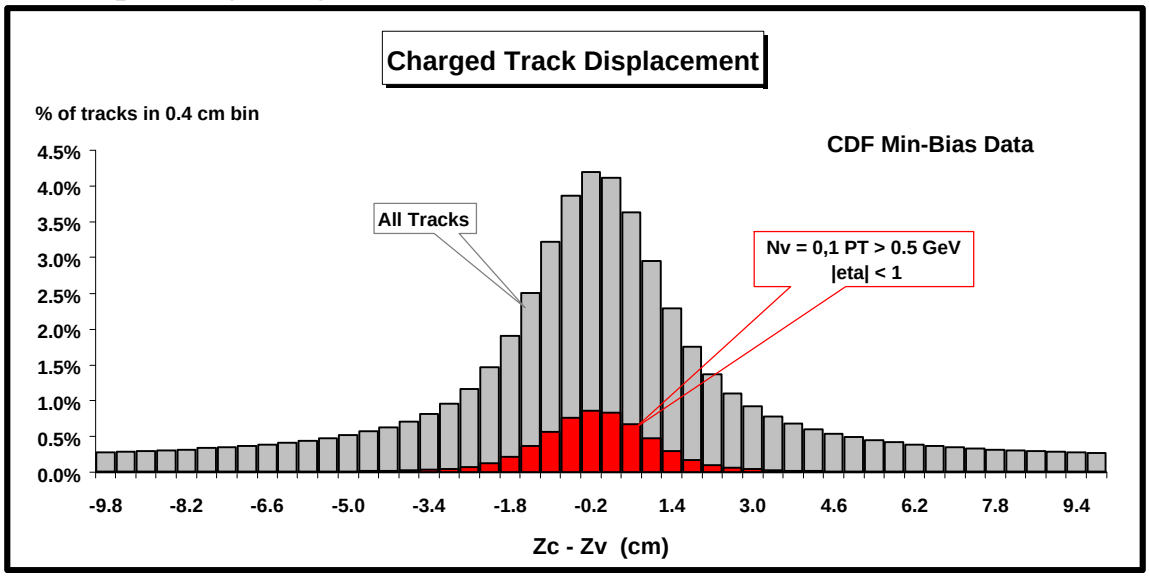
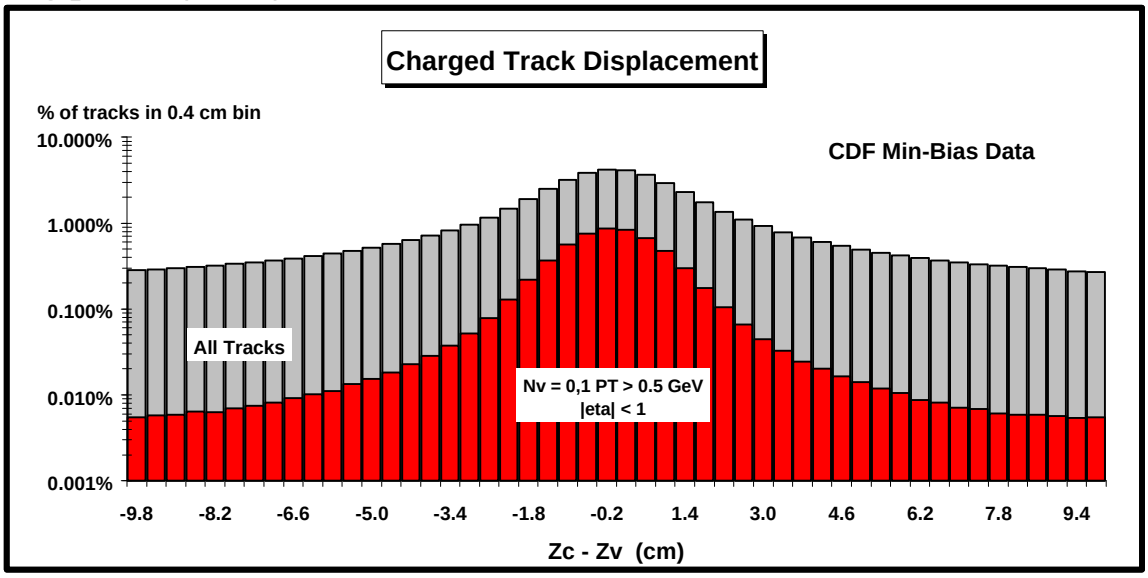
Charged Track Displacement

Linear plot of |zc-zv| for the Min-Bias data:



Plot shows all tracks and the tracks with Nv = 0,1 PT > 0.5 GeV |eta| < 1.

