

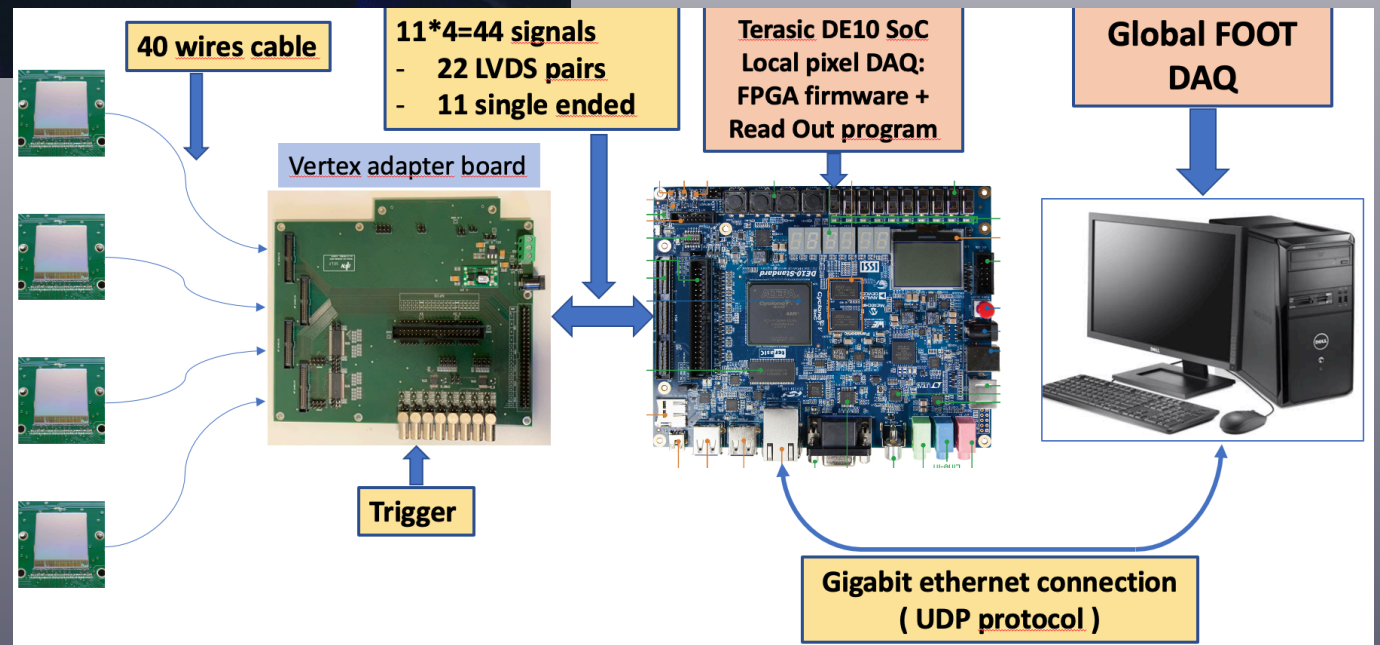
Vertex detector @ GSI2021

Oxygen w/o target: run 4287

Oxygen with target: run 4303

