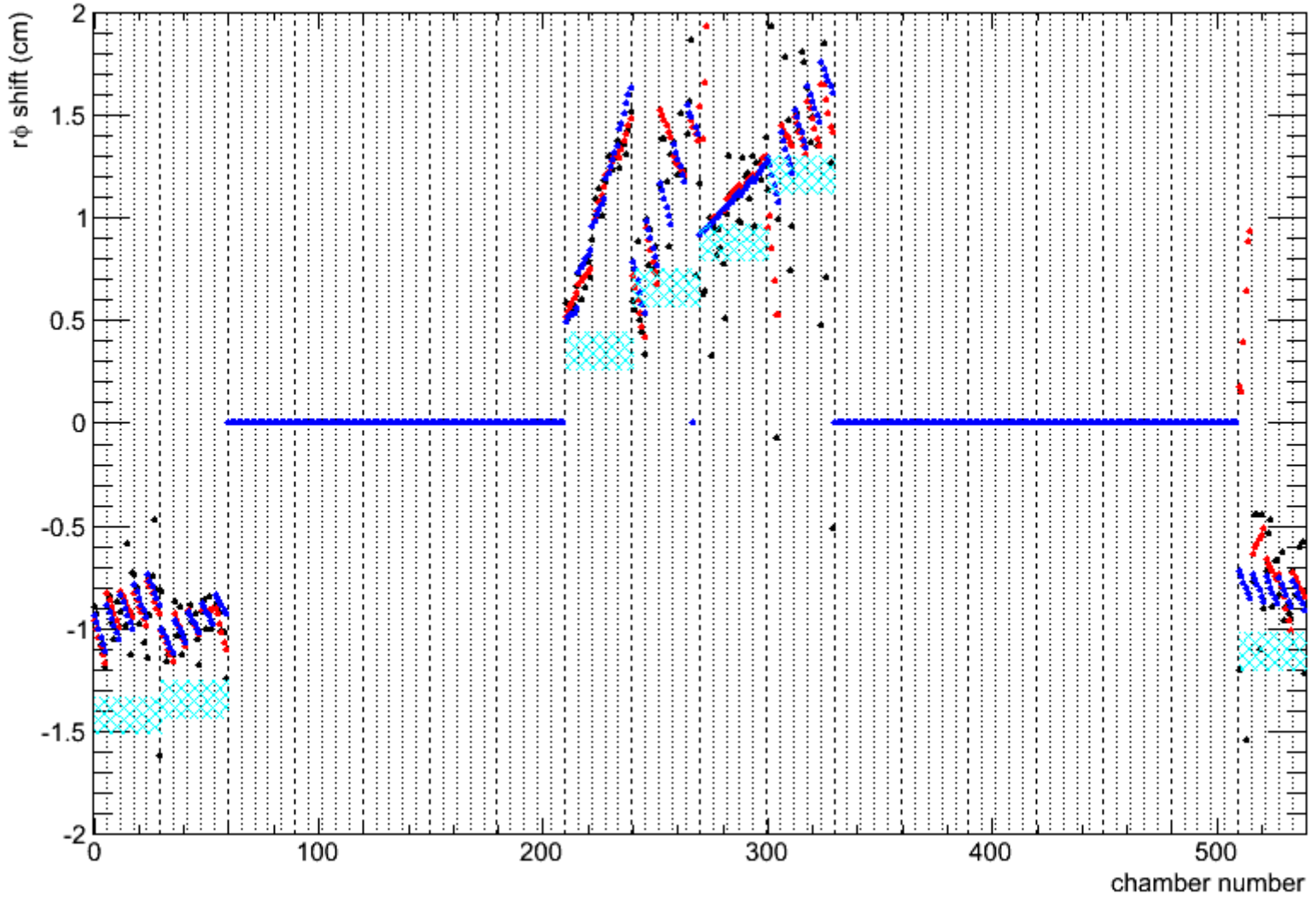
first TRD alignment set with cosmics 2009

status on 24-11-2009

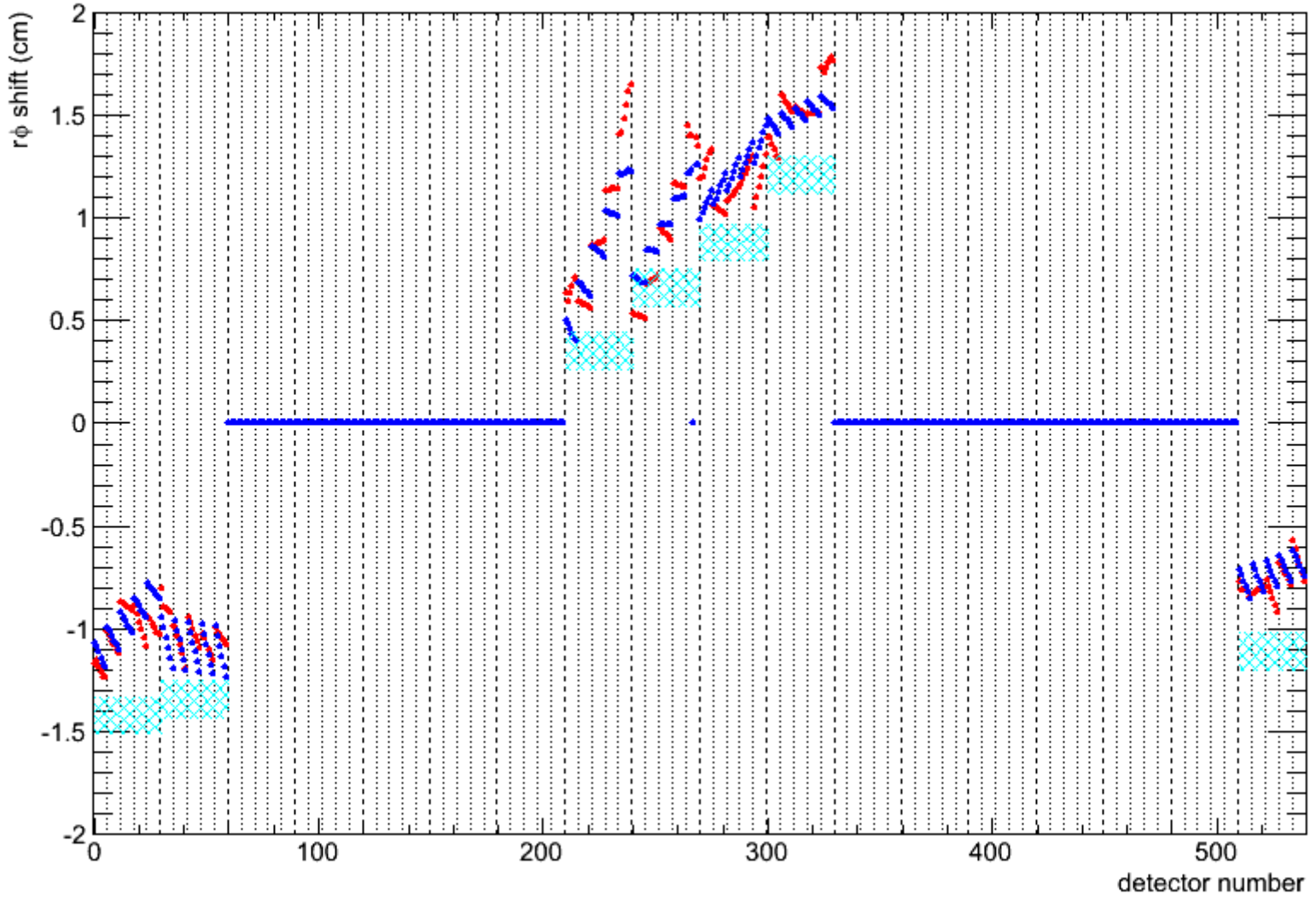
Chamber-by-chamber (black), stack-by-stack (red), supermodule-by-supermodule (blue), survey (cyan)



