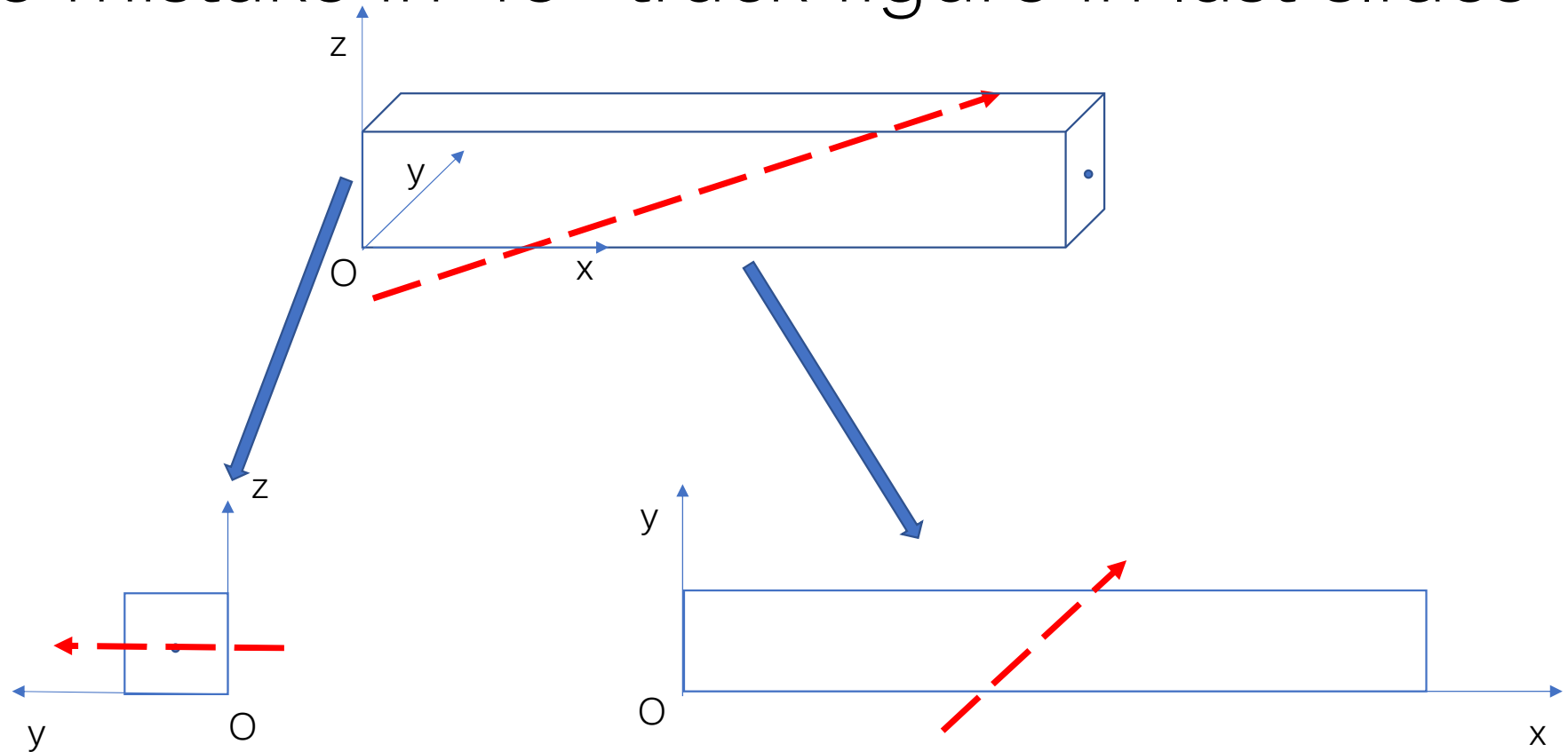


Ncount Correction with First Cluster Time

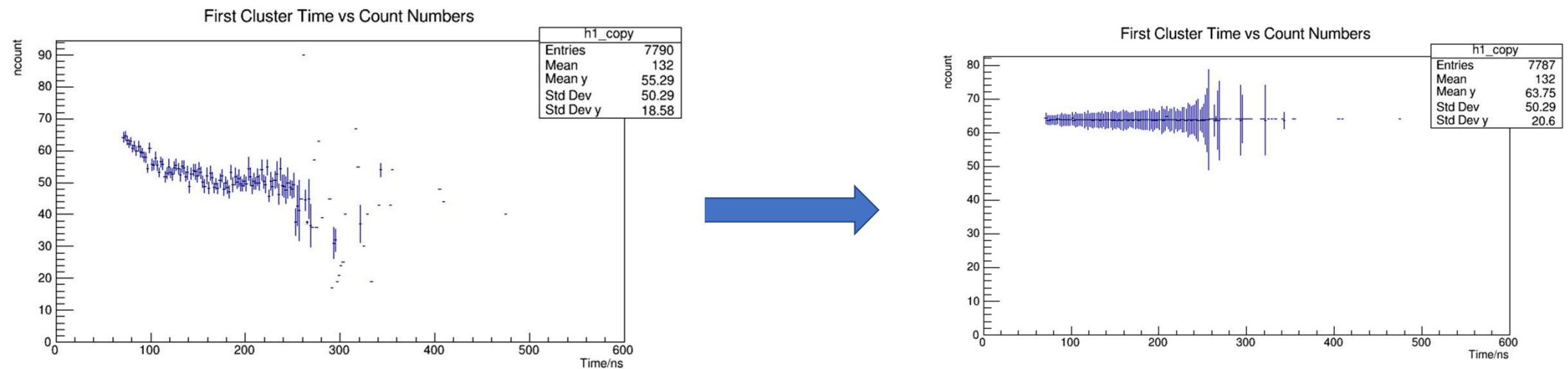
Shuaiyi Liu, Yaxin Shen, Guang Zhao, Linghui Wu, Mingyi Dong

