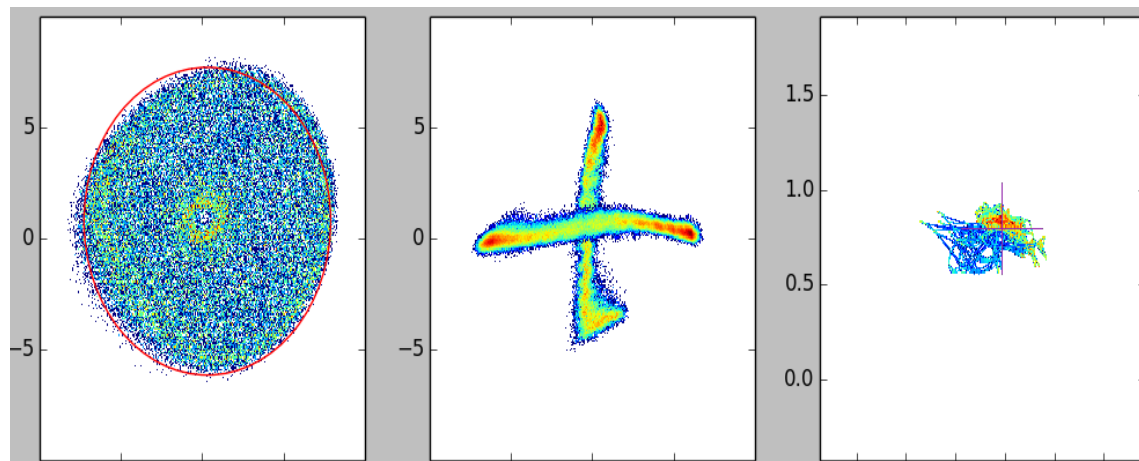


BPM status

Pengjia Zhu

Testing for the method :

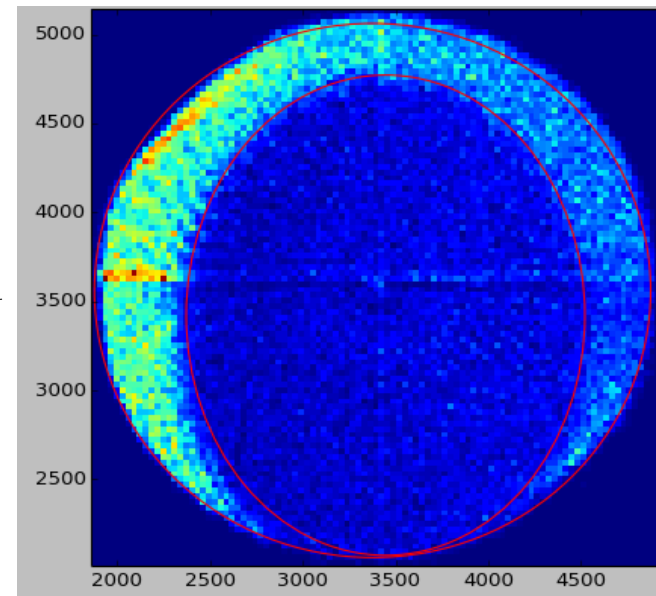


Raster size at BPM B → size at BPM A and carbon hole size
 Minimization fit for two slopes → $\min(\text{slope1} + \text{slope2})$
 One harp scan

$$X_{\text{harp}} = c + ax + by$$

Use run : 5603(carbon hole) ←
 Two rasters run: 5560(only x on), 5557(only y on)
 One harp scan run: 5494

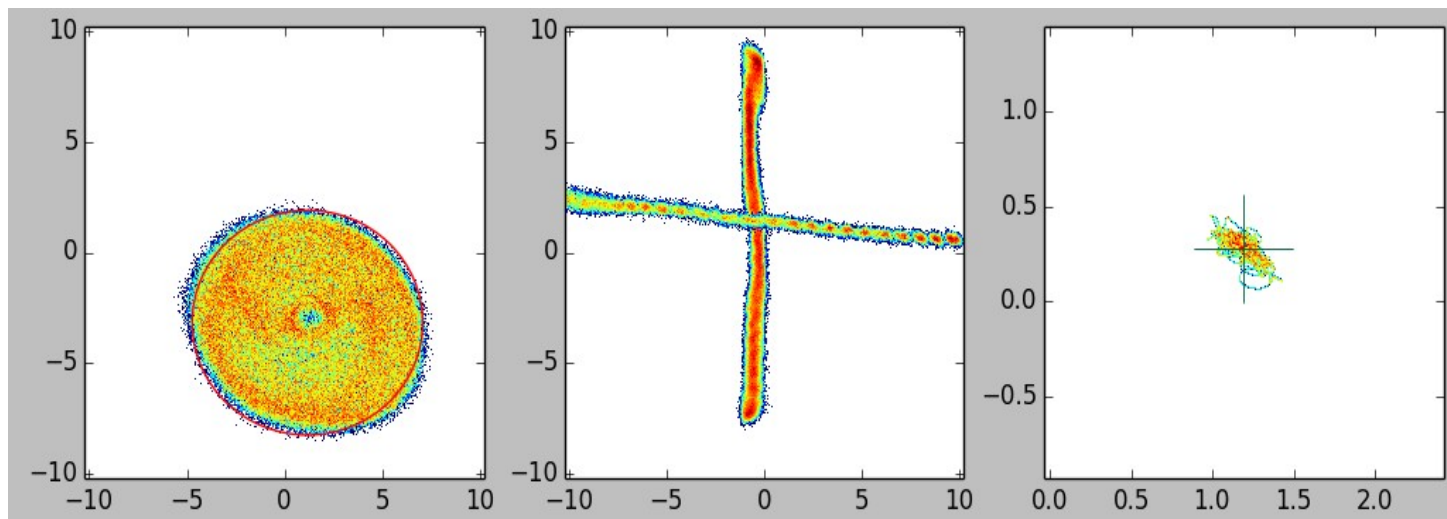
Compare with calibration constant: 5/3 harp scan result



