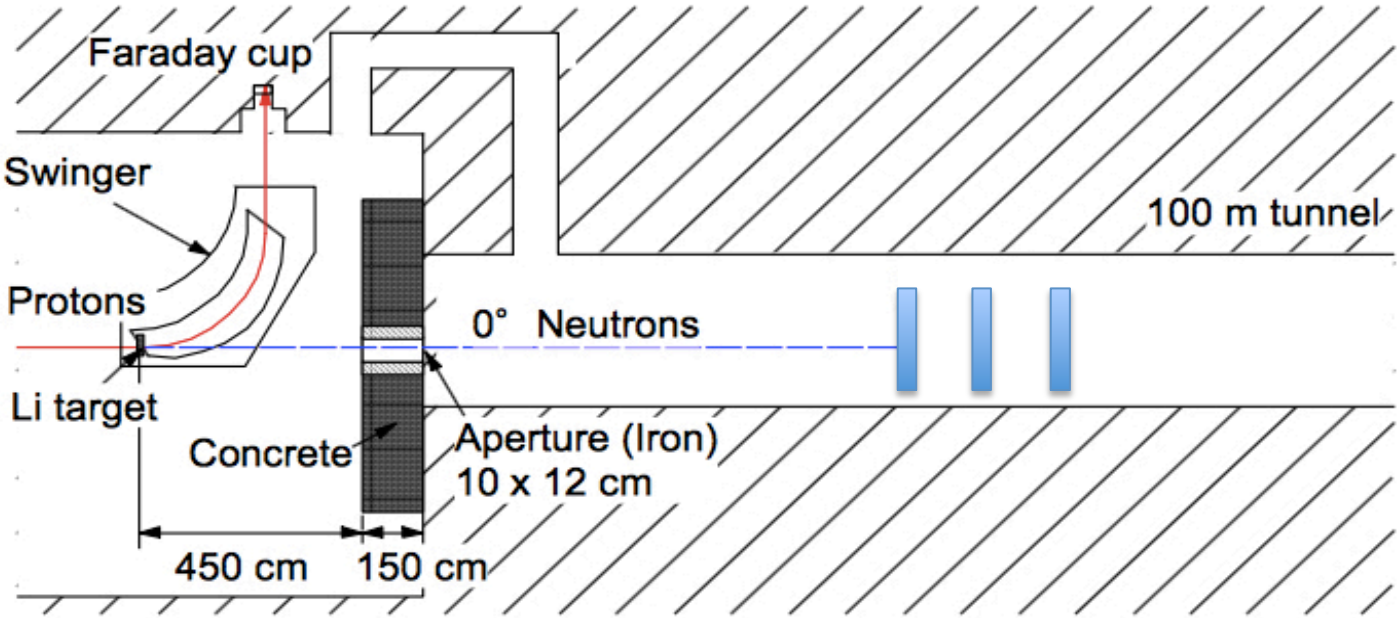
Experiment environment



$P+{}^{7}Li \rightarrow n + {}^{7}Be$

- Beam

Neutron flux : $4*10^{9}$ n/sr/muC

Beam chopper: 1/9

Beam current : 10 nA

-Target

