Tg Y

File: /home/miham/Hive/JLab/e05102/...MatrixElements_NewBestList.dat

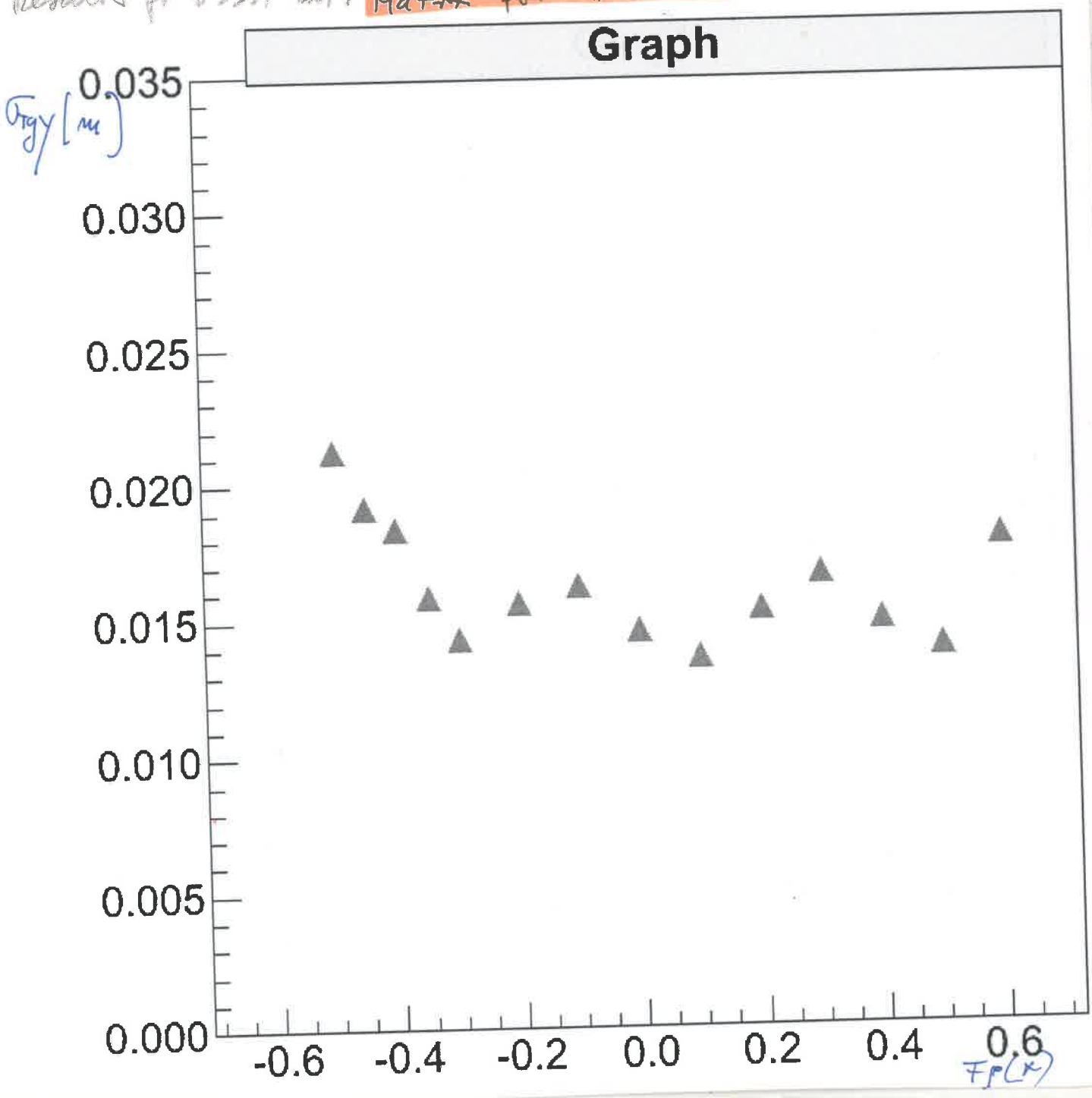
```
Mean Value of parameter b0000 : 0.0231798 +/- 0.000651507, Relative Error: 2.81067 [%]
Mean Value of parameter b0001 : -2.7658 +/- 0.00487531, Relative Error: 0.176271 [%]
Mean Value of parameter b0002 : -2.33569 +/- 0.225914, Relative Error: 9.67225 [%]
Mean Value of parameter b0003 : 19.9915 +/- 2.32411, Relative Error: 11.6255 [%]
Mean Value of parameter b0010 : 0.917005 +/- 0.0109906, Relative Error: 1.19853 [%]
Mean Value of parameter b0011 : 1.98481 +/- 0.200439, Relative Error: 10.0986 [%]
Mean Value of parameter b0012 : -30.8046 +/- 5.11549, Relative Error: 16.6063 [%]
Mean Value of parameter b0020 : -0.635172 +/- 0.0761679, Relative Error: 11.9917 [%]
Mean Value of parameter b0021 : 20.2199 +/- 2.79304, Relative Error: 13.8133 [%]
Mean Value of parameter b0030 : -6.60272 +/- 0.645897, Relative Error: 9.78228 [%]
Mean Value of parameter b0100 : 0.0388851 +/- 0.00241045, Relative Error: 6.19891 [%]
Mean Value of parameter b0101 : -0.613253 +/- 0.229859, Relative Error: 37.4818 [%]
Mean Value of parameter b0110 : 0.876846 +/- 0.166125, Relative Error: 18.9457 [%]
Mean Value of parameter b0111 : 2.25219 +/- 0.268963, Relative Error: 11.9423 [%]
Mean Value of parameter b0112 : -28.7562 +/- 15.3064, Relative Error: 53.2282 [%]
Mean Value of parameter b0120 : -1.35994 +/- 0.513398, Relative Error: 37.7515 [%]
Mean Value of parameter b0121 : 47.3592 +/- 9.73069, Relative Error: 20.5466 [%]
Mean Value of parameter b0201 : -0.870169 +/- 0.908885, Relative Error: 104.449 [%]
Mean Value of parameter b0210 : 1.61122 +/- 1.24163, Relative Error: 77.0616 [%]
Mean Value of parameter b0220 : 4.62632 +/- 3.11877, Relative Error: 67.4136 [%]
Mean Value of parameter b1001 : -0.241997 +/- 0.0637921, Relative Error: 26.3607 [%]
Mean Value of parameter b1002 : 4.94169 +/- 1.03147, Relative Error: 20.8728 [%]
Mean Value of parameter b1003 : -67.6181 +/- 14.6142, Relative Error: 21.6129 [%]
Mean Value of parameter b1010 : 0.358788 +/- 0.112288, Relative Error: 31.2966 [%]
Mean Value of parameter b1011 : -9.50365 +/- 1.74761, Relative Error: 18.3889 [%]
Mean Value of parameter b1012 : 177.272 +/- 35.9156, Relative Error: 20.2602 [%]
Mean Value of parameter b1020 : 4.41392 +/- 0.792485, Relative Error: 17.9542 [%]
Mean Value of parameter b1021 : -168.771 +/- 26.5246, Relative Error: 15.7164 [%]
Mean Value of parameter b1030 : 49.9945 +/- 8.35393, Relative Error: 16.7097 [%]
Mean Value of parameter b2000 : 0.0364146 +/- 0.00045507, Relative Error: 1.24969 [%]
Mean Value of parameter b2001 : -1.03855 +/- 0.133361, Relative Error: 12.8411 [%]
Mean Value of parameter b2010 : 1.91131 +/- 0.16869, Relative Error: 8.82589 [%]
Mean Value of parameter b2020 : -0.227262 +/- 0.301809, Relative Error: 132.802 [%]
Mean Value of parameter b2101 : 0.2436 +/- 0.537008, Relative Error: 220.446 [%]
Mean Value of parameter b3000 : -0.1306 +/- 0.00970192, Relative Error: 7.42875 [%]
Mean Value of parameter b3001 : 5.63012 +/- 0.112515, Relative Error: 1.99845 [%]
Mean Value of parameter b3010 : -8.24815 +/- 0.0907068, Relative Error: 1.09972 [%]
```