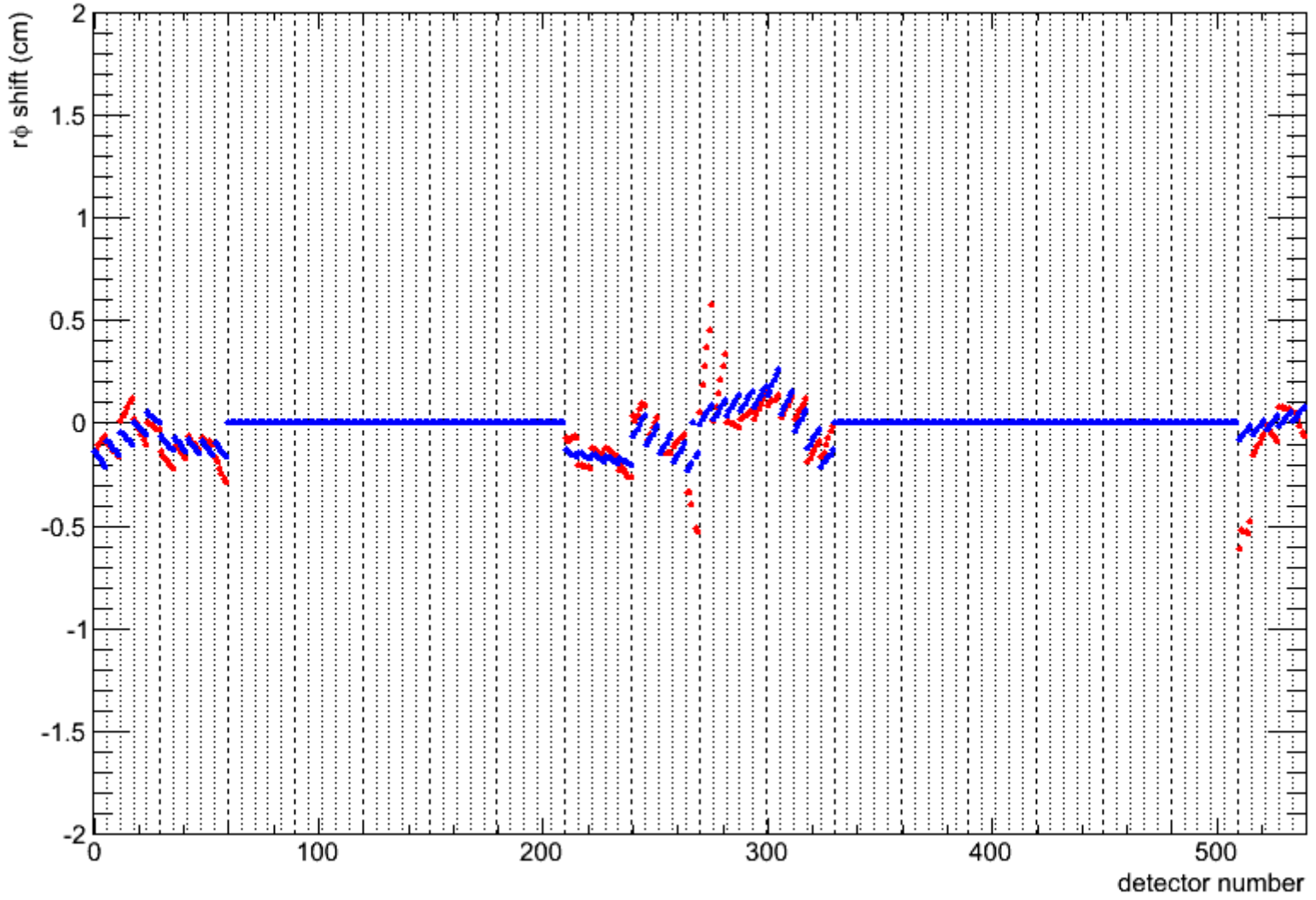
alignment set Run0_999999999_v2_s0.root

- **z-shift from survey 2009**
- **the other five parameters from the TPC/TRD alignment obtained with cosmics 2009, with B=0, with Kalman track fitter, minimization performed on whole supermodules (blue points on the previous slide)**
- **validation by applying during reconstruction of run 96287 (B=0.12 T) and rerunning the alignment procedure on the resulting ESDs – should give zero misalignment**