Bug:
 5560,5557 is 100nA
 (no 50nA run with
 only raster x on and
 raster y one)
 5603,5494 is 50nA
 (no 100nA carbon
 hole run)

Will compare with
 100nA constant and
 50nA constant later

Use 0503
harp scan
constant



Harp scan result

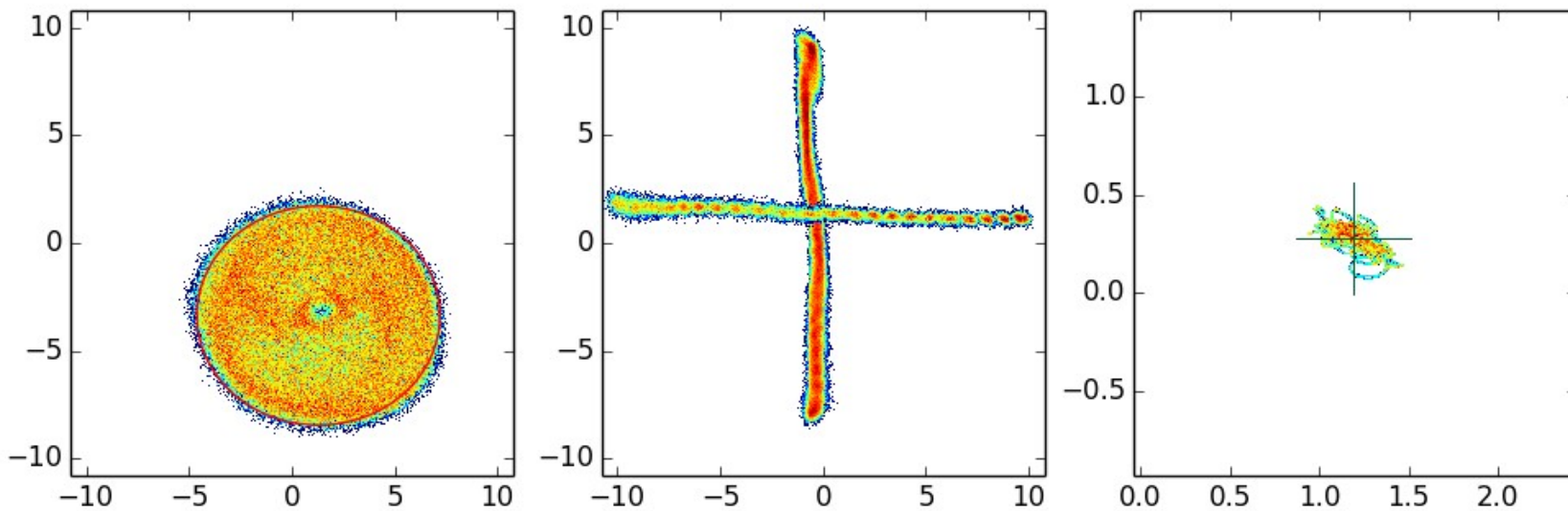
bpmb x c,a,b:0.889 1.126 0.037
bpmb y c,a,b:0.262 1.223 -0.108

New method

(scan b from -0.2 to 0.2 during fit)

