

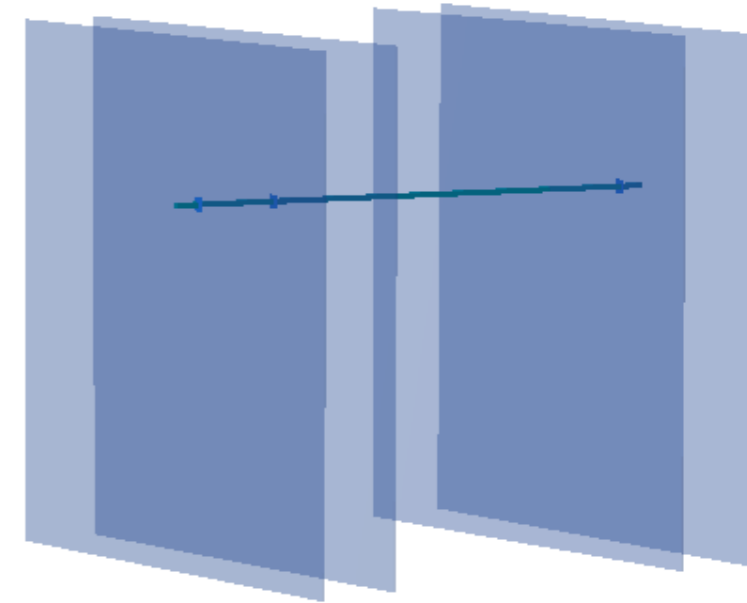
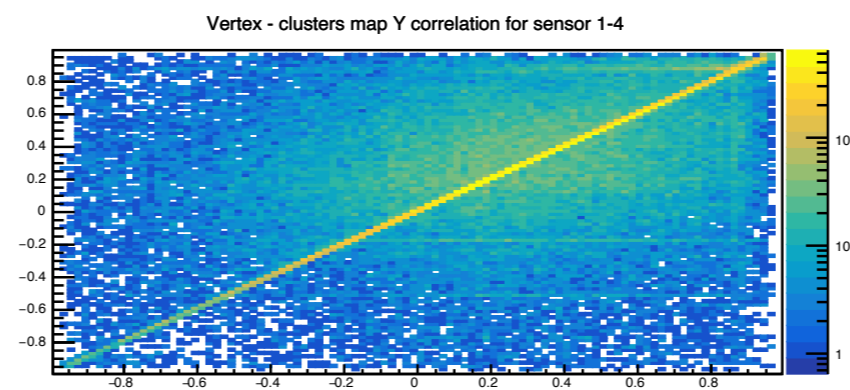
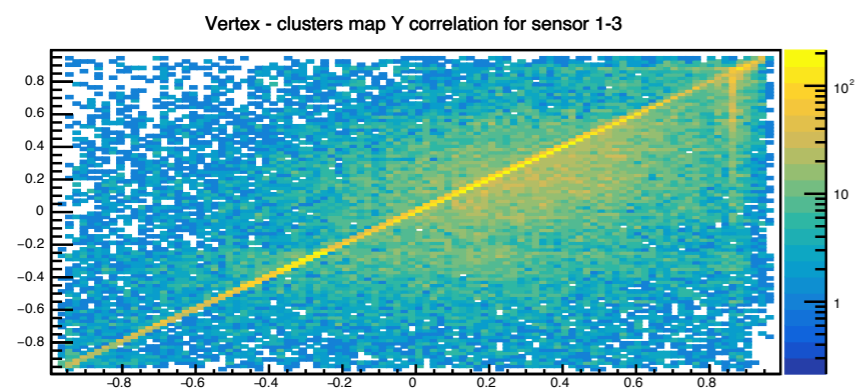
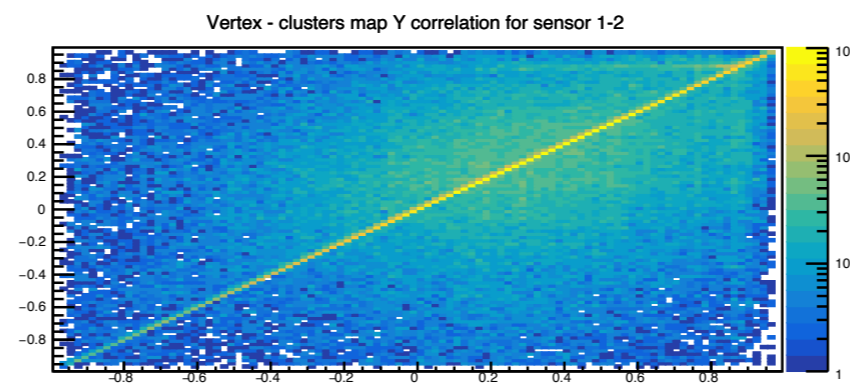
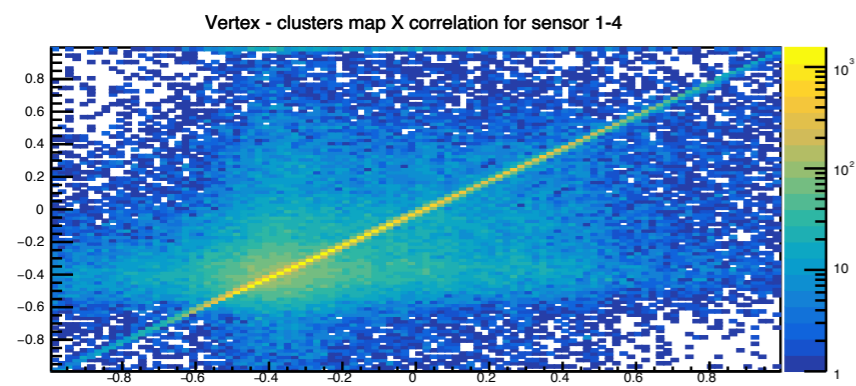
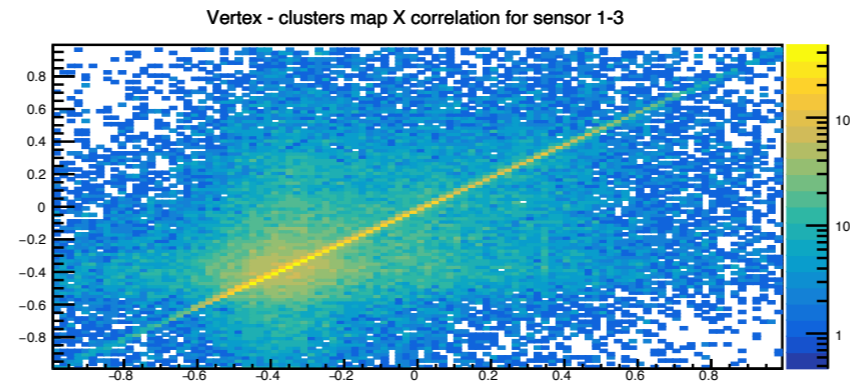
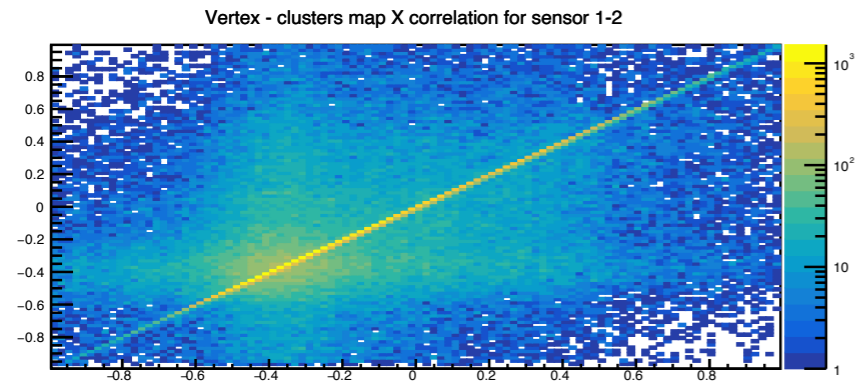
CNAO2023

Updates

Correlation (i)