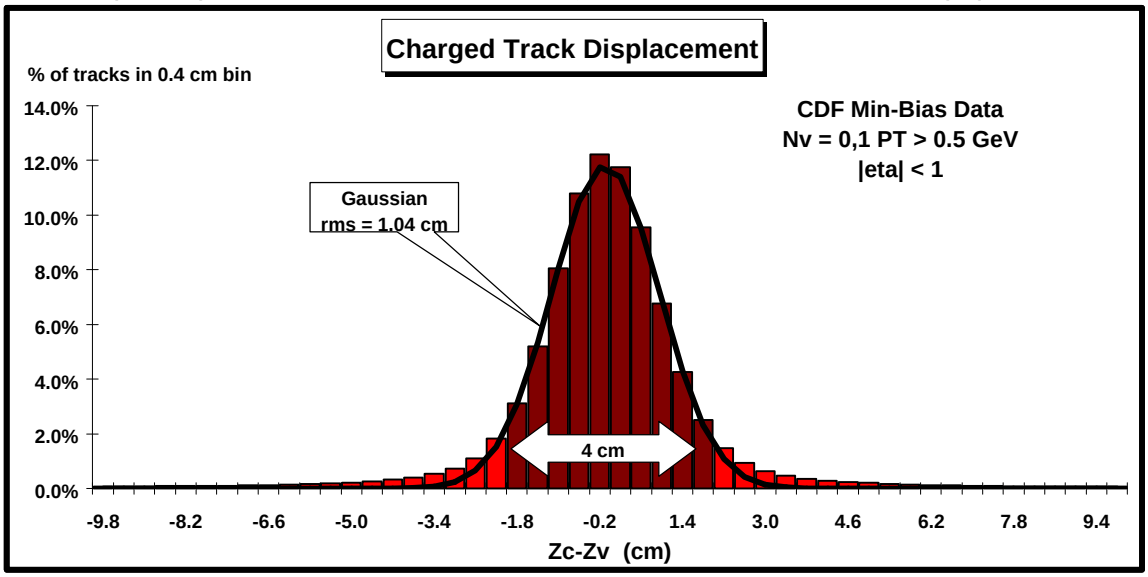
Log plot of |zc-zv| for the Min-Bias data:



Plot shows all tracks and the tracks with Nv = 0,1 PT > 0.5 GeV |eta| < 1.