One mistake in 45° track figure in last slides



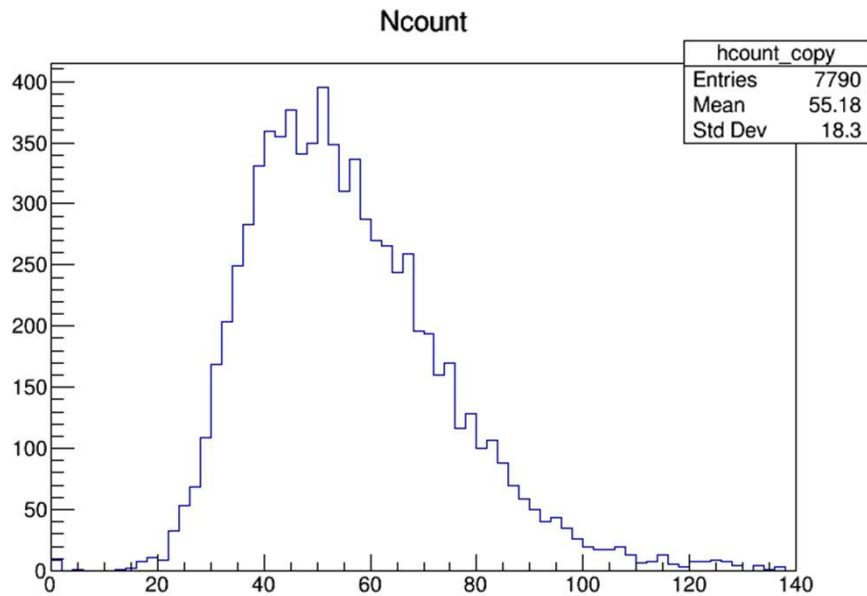
Dependency on t_F (First Cluster Time) and correction

- Run16+17+18, 65000 events, Sampling rate 1.5G, 45°

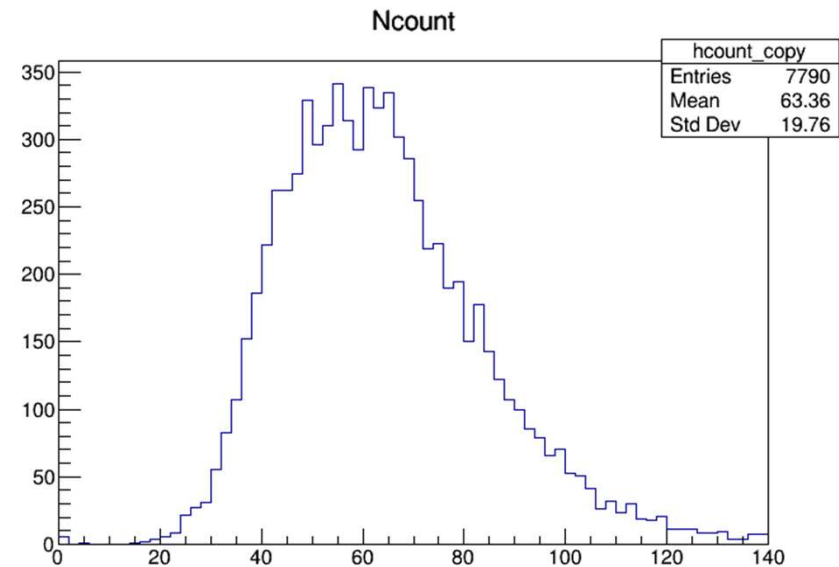


Correct ncount to $ncount(t_0)$

Ncount Comparison (t_F Correction)