Correlation position btw 2 VTX's sensors in the detector framework

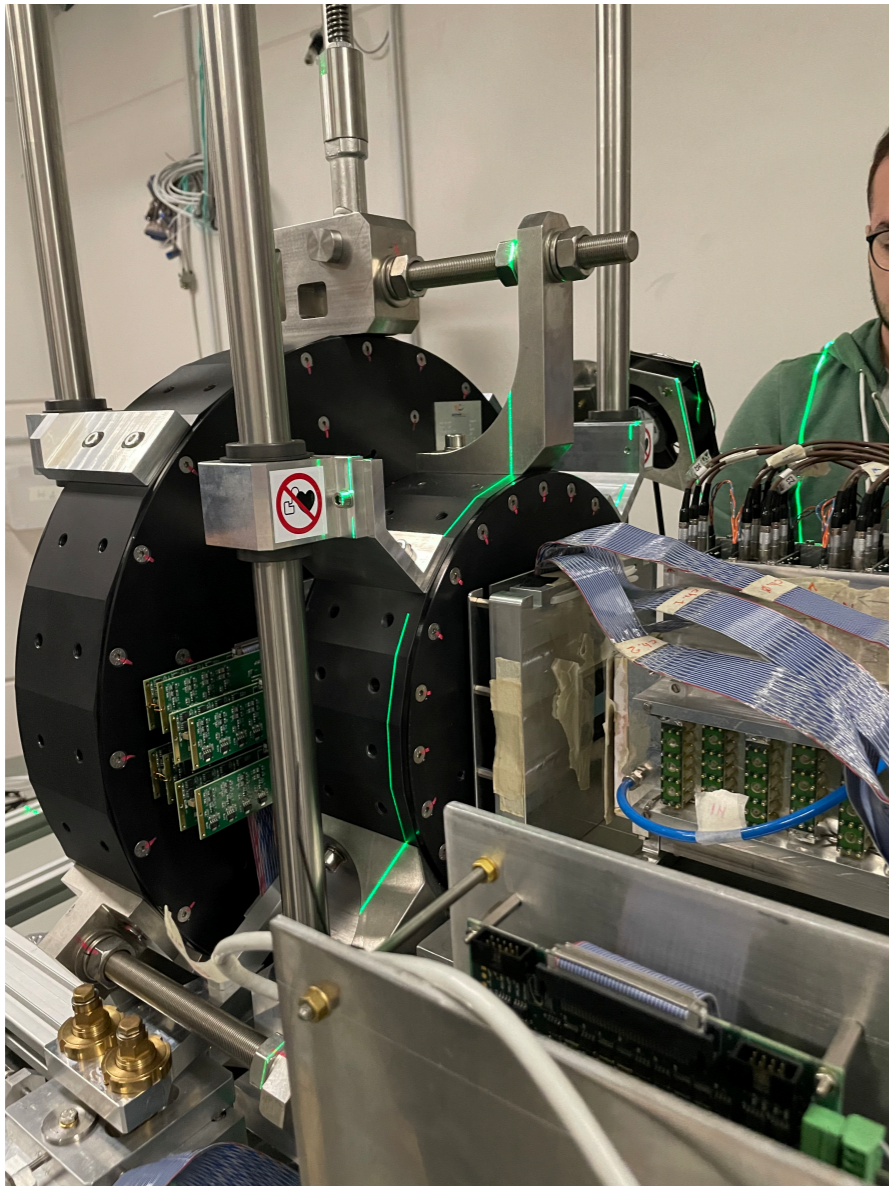
Run 6309



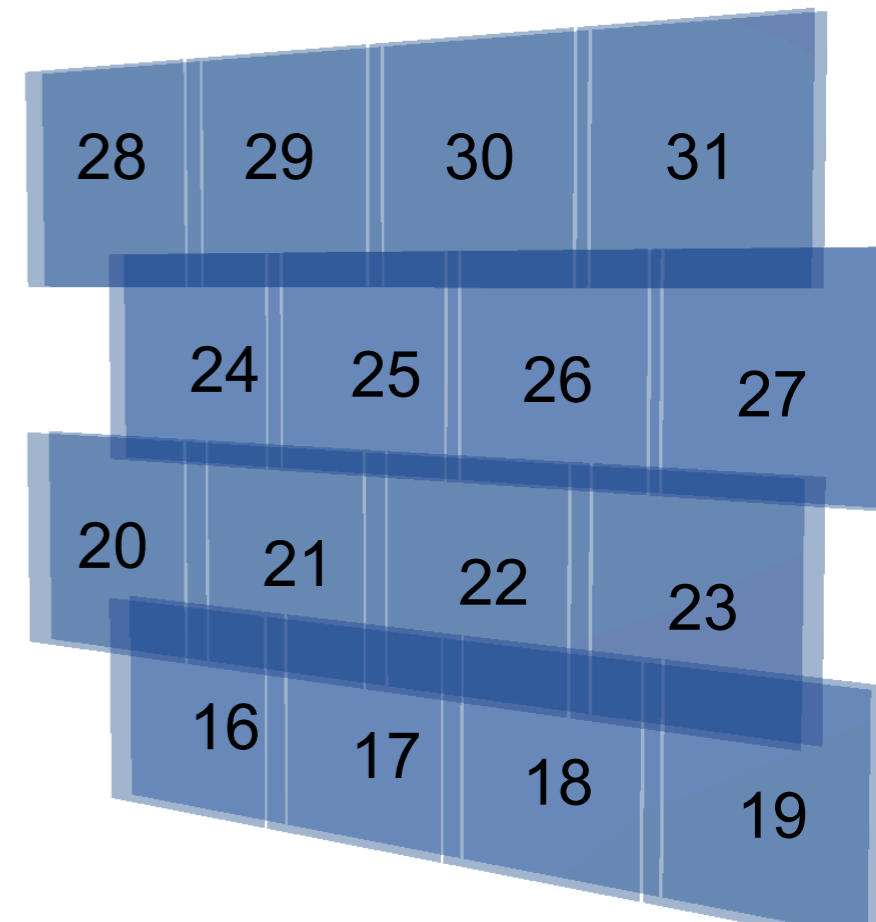
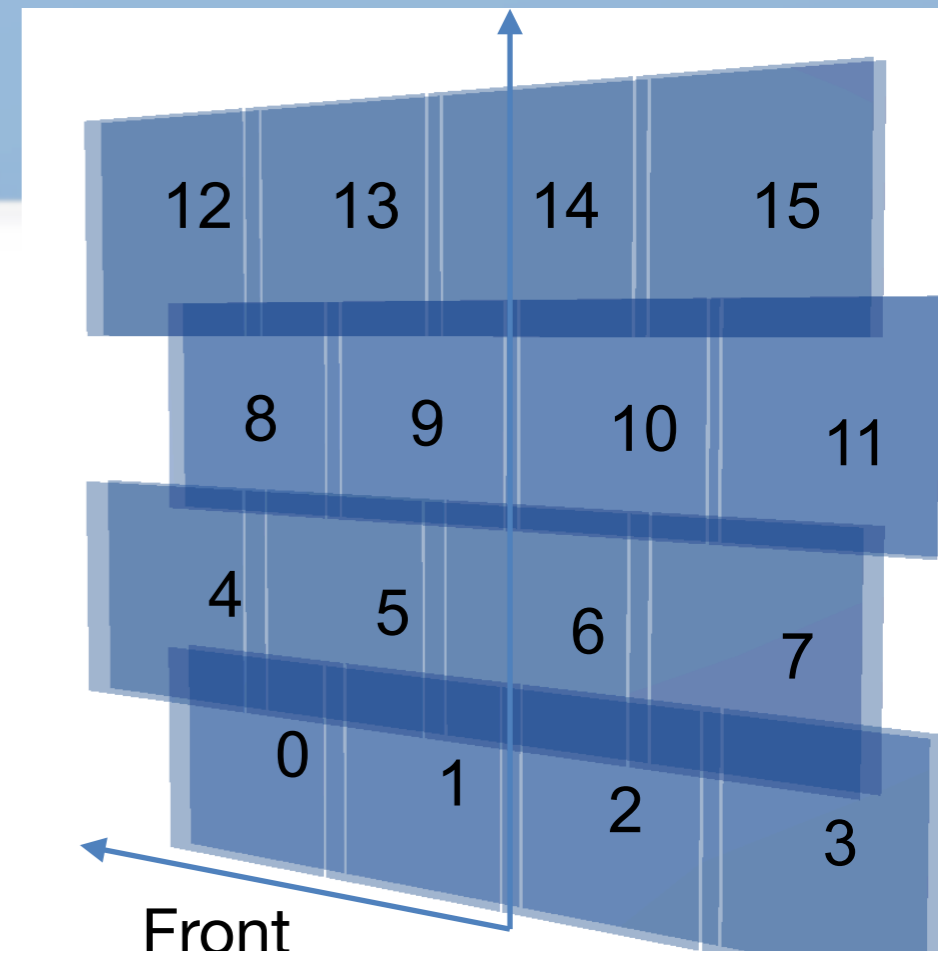
➔ Correlation btw all sensor in X & Y

Numbering (i)

□ Numbering in raw data

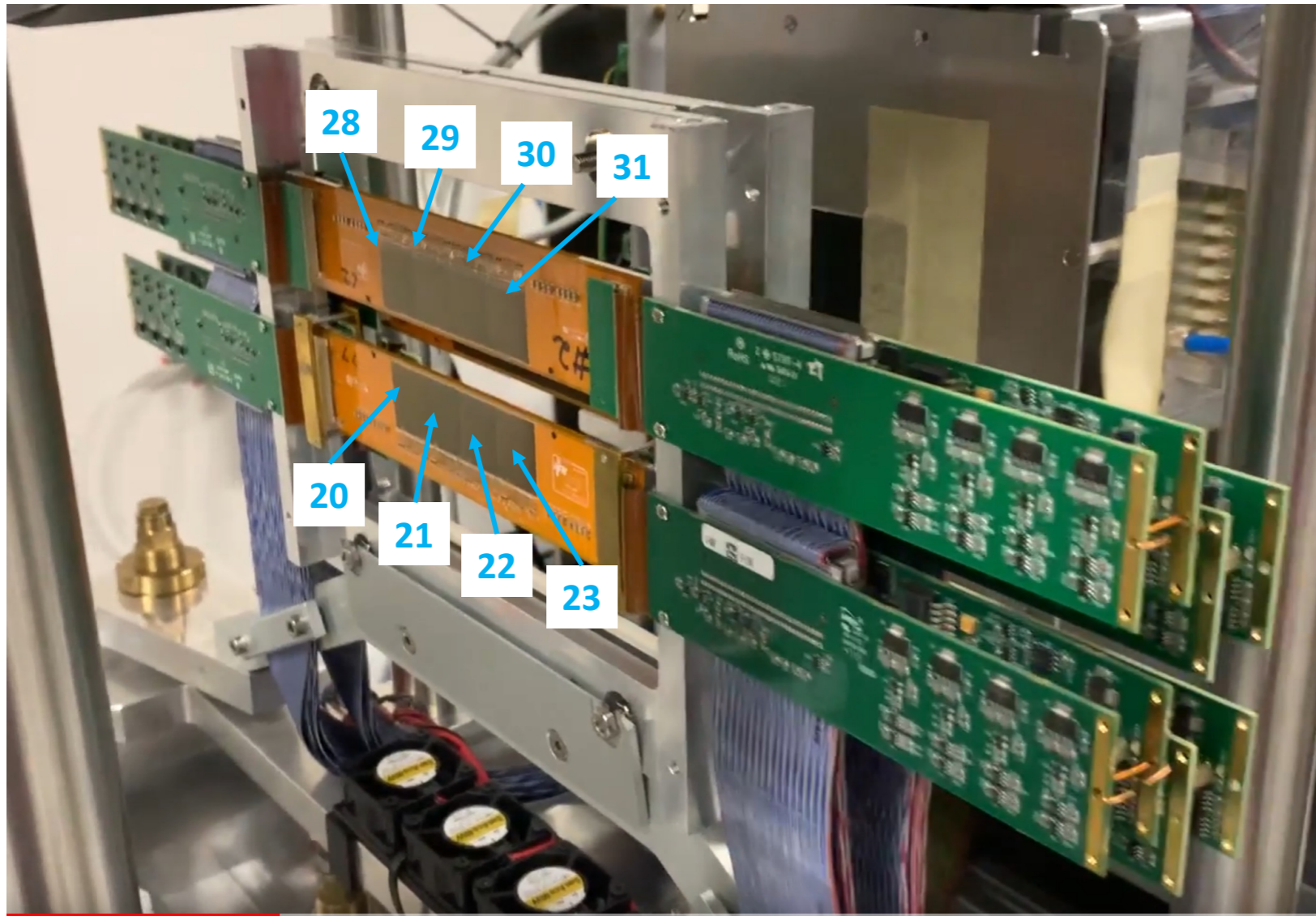


➔ Change since last meeting

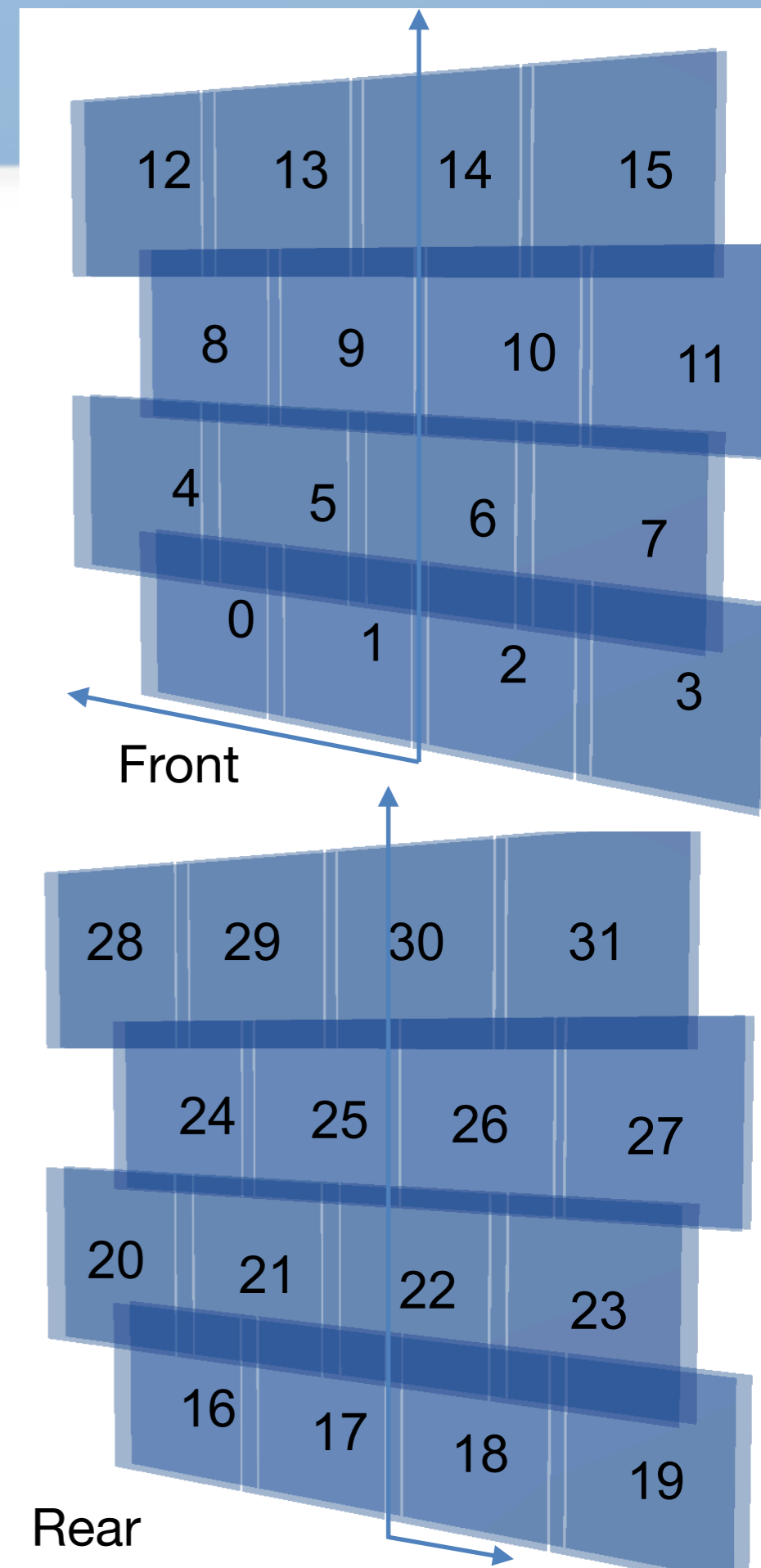


Numbering (ii)

