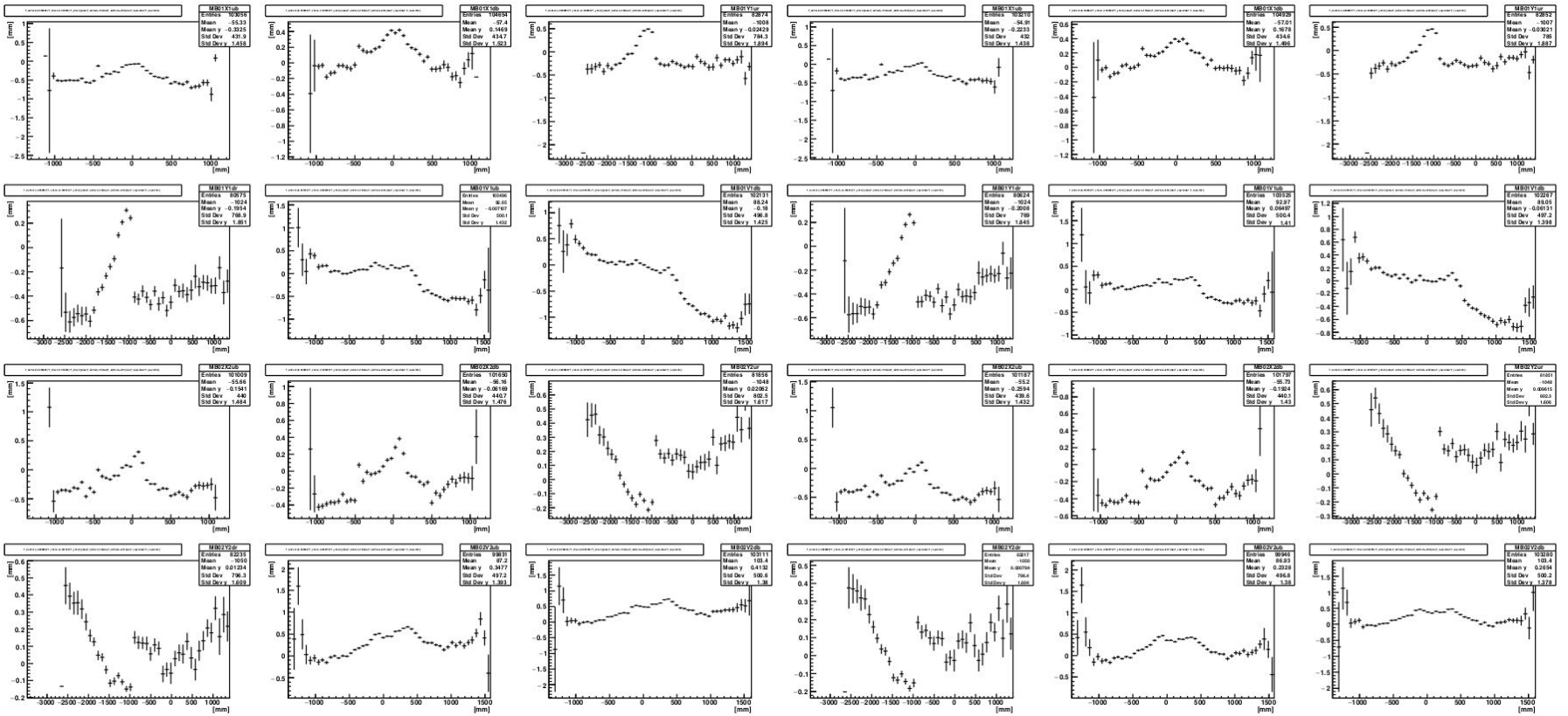
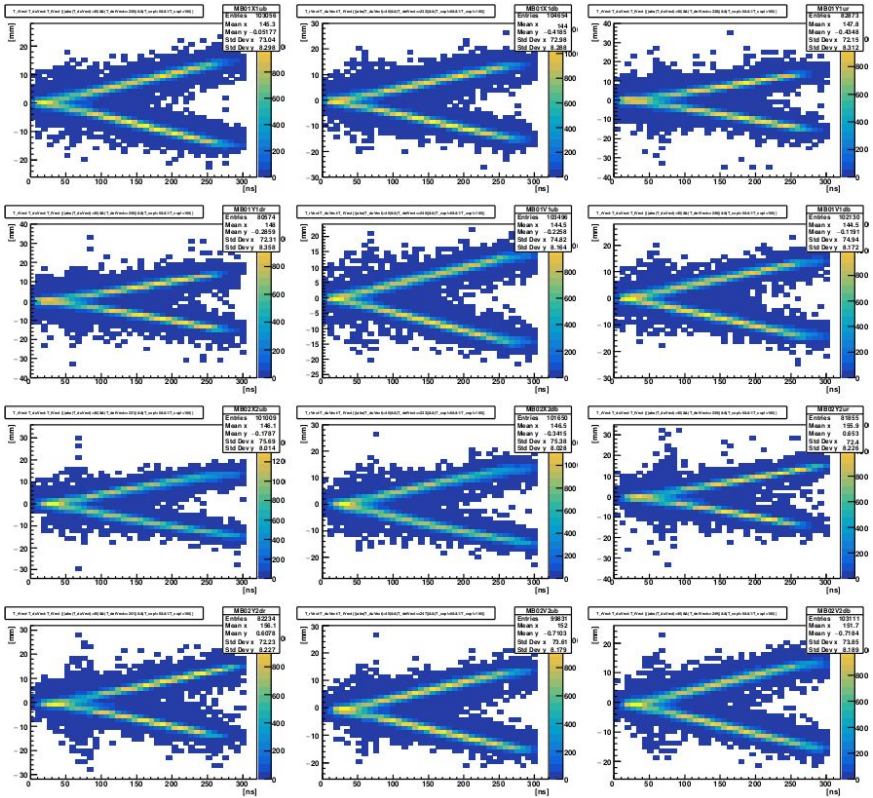
Alignment Status