Sedaj pričajam iz Stage 0 samo ne vse, le kodo iznelo v imenu ROOT file Stage 1.

Stage 0 vam bo izračunalo ostale matrike. Stage 1 vam bo izračunalo samo matriko za Tg Y, ki bo nadomestila kalibracijo Tg2 in Tg4.

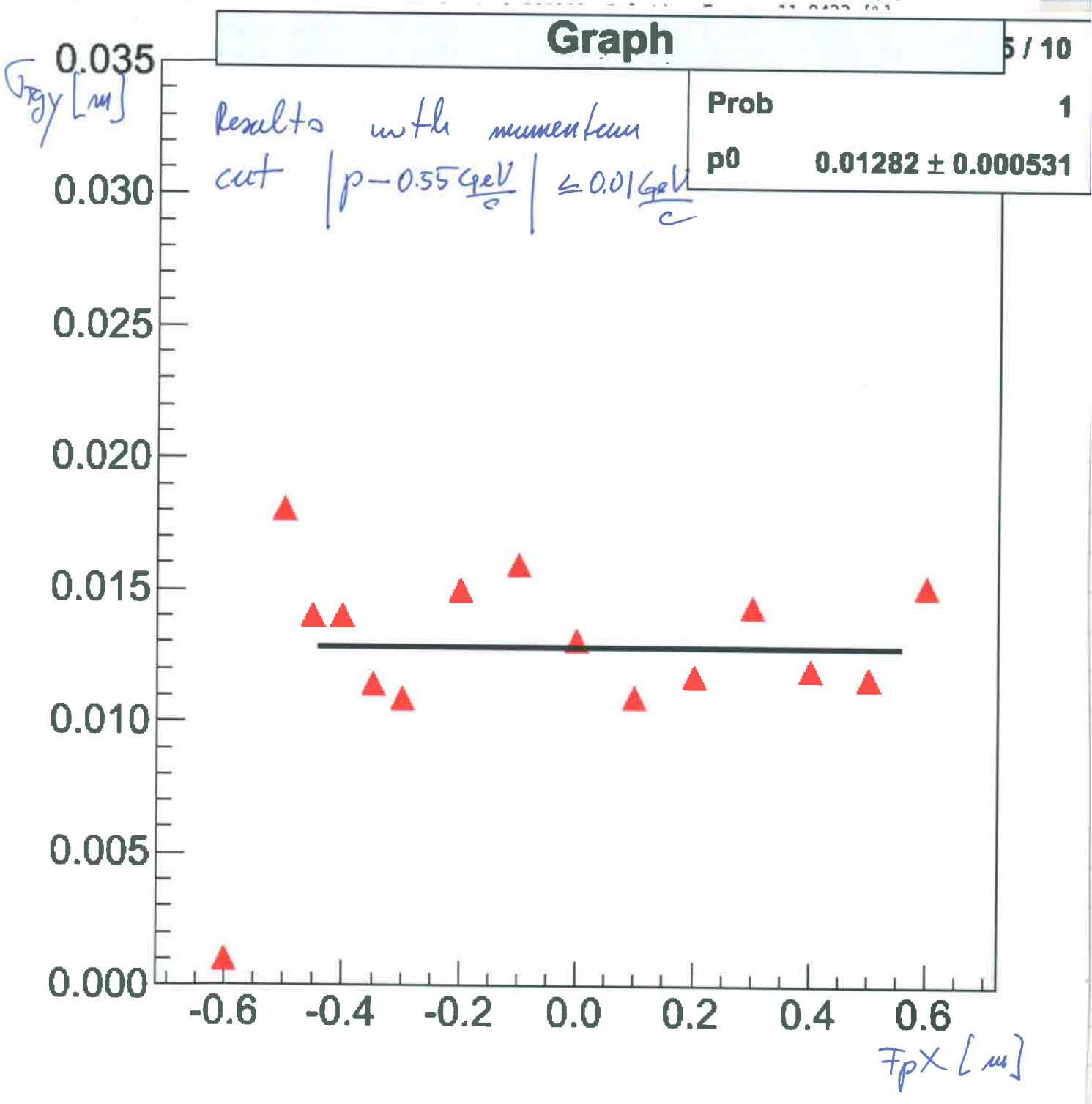
/16/II Then I checked, kakšne rezultate dobimo, za run #3371, de za analizo uporabimo matriko, ki sem jo dobil za rune #3371, #3370, #3400, #3491 in kaj dobimo, de uporabimo matriko, ki jo dobimo, de povprečimo vse prejšnje matrike?