bpmb x c,a,b: 0.879 1.154 0.024
bpmb y c,a,b: 0.232 1.245 -0.015

Use new
method

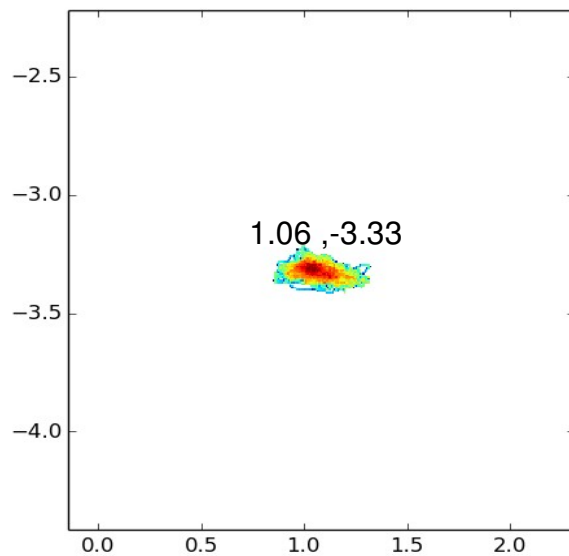


Harp scan result compare with new method

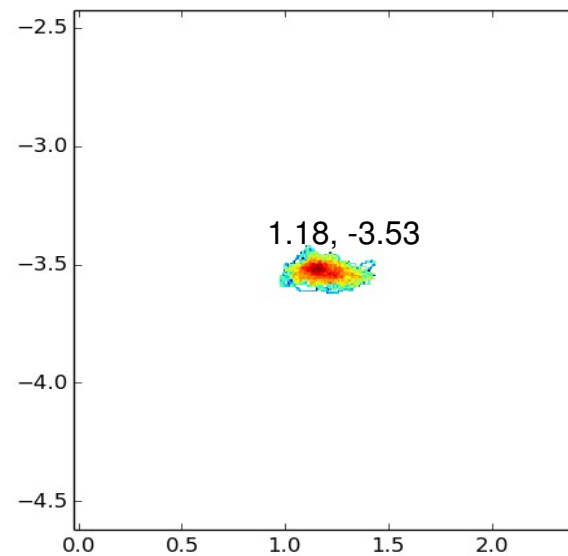
From calculation last week, uncertainty at BPM B $>0.5\text{mm}$ for new method
(without pedestal related uncertainty)

2Hz filter

Harp scan result

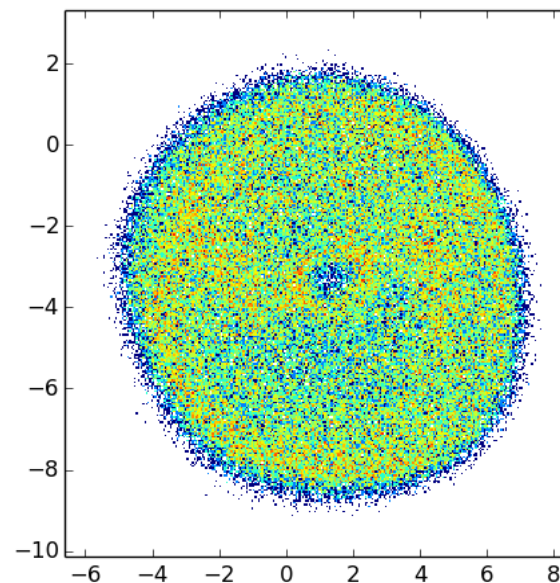
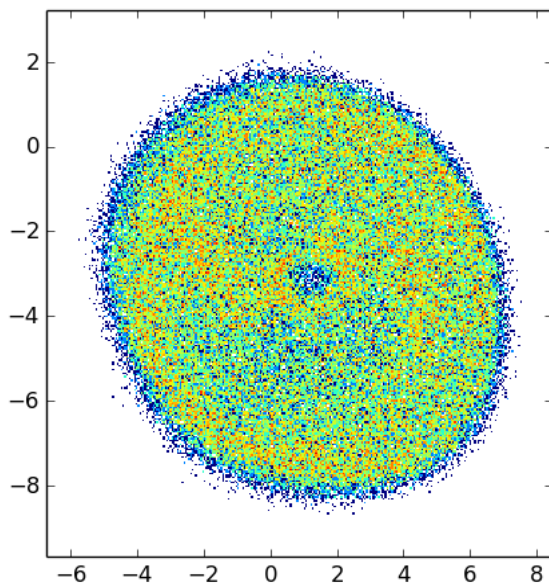