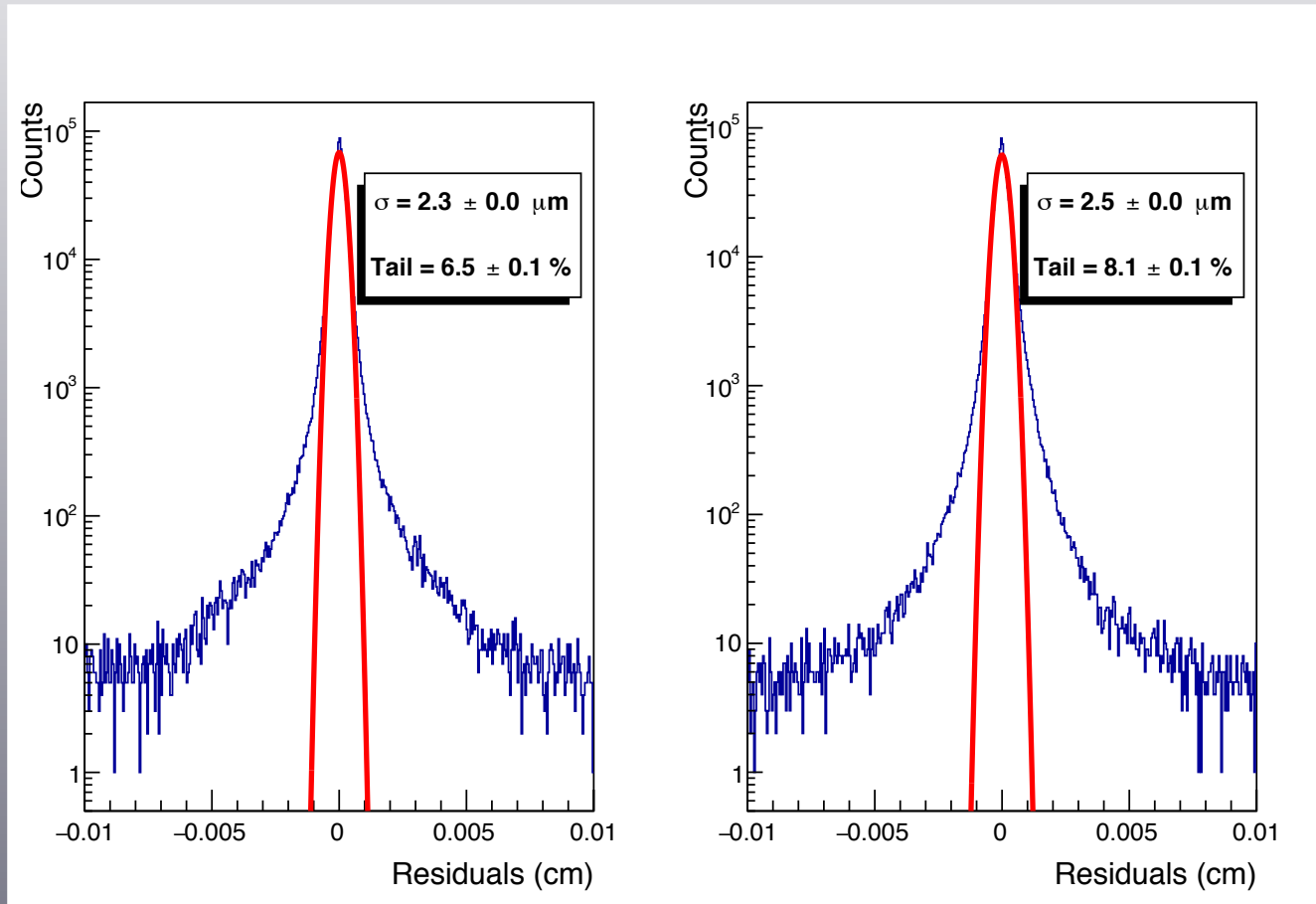
Conclusions

Setup



Oxygen no target

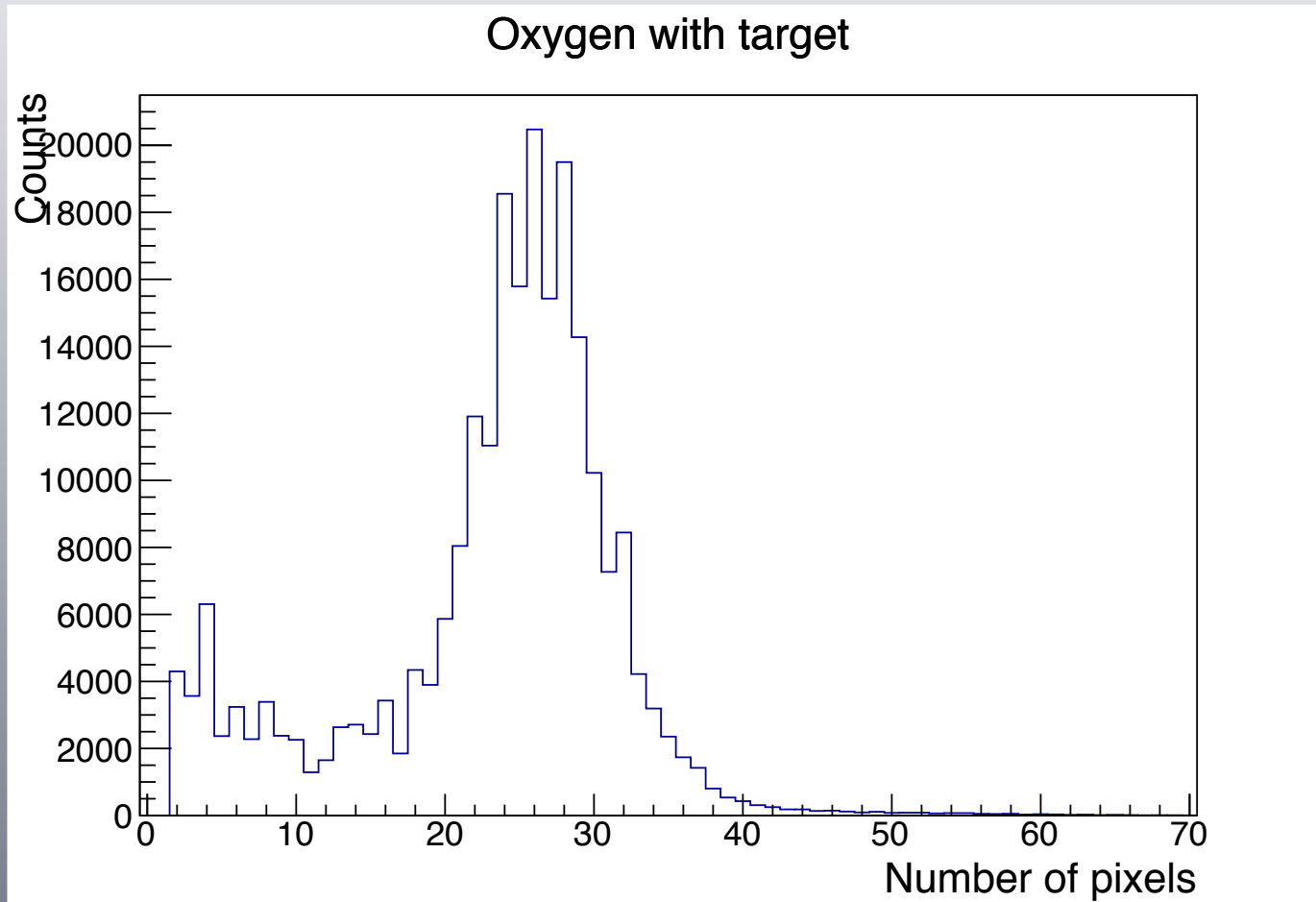
Alignment (cluster size > 20):