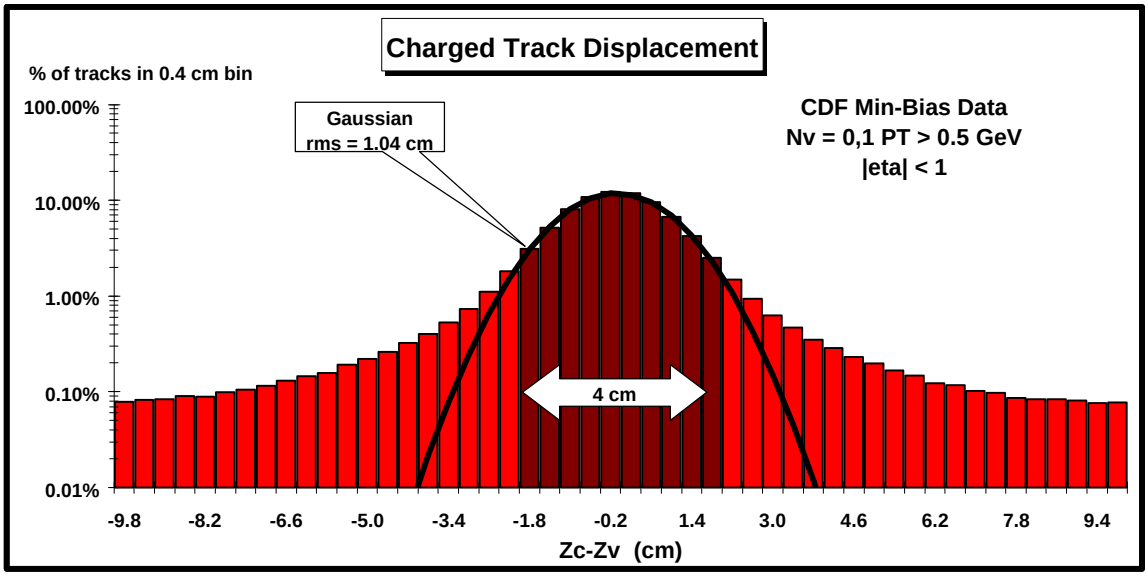
Charged Track Displacement

Plot of |zc-zv| for the Min-Bias data (Nv = 0,1 PT > 0.5 GeV |η| < 1):



Linear plot shows a Gaussian fit and the cut |zc-zv| < 2cm.

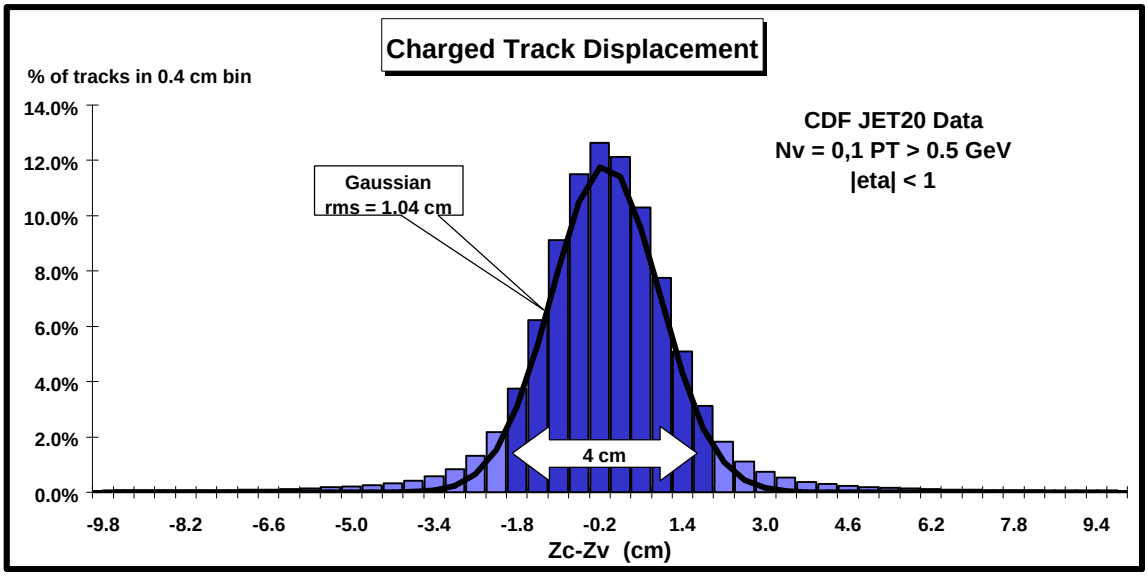
Plot of |zc-zv| for the Min-Bias data (Nv = 0,1 PT > 0.5 GeV |η| < 1):



Logarithmic plot shows a Gaussian fit and the cut |zc-zv| < 2cm.