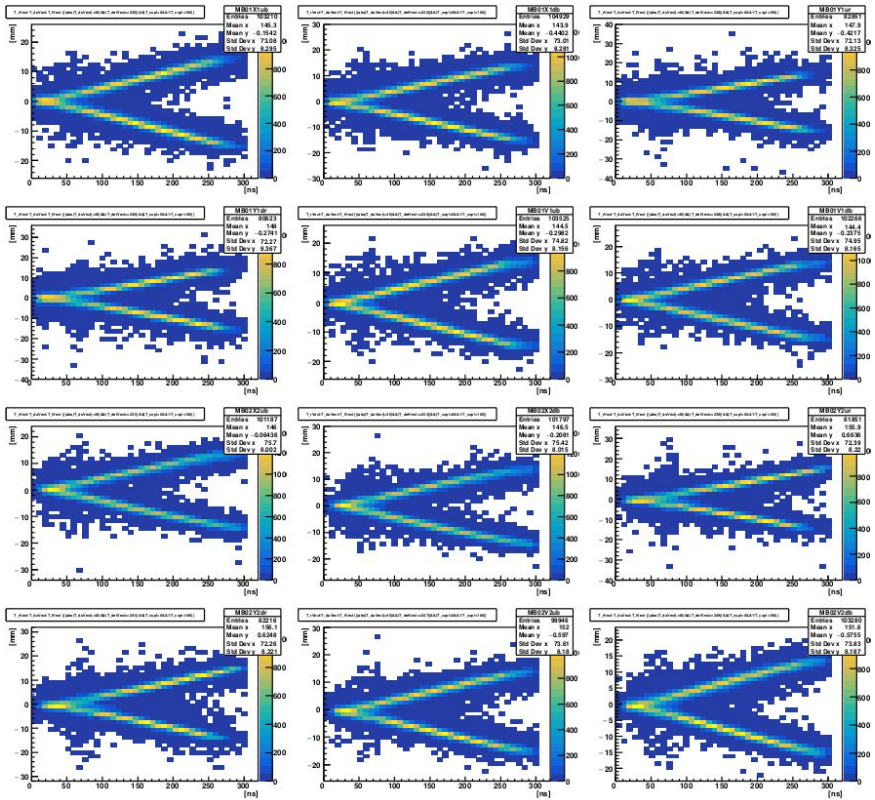
Slides for CW of 2021-05-28

Results of MB pitch tuning on physics