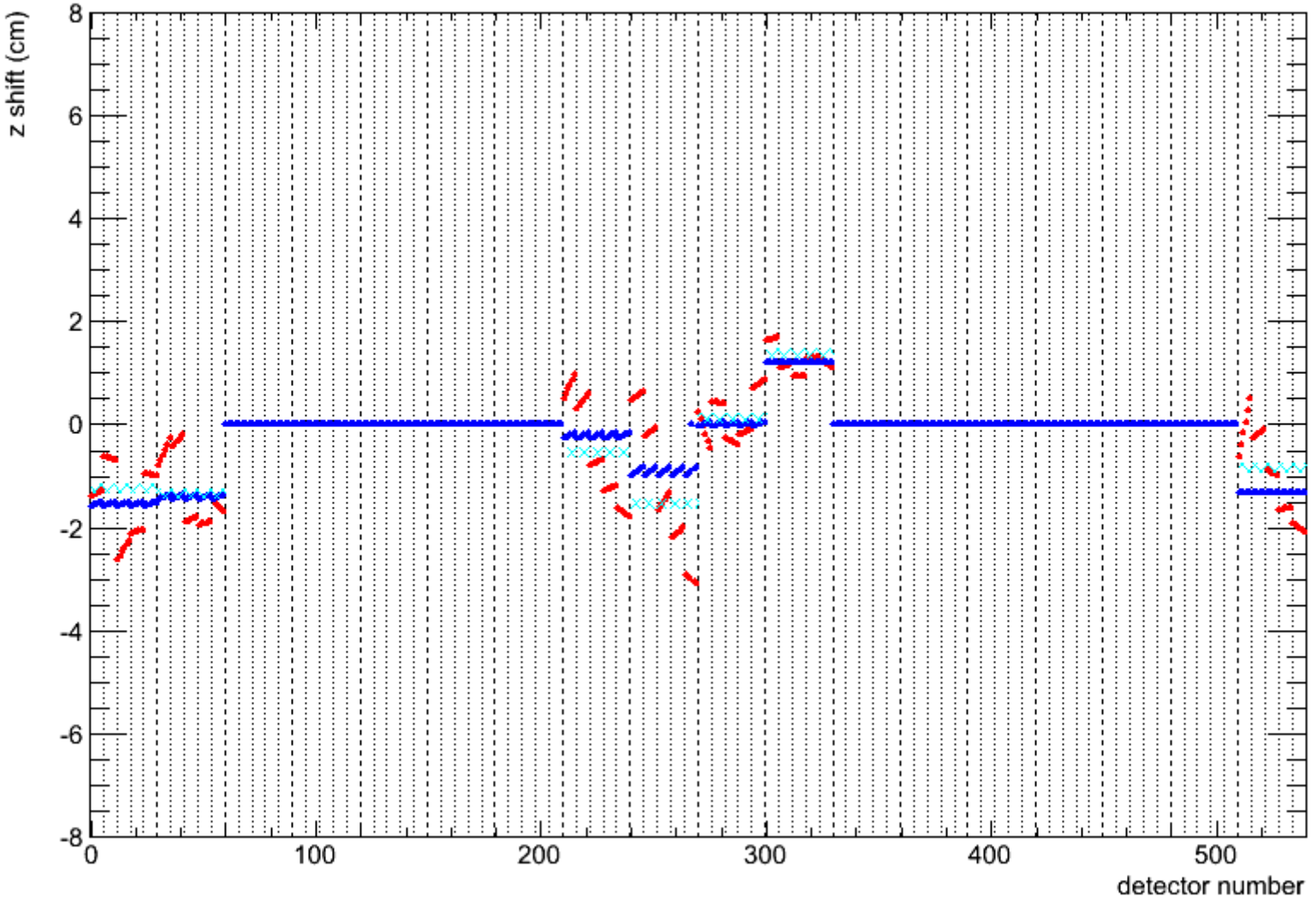
before alignment



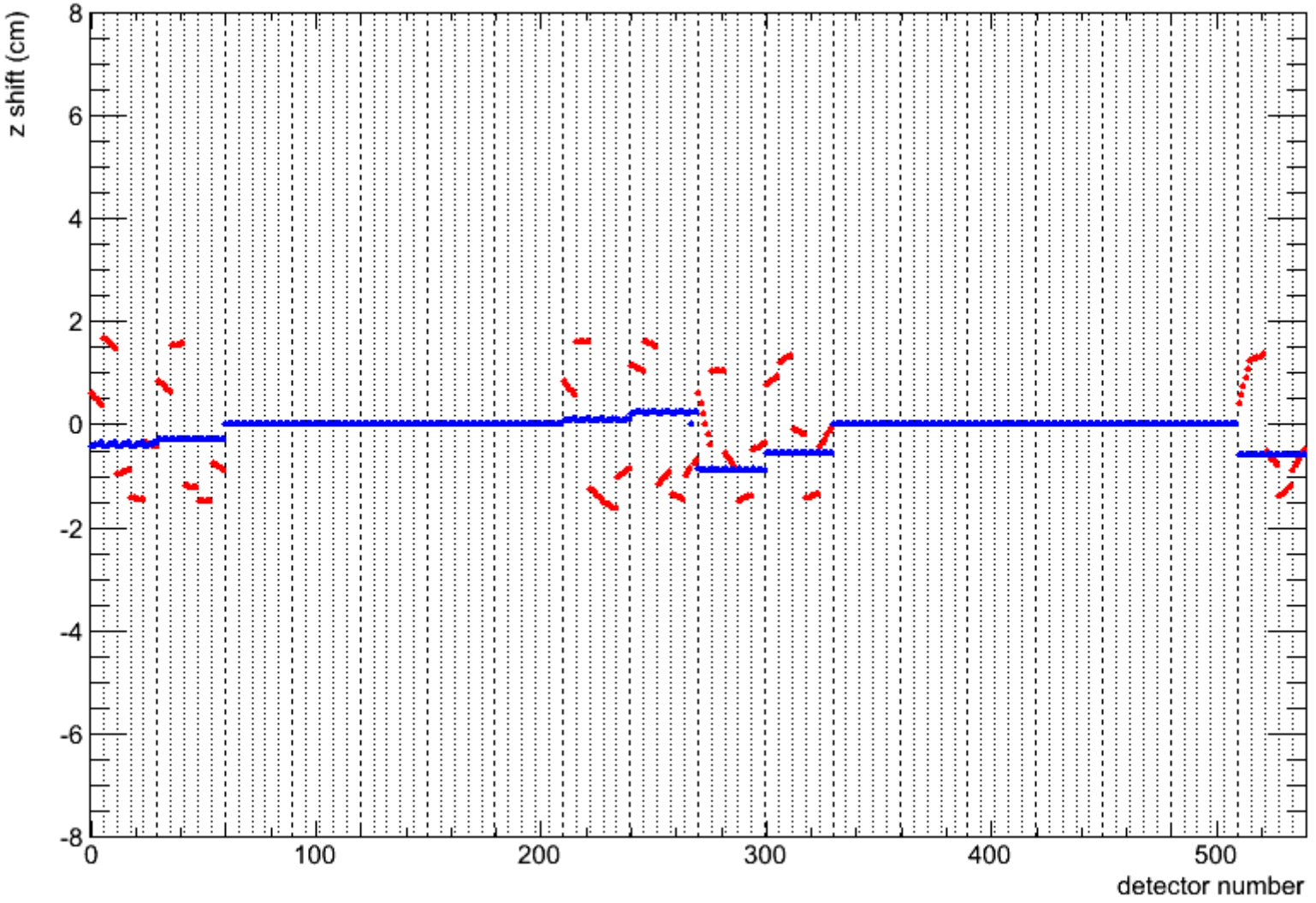
after alignment



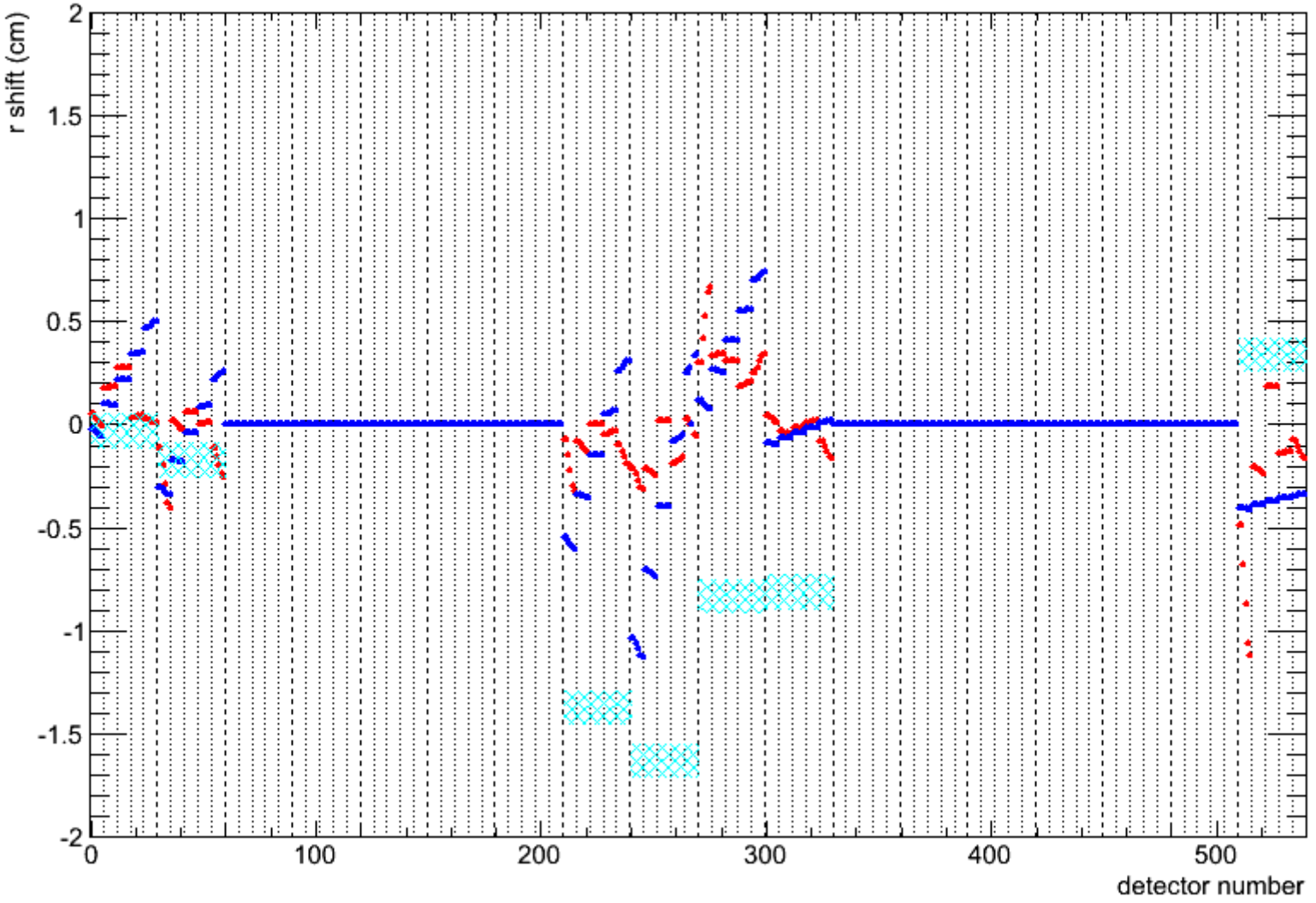
before alignment