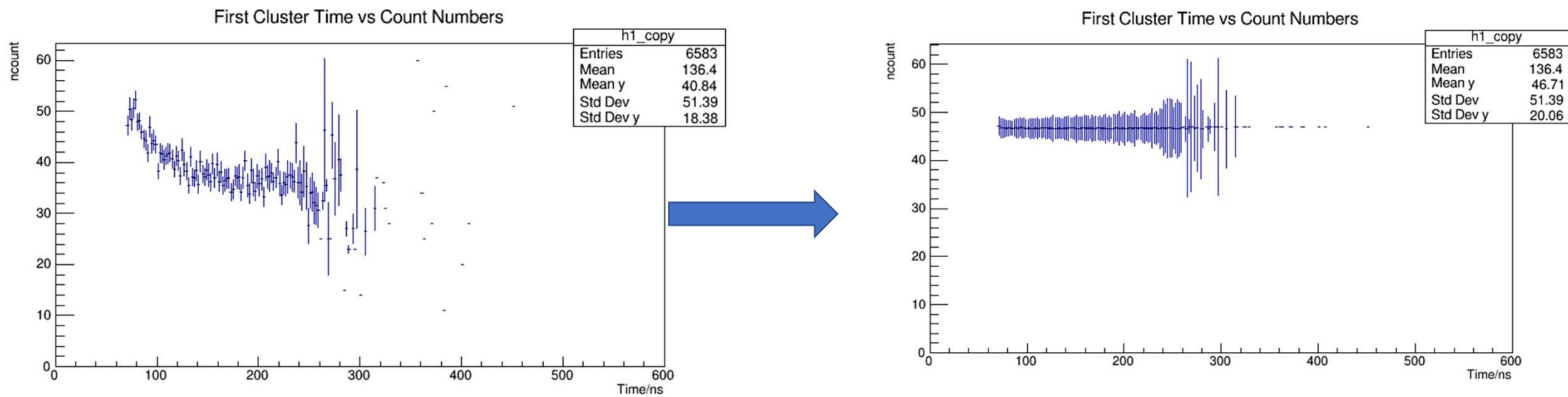
Before correction
 $18.3/55.18=33.16\%$



After correction
 $19.76/63.36=31.19\%$

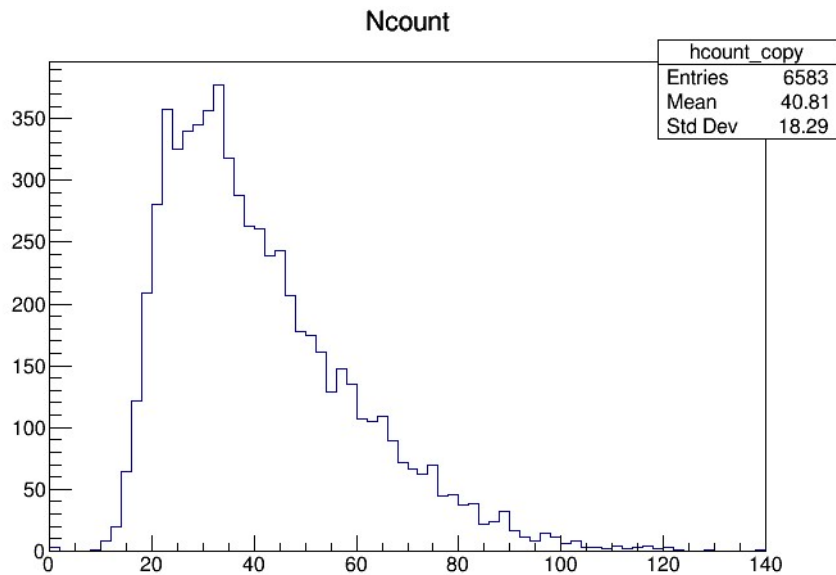
Dependency on t_F (First Cluster Time) and correction

- Run12+13, 60000 events, Sampling rate 1.5G, 0°

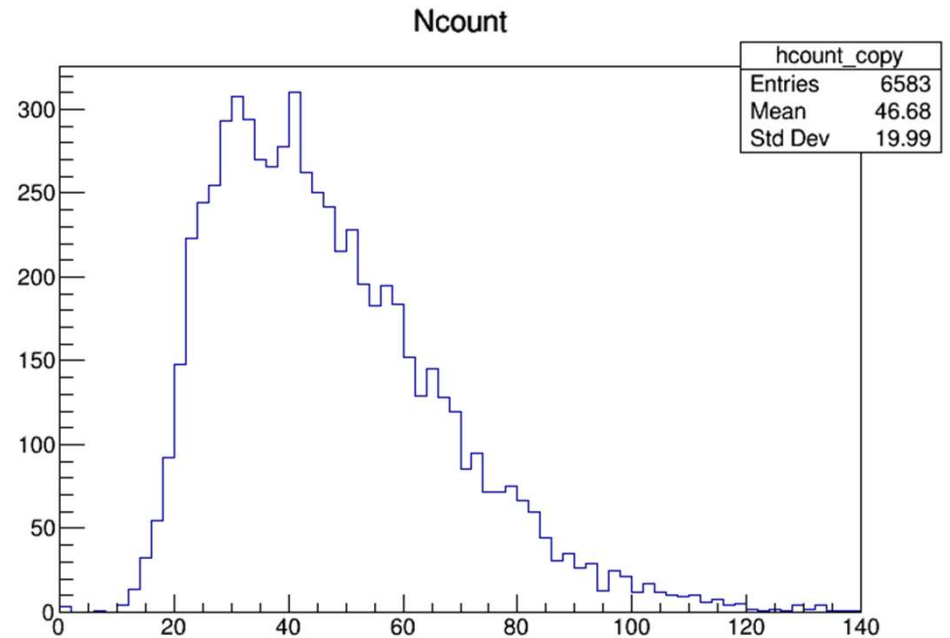


Correct ncount to $ncount(t_0)$

Ncount Comparison (t_F Correction)