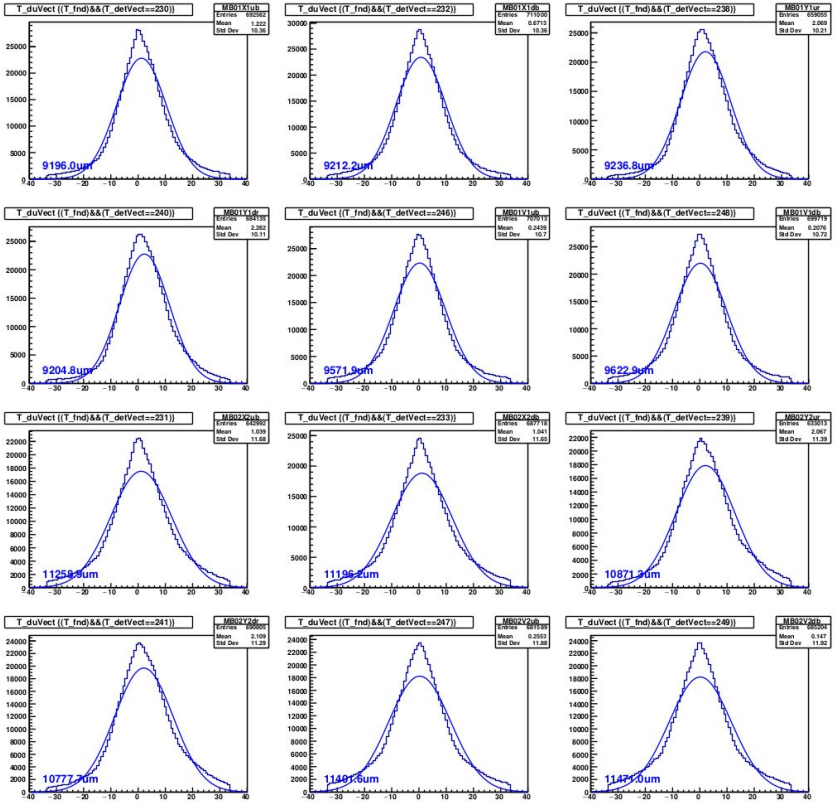


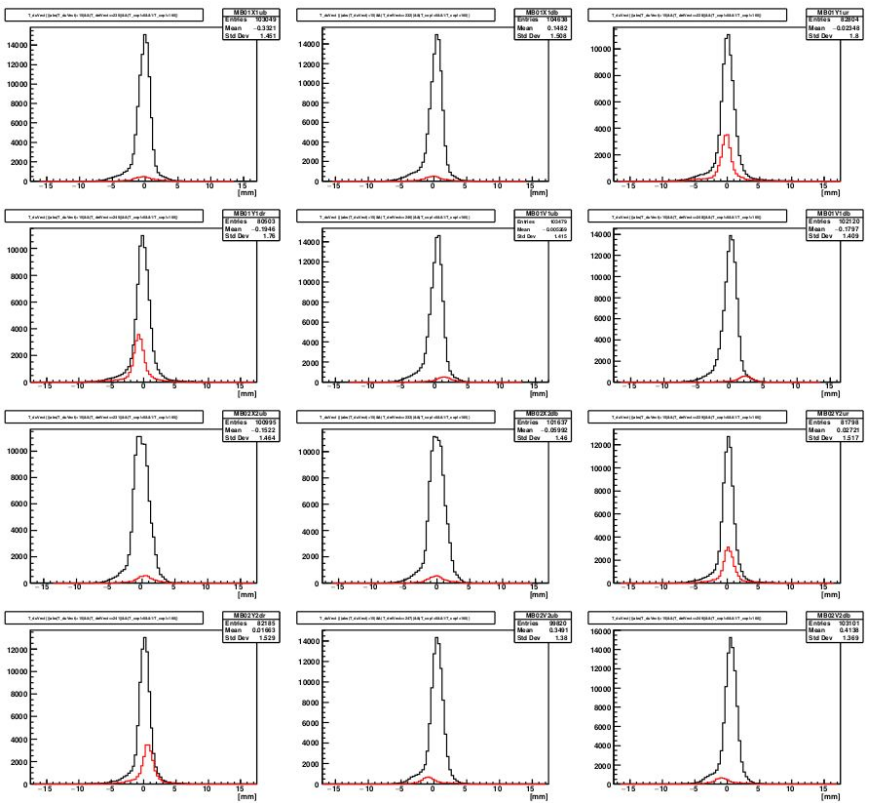
MB R(T), before and after pitch alignment