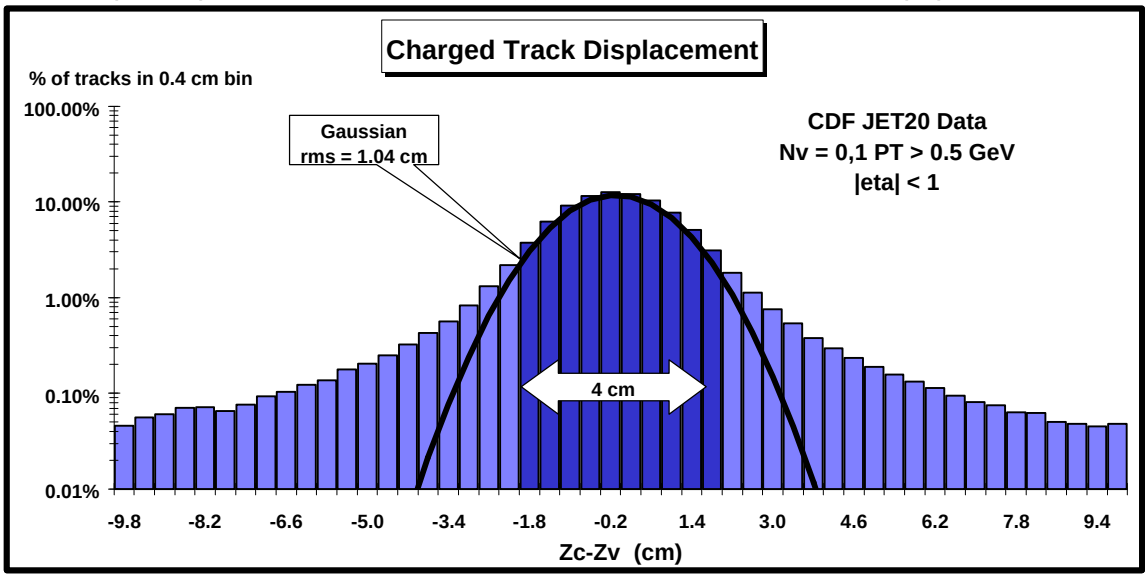
Charged Track Displacement

Plot of |zc-zv| for the JET20 data (Nv = 0,1 PT > 0.5 GeV |η| < 1):



Linear plot shows the Gaussian fit of the Min-Bias data and the cut |zc-zv| < 2cm.

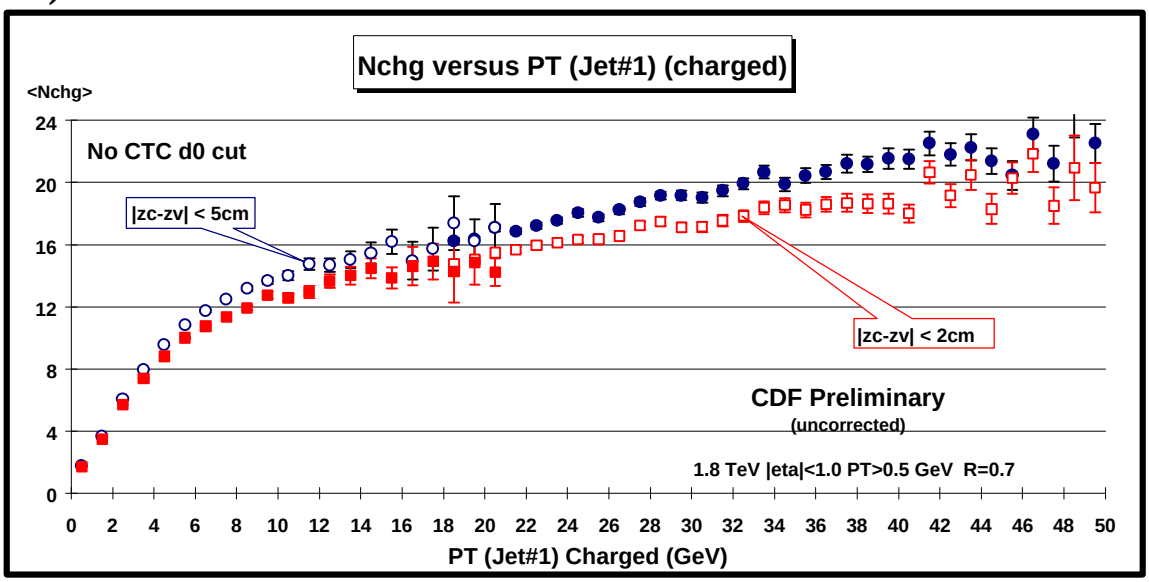
Plot of |zc-zv| for the JET20 data (Nv = 0,1 PT > 0.5 GeV |η| < 1):



Logarithmic plot shows the Gaussian fit of the Min-Bias data and the cut |zc-zv| < 2cm.