Li Target : 2cm Diameter ,1cm thick

- Detector

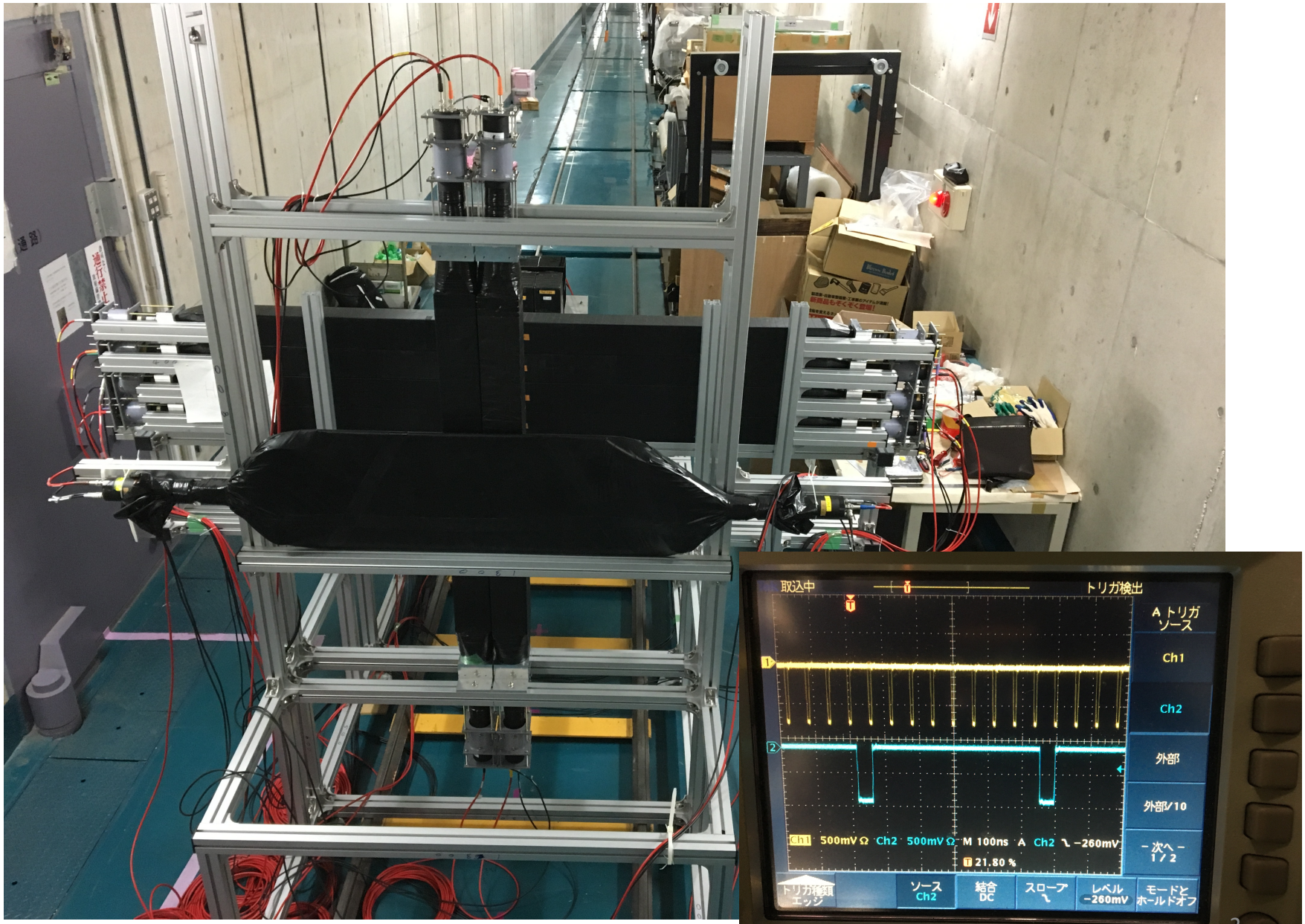
1^{st} ST : 2 (10cm*100cm*10cm)

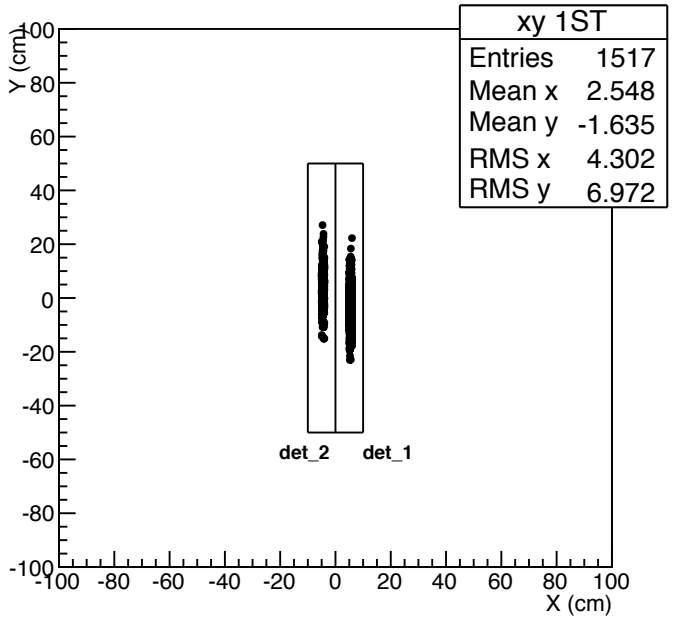
2^{nd} ST : 4 (200cm*10cm*10cm)