Before correction
 $18.29/40.81=44.82\%$

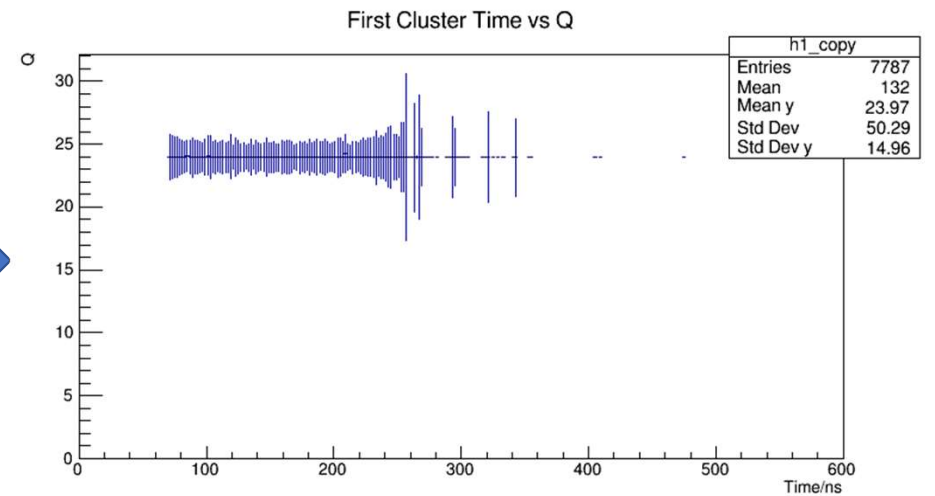
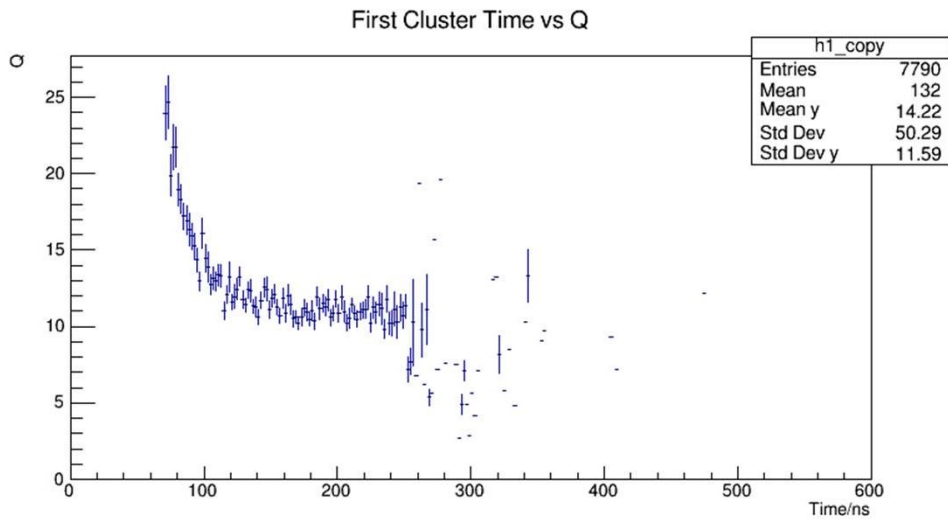