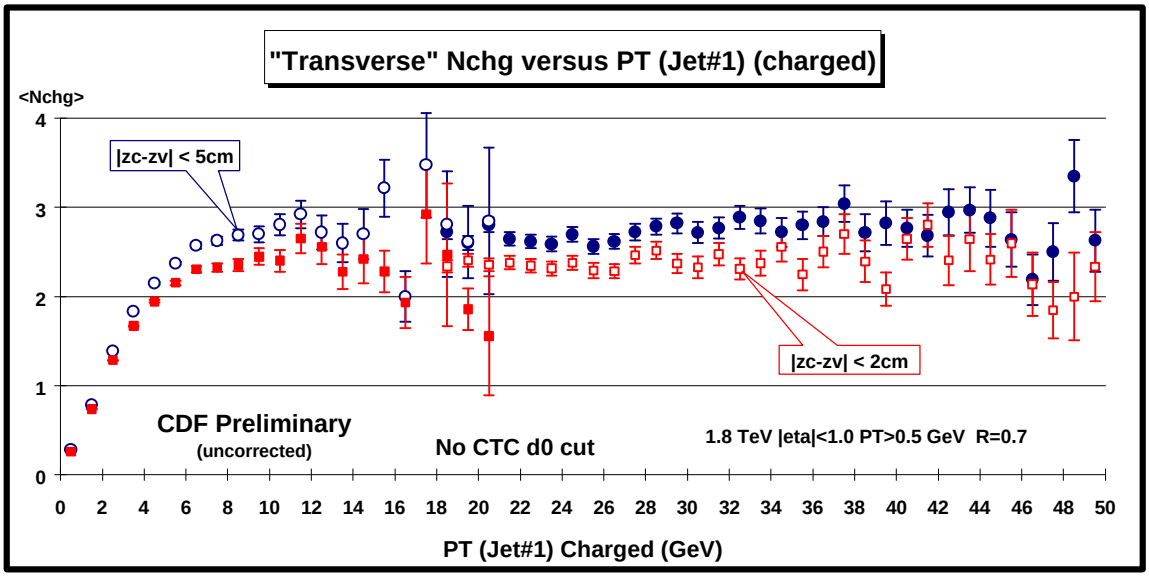
Dependence on the Track Displacement Cut
(no CTC d0 cut)

Plot of <Nchg> versus PT(jet#1) with 2cm and 5cm z-cuts (no CTC d0 cut):



Shows the dependence of the overall multiplicity on the track displacement cut (with no CTC d0 cut). Note that to get a match in the overlap region we must take the same cut for the Min-Bias data and the Jet20 data.

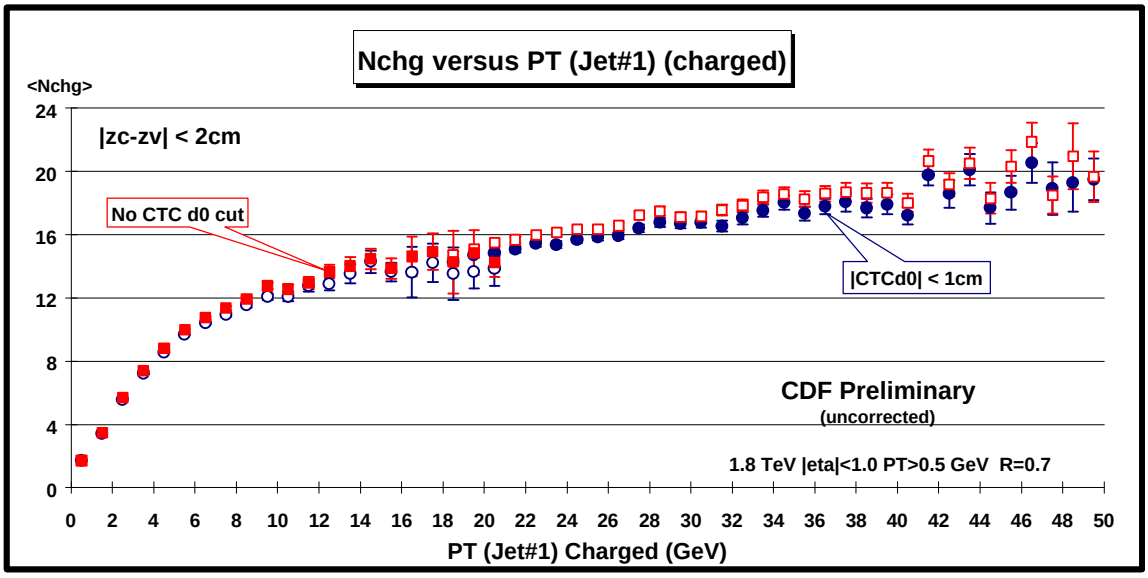
Plot of the "transverse" <Nchg> versus PT(jet#1) with 2cm and 5cm z-cuts (no CTC d0 cut):



Shows the dependence of the "transverse" multiplicity on the track displacement cut (with no CTC d0 cut). The two different cuts result in roughly 10% effects.