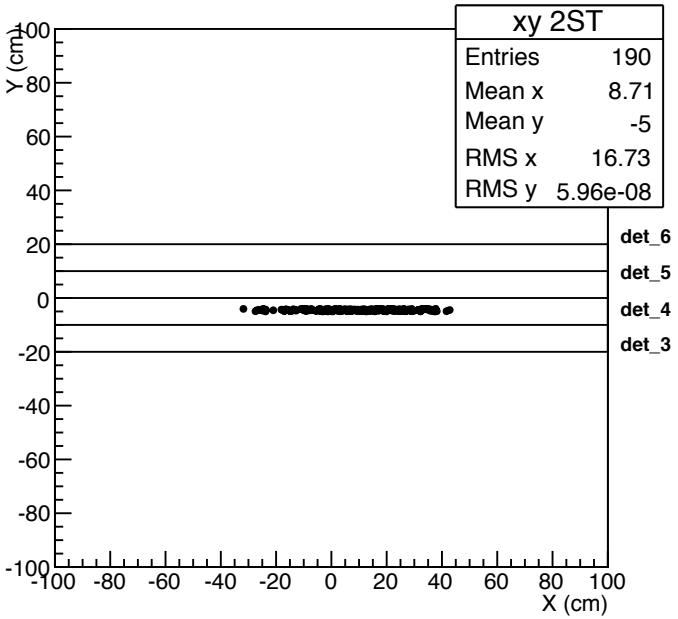
3^{rd} ST : 4 (10cm*10cm*20cm)

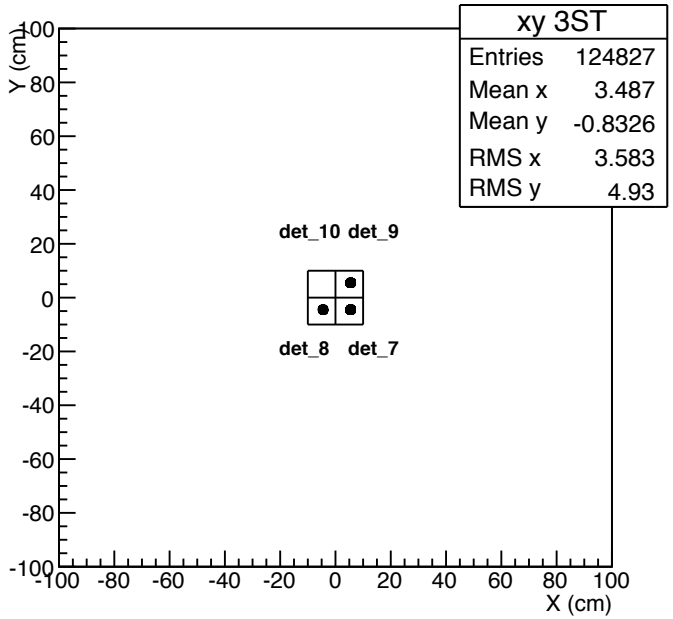
distance between target and detector : 15m

gap between stations : 60 cm


取込中
トリガ検出
A トリガ
ソース
Ch1
Ch2
外部
外部/10
－次へ－
1 / 2
Ch1 500mV Ω Ch2 500mV Ω M 100ns A Ch2 ∖ −260mV
21.80 %
トリガ種類
エッジ
ソース
Ch2
結合
DC
スロープ
∖
レベル
−260mV
モードと
ホールドオフ