After correction
 $19.99/46.68=42.82\%$

dE/dx Correction Dependency on t_F

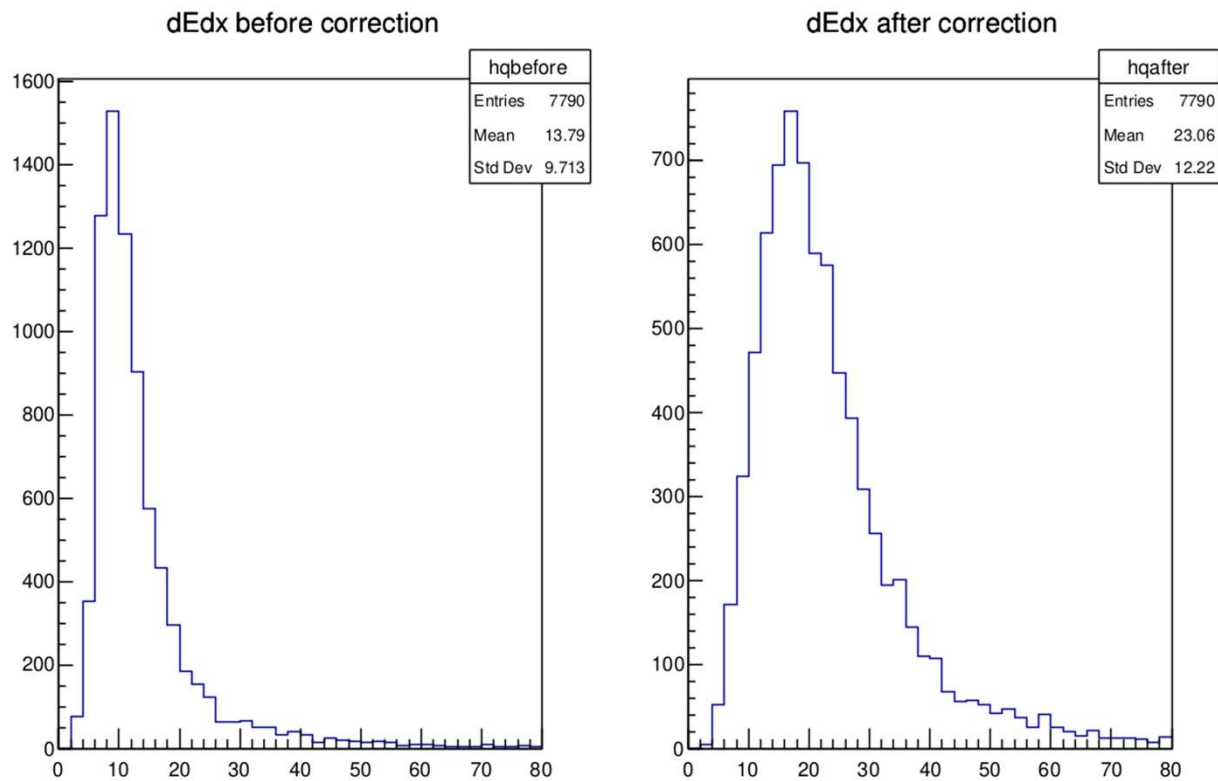
Q's unit is not converted

45° Run16+17+18



Correct dEdx to dEdx(t_0)