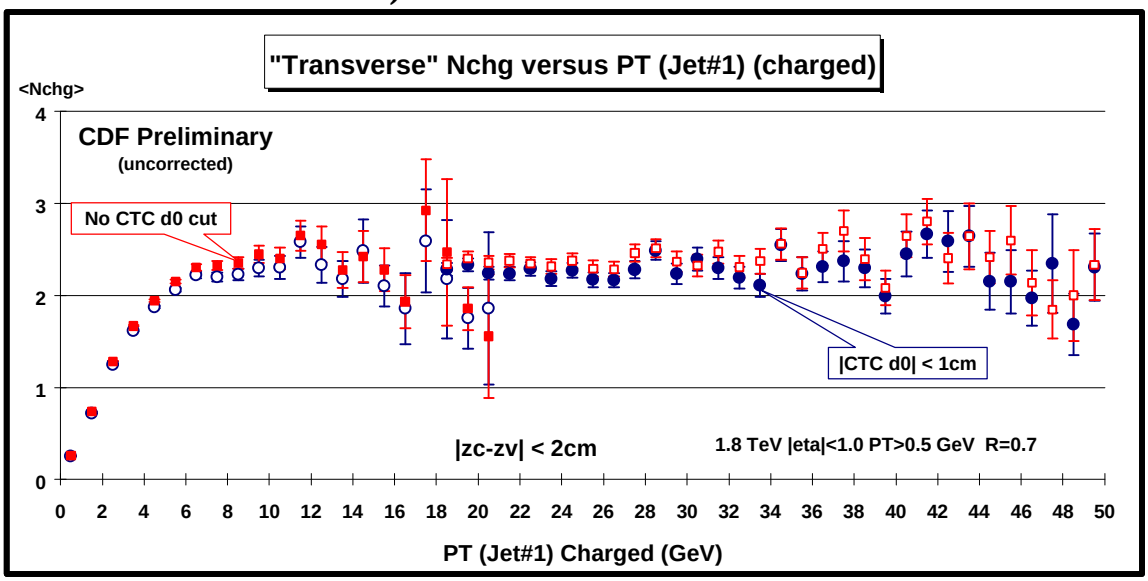
Dependence on the Impact Parameter Cut

Plot of <Nchg> vs PT(jet#1) with 2cm z-cut (with and without 1cm CTC d0 cut):



Shows the dependence of the overall multiplicity on the CTC d0 cut for |zc-zv| < 2cm.

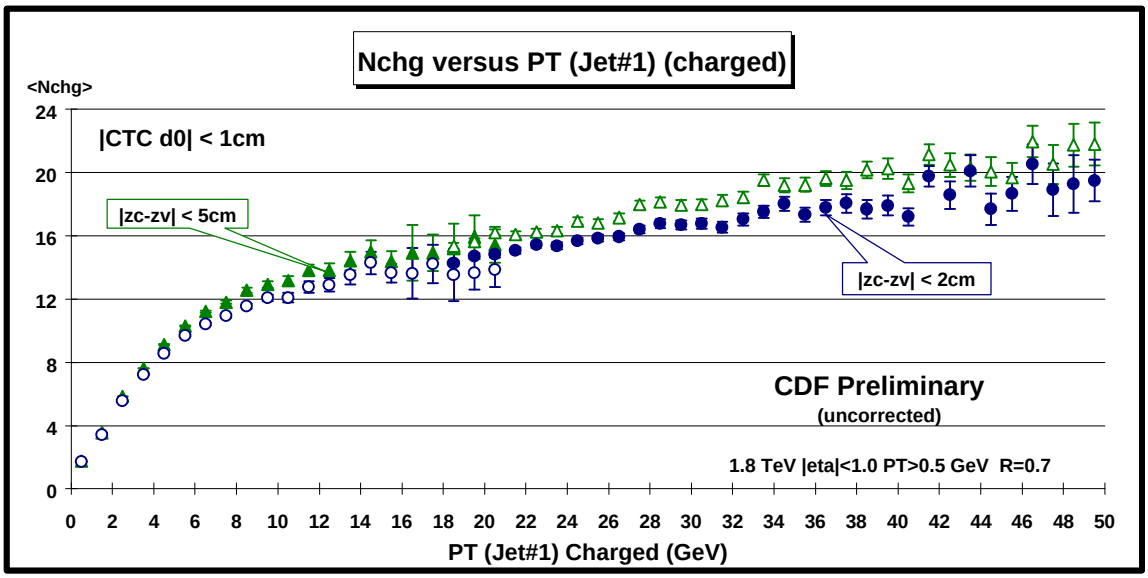
Plot of "Transverse" <Nchg> vs PT(jet#1) with 2cm z-cut (with and without 1cm CTC d0 cut):