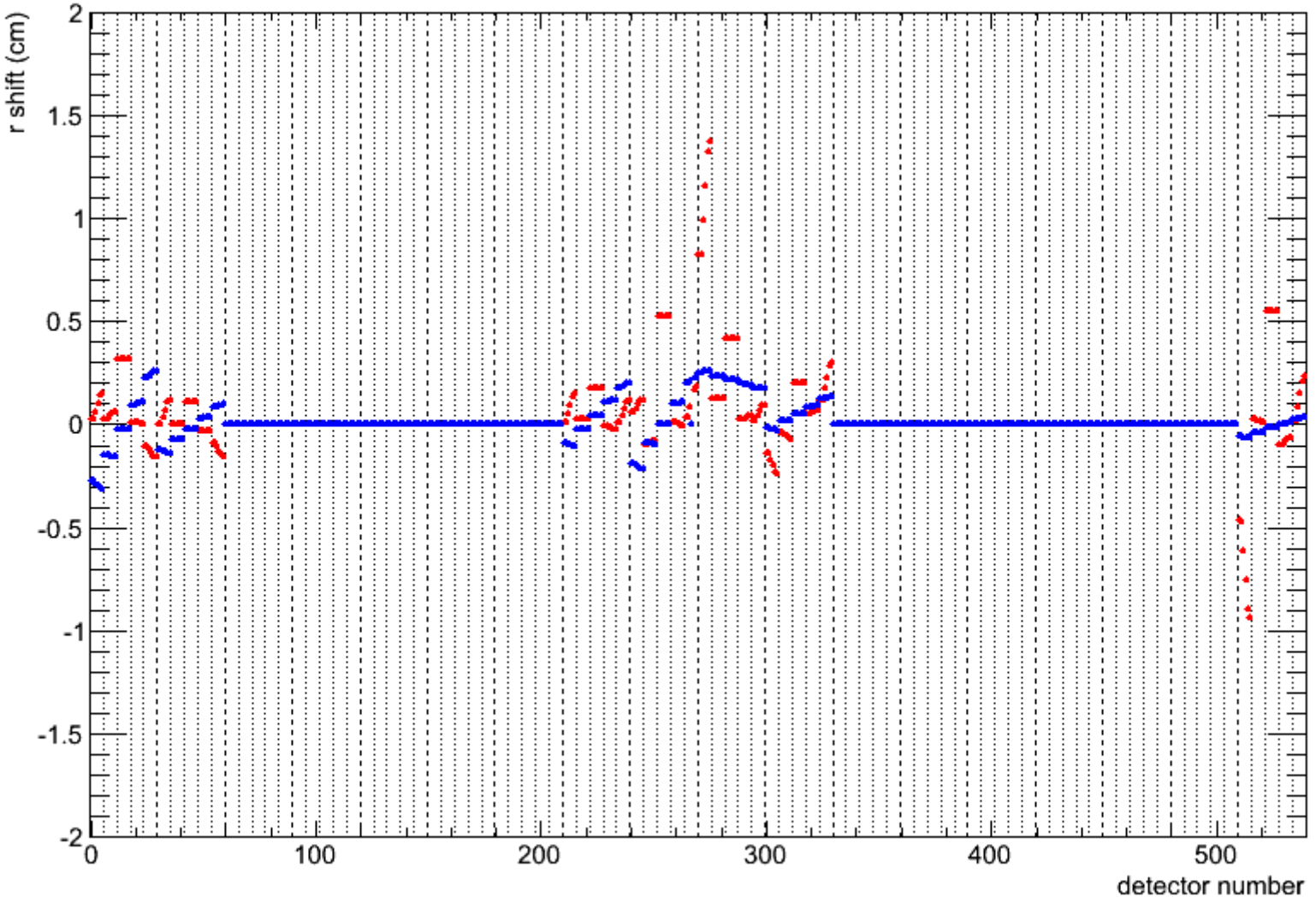
after alignment



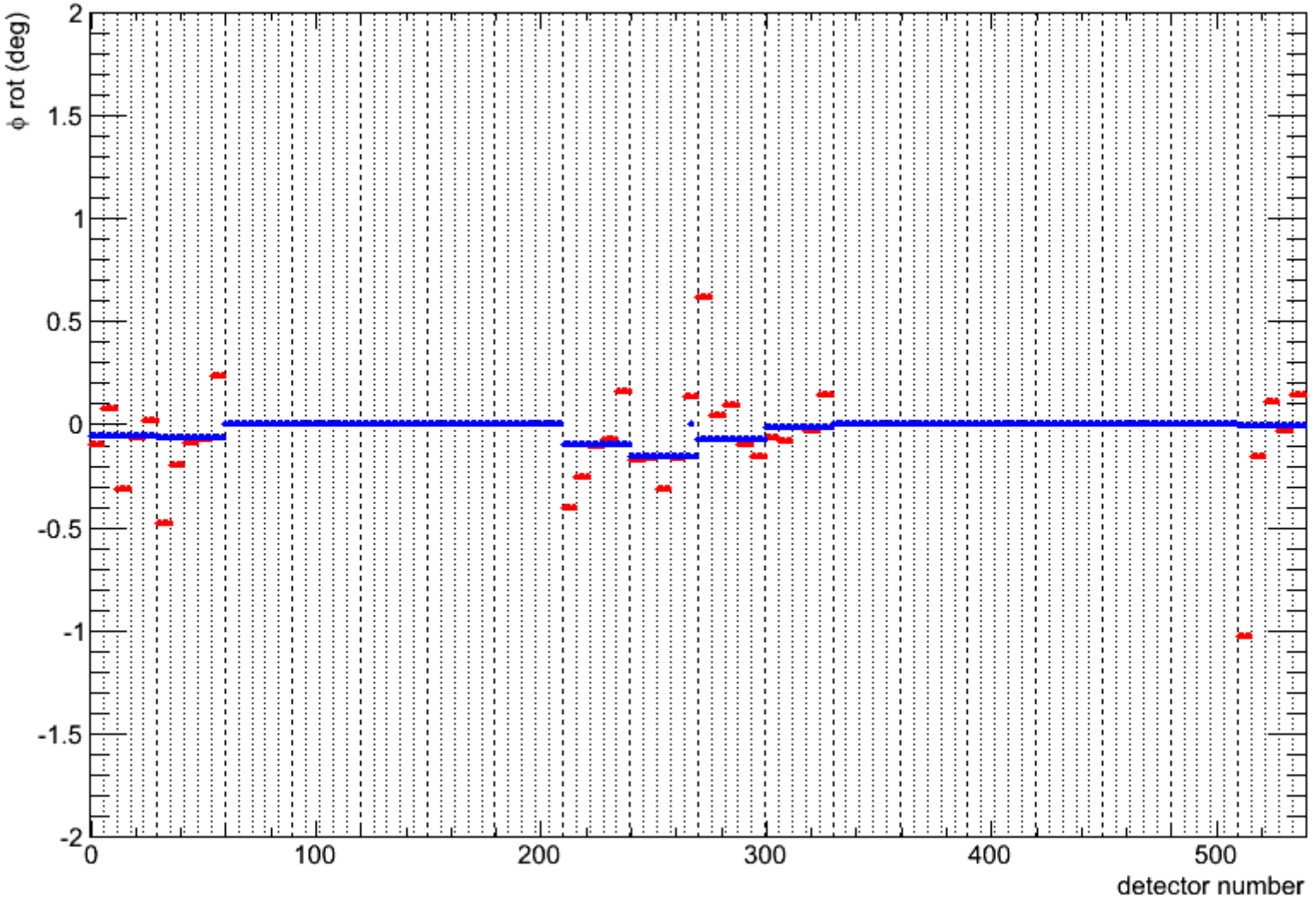
before alignment



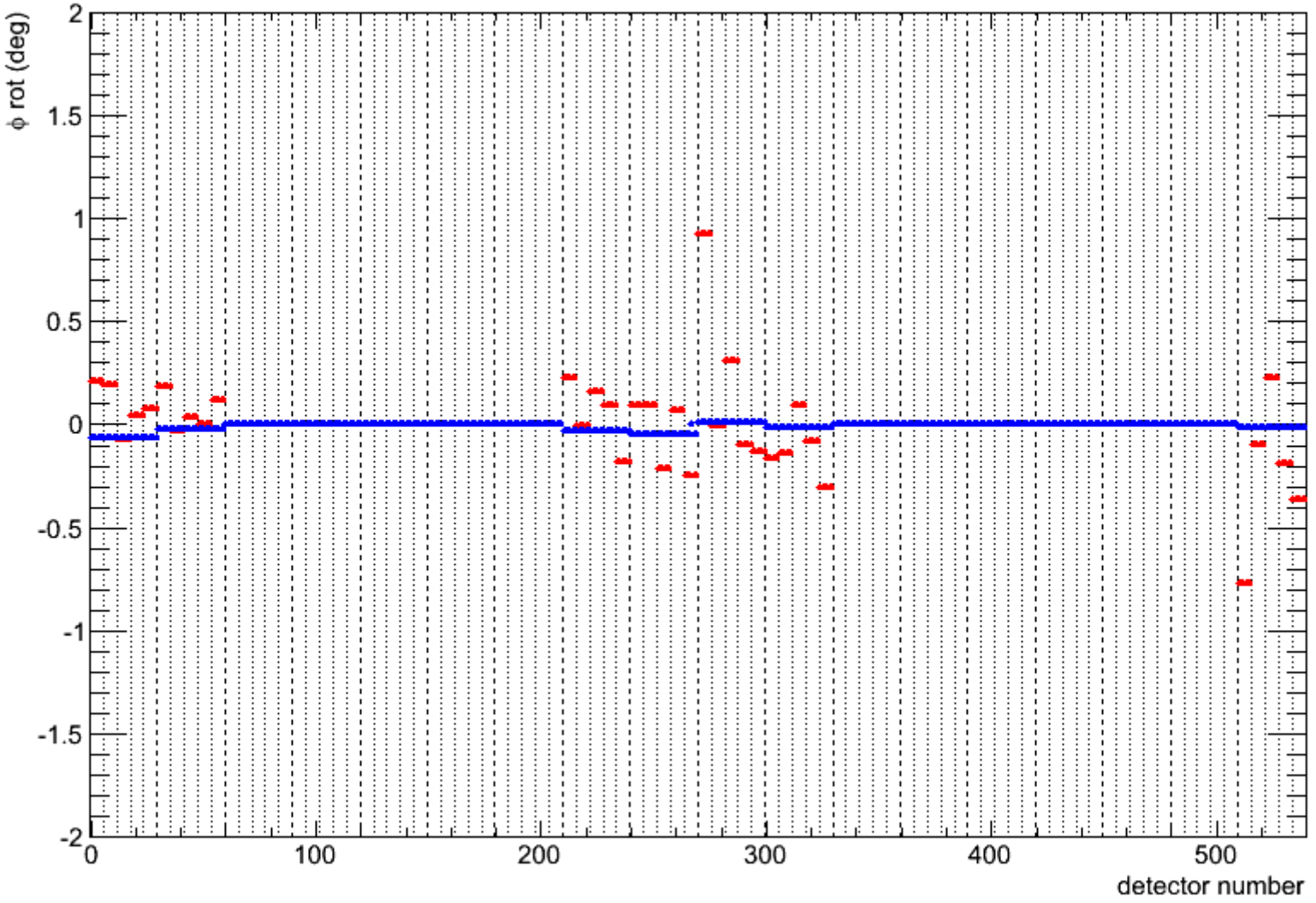
after alignment