New method



mm at BPM B

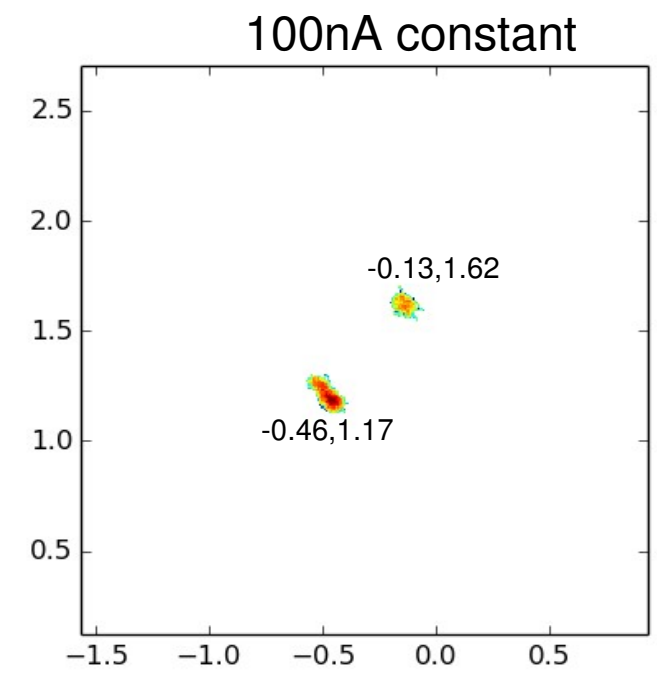
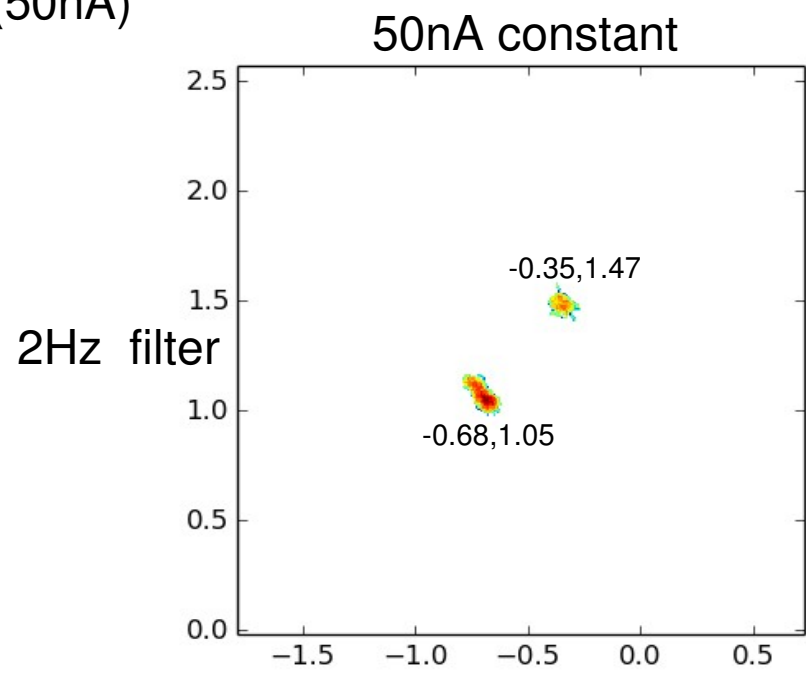
Without filter



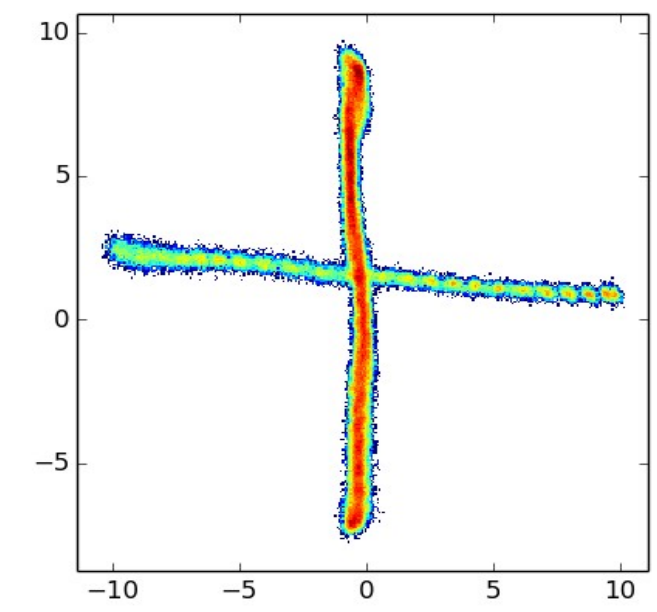
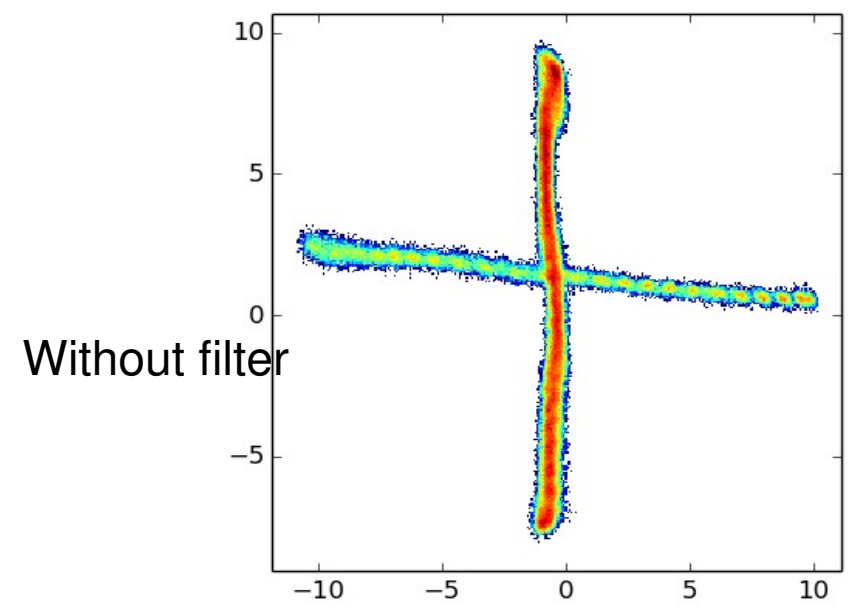
5/3 100nA harp scan vs 50nA harp scan

constant(BPM B)

Run:5557,5560(50nA)