➡ Good alignment !

Oxygen with target (i)

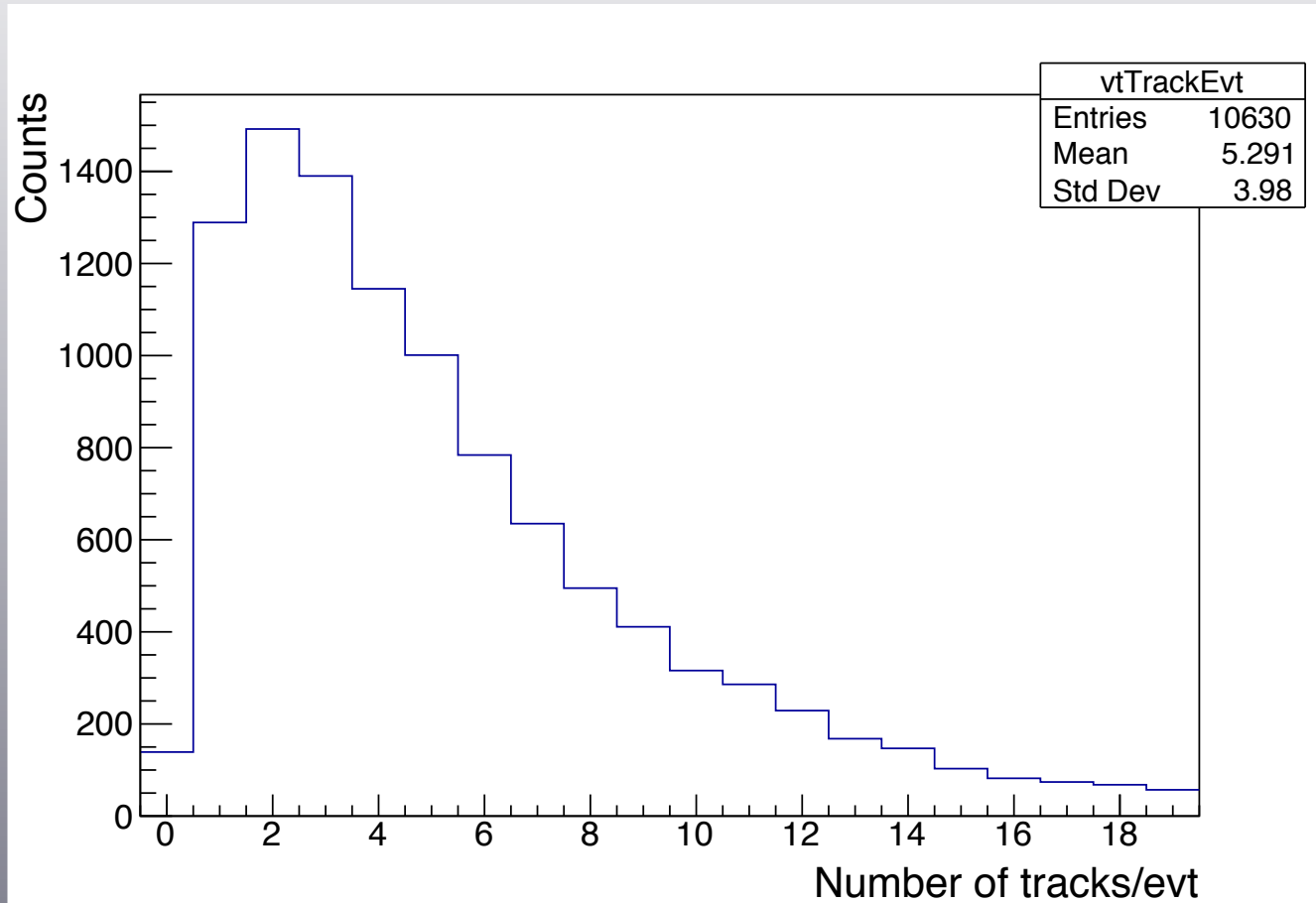
Tracked cluster size (total):