dE/dx Correction 45° Run16+17+18



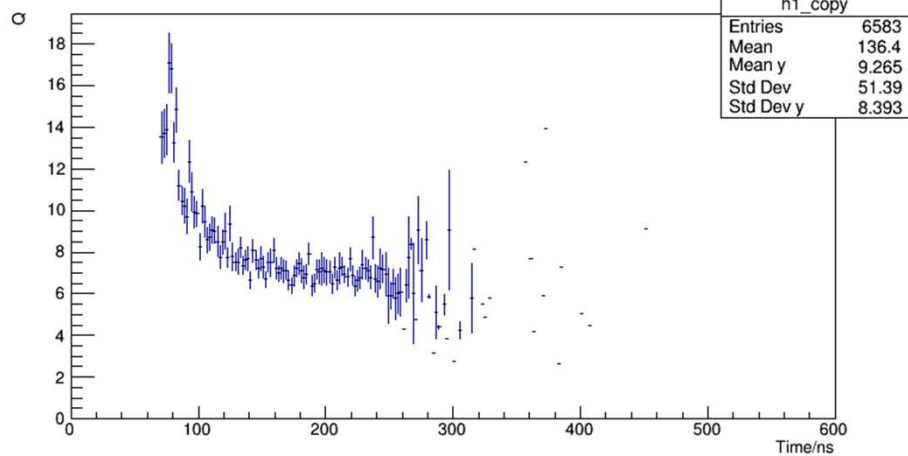
$$9.713/13.79=70.44\%$$

$$12.22/23.06=52.99\%$$

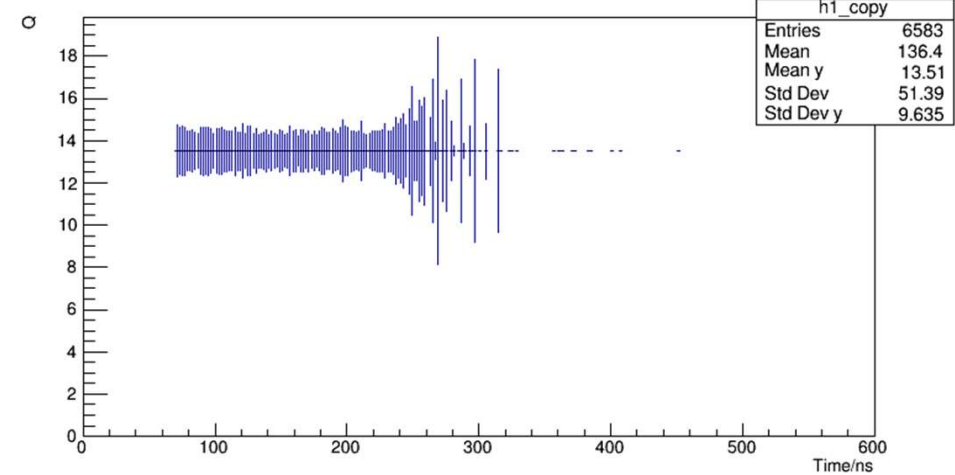
dE/dx Correction Dependency on t_F

0° Run12+13

First Cluster Time vs Q

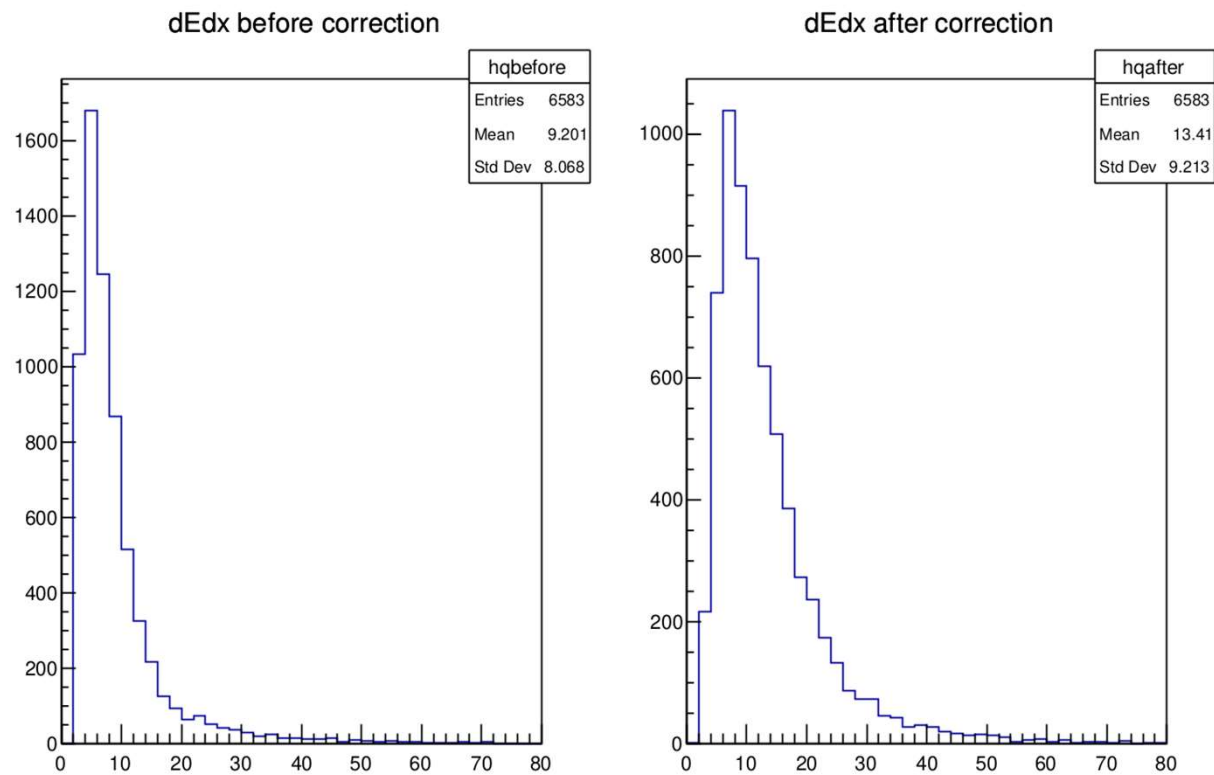


First Cluster Time vs Q



Correct dEdx to dEdx(t_0)