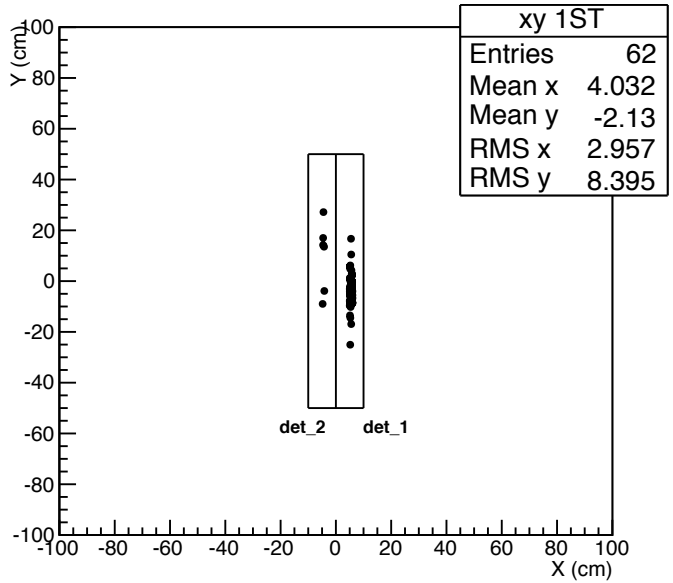


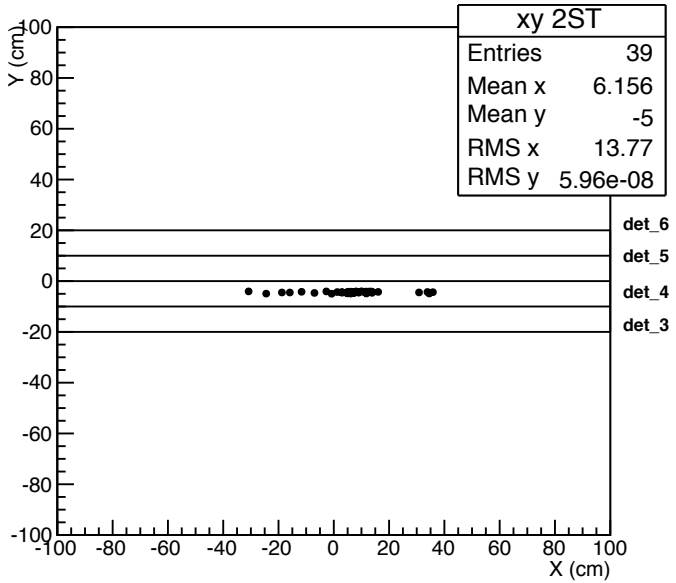
$X = (t_1 - t_2)v/2$

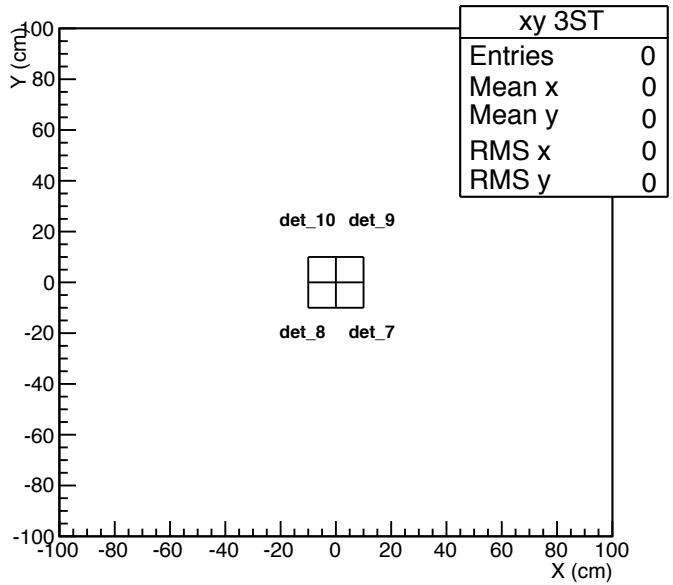
$T = ((t_1 + t_2) - \text{det\_length/velocity})/2$

Al target

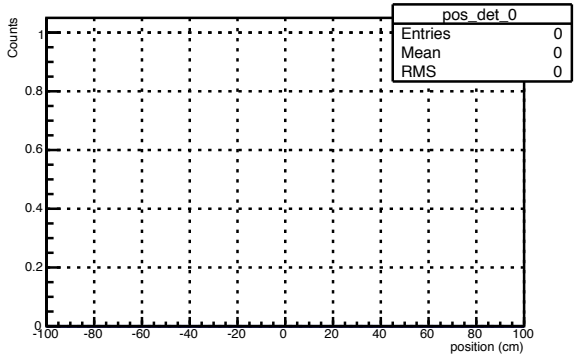
392 MeV(filename : beamNew30)
200 events