results for #3371 with Matrix for #3370



File: /home/miham/Hive/JLab/e05102...MatrixElements_NewBestList.dat

```
Mean Value of parameter b0000 : 0.0231798 +/- 0.000651507, Relative Error: 2.81067 [%]
Mean Value of parameter b0001 : -2.7658 +/- 0.00487531, Relative Error: 0.176271 [%]
Mean Value of parameter b0002 : -2.33569 +/- 0.225914, Relative Error: 9.67225 [%]
Mean Value of parameter b0003 : 19.9915 +/- 2.32411, Relative Error: 11.6255 [%]
Mean Value of parameter b0010 : 0.917005 +/- 0.0109906, Relative Error: 1.19853 [%]
Mean Value of parameter b0011 : 1.98481 +/- 0.200439, Relative Error: 10.0986 [%]
Mean Value of parameter b0012 : -30.8046 +/- 5.11549, Relative Error: 16.6063 [%]
Mean Value of parameter b0020 : -0.635172 +/- 0.0761679, Relative Error: 11.9917 [%]
Mean Value of parameter b0021 : 20.2199 +/- 2.79304, Relative Error: 13.8133 [%]
Mean Value of parameter b0030 : -6.60272 +/- 0.645897, Relative Error: 9.78228 [%]
Mean Value of parameter b0100 : 0.0388851 +/- 0.00241045, Relative Error: 6.19891 [%]
Mean Value of parameter b0101 : -0.613253 +/- 0.229859, Relative Error: 37.4818 [%]
Mean Value of parameter b0110 : 0.876846 +/- 0.166125, Relative Error: 18.9457 [%]
```



File: /home/miham/Hive/JLab/e05102/RawFileAnalysis/replay_L.cdef P

```
Block: RawDecode

Block: Decode
TriggerT3 (DL.evtypebits&8) == 8
CoincT5  (DL.evtypebits&32) == 32
CoincT6  (DL.evtypebits&64) == 64
Decode_master  CoincT5 || CoincT6 || TriggerT3
```

Vzamem vse koincidence in HRS-L single, ker se v mojih zaradi respektov nastavljenega koincidenčnega okna tudi shrivajo koincidence. Te dobim ven s kasnejšimi cuti! (*)

```
Block: Tracking

BBTrack          BB.tr.n > 0
Tracking_master  BBTrack
```

Samo evente, ki postijo track v BB.

```
Block: Physics

HRSLGoldDp L.gold.dp > -0.045 && L.gold.dp < 0.045
HRSLGoldTh L.gold.th > -0.06 && L.gold.th < 0.06
HRSLGoldPh L.gold.ph > -0.03 && L.gold.ph < 0.03
```

Splošni cuti na akceptanco BigBite.

```
BBTpTrackMatch  BB.tp.trHitIndex > -1
TargetSizeCut  ReactPt_L.z > -0.30 && ReactPt_L.z < 0.30
Physics_master  TargetSizeCut  && BBTpTrackMatch && HRSLGoldDp && HRSLGoldTh && HRSLGoldPh
```

Cuti, ki jih vklyučim v ROOT scripto

e: Unsaved Document 1 Page

```
if ((int)BB_tr_n != 1 ) continue;
if (Ndata_DL_t3 >1) continue;
if (Ndata_DL_t5 <1) continue;
//if (fabs(BB_gold_p-0.55)>0.02) continue;
//if (fabs(BB_gold_p-0.55)>0.1) continue;
//if (!( fabs(ReactPt_L_z-(0.00119 - 0.0*0.066548))<0.0122 && fabs(DL_t3[0]-820)<30 )) continue;
if (!(fabs(DL_t3[0]-820)<30 )) continue;
```

Hočemo le tiste vemte z enim trackom v kanonah. Tek je vedina!