dE/dx Correction 0° Run12+13



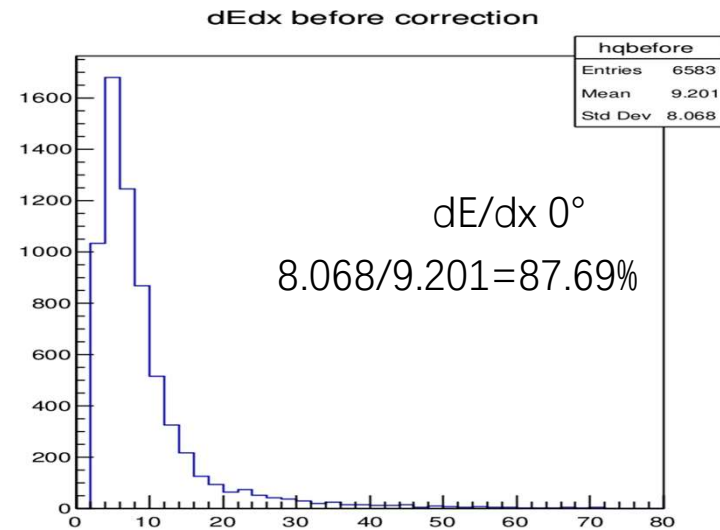
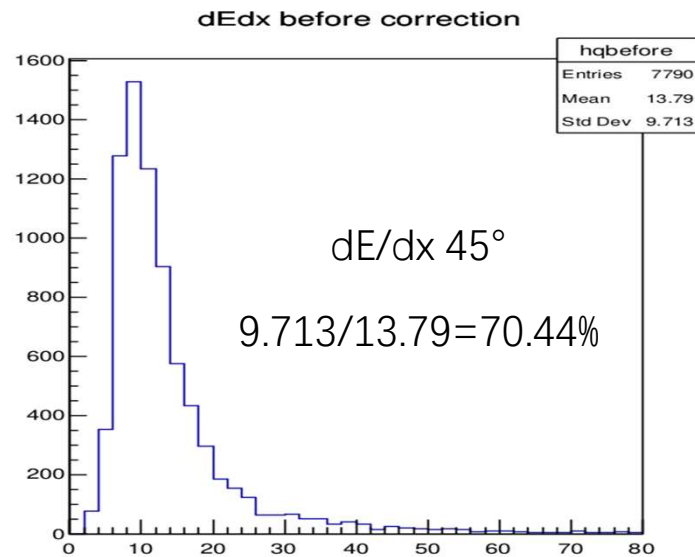
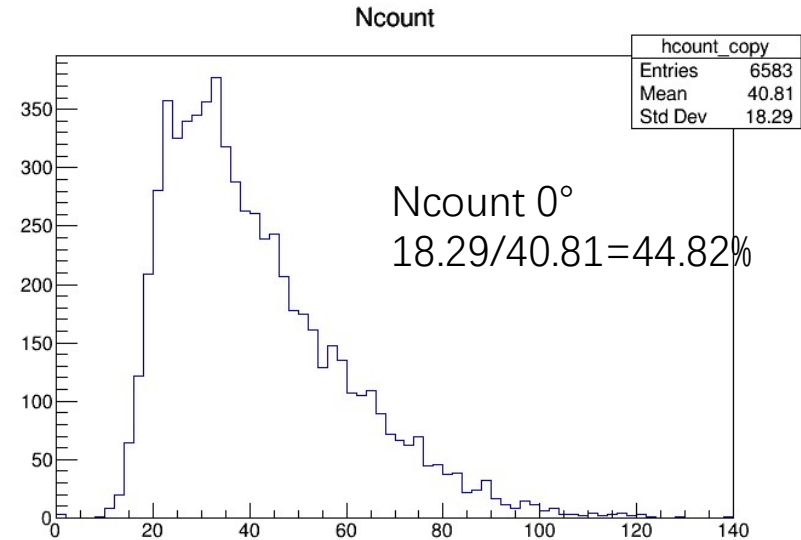
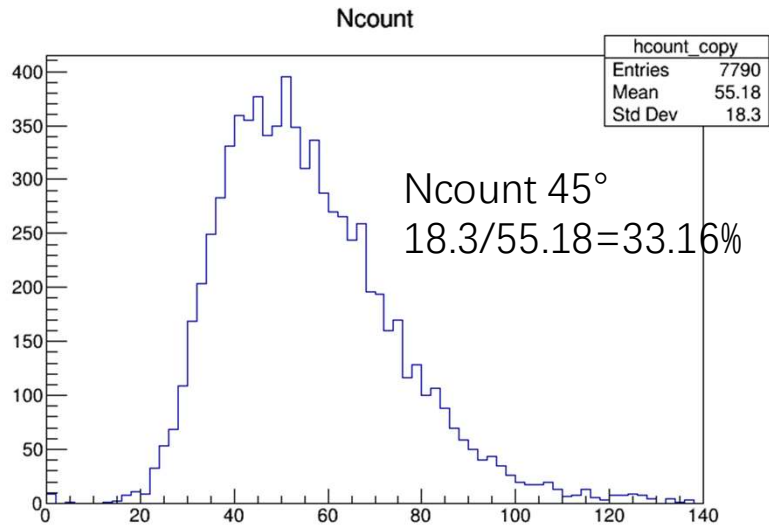
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$8.068/9.201=87.69\%$