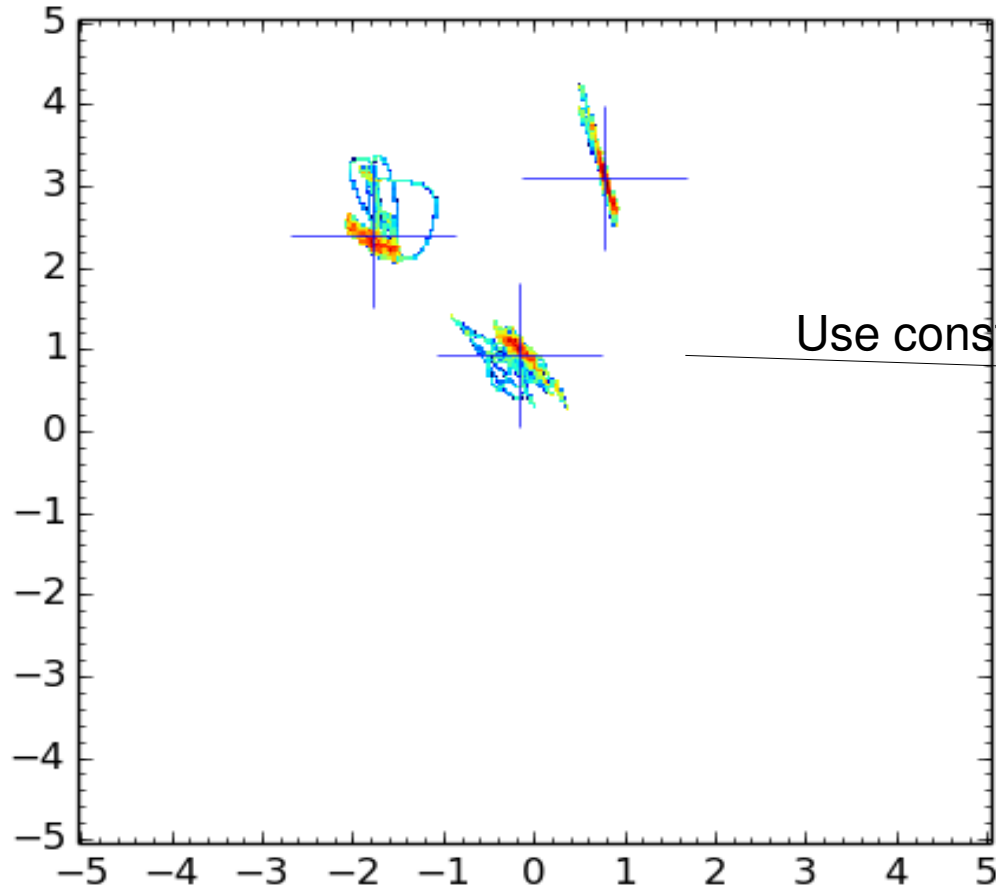


mm at BPM B

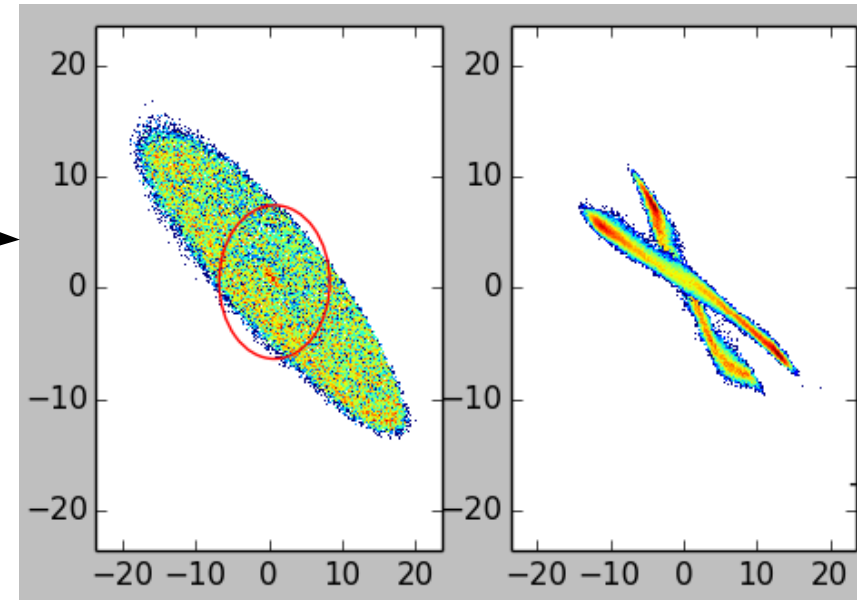


Use method : BPM A + harp05 → BPM B with three points

71nA,using bpmb_3228.dat



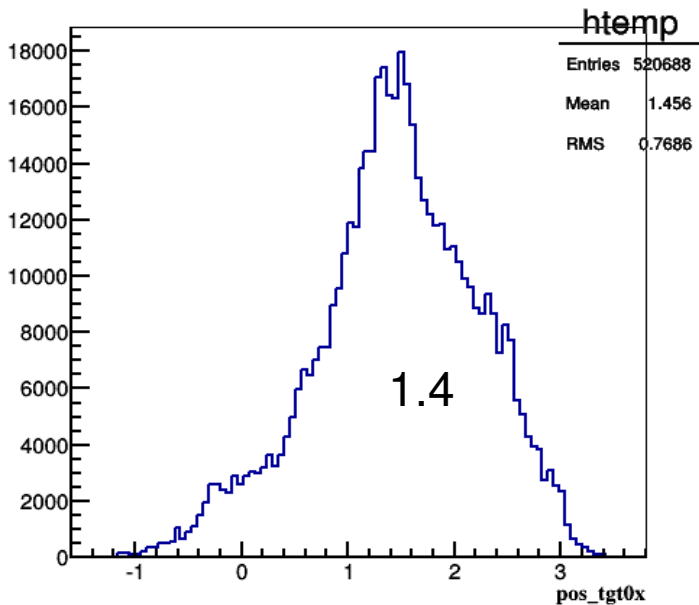
Use constant



bpmb x c,a,b:0.62 1.29 -0.61
 bpmb y c,a,b:-2.13 3.16 -0.59