(*)

To je grabi cut na Coincidencev čas.

Pa moje je
bolje uporabljati
Mdata.DL.T5 > 0
kot pa
(DL.evtypebits232)==32.
Ta ne dela oz PS5 ≥ ∞

File: Unsaved Document 1 Page 1 c

Cut summary:

Name	Def	Called	Passed
BLOCK: Decode			
TriggerT3 (82.6%)	(DL.evtypebits&8)==8	1000000	825803
CoincT5 (23.8%)	(DL.evtypebits&32)==32	1000000	238390
CoincT6 (11.5%)	(DL.evtypebits&64)==64	1000000	114961
Decode_master (98.7%)	CoincT5||CoincT6||TriggerT3	1000000	987094
BLOCK: Tracking			
BBTrack (19.8%)	BB.tr.n>0	987094	195779
Tracking_master (19.8%)	BBTrack	987094	195779
BLOCK: Physics			
HRSLGoldDp (90.7%)	L.gold.dp>-0.045&&L.gold.dp<0.045	195779	177545
HRSLGoldTh (88.2%)	L.gold.th>-0.06&&L.gold.th<0.06	195779	172658
HRSLGoldPh (85.9%)	L.gold.ph>-0.03&&L.gold.ph<0.03	195779	168268
BBTpTrackMatch (56%)	BB.tp.trHitIndex>-1	195779	109633
TargetSizeCut (89.3%)	ReactPt_L.z>-0.30&&ReactPt_L.z<0.30	195779	174772
Physics_master (46.7%)	TargetSizeCut&&BBTpTrackMatch&&HRSLGoldDp&&HRSLGoldTh&&HRSLGoldPh	195779	91351

Ta cut jih najprej poje!

Tole je z original knjižnico, brez mojega popravka. Upoštevano samo full hit v TP.

Total : Real Time = 2328.33 seconds Cpu Time = 1836.53 seconds
Info in <TCanvas::Print>: file ./RasterPlots/BeamRasterPlot_2300.png has been created
YOU JUST ANALYZED RUN number 2300.

Imamo ~ 10% izplen! Za 1M eventov ⇒ 0.64 hour

Za 4M rabimo 2.5 hour

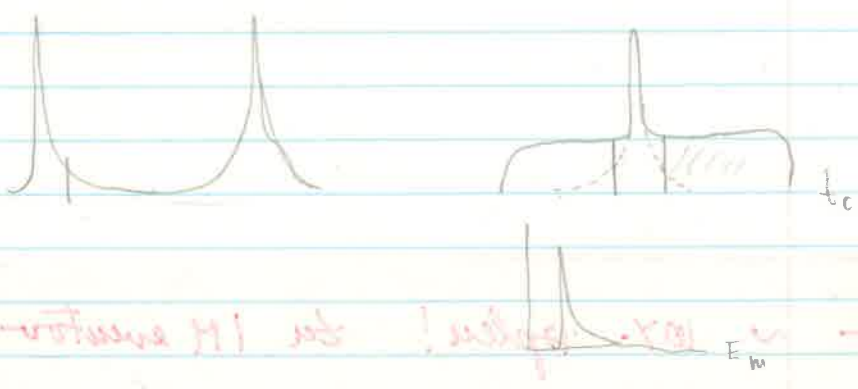
Cut summary:

Name	Def	Called	Passed
BLOCK: Decode			
TriggerT3 (82.6%)	(DL.evtypebits&8)==8	1000000	825803
CoincT5 (23.8%)	(DL.evtypebits&32)==32	1000000	238390
CoincT6 (11.5%)	(DL.evtypebits&64)==64	1000000	114961
Decode_master (98.7%)	CoincT5||CoincT6||TriggerT3	1000000	987094
BLOCK: Tracking			
BBTrack (19.8%)	BB.tr.n>0	987094	195779
Tracking_master (19.8%)	BBTrack	987094	195779
BLOCK: Physics			
HRSLGoldDp (90.7%)	L.gold.dp>-0.045&&L.gold.dp<0.045	195779	177545
HRSLGoldTh (88.2%)	L.gold.th>-0.06&&L.gold.th<0.06	195779	172658
HRSLGoldPh (85.9%)	L.gold.ph>-0.03&&L.gold.ph<0.03	195779	168268
BBTpTrackMatch (98.7%)	BB.tp.trHitIndex>-1	195779	193309
TargetSizeCut (89.2%)	ReactPt_L.z>-0.30&&ReactPt_L.z<0.30	195779	174721
Physics_master (81.6%)	TargetSizeCut&&BBTpTrackMatch&&HRSLGoldDp&&HRSLGoldTh&&HRSLGoldPh	195779	159807

Od tu se vidi, da ta cut ni noč problem, je nekaterim še pretežak kute.

Total : Real Time = 2335.67 seconds Cpu Time = 1850.74 seconds
Info in <TCanvas::Print>: file ./RasterPlots/BeamRasterPlot_2300.png has been created
YOU JUST ANALYZED RUN number 2300.
analyzer [1]

Sevedа si mu enakih želimo zajeti za sem kute, kr imaja v vseh detektorjih nekorelirane signale. To nam bo omogočalo dober PID. Potem pa nevtroj!