- Numbering from MC simulation (Giuseppe)



→ Seems now coherent

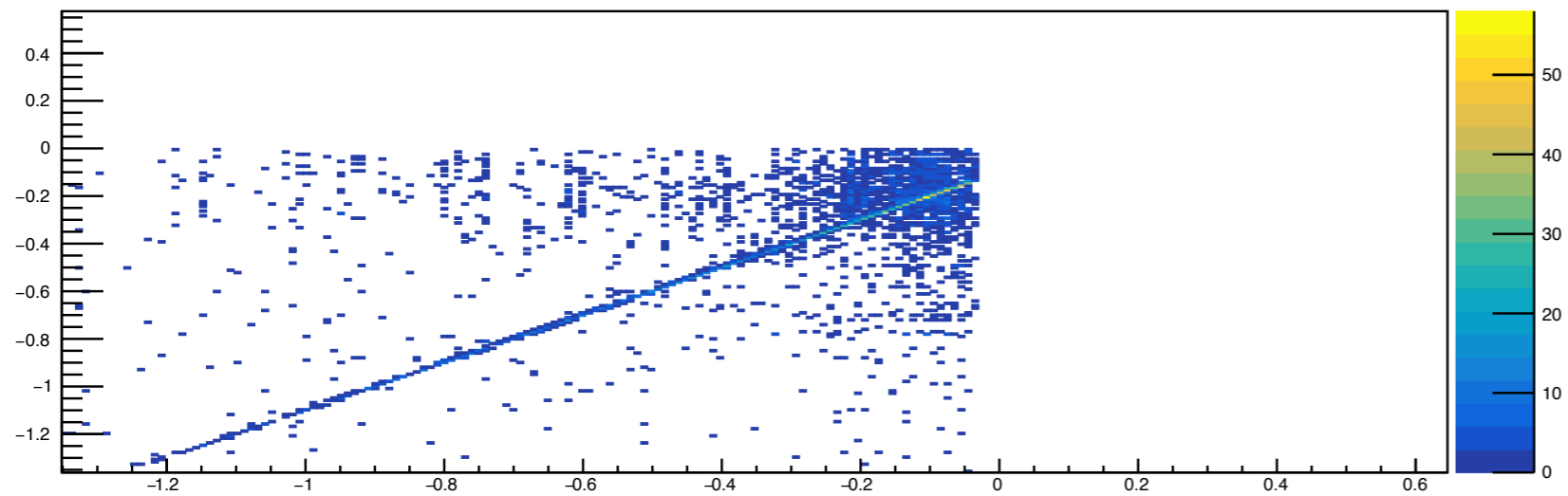


Correlation (ii)

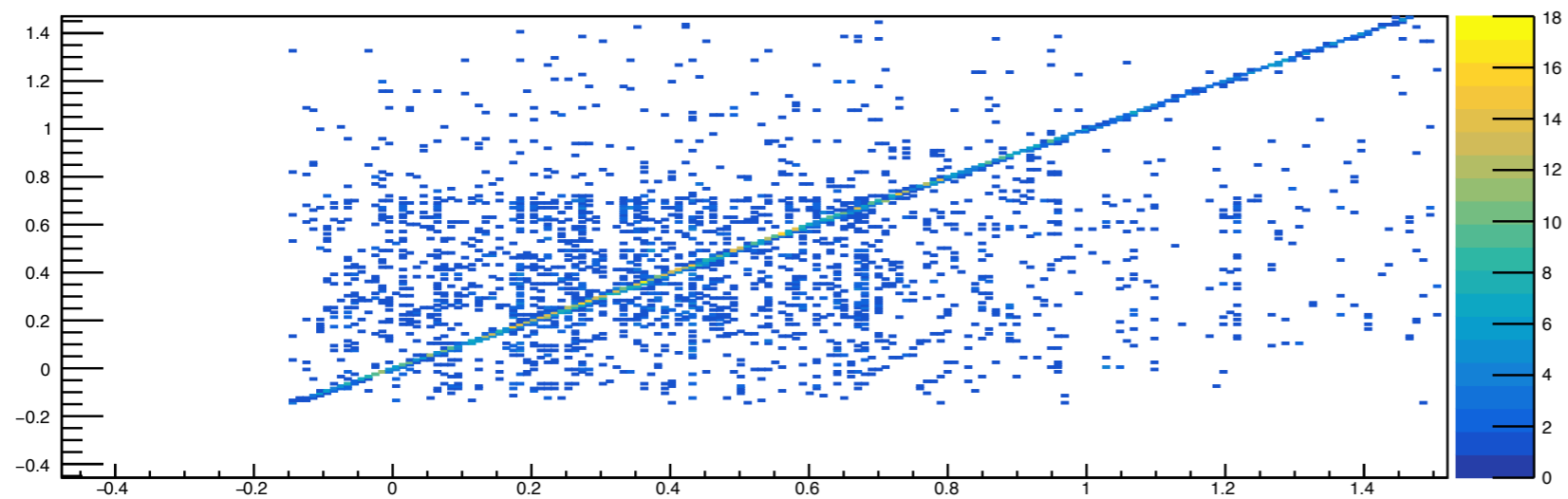
Correlation position btw 2 ITR's sensors in the detector framework

Run 6309: 113-0 / 111-3

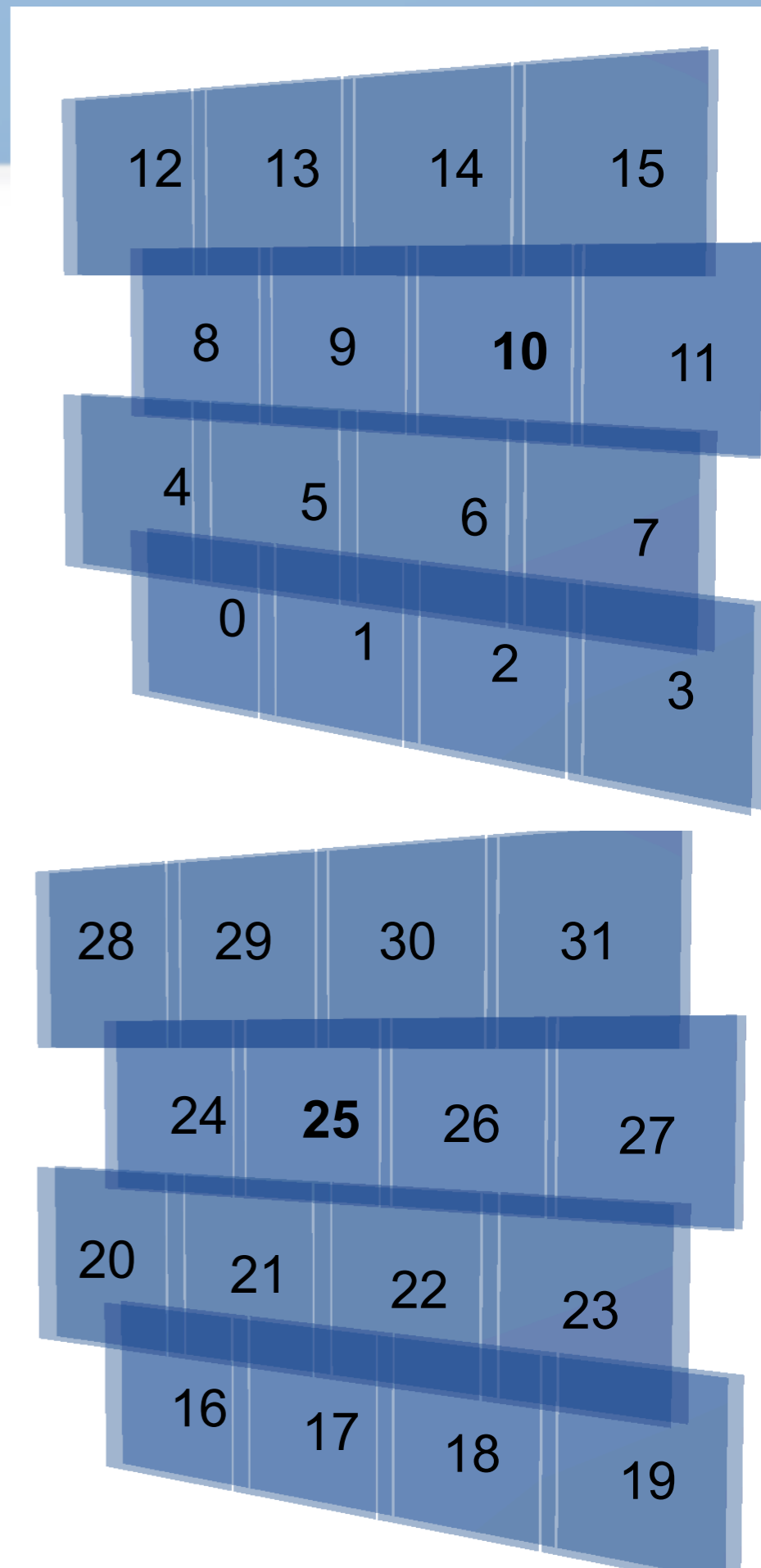
Vertex - clusters map X correlation for sensor 11-26



Vertex - clusters map Y correlation for sensor 11-26



→ Correlation btw two boards front/rear side

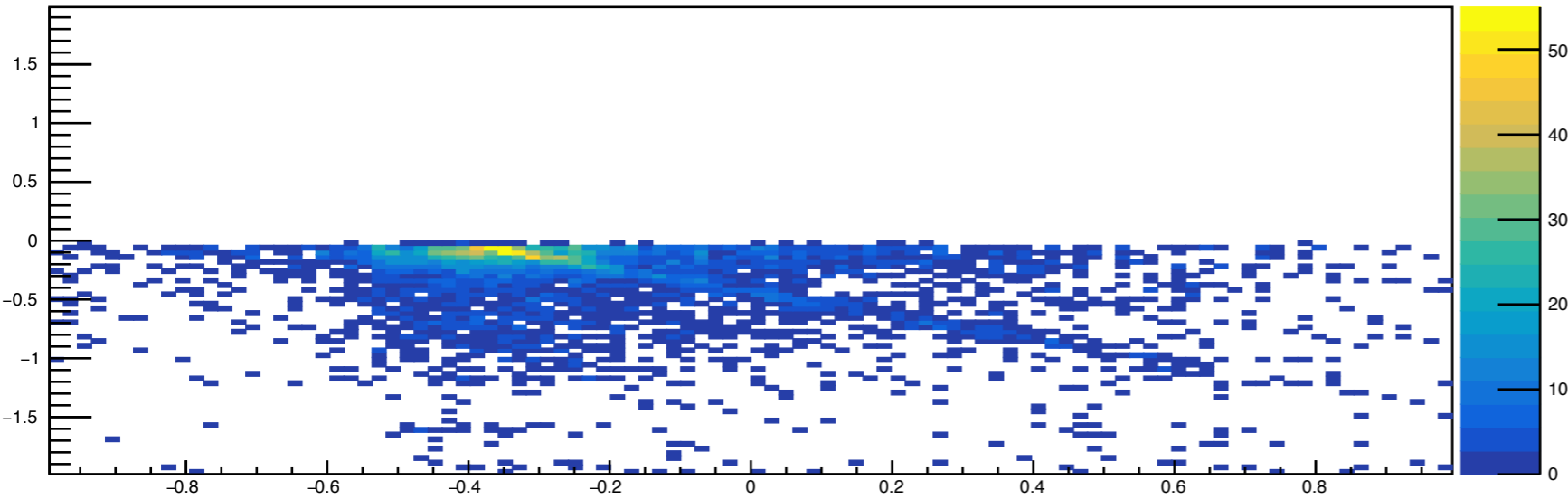


Correlation (iiia)