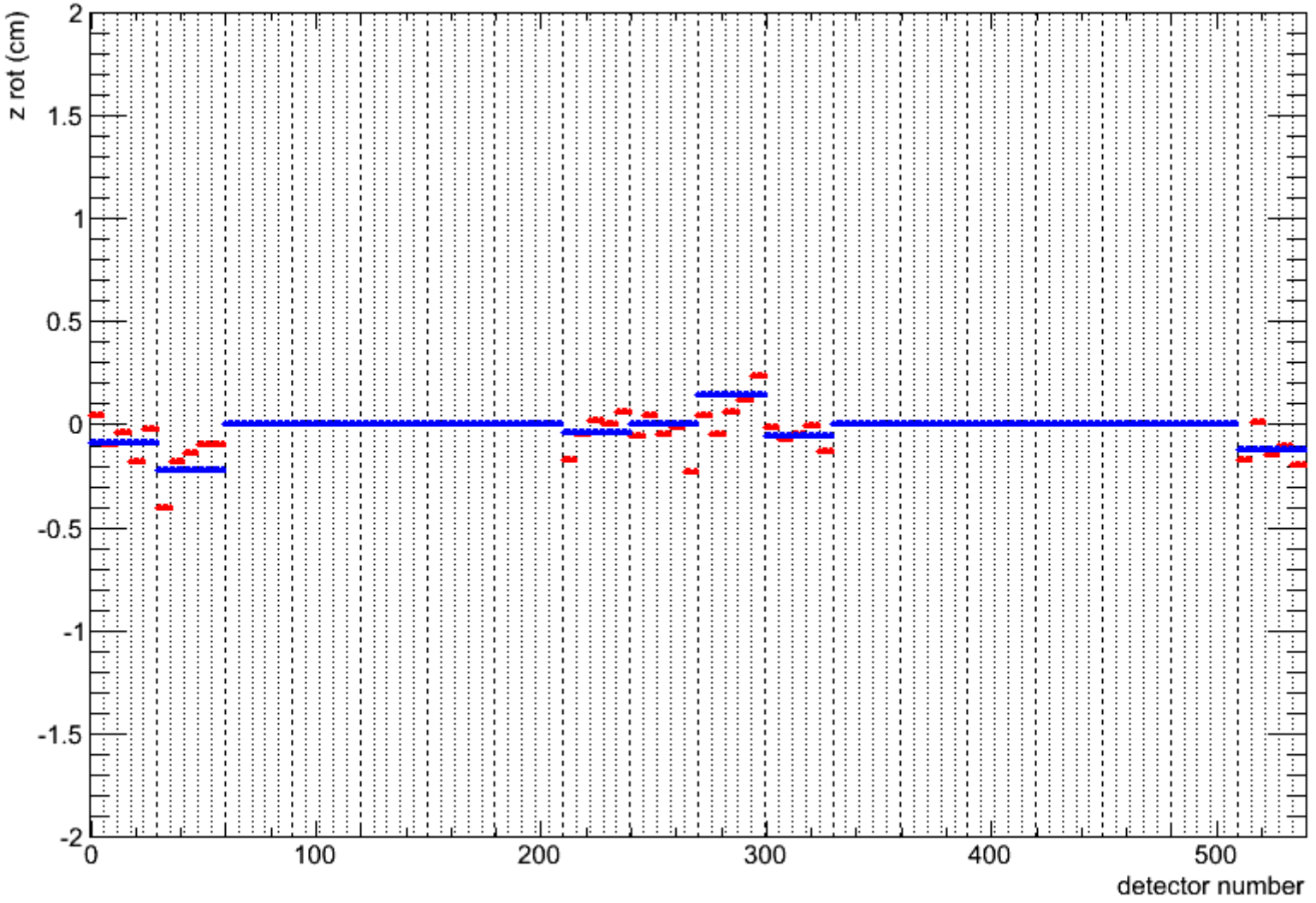
before alignment



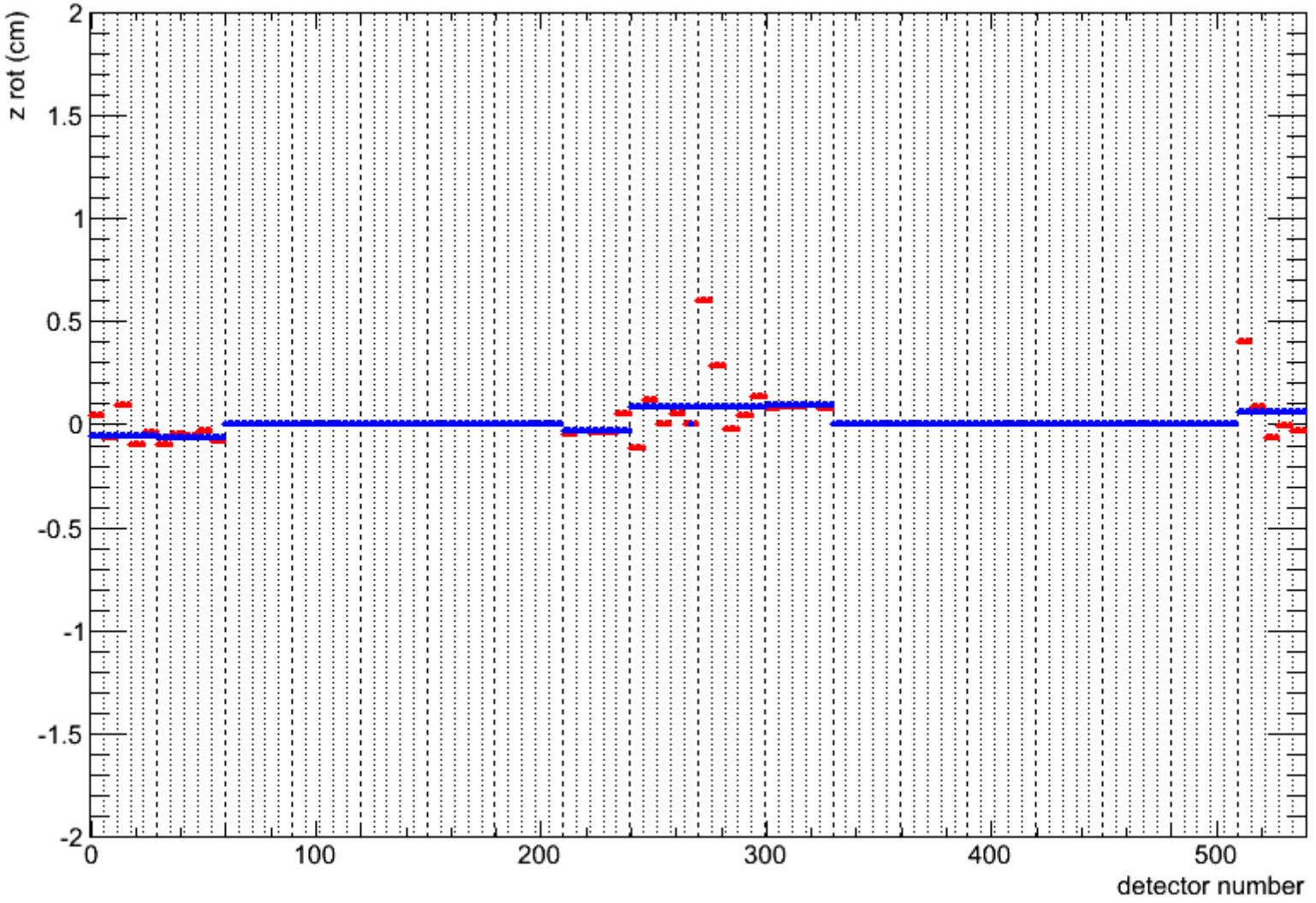
after alignment



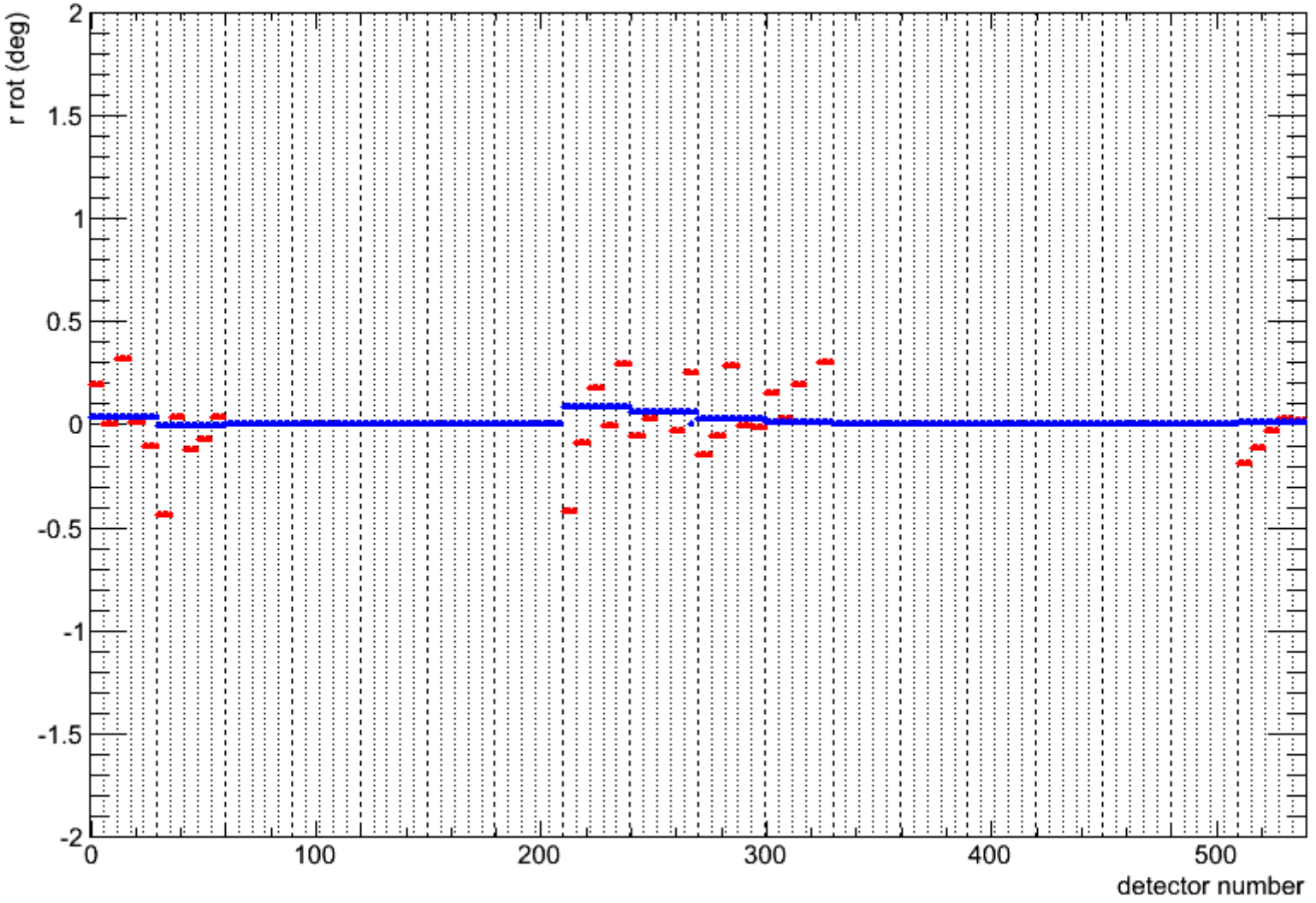
before alignment