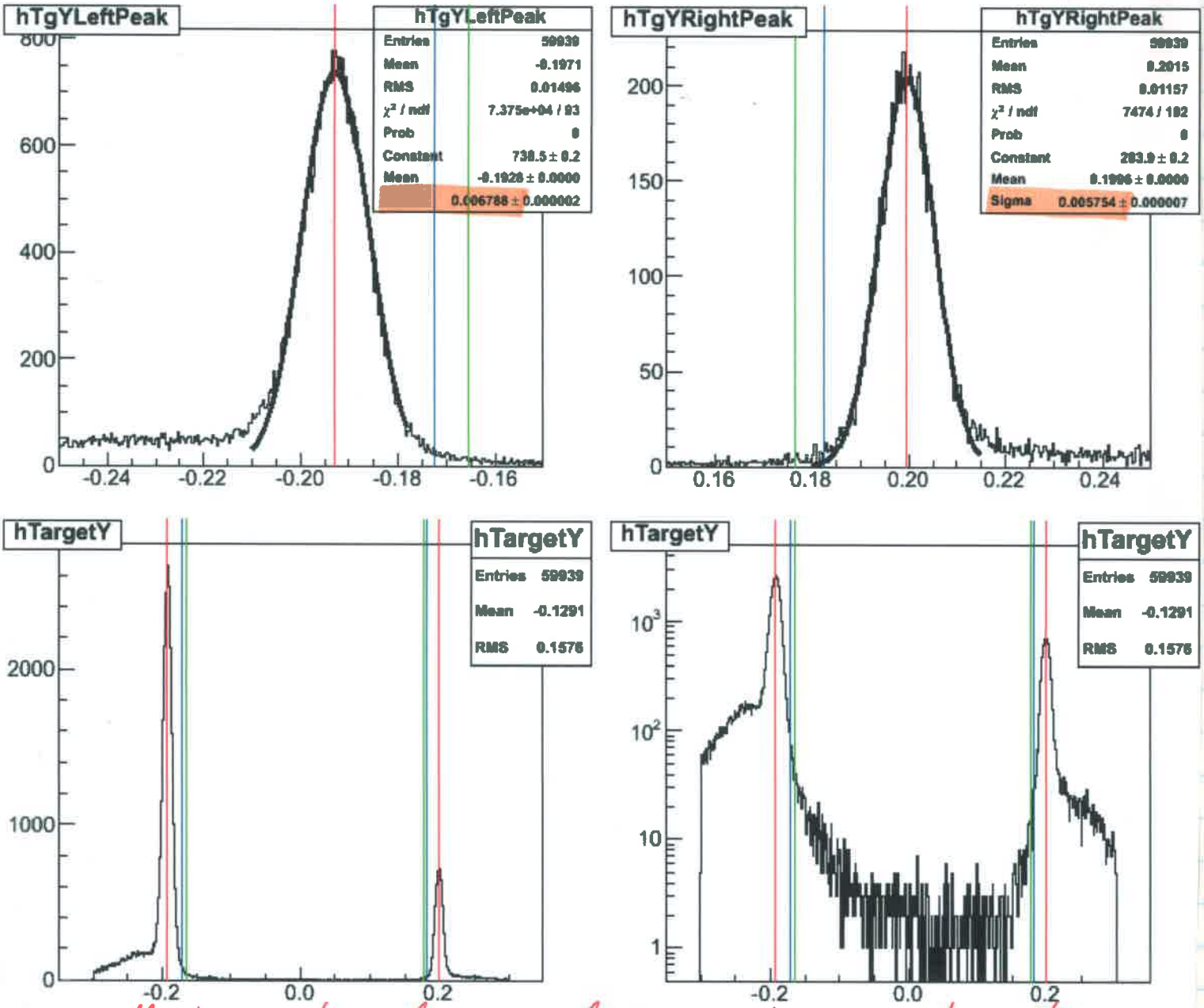
Empty Cell Run

3154, 3155

3496, 3585,

Ta mi de manjka.

Run #3155 (with wrong raster)



Still have to do analysis with correct raster.