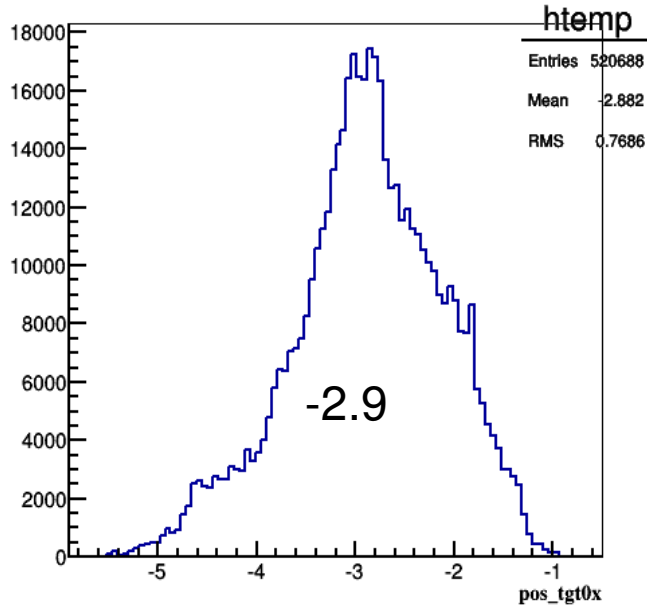
3228

pos_tgt0x {raw_bpmavail>0.5}



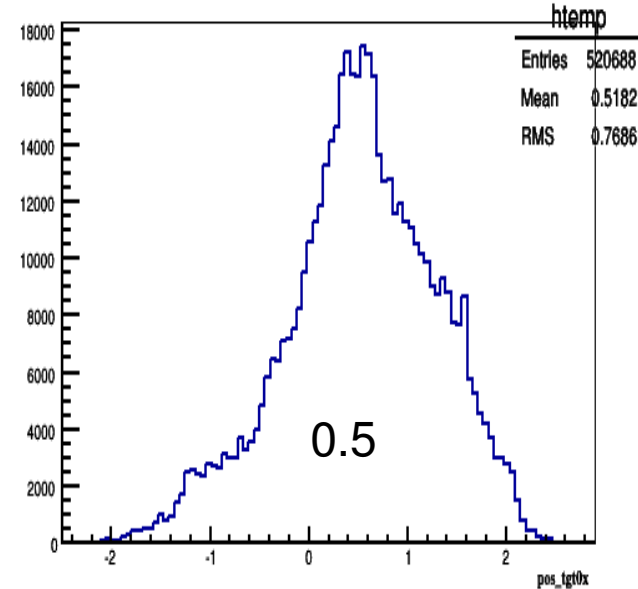
3235

pos_tgt0x {raw_bpmavail>0.5}



3249 Presentation last week

pos_tgt0x {raw_bpmavail>0.5}



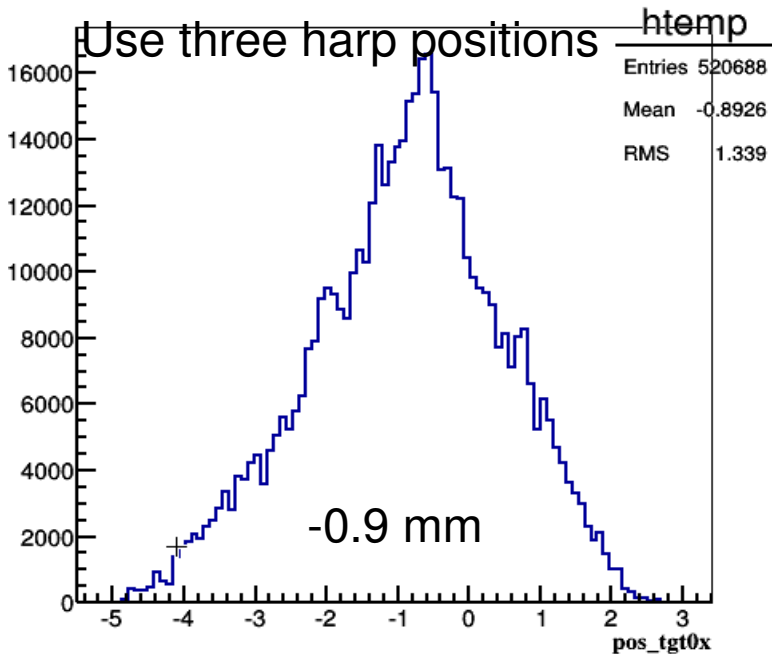
bpmb x c,a,b:-1.45 1.464 0.315
bpmb y c,a,b:-0.225 1.136 0.024