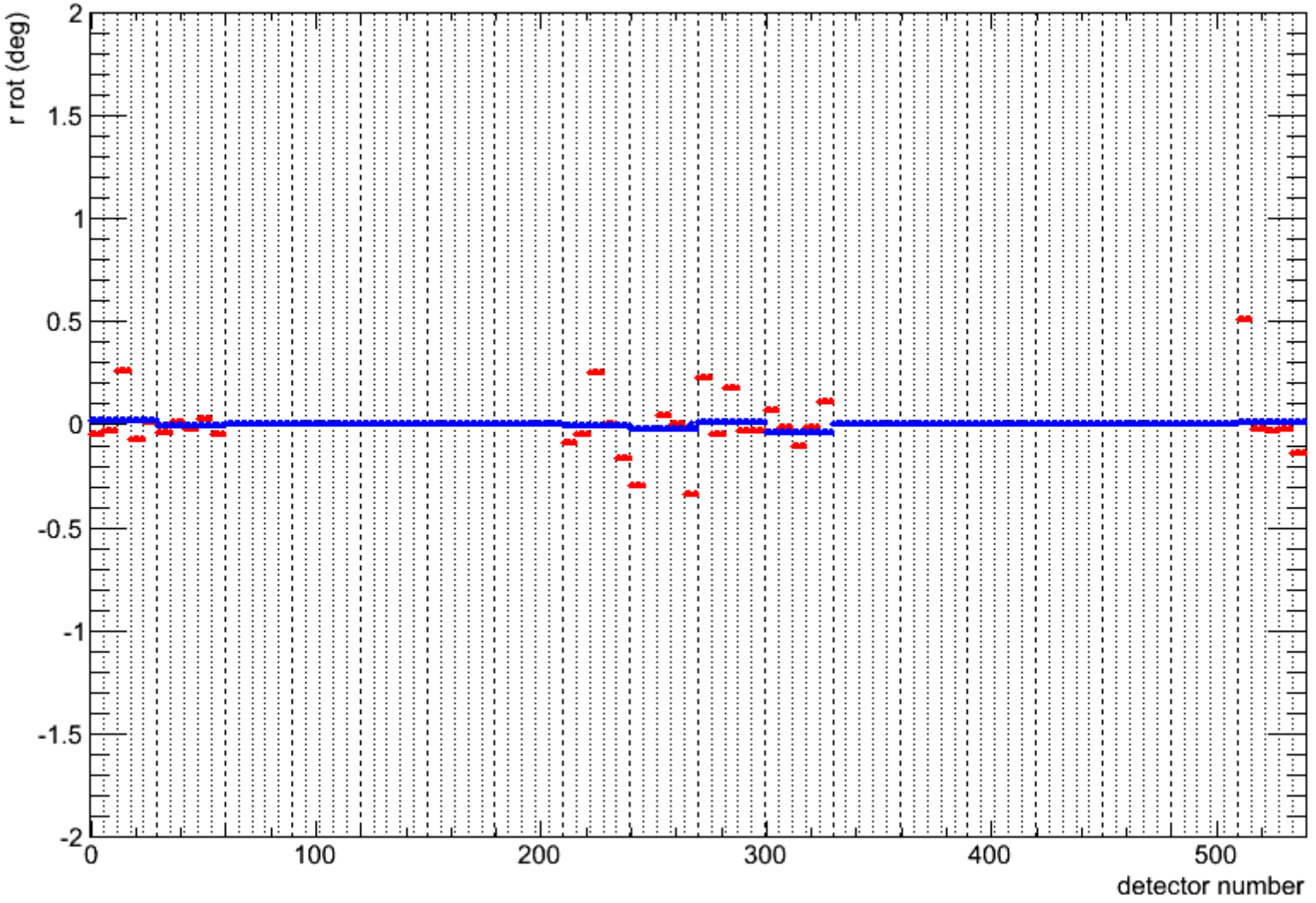
after alignment



before alignment



after alignment

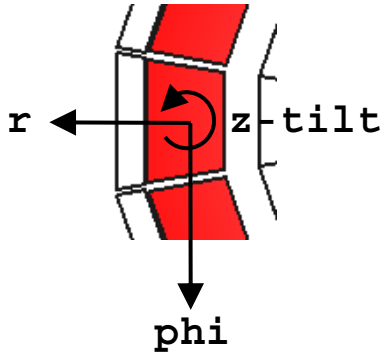


status

- **alignment obtained with B=0 applied to run 96287 (B=0.12 T) improves the TPC/TRD matching in phi ~5 x**
- **inserted into OCDB on 23-Nov-2009 18:08**
- **… in spite of its leading to 8 overlaps with the space frame.**