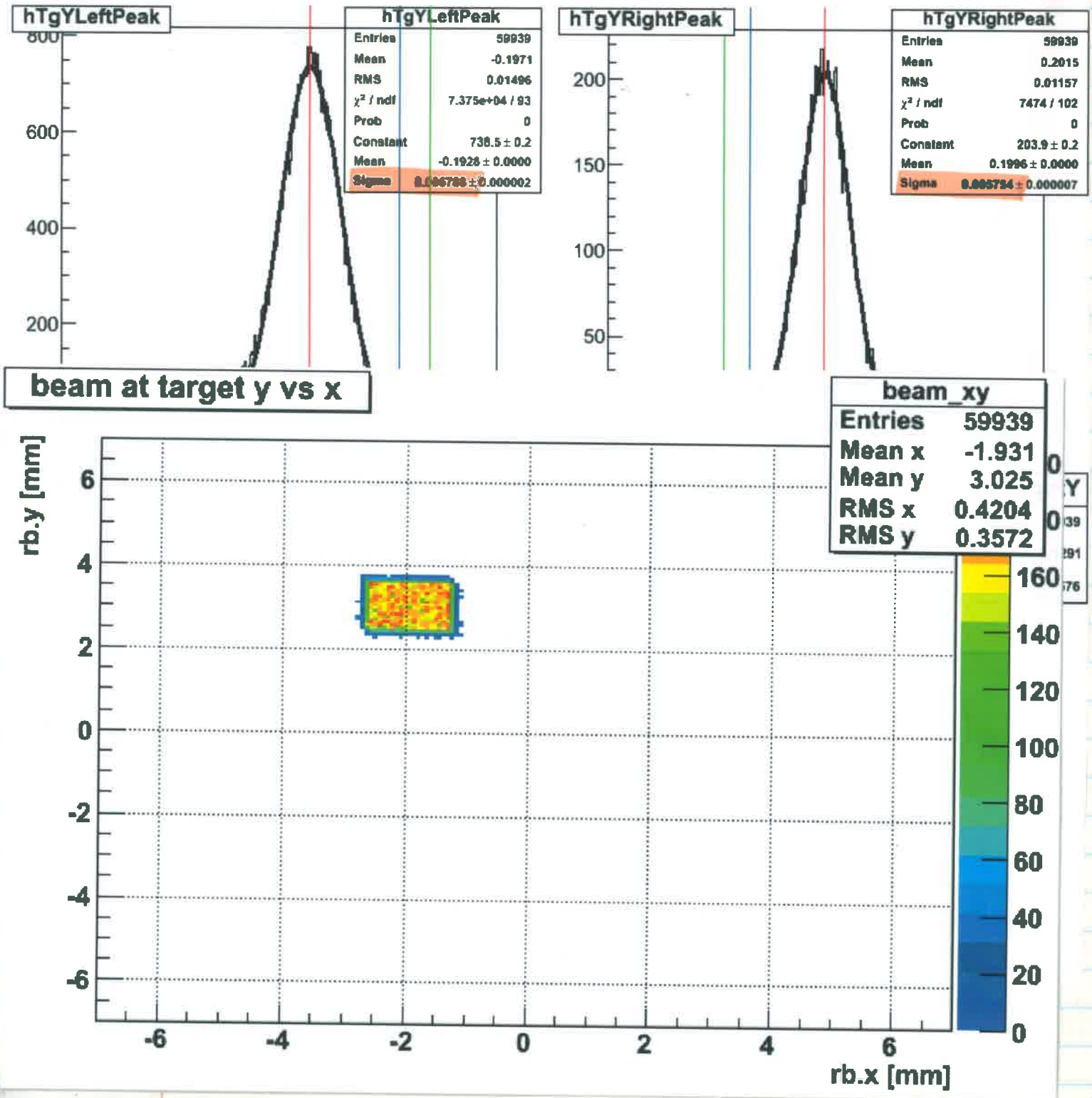
Empty Cell Run

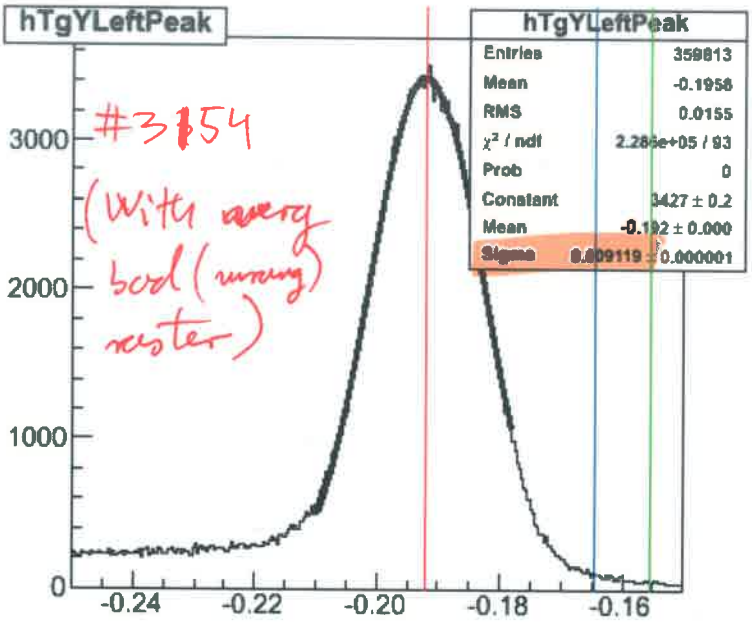
3154, 3155

3496, 3585,

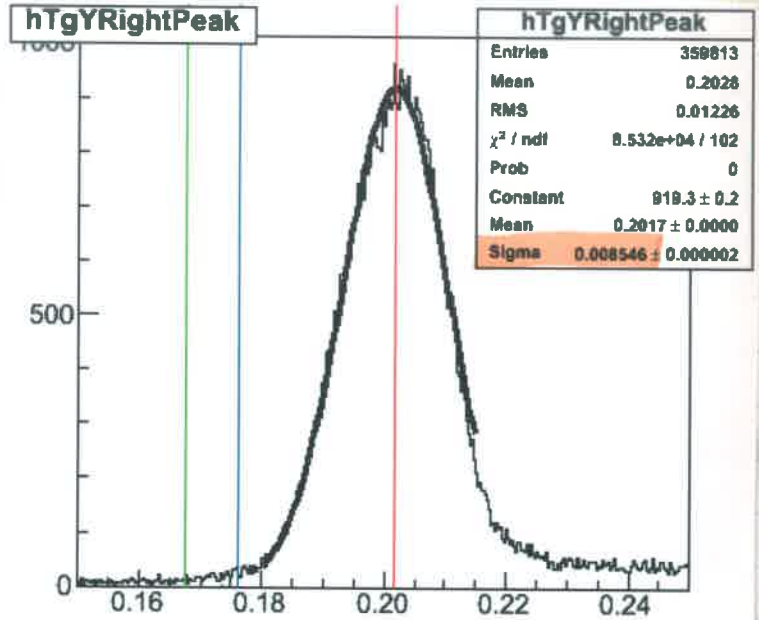
Ta me de maanjhen.