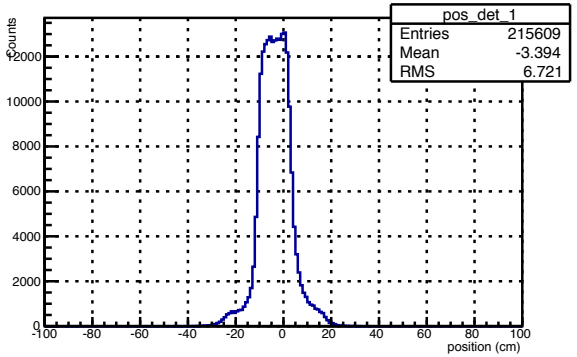


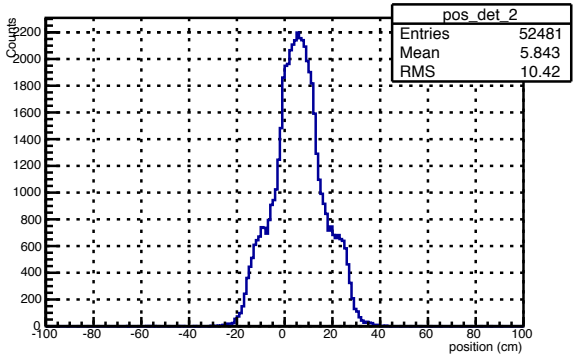


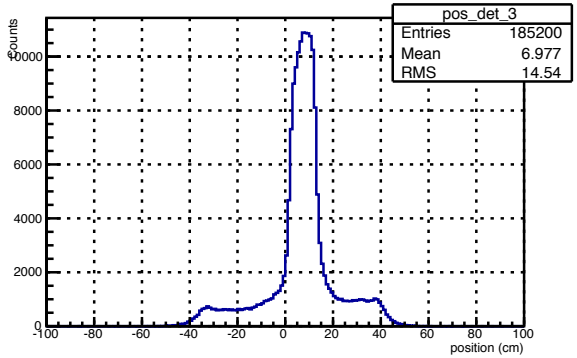


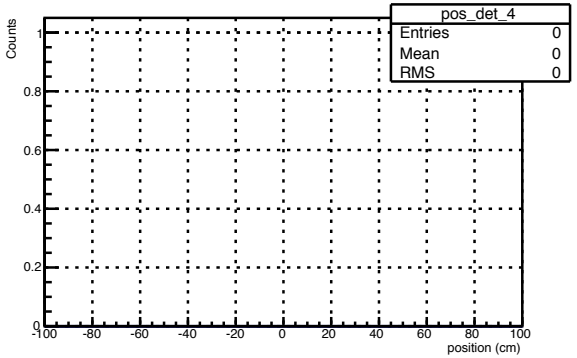
Position distribution
392 MeV(filename : beamNew30)