Shows the dependence of the "Transverse" multiplicity on the CTC d0 cut for |zc-zv| < 2cm. The effect of the CTC d0 cut for |zc-zv| < 2cm is small (less than 5%).

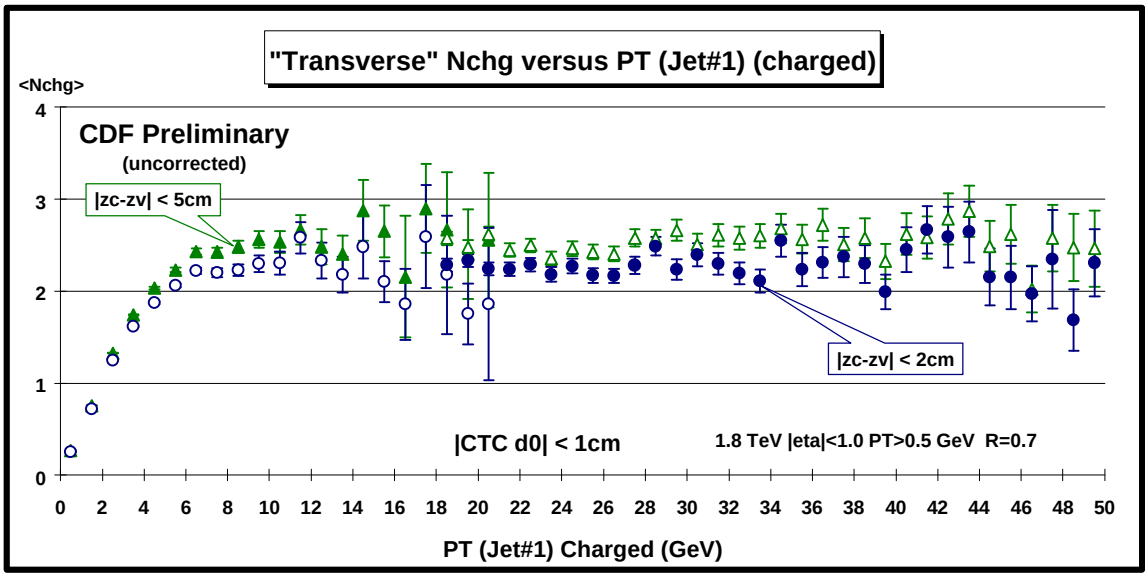
Dependence on the Track Displacement Cut
(with CTC d0 cut)

Plot of <Nchg> vs PT(jet#1) (|CTC d0| < 1cm) with a z-cut of 2cm and 5cm:



Shows the dependence of the overall multiplicity on the z-cut cut for |CTC d0| < 1cm.

Plot of "transverse" <Nchg> vs PT(jet#1) (|CTC d0| < 1cm) with a z-cut of 2cm and 5cm:



Shows the dependence of the "transverse" multiplicity on the z-cut cut for |CTC d0| < 1cm.

Summary: Dependence on the Track Cuts

Shows the effect of various CTC track cuts on the overall charged multiplicity, <Nchg>, for PT > 0.5 GeV |η| < 1.

|zc-zv| cut	CTC d0 cut	<Nchg>	effect
< 2cm	< 1cm	3.12	
< 2cm	none	3.22	2.9%
< 5cm	< 1cm	3.32	6.4%
< 5cm	none	3.50	11.9%