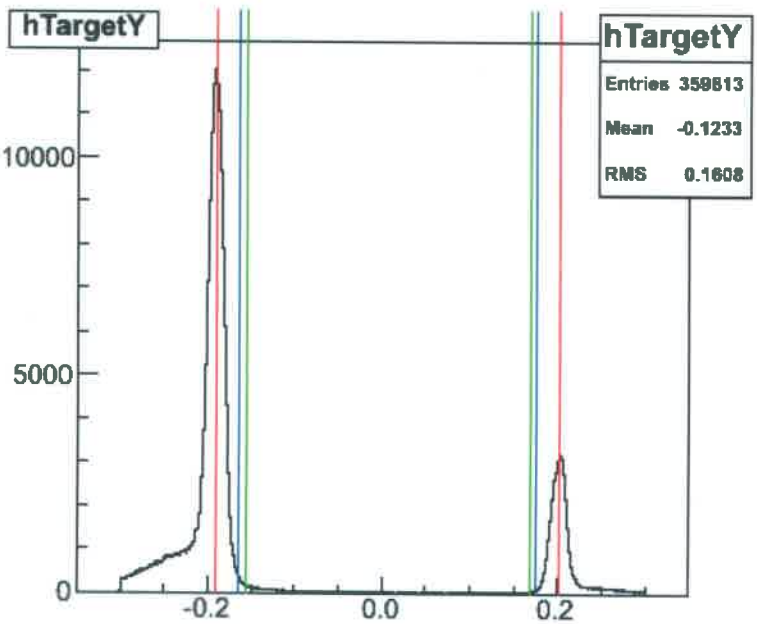
Run #3155 (with wrong raster)