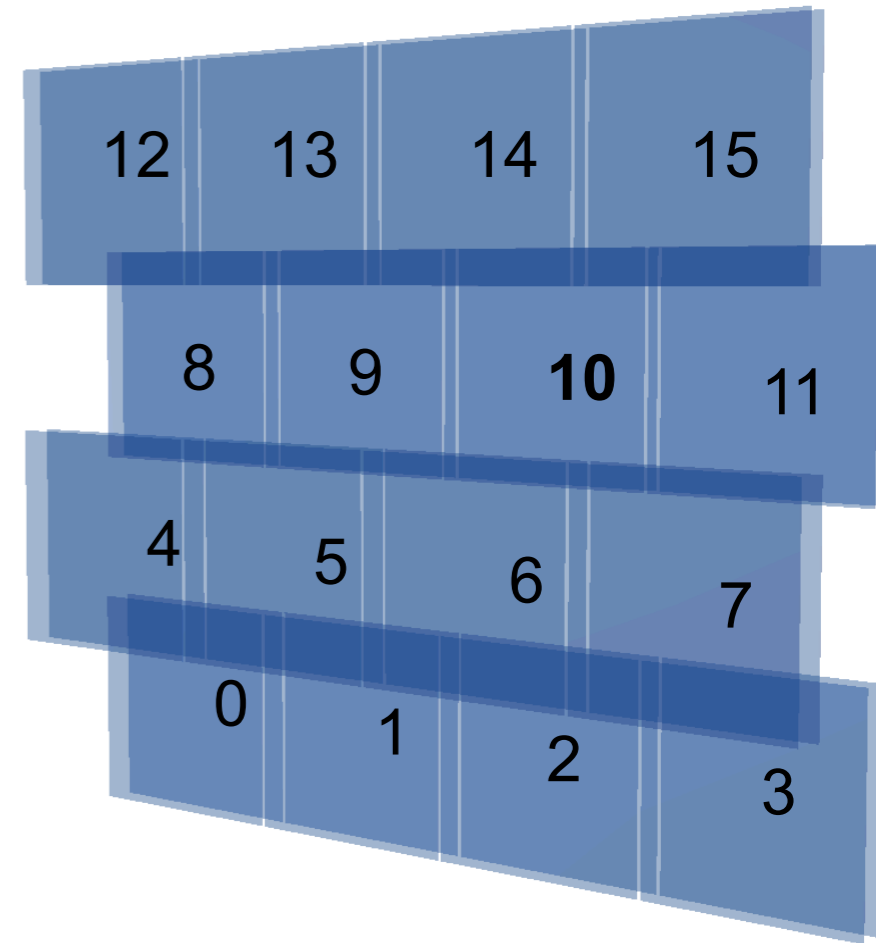
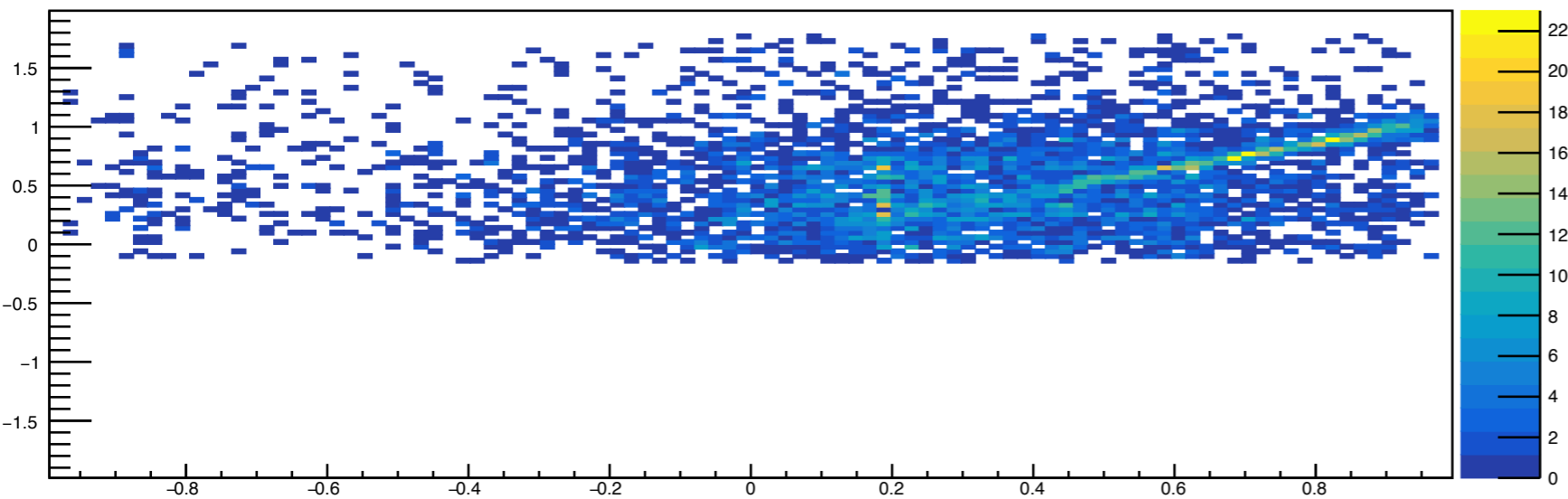
Correlation position btw 1 VTX & 1 ITR sensor

Run 6309 resync: VTX1 & ITR10 (113-0)

Vertex - clusters map X correlation for sensor 1-11



Vertex - clusters map Y correlation for sensor 1-11



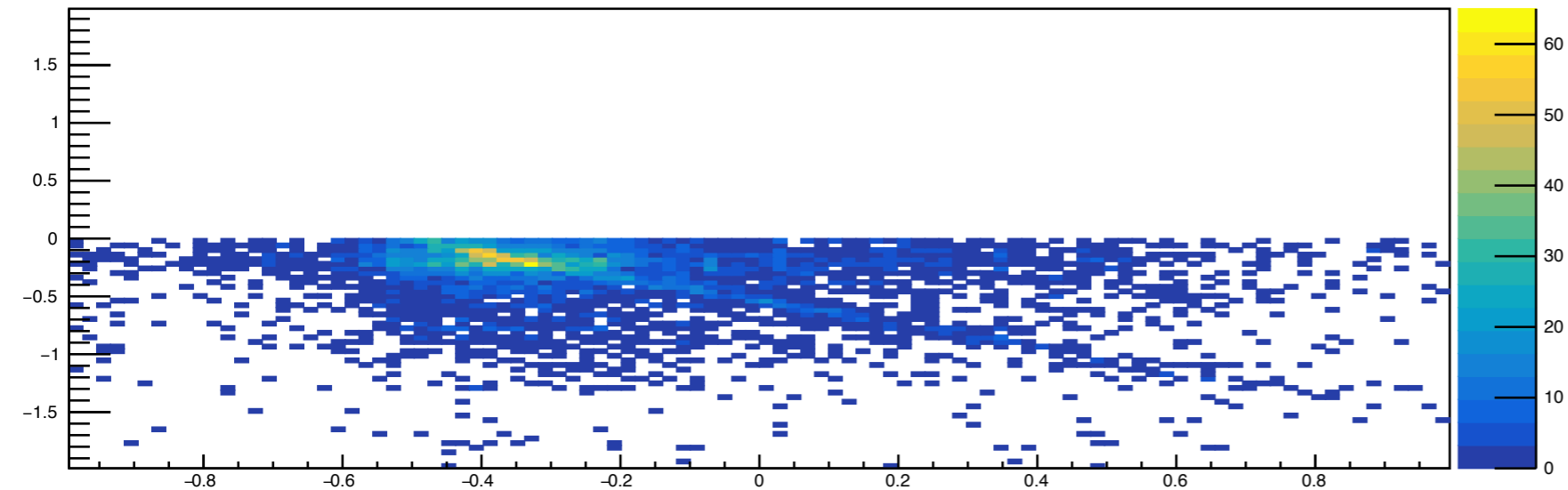
Correlation btw one sensor of VTX with one of ITR

Correlation (iiib)

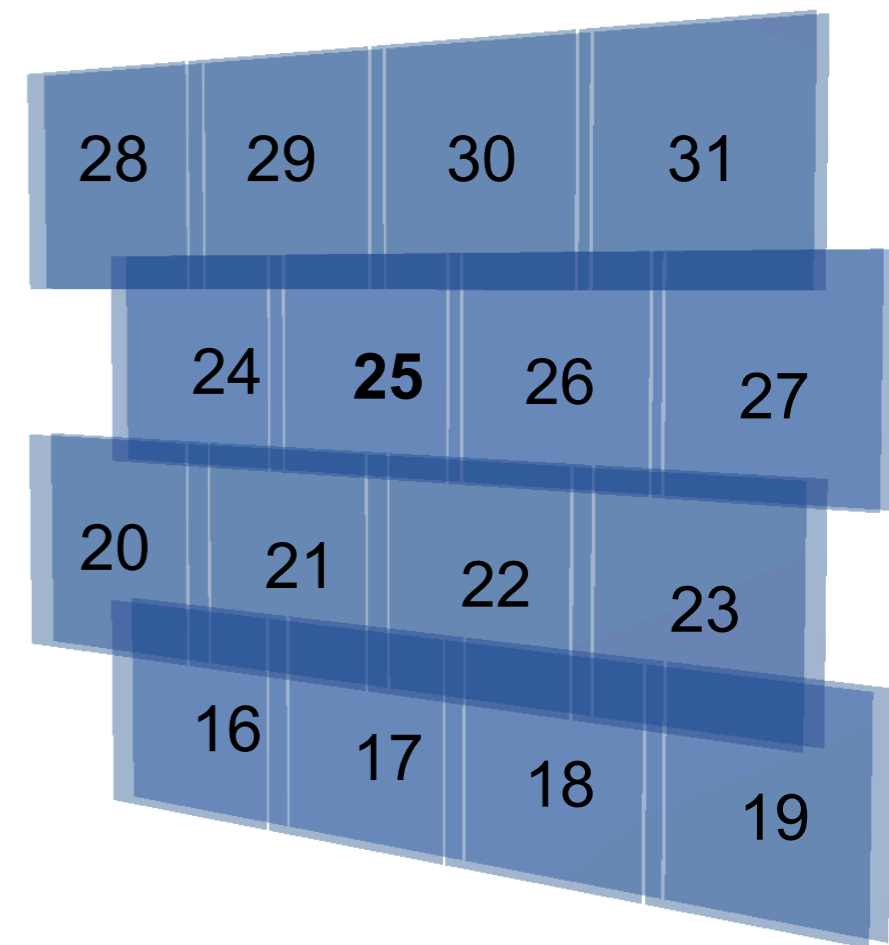
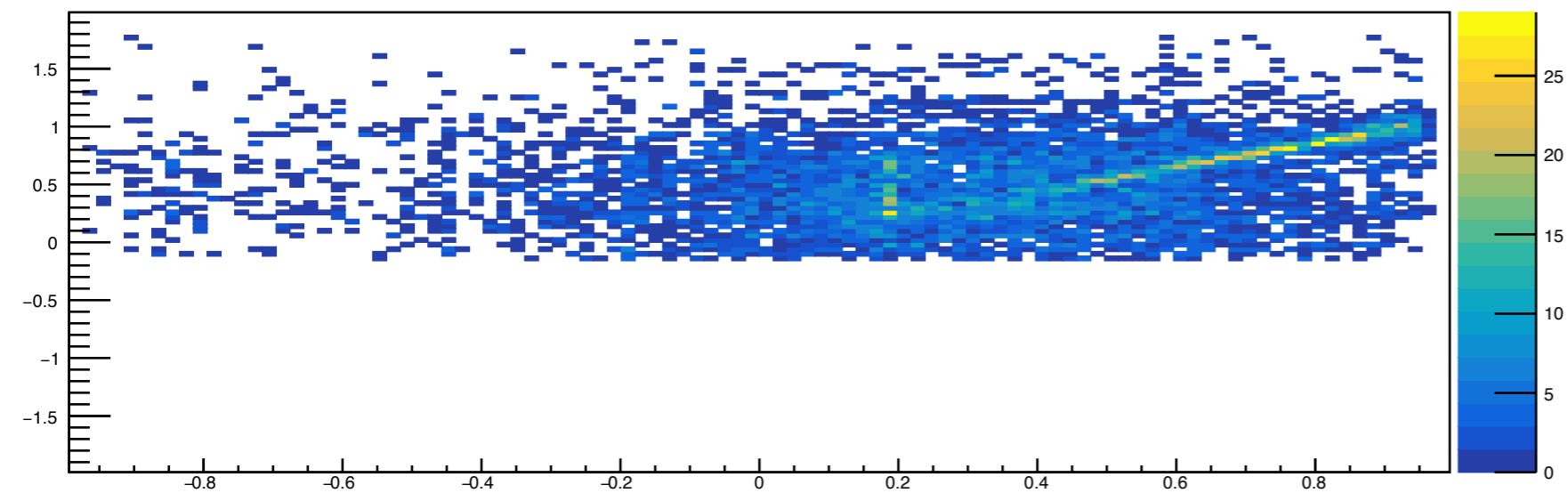
Correlation position btw 1 VTX & 1 ITR sensor