➔ Mostly beam

Oxygen with target (ii)

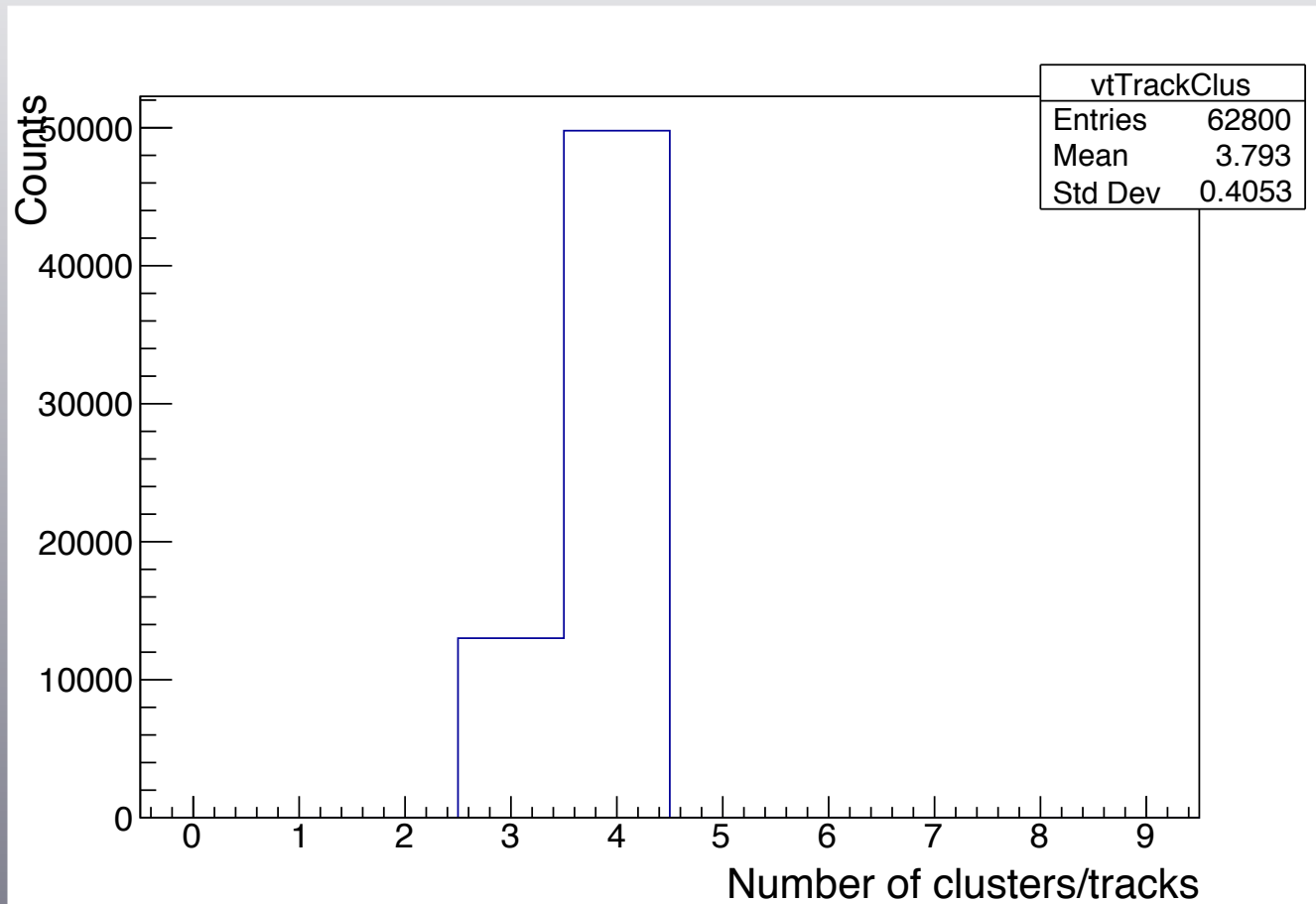
• Tracks per events:



- Tracks presence in 98.7% of cases,
- Important proportion of pileup (87.3%)
 - ➔ Will need BM tracks

Oxygen with target (iii)

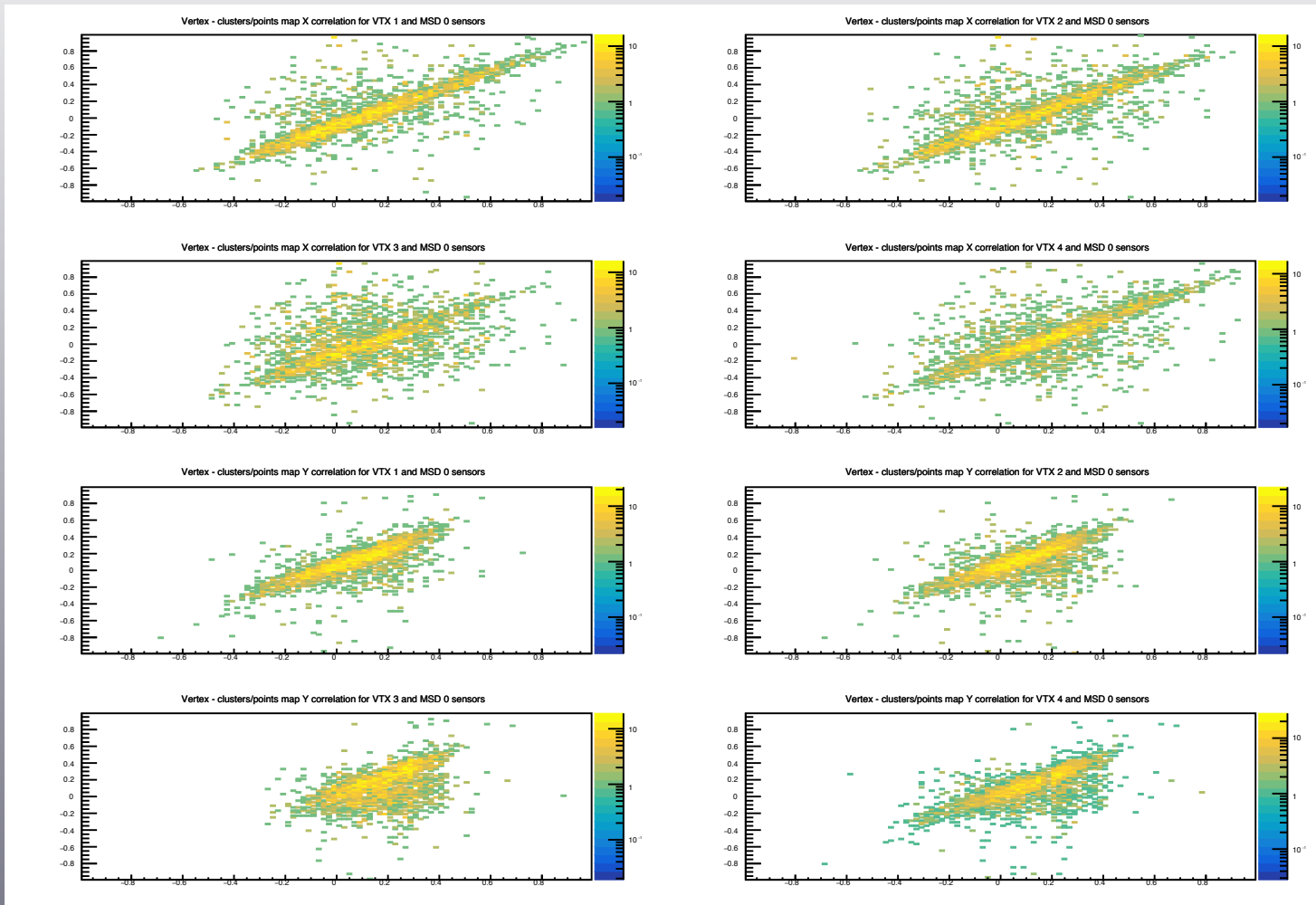
• Clusters per track:



- Mostly 4 planes fired
➡ Alignment ok

Correlations (i)

- Correlation with MSD (cluster size > 20 for VTX and > 2 for MSD)

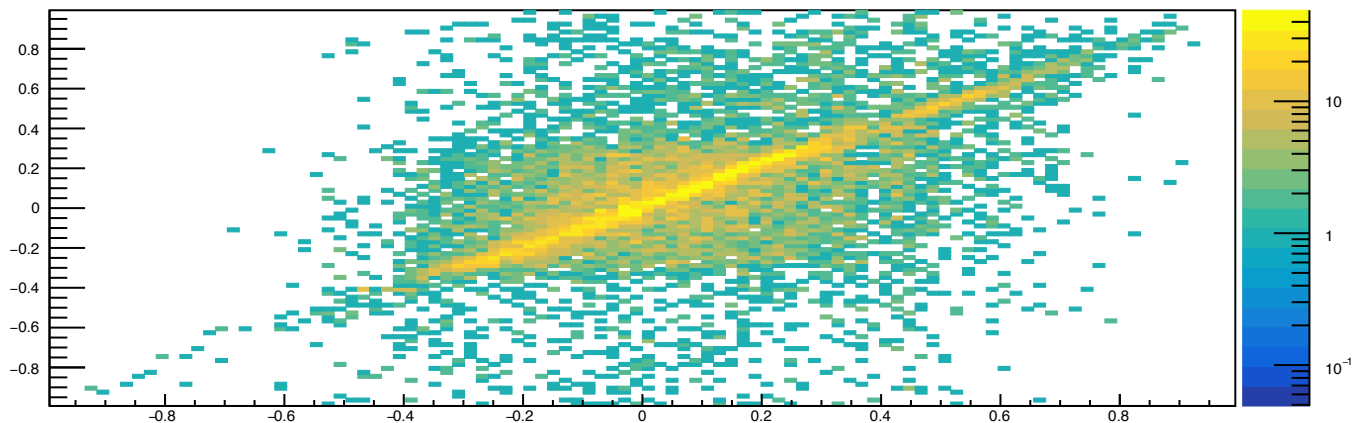


- Over 60 kEvents, 3 lost triggers but re-synchronised
- Correlation stayed btw MSD station 1 and the 4 VTX plane in X and Y
 - Corrected anti-correlation X and Y axis with MSD

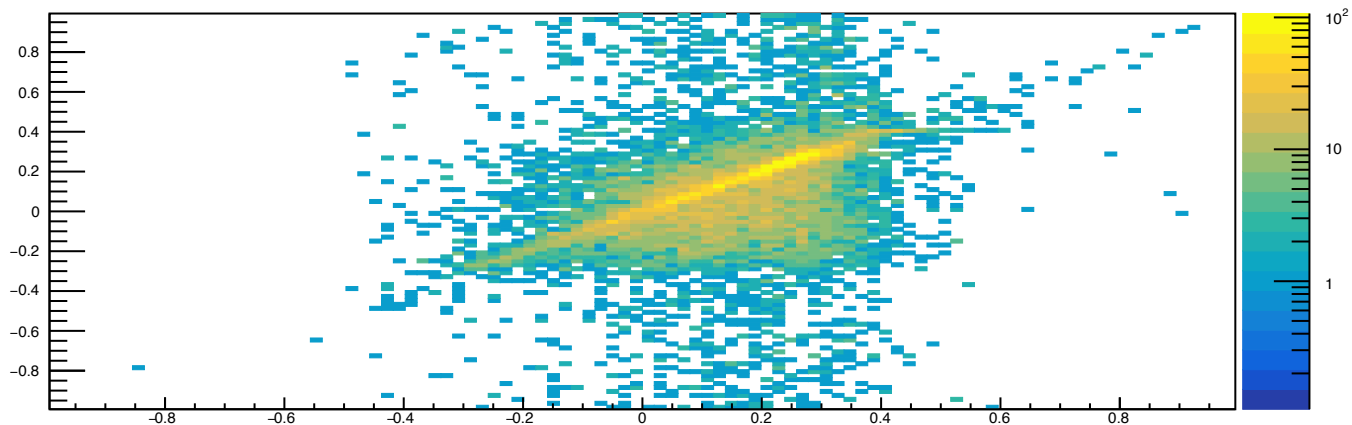
Correlations (ii)