bpmb x c,a,b:-1.564 1.464 0.315
bpmb y c,a,b:1.824 1.136 0.024

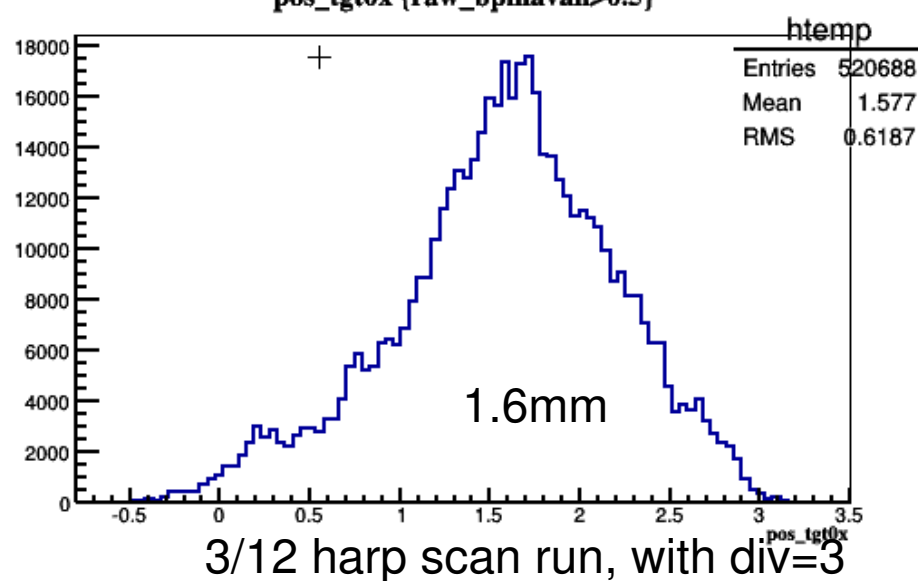
bpmb x c,a,b:-1.384 1.464 0.315
bpmb y c,a,b:0.359 1.136 0.024