Vertex - clusters map X correlation for sensor 1-26

Run 6309 resync: VTX1 & ITR26 (114-0)



Vertex - clusters map Y correlation for sensor 1-26

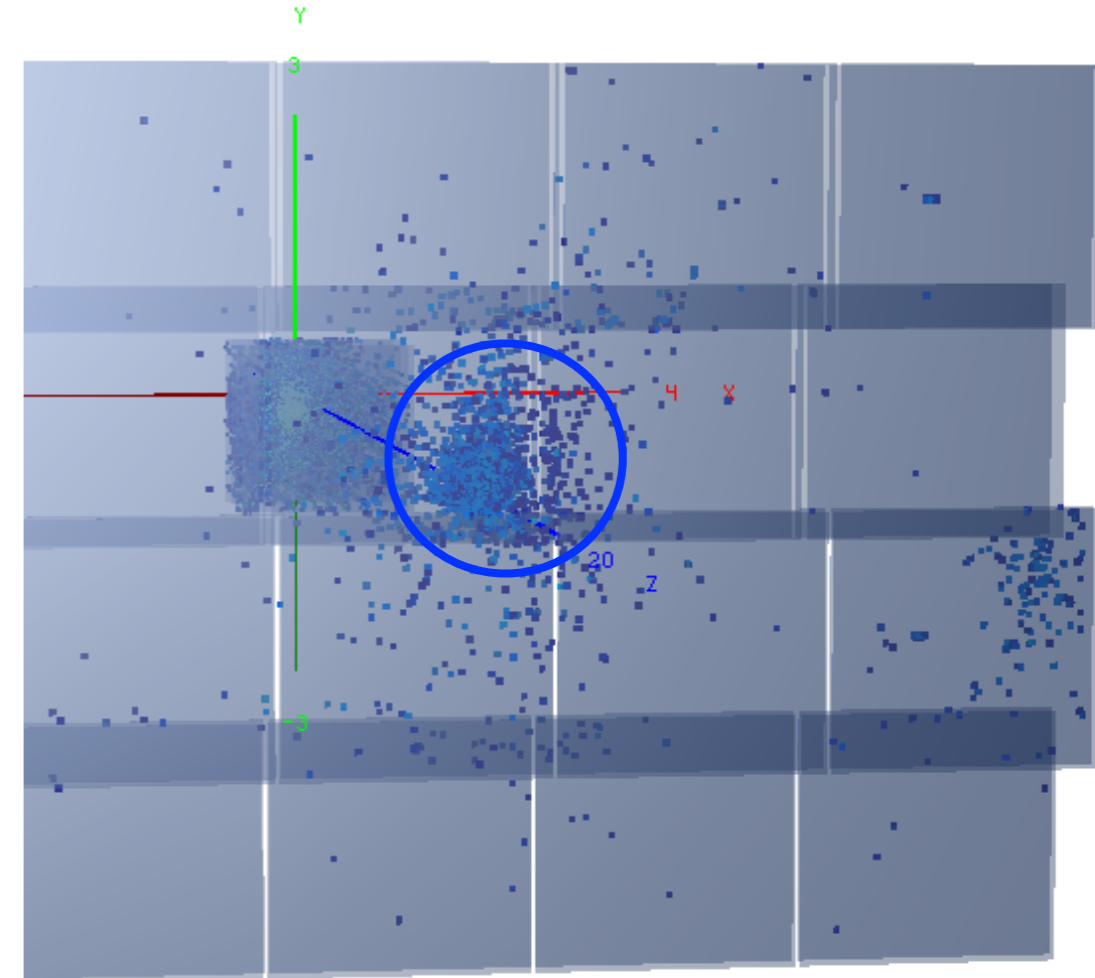
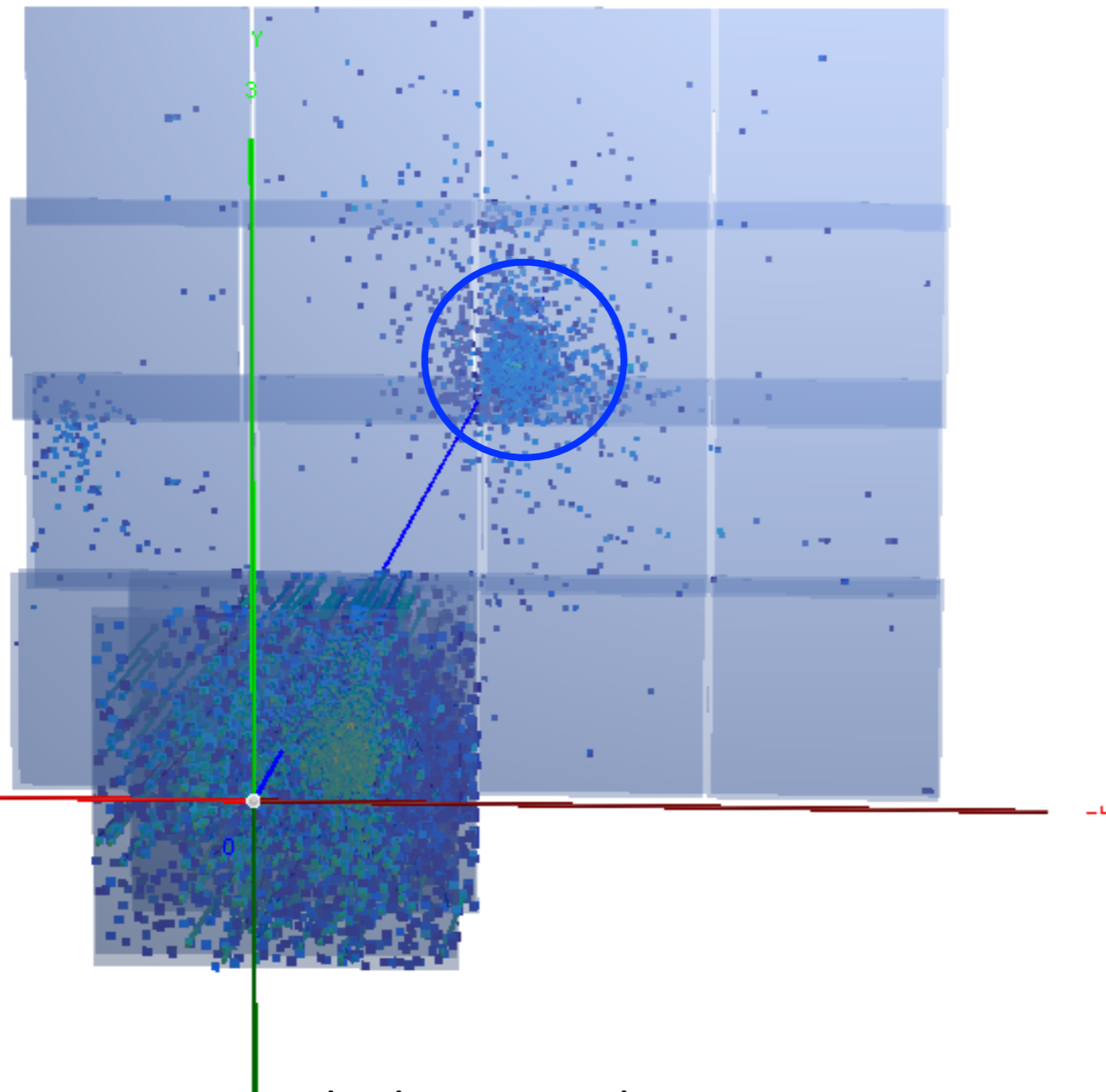


➔ Correlation btw one sensor of VTX with one of ITR

➔ Still anti correlation in X in detector frame :-)

Display (i)

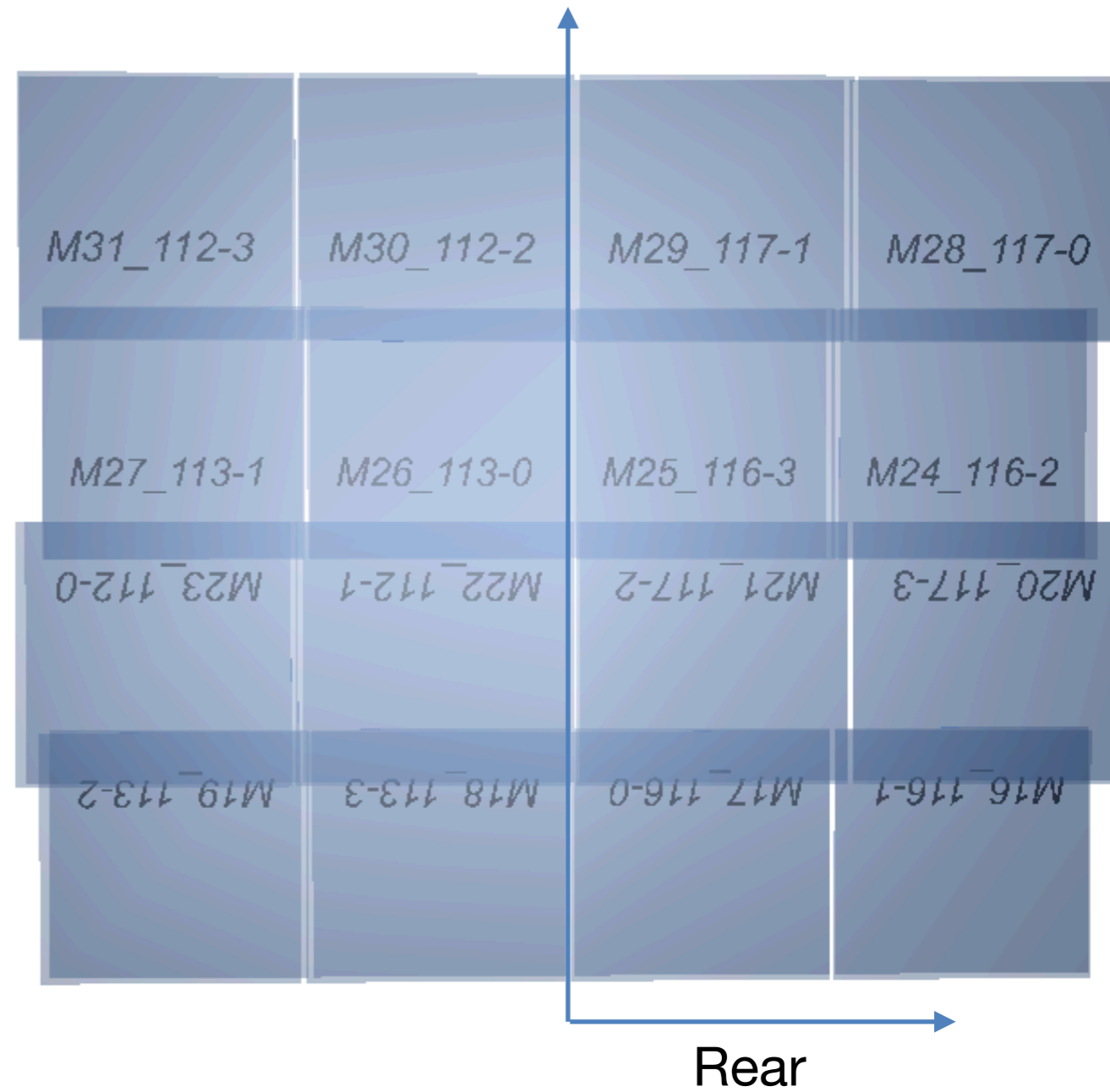
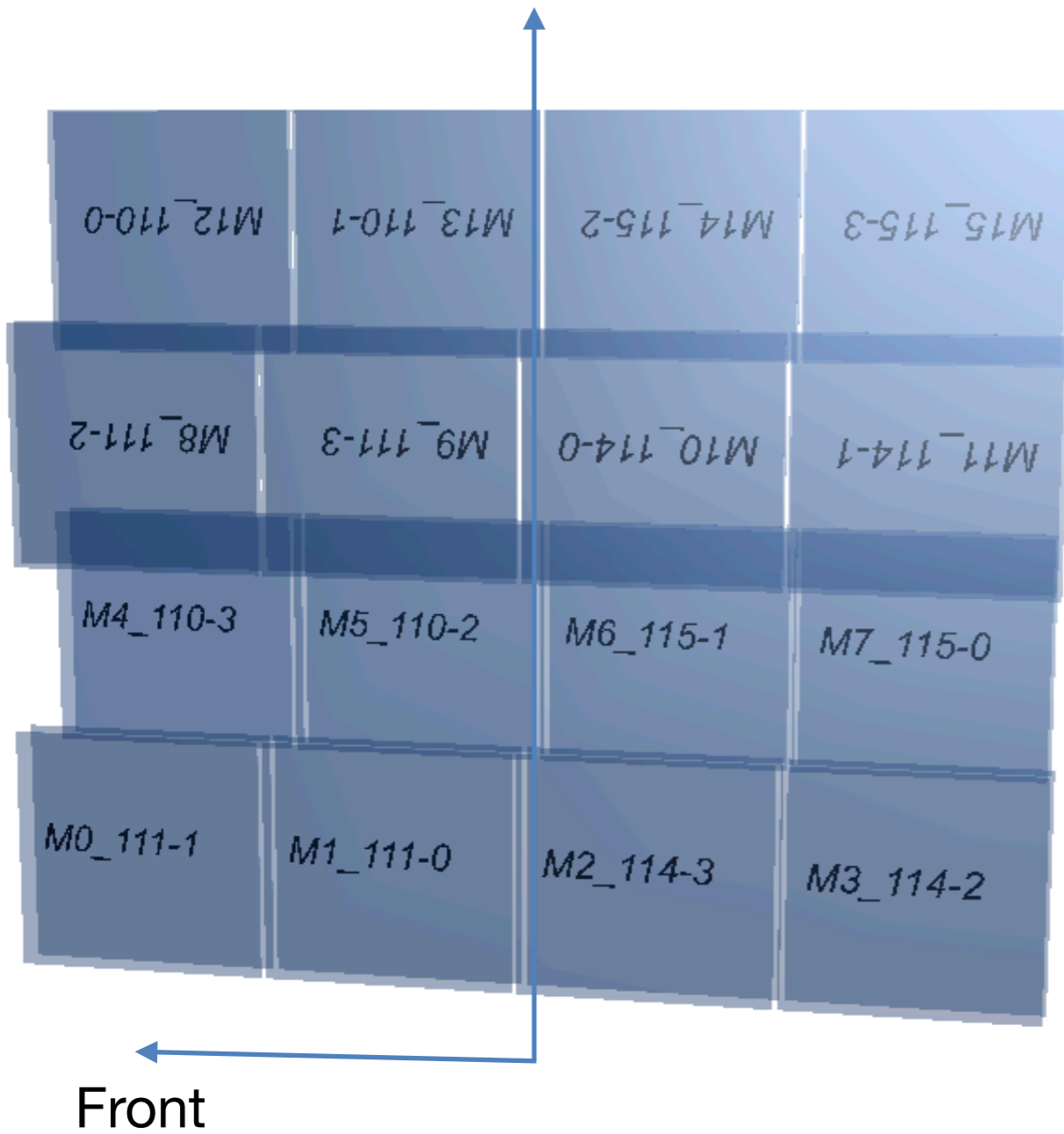
□ VTX+ITR: run6144 (Frag. Trigger)