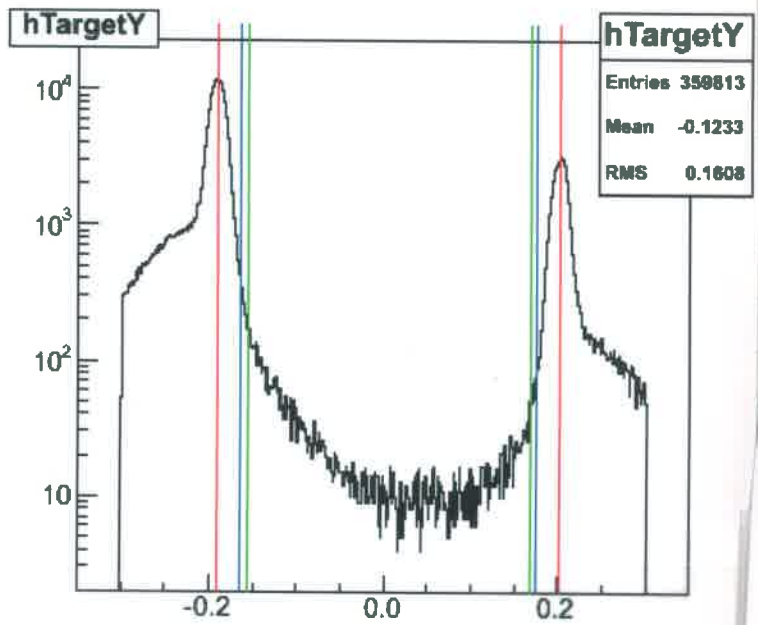


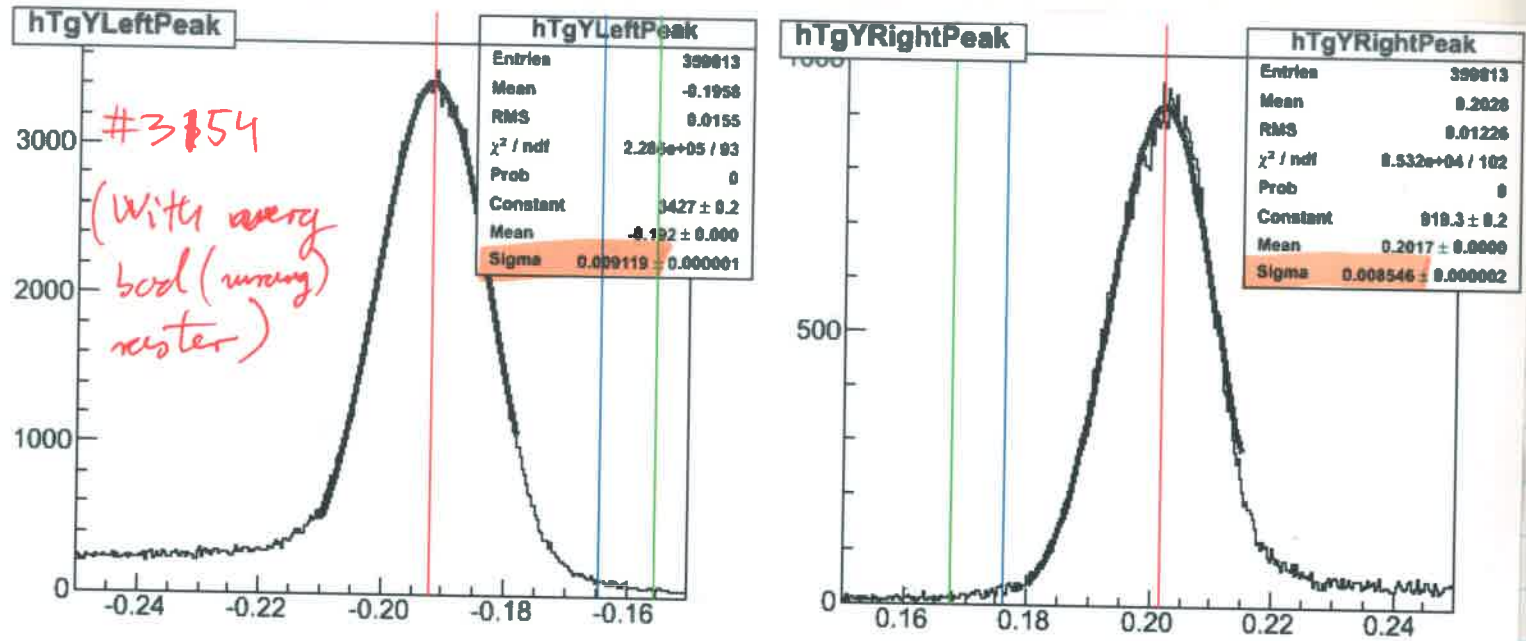


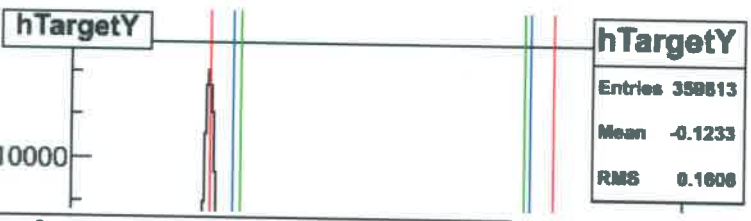
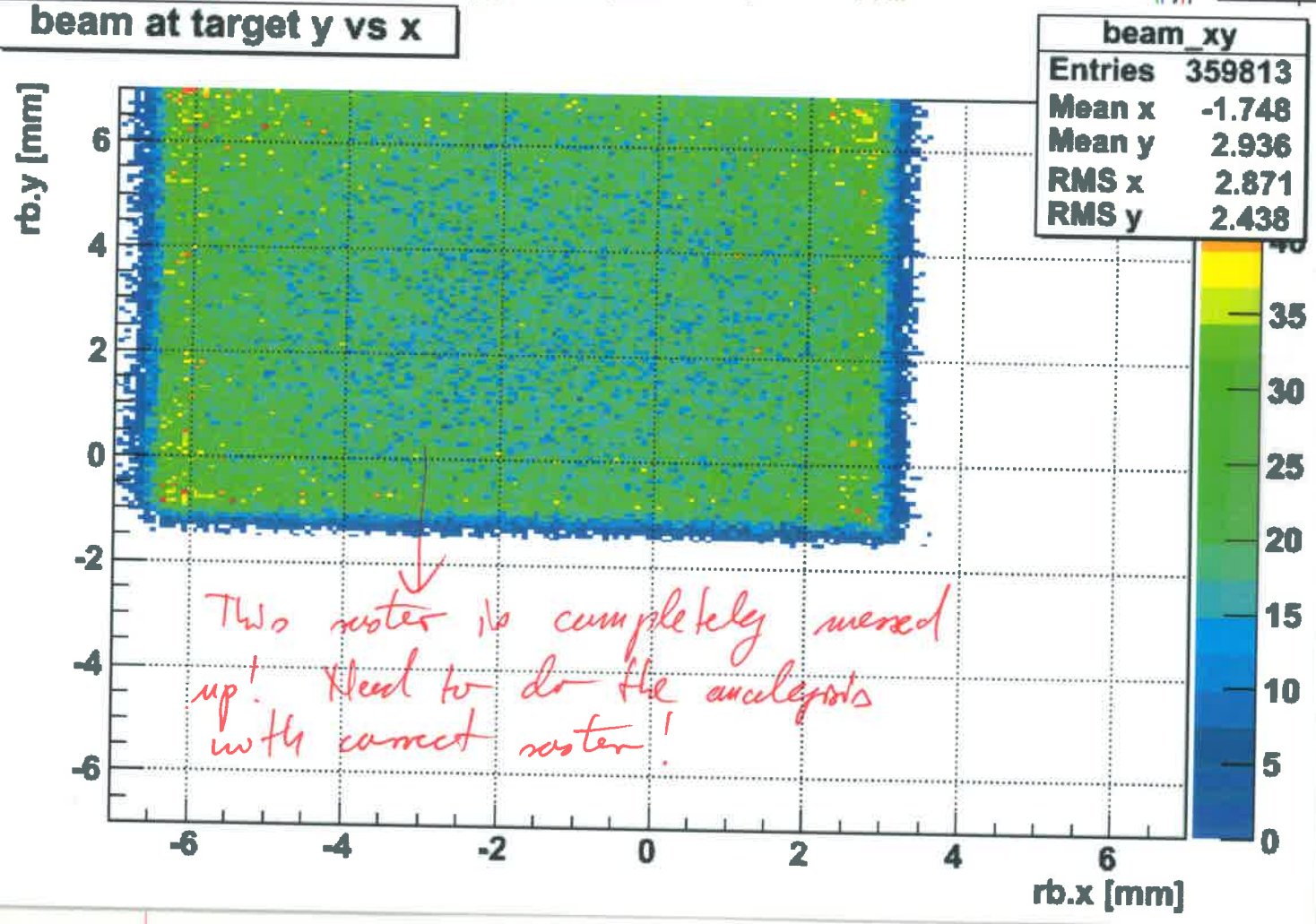
#3154
(With wrong bad (wrong) roster)











beam at target y vs x