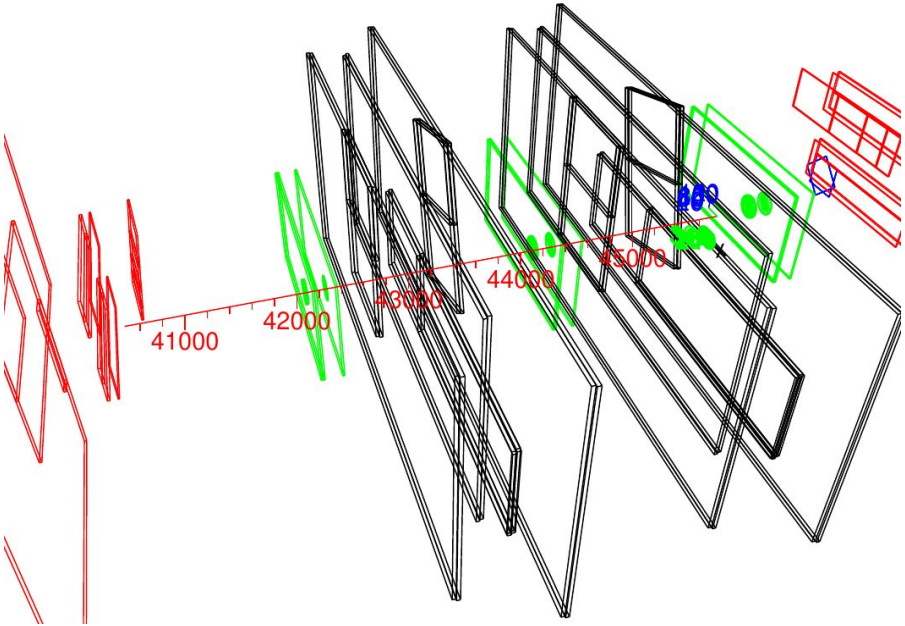


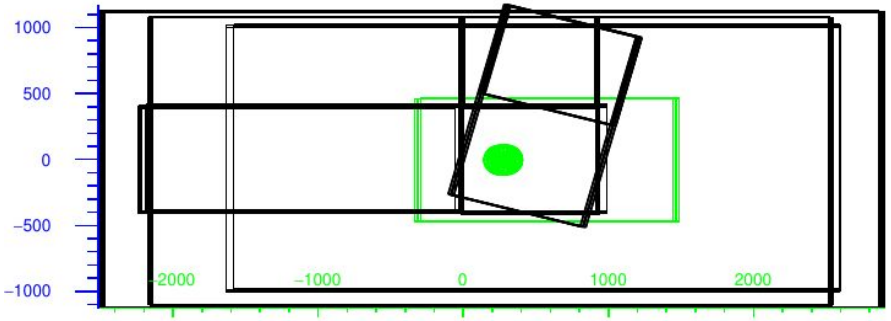
Unbiased alignment results





MB/PB Overlap, geometrical cut