- ➔ We can see the beam on the ITR
- ➔ Beam is greater than the acceptance of the VTX

Numbering (ia)

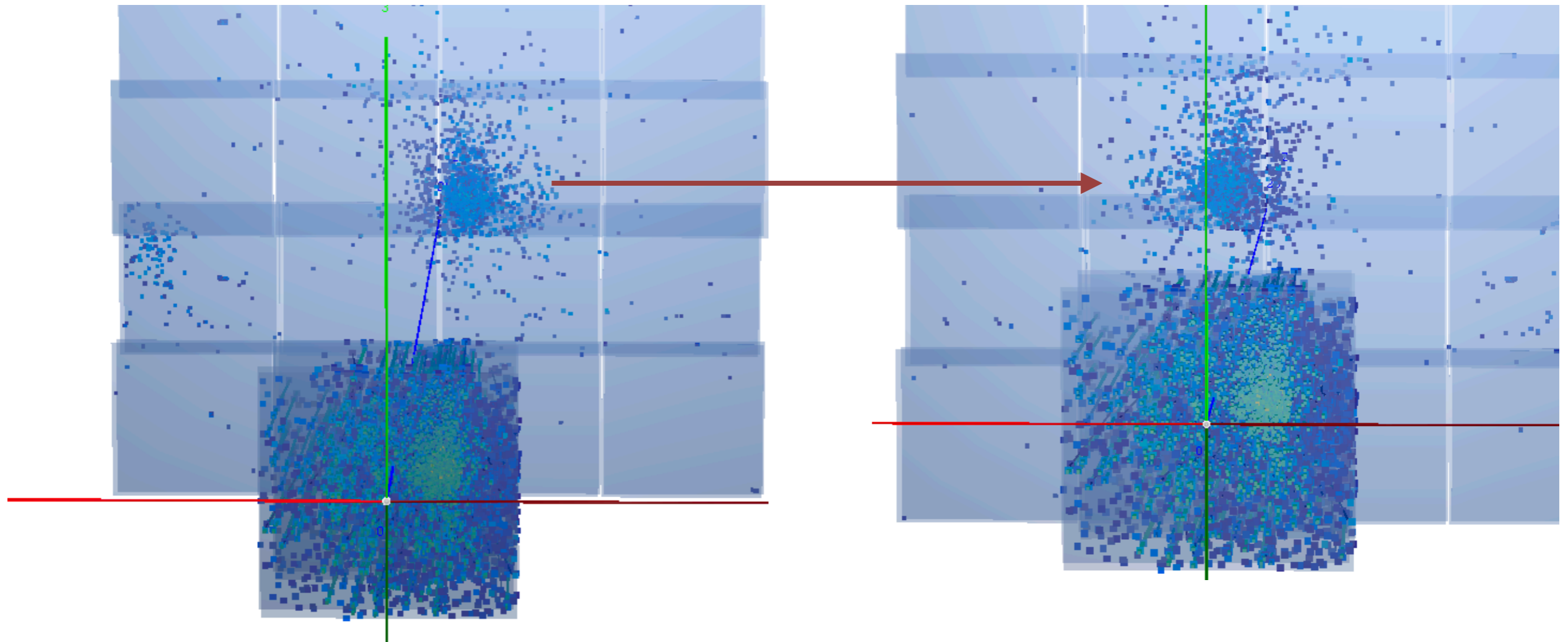
□ Mappin in raw data



➔ Still pb with flips

Display (ii)

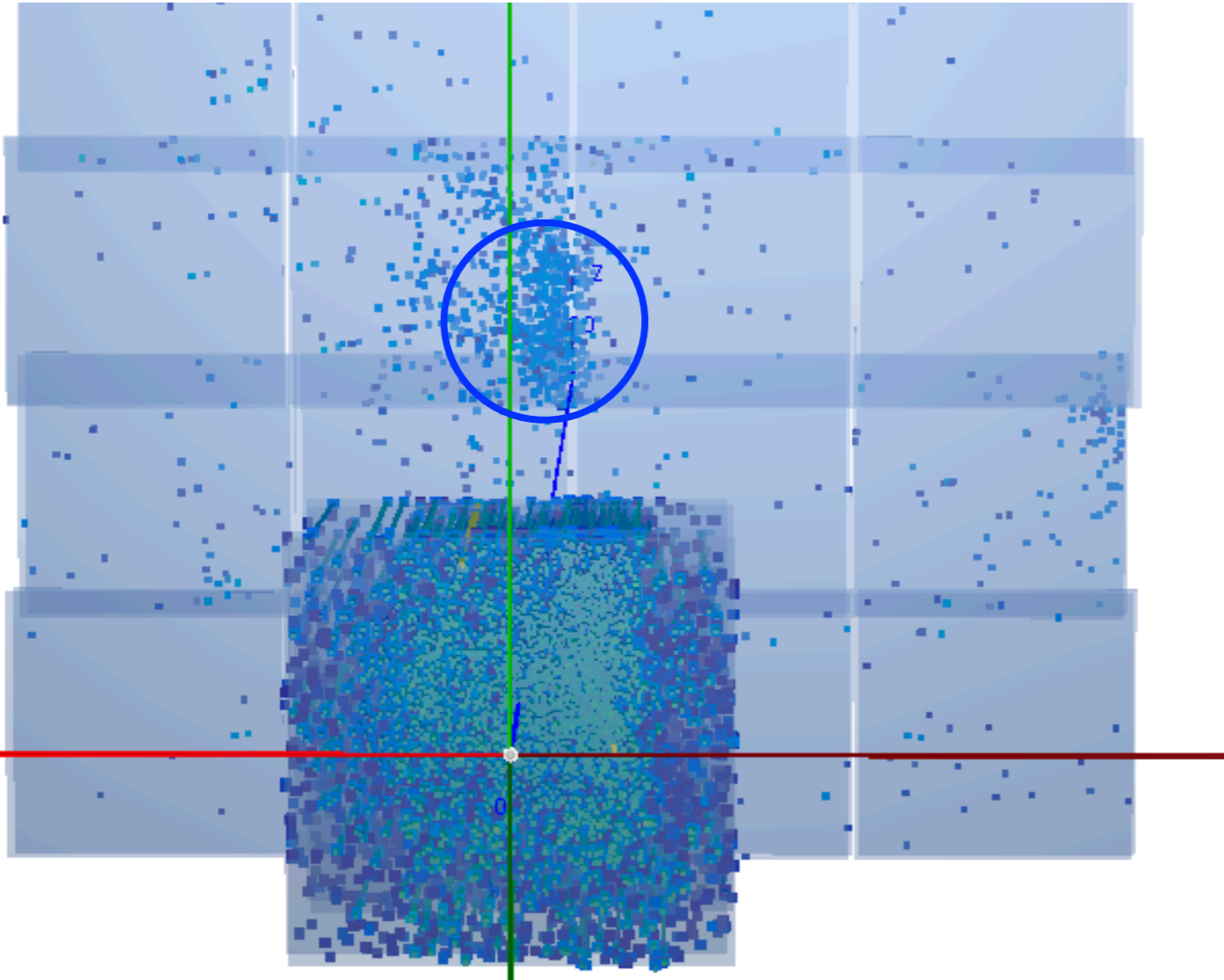
□ VTX+ITR: run6144 (Frag. Trigger with magnet)



- Shape of beam inverted in X !
- Need to inverse rear/front and left/right in the mapping
- ITR has been flipped (rear -> front) but keeping the same direction for X-axis !
- ➔ Beam spot right orientation in X but displaced position, magnet bending ??