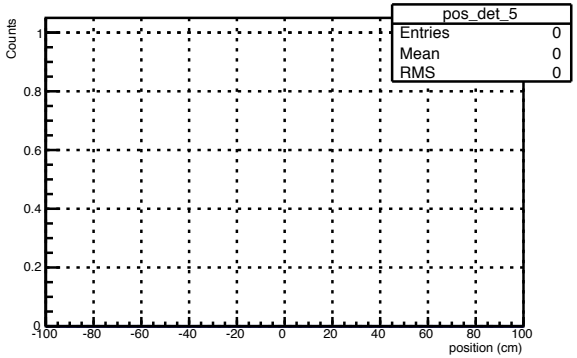


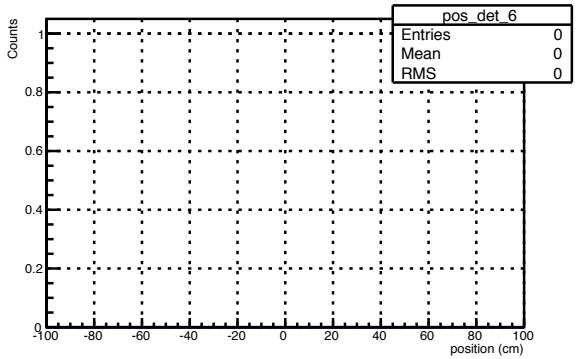


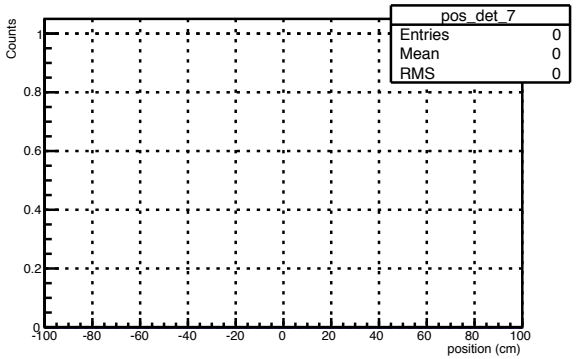


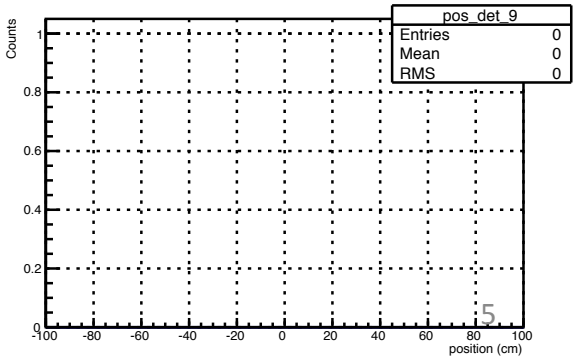










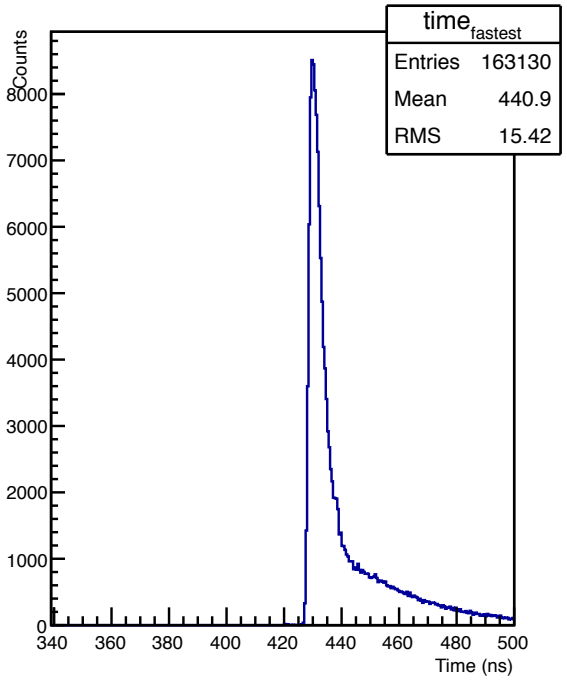


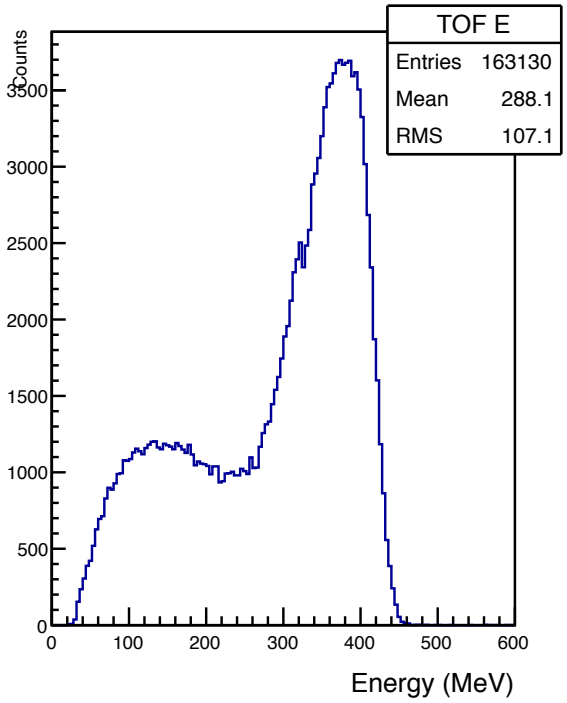
TOF time and energy

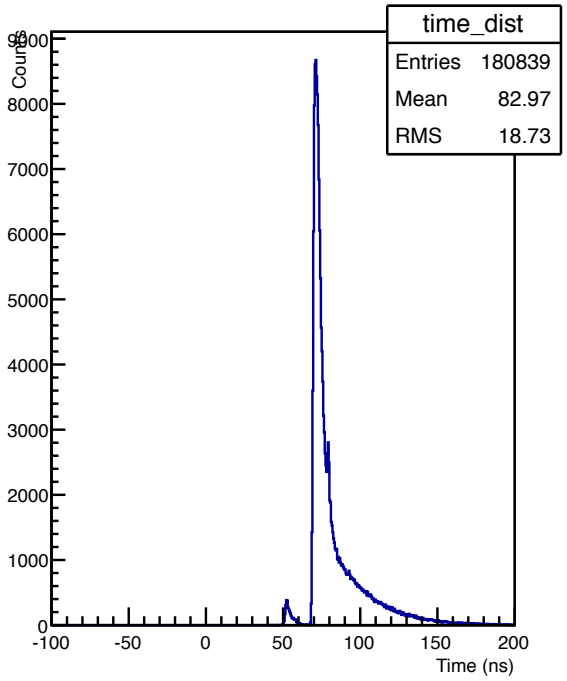
Total DATA :
65 MeV ~ 50 Run (2GB/Run)
392 MeV ~ 50 Run