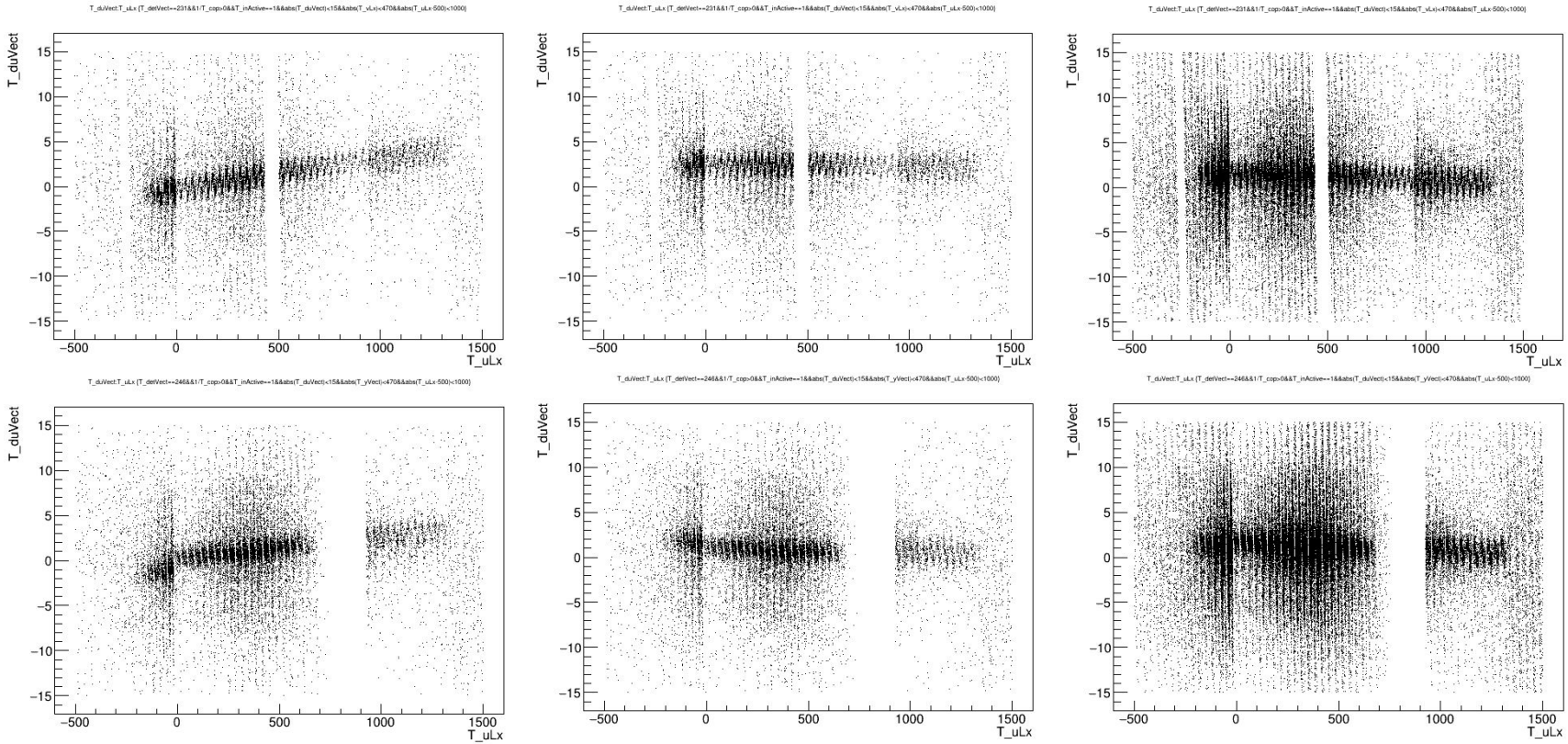




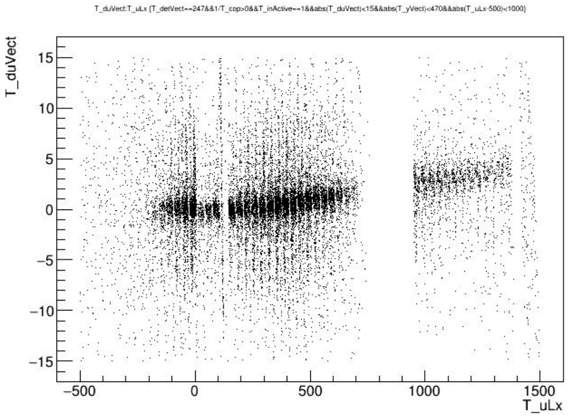
Marcin used the geometrical Cut

- X: ~ [-350 : 1500]
- Y: ~ [-500 : 500]