Correlation with BM

Map X correlation for VTX tracks and BM tracks



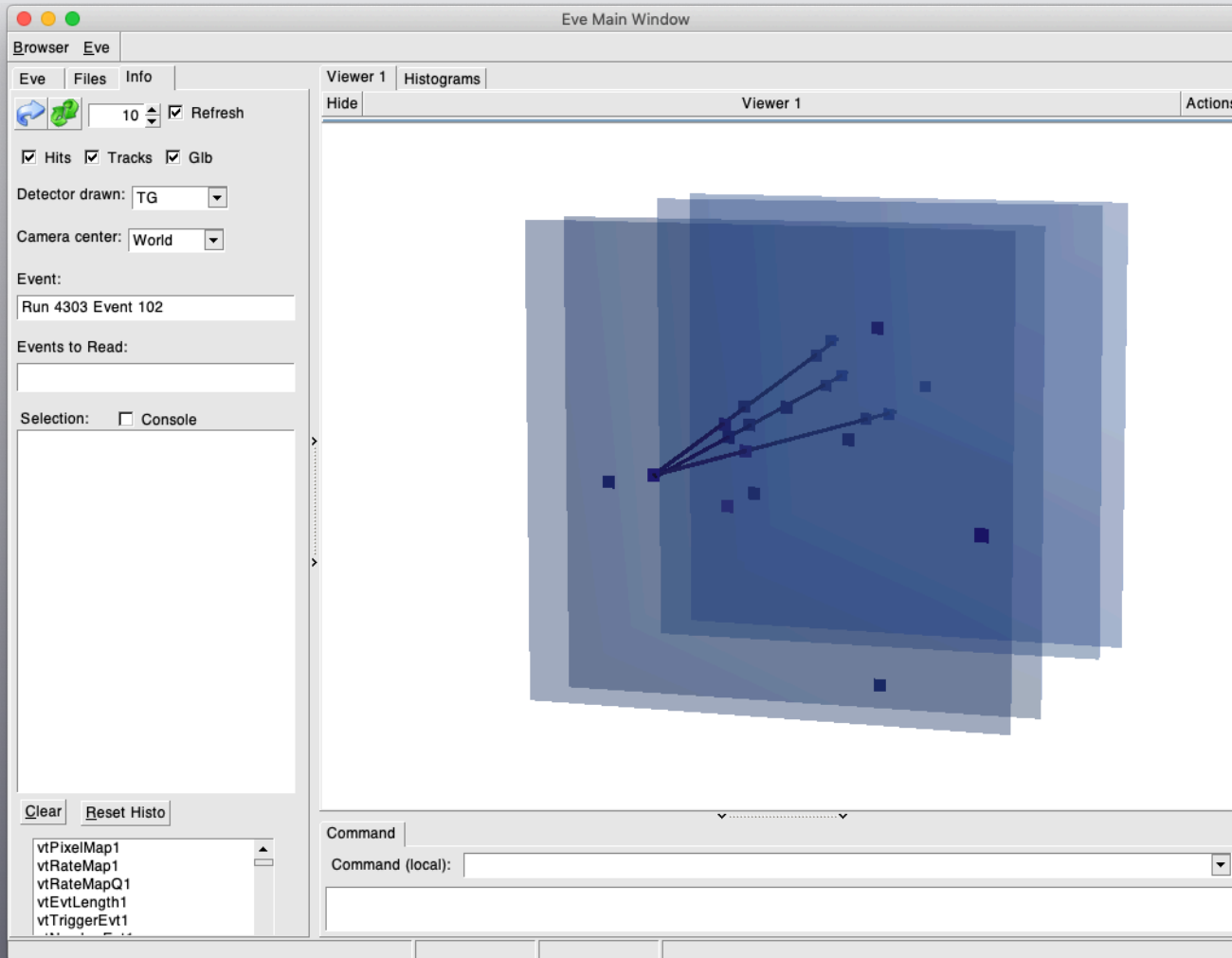
Map Y correlation for VTX track and BM track