Display (iii)

□ VTX+ITR: run6309 (alignment run)



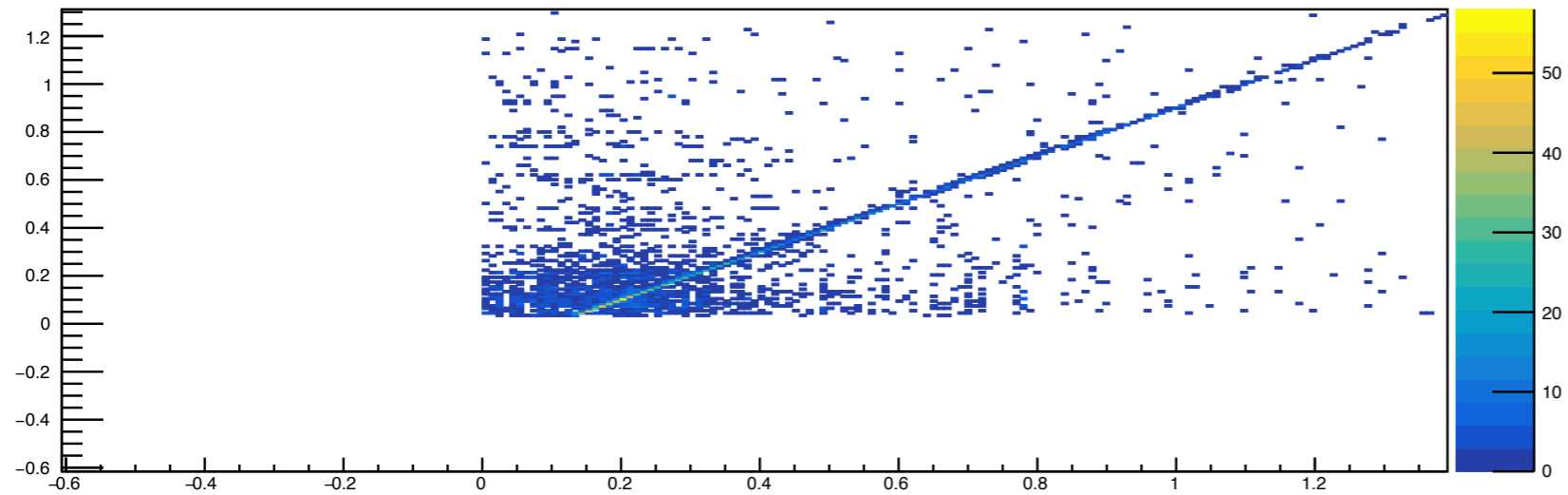
➔ Still displacement in X

Correlation (ii)

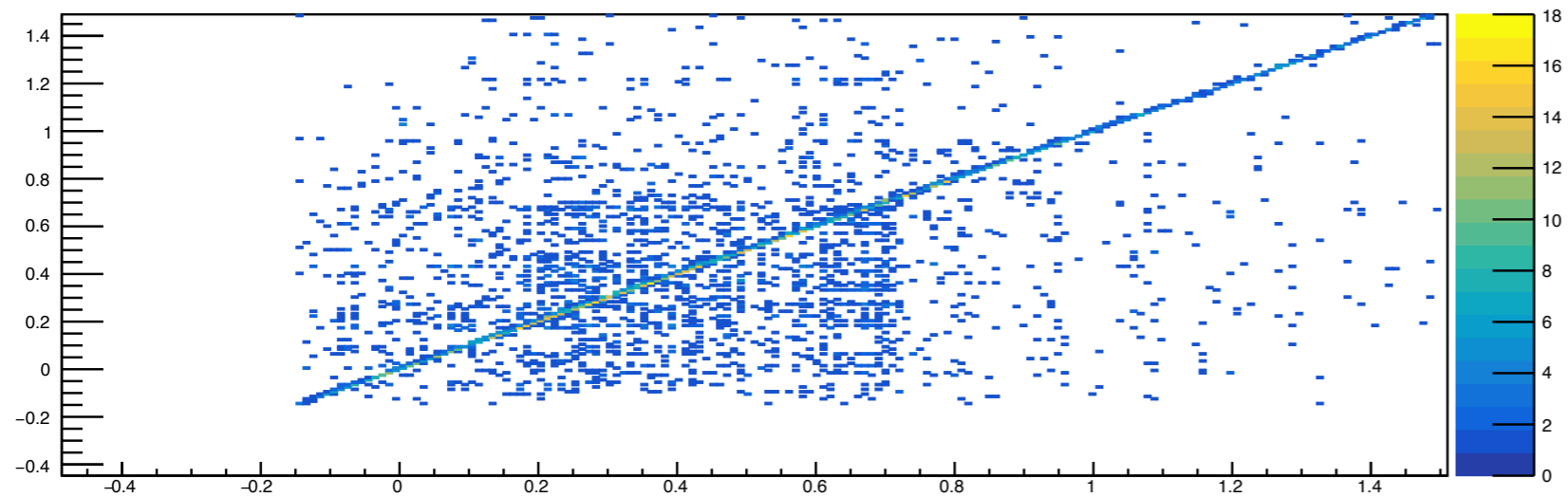
Correlation position btw 2 ITR's sensors in the detector framework

Vertex - clusters map X correlation for sensor 10-27

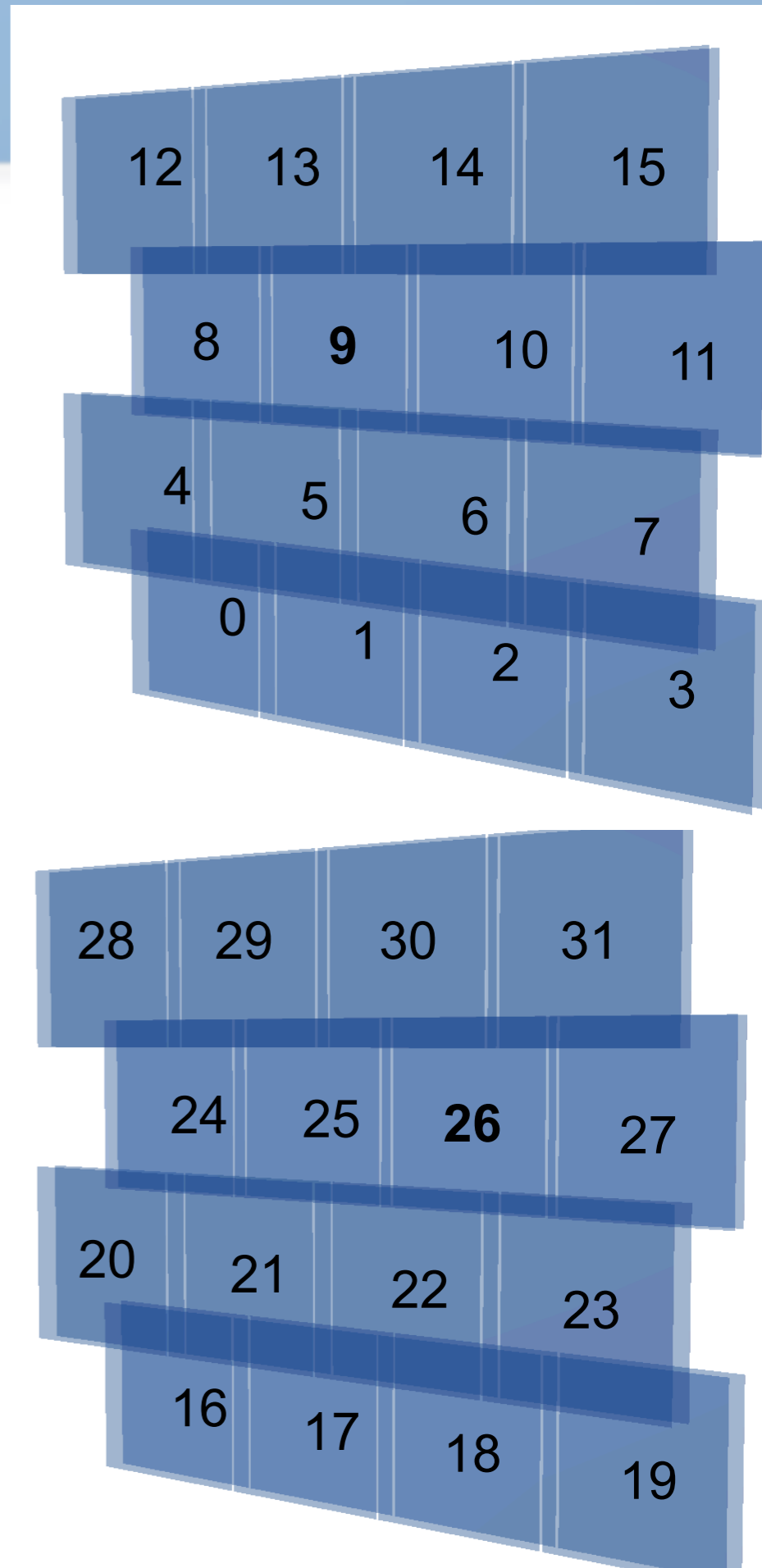
Run 6309: 111-3 / 113-0



Vertex - clusters map Y correlation for sensor 10-27



→ Correlation btw two boards front/rear side

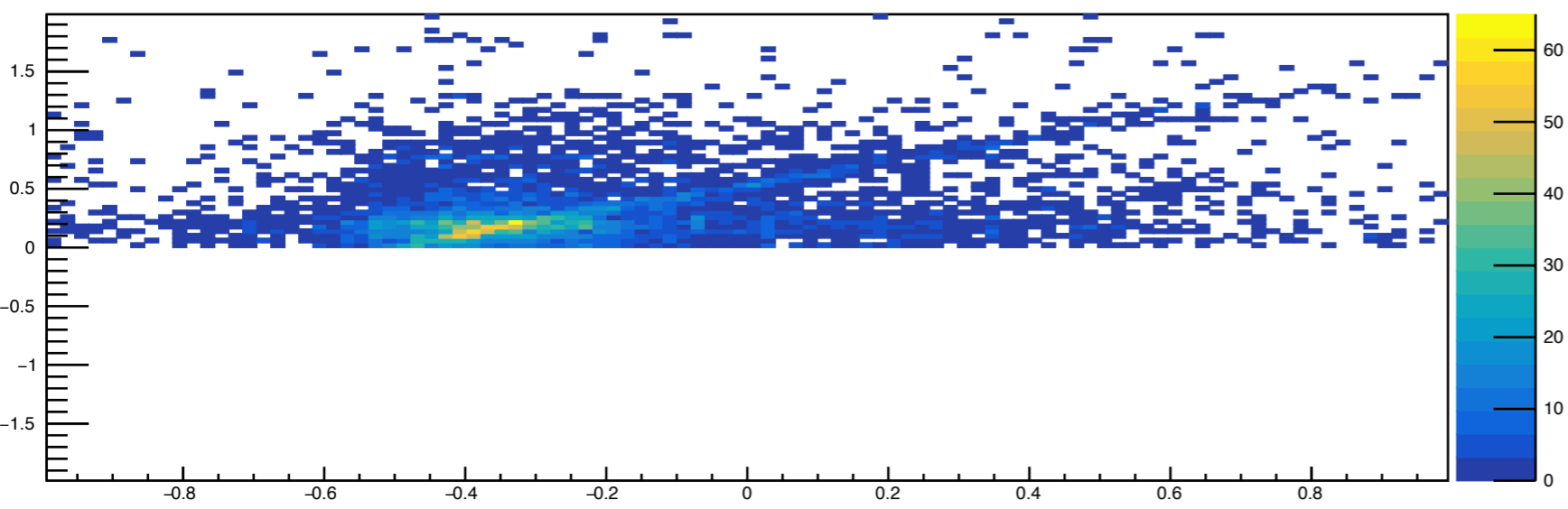


Correlation (iiic)