Evolving: 02X2ub, 01X1uc



02V2ub + 238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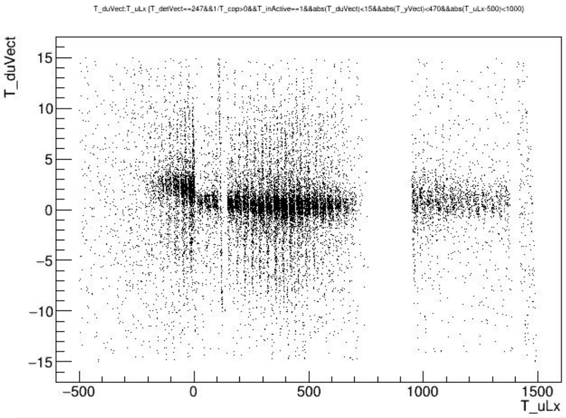
T_uLx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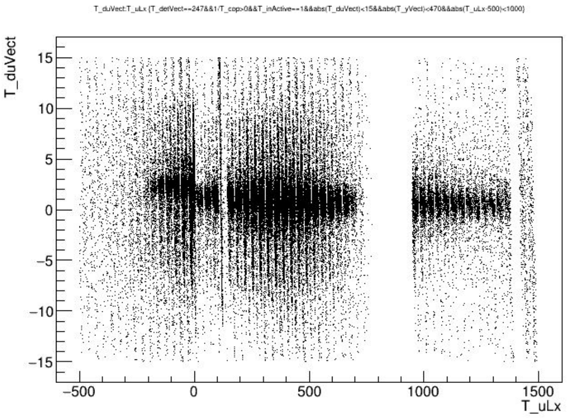
T_duVect
T_uLx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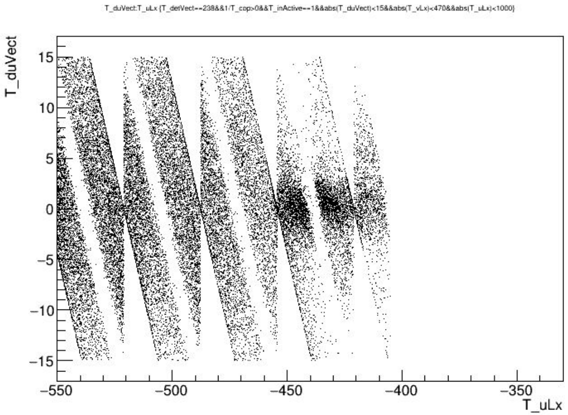
T_uLx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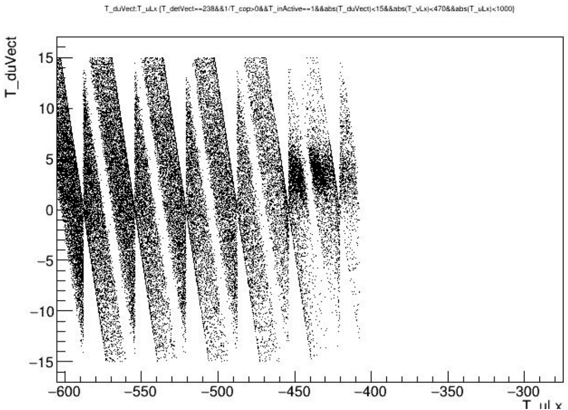
T_uLx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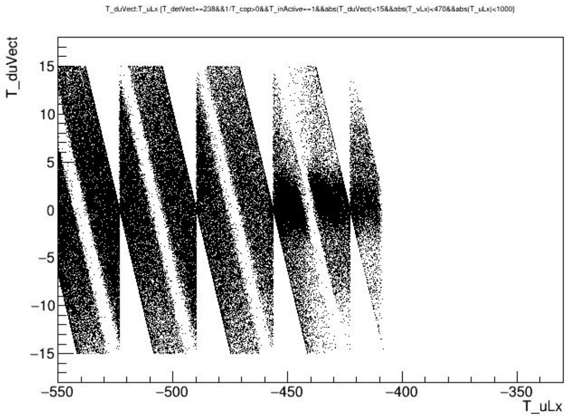
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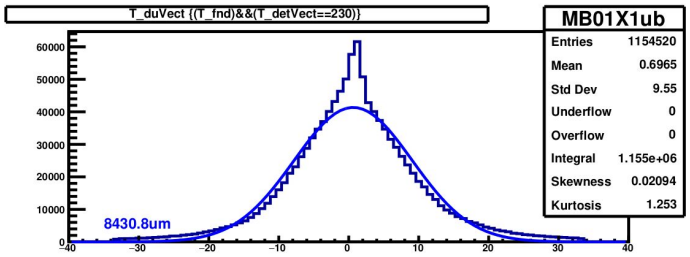
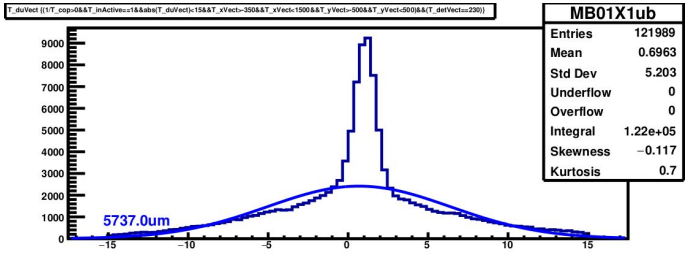
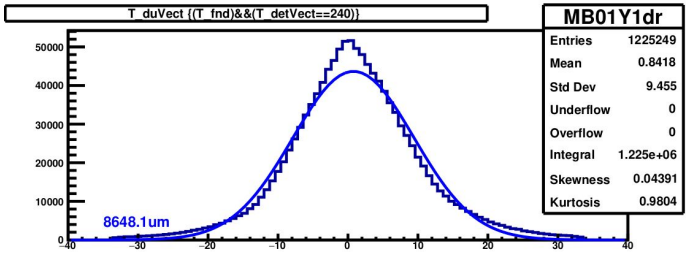
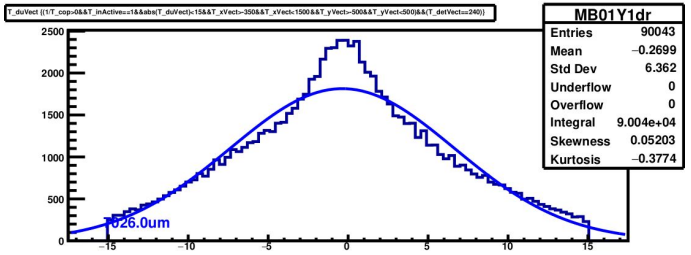
T_duVect
T_uLx

Conclusion on the local minimum









Rest of the plane “neutralizes” the offset within the overlapping region with more statistics and higher statistical momenta (skewness/kurtosis). This effect is amplified by the pitch adjustment, leaving the mean at zero.

Plans

“We do not know which one to trust”

- Use results with “manufactured” pitch
- (done) Align PB based on their unbiased residuals
- (done) Align the MB with respect to PB
- Check the results

Outside the overlapping region, MB are mostly influenced by W45.

- Check the DW residuals structure in details
- Does the muon bridging over concrete wall really work?

`CsTrafficBridging` option

```
TraF     ReMode   [ 16]     0    // if > 0 TraFFiC's Muon Bridging is OFF     (Cs TrafficBridging)
```

Counterintuitively, the comment to the option is valid (“1” really disables the bridging and it was disabled in my options and probably in 2016 production).

However, running with and without this option does not affect the results.