- Correlation btw tracks of BM and VTX
 - ➡ Corrected anti-correlation in Y-Axis (thanks to Yun)

Event display (i)

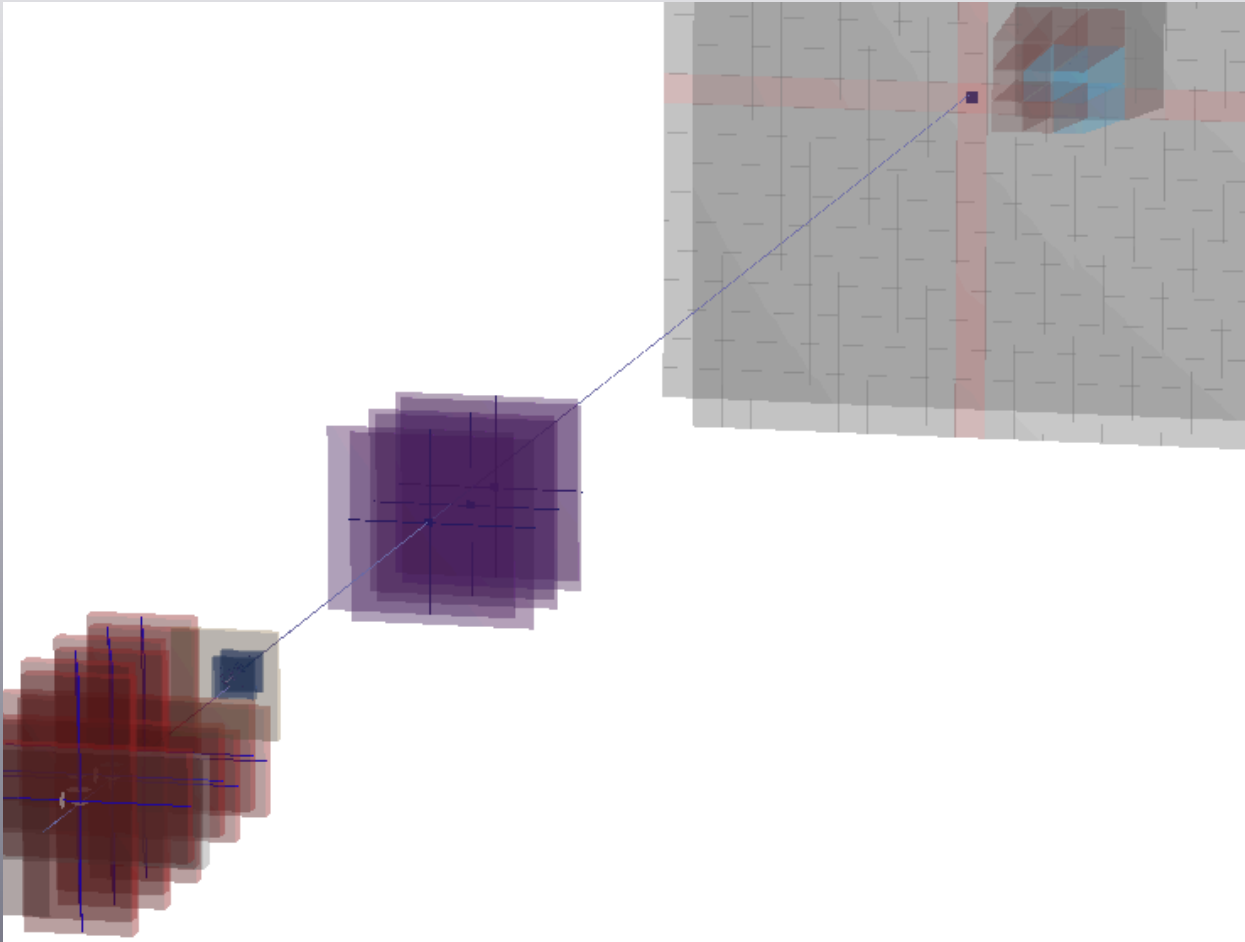
• VTX display:



- Fragmented event

Event display (ii)

• Full display:



- Track in BM+VTX+MSD+TW, detectors not aligned !

Conclusions

- VTX re-synchronised with DAQ
 - ➔ Global reconstruction can be used
 - ➔ Fix reference frame btw BM+VTX+MSD