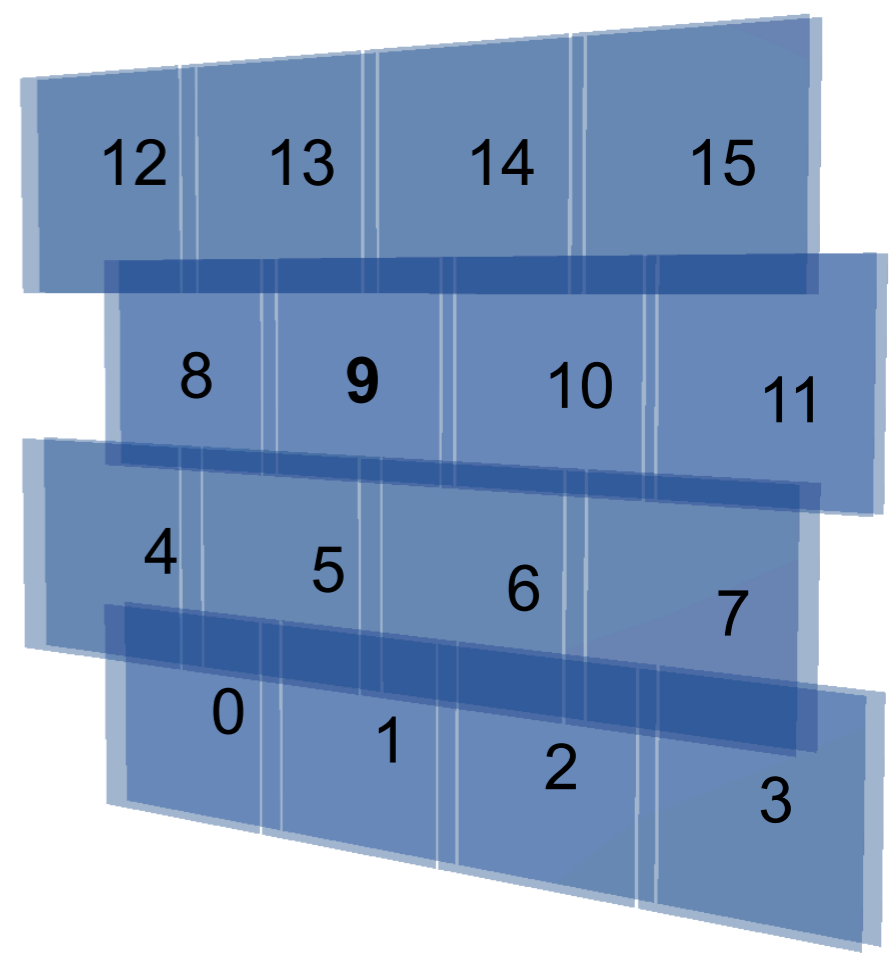
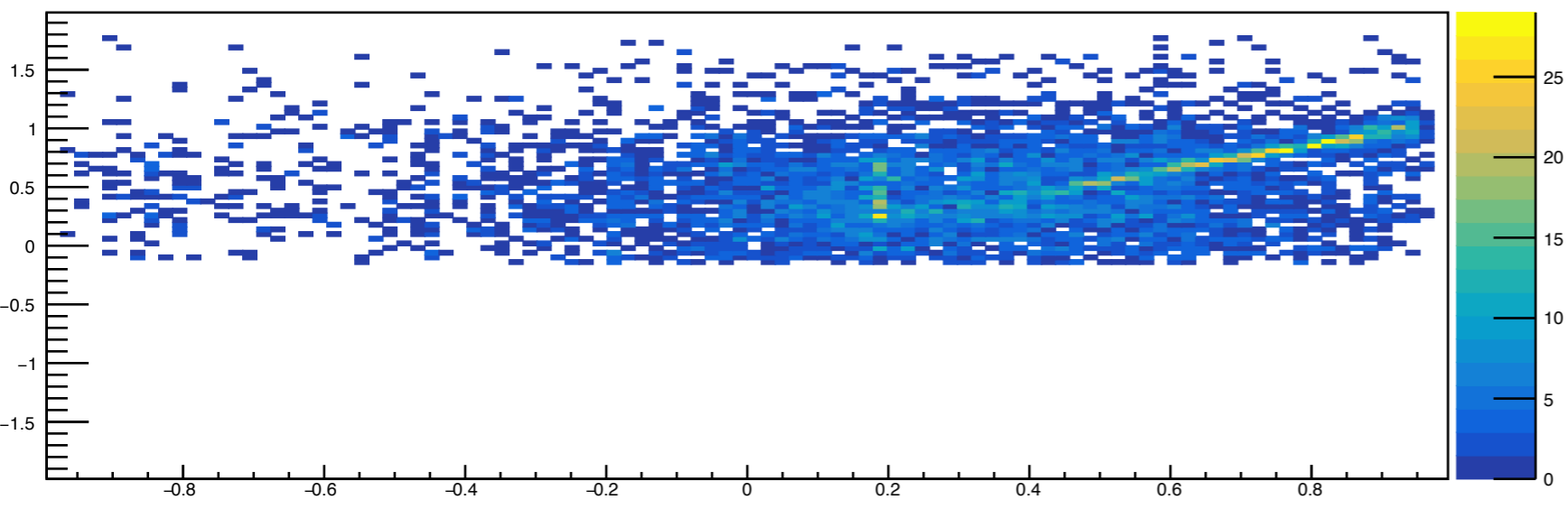
Correlation position btw 1 VTX & 1 ITR sensor

Run 6309 resync: VTX1 & ITR10 (111-3)

Vertex - clusters map X correlation for sensor 1-10



Vertex - clusters map Y correlation for sensor 1-10



Correlation btw one sensor of VTX with one of ITR

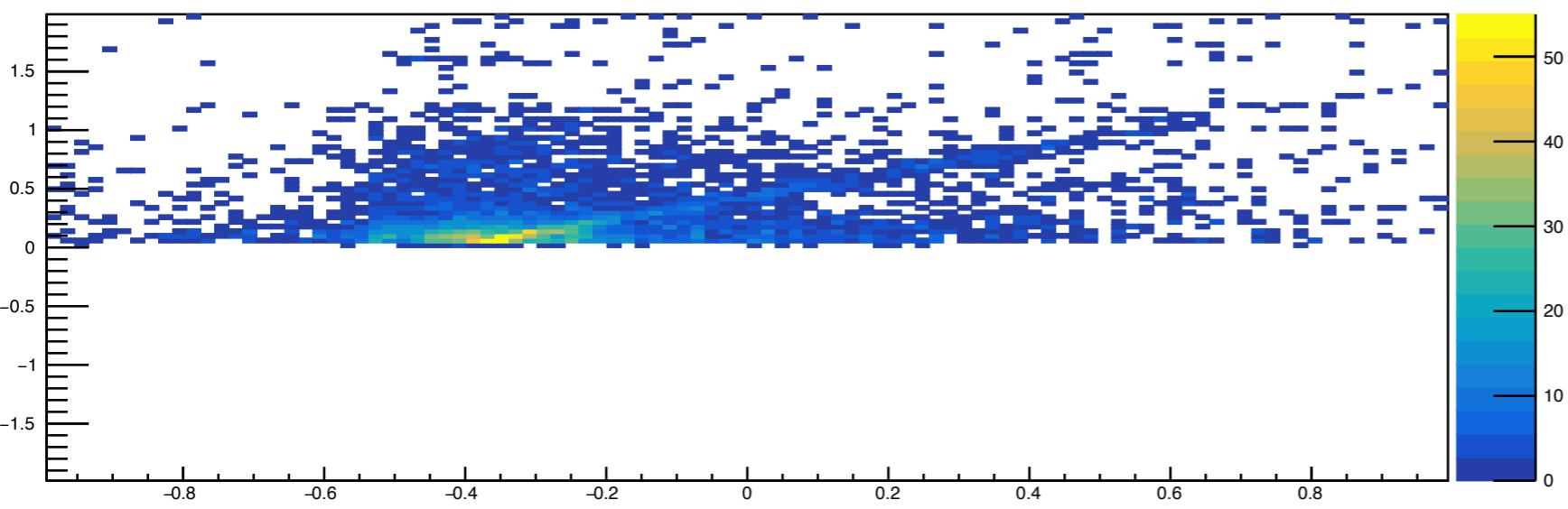
Correlation in X in detector frame

Correlation (iiid)

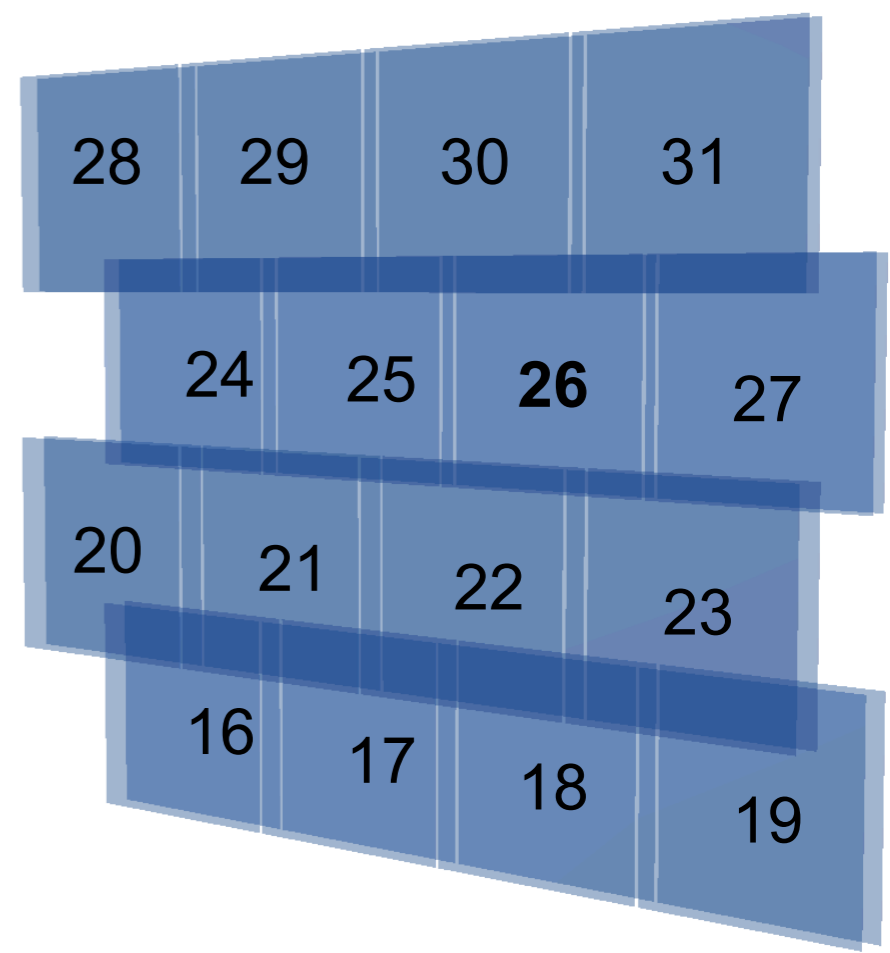
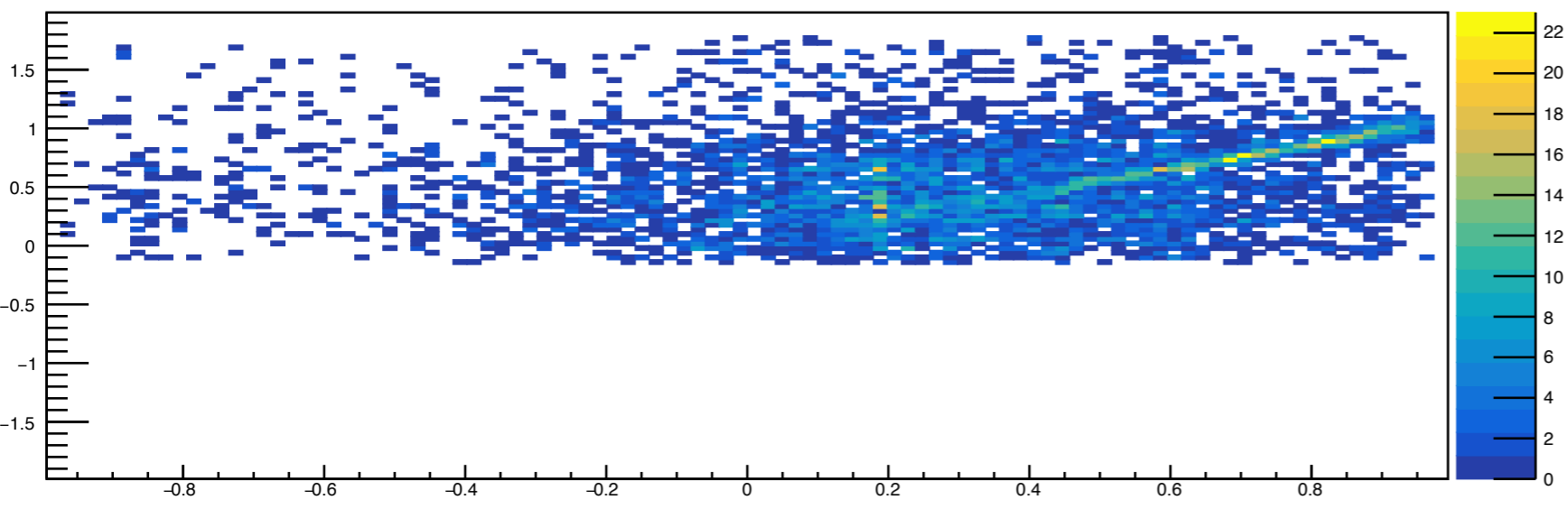
Correlation position btw 1 VTX & 1 ITR sensor

Vertex - clusters map X correlation for sensor 1-27

Run 6309 resync: VTX1 & ITR26 (113-0)



Vertex - clusters map Y correlation for sensor 1-27



➔ Correlation btw one sensor of VTX with one of ITR

➔ Correlation in X in detector frame

Conclusions

□ Correlation

- ➔ Btw sensors of VTX or ITR and btw both detectors
- ➔ Pb with X direction for ITR, a displacement of 0.4 cm ??

- ➔ Discussion with the electronics department,
- ➔ There is a shift of 2-4 mm btw rear module with respect to front in a plume !
- ➔ Investigation under progress