$E_{tof} = 939.6*t*c/sqrt(t^2c^2-L^2)$ -939.6

392 MeV(filename : beamNew30)

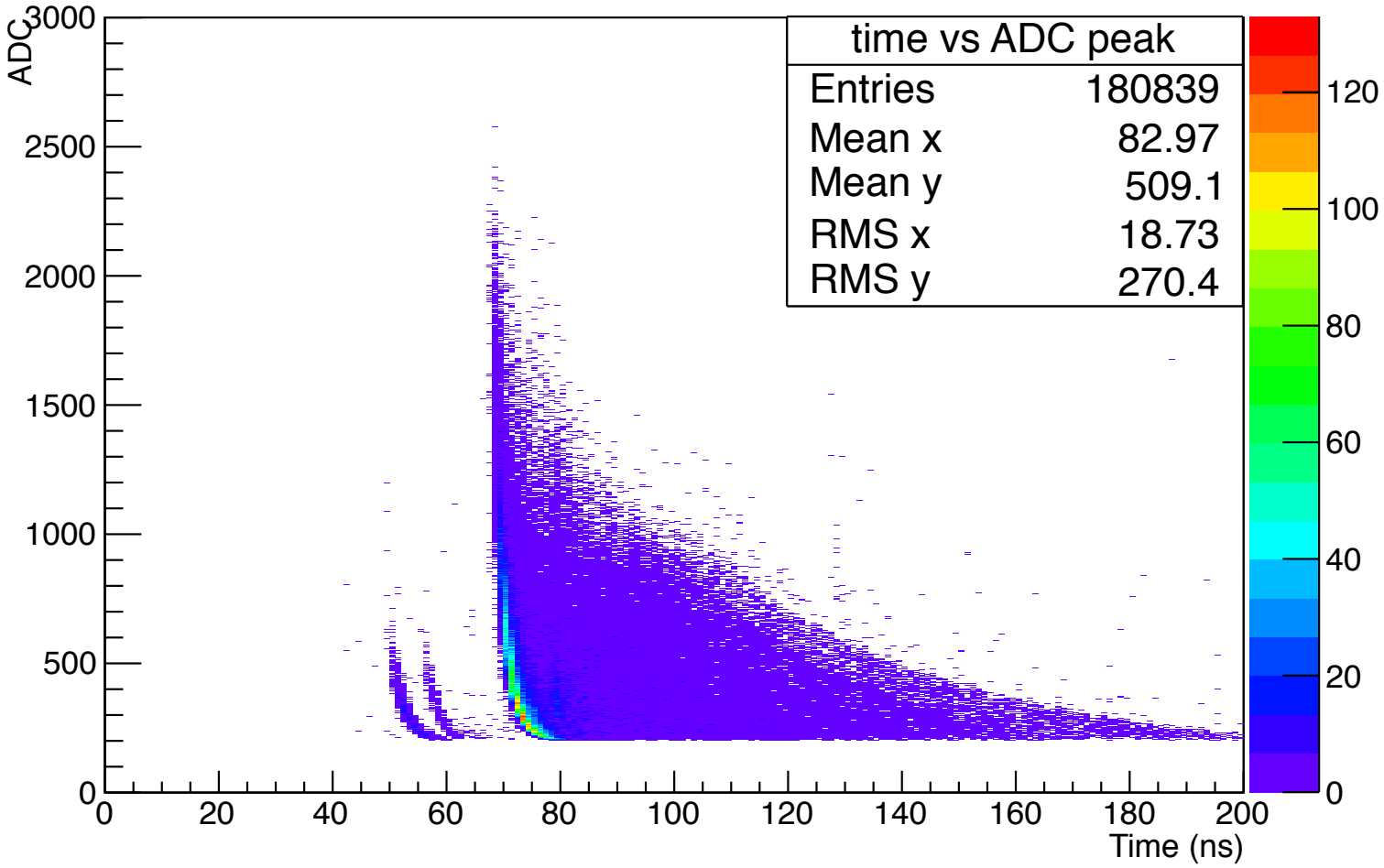






ADC VS TOF TIME

392 MeV(filename : beamNew30)



Number of fired detector