$9.213/13.41=68.70\%$

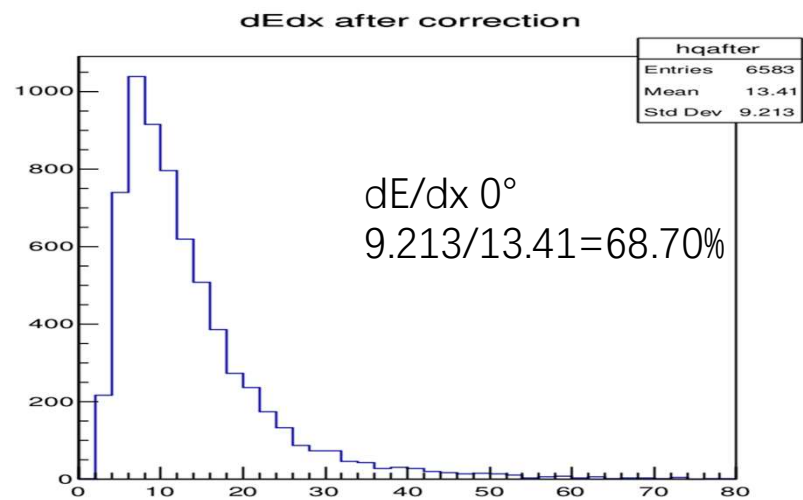
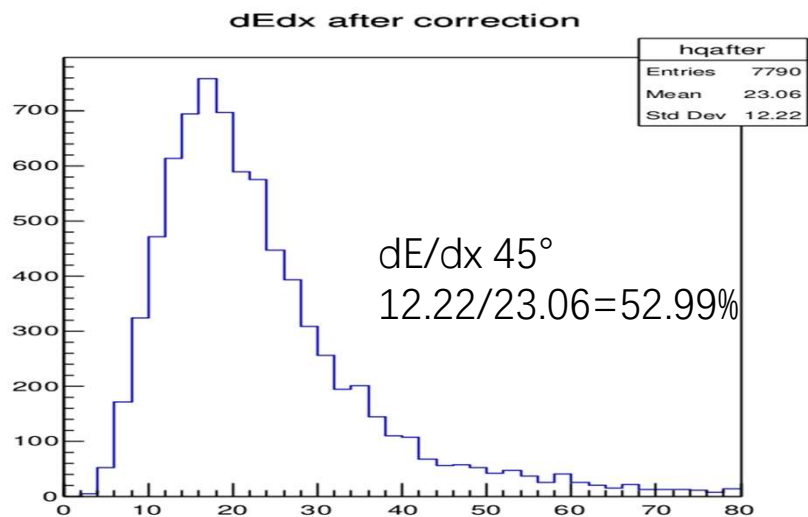
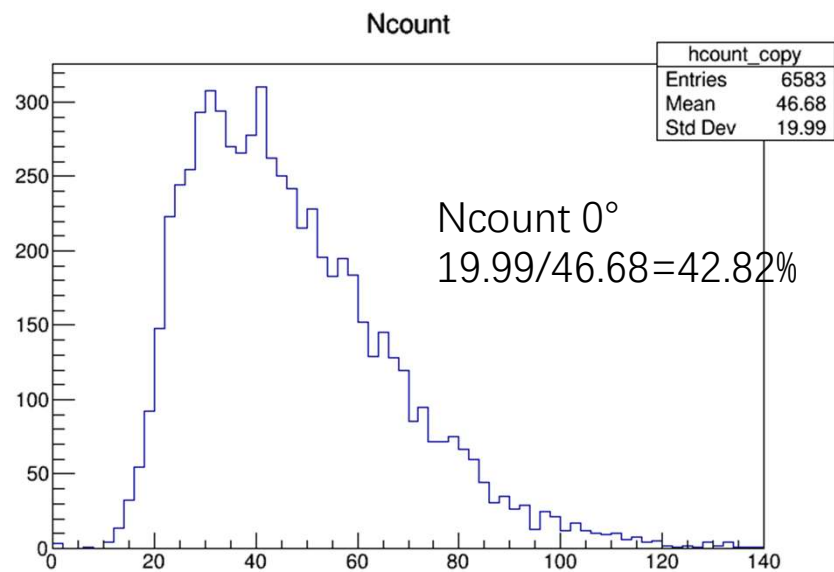
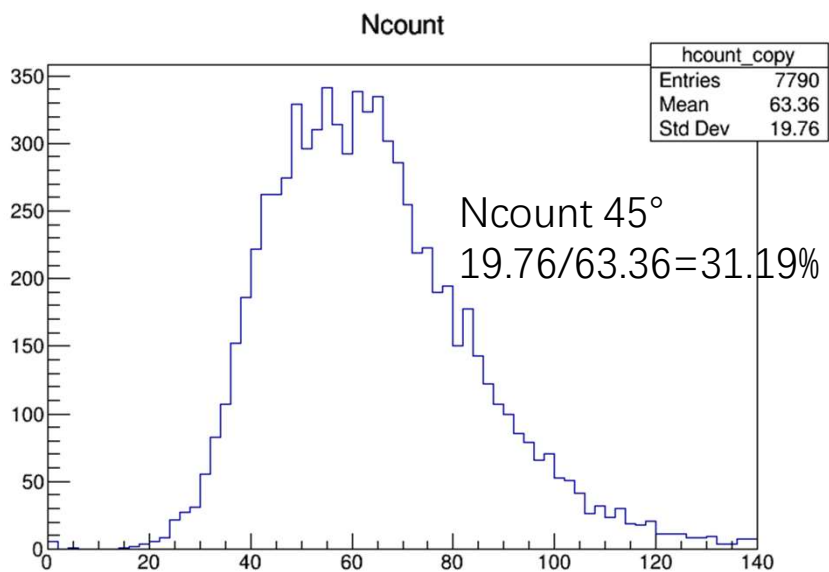
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Comparison between dN/dx and dE/dx: **Before Correction**



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Comparison between dN/dx and dE/dx: **After Correction**



Summary

- Correction on the dependency of t_F to dN/dx
 - Gas 90/10, sampling rate 1.5G, ch5 1cm, 45°/0°
 - >60000 events, ~7000 signal events in each group
 - Resolution is improved.
- Correction on the dependency of t_F to dE/dx
 - Resolution is improved.
- Next
 - Clustering in dN/dx analysis