Still don't know the reason

pos_tgt0x {raw_bpmavail>0.5}

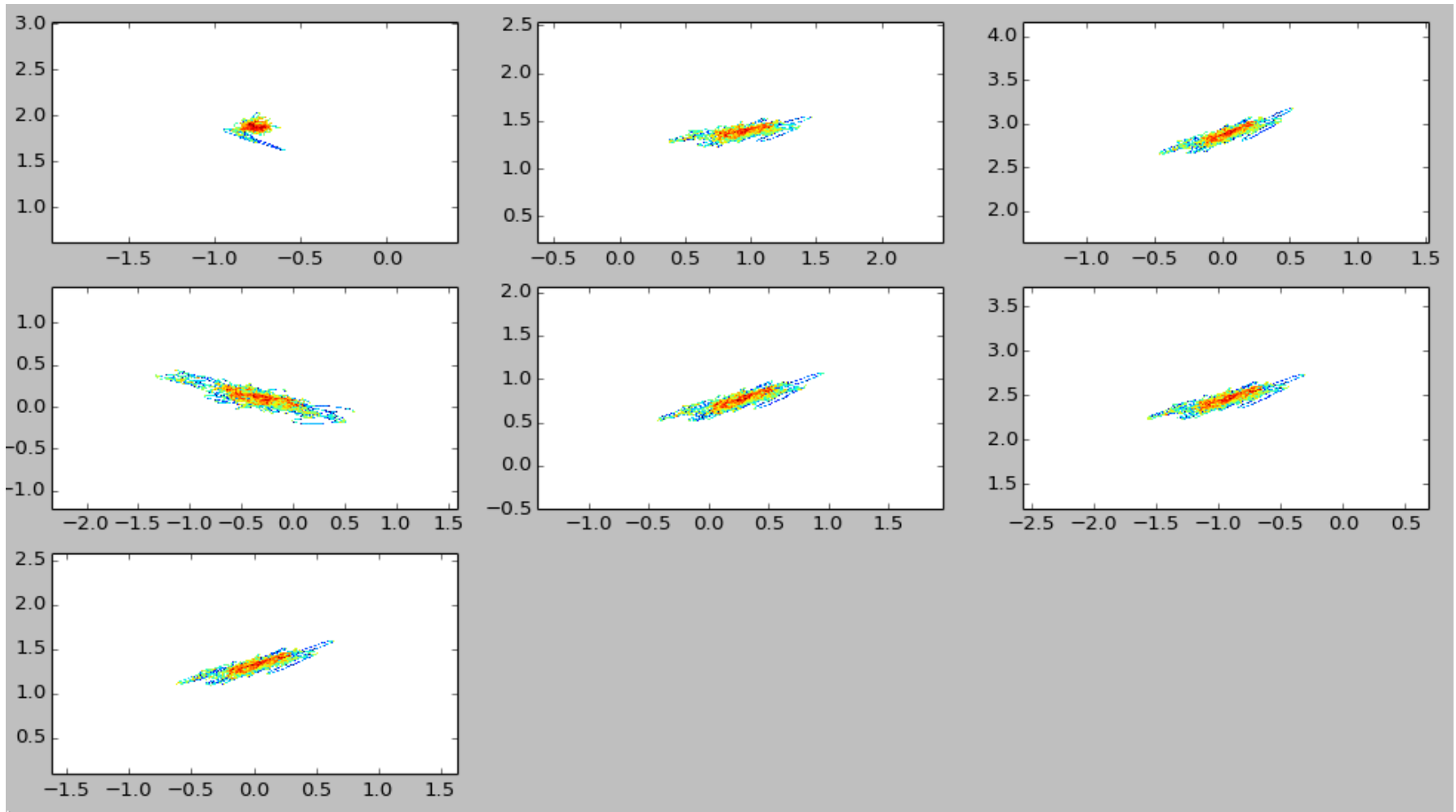


pos_tgt0x {raw_bpmavail>0.5}

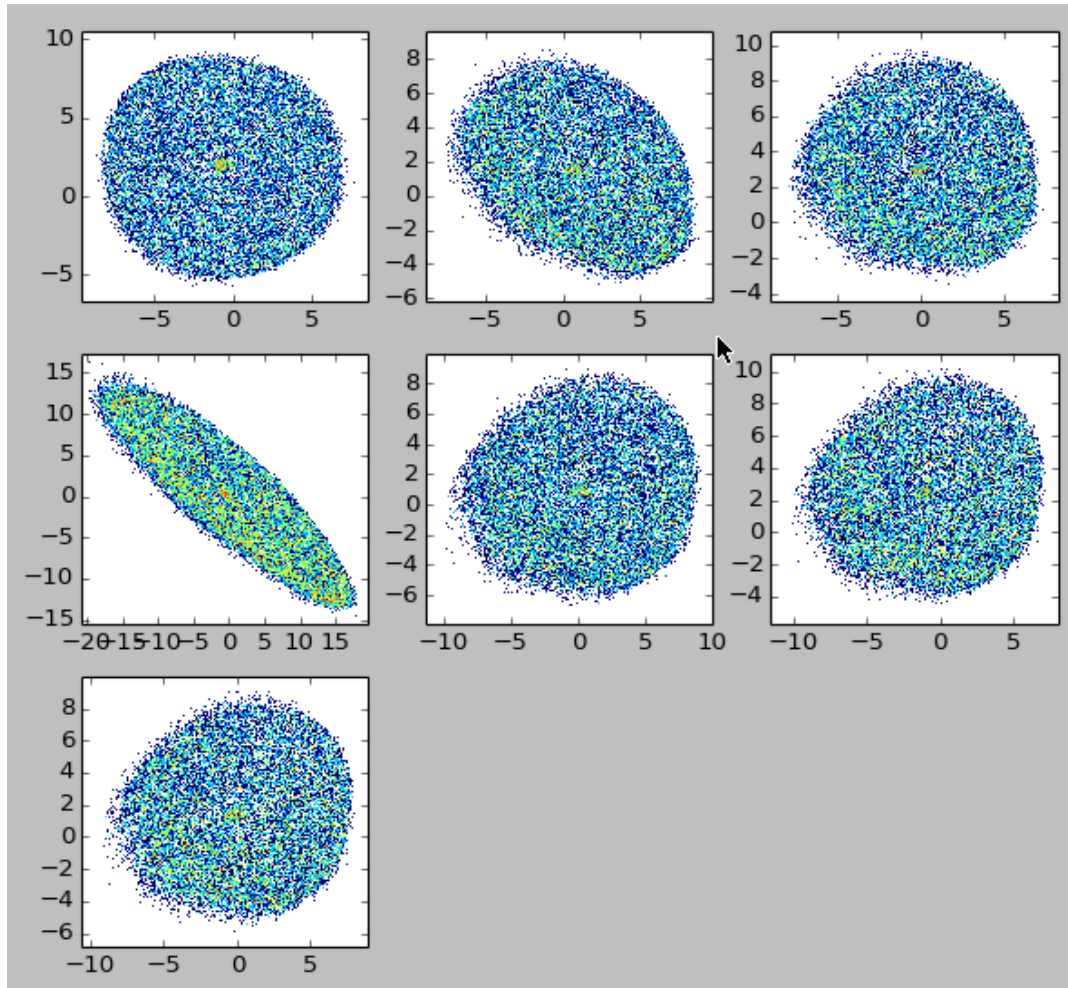


3/12 harp scan run, with div=3

Backup pic



"bpma_3169.dat", "bpmb_3169.dat", "bpmb_3136.dat", "bpmb_3228.dat", "bpmb_3227.dat", "bpmb_3235.dat", "bpmb_3250.dat"



"bpma_3169.dat", "bpmb_3169.dat", "bpmb_3136.dat", "bpmb_3228.dat", "bpmb_3227.dat", "bpmb_3235.dat", "bpmb_3250.dat"