backup

3 of the 6 alignment parameters explained

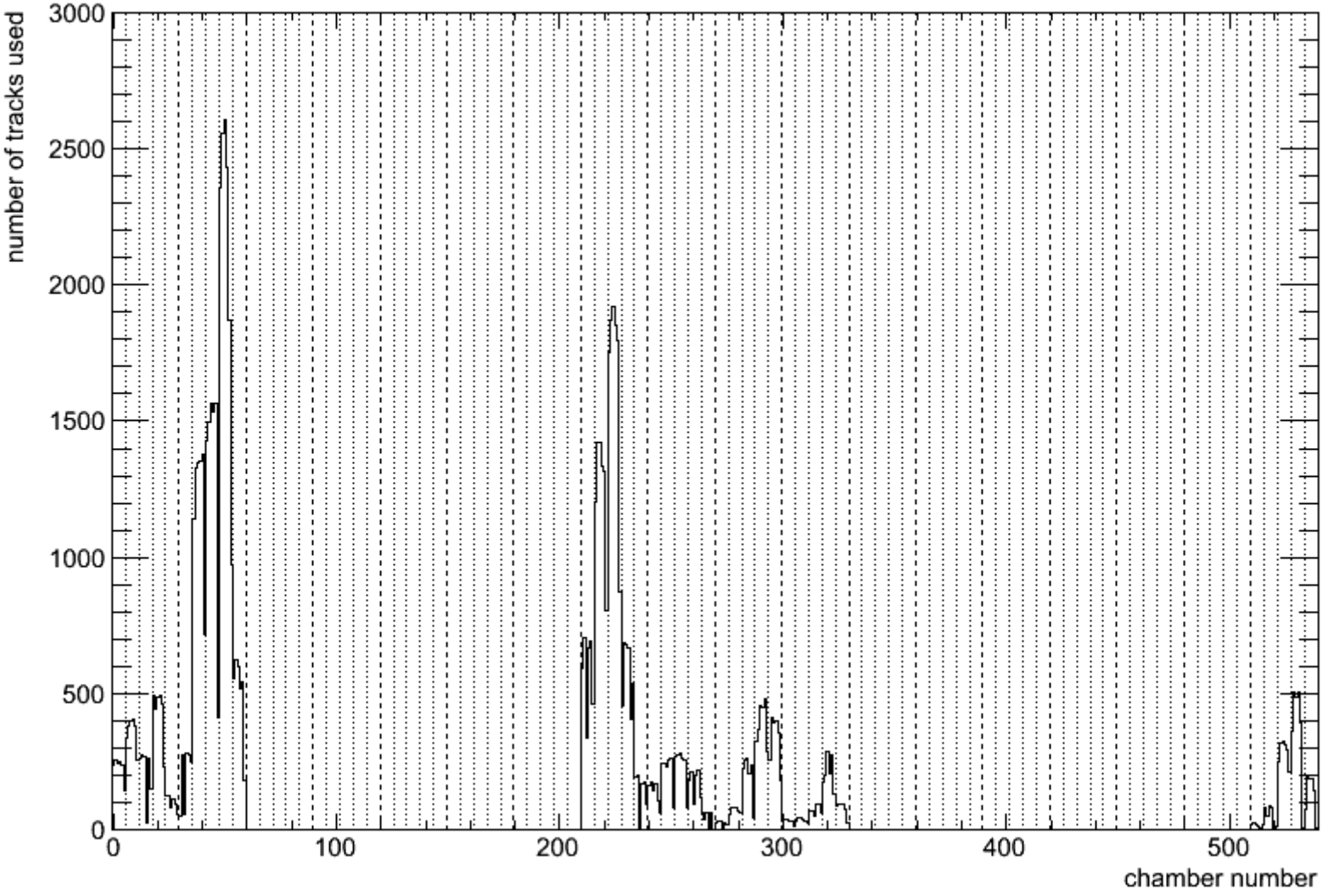


runs used (local reco at GSI)

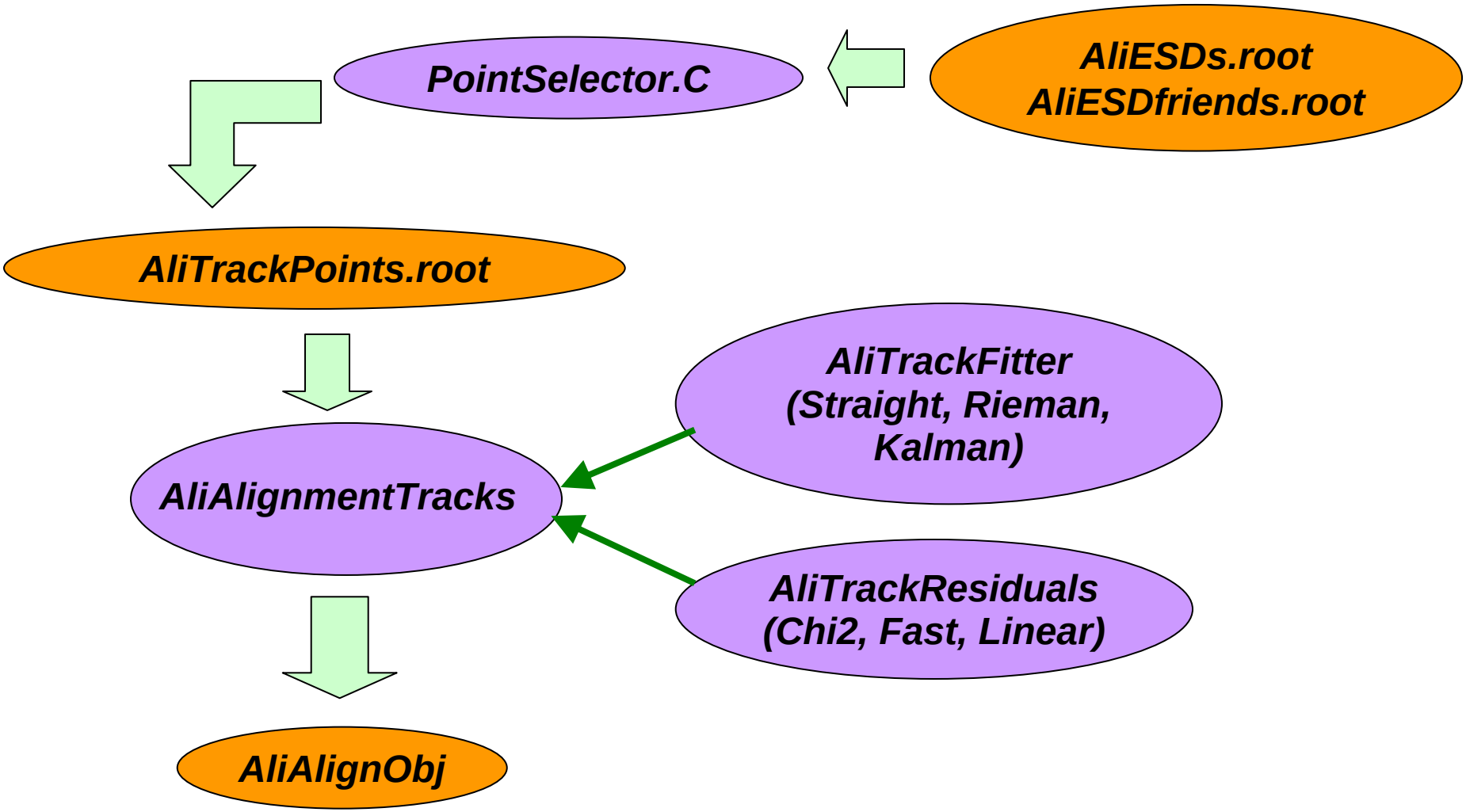
run	hours	tracks
81043	8	1220
81116	1	628
85618	6	5489
85660	2	952
85698	8	2747
91529	3	3063
91822	4	2713
91960	5	4370
92582	9	7938

30 k with B=0

number of tracks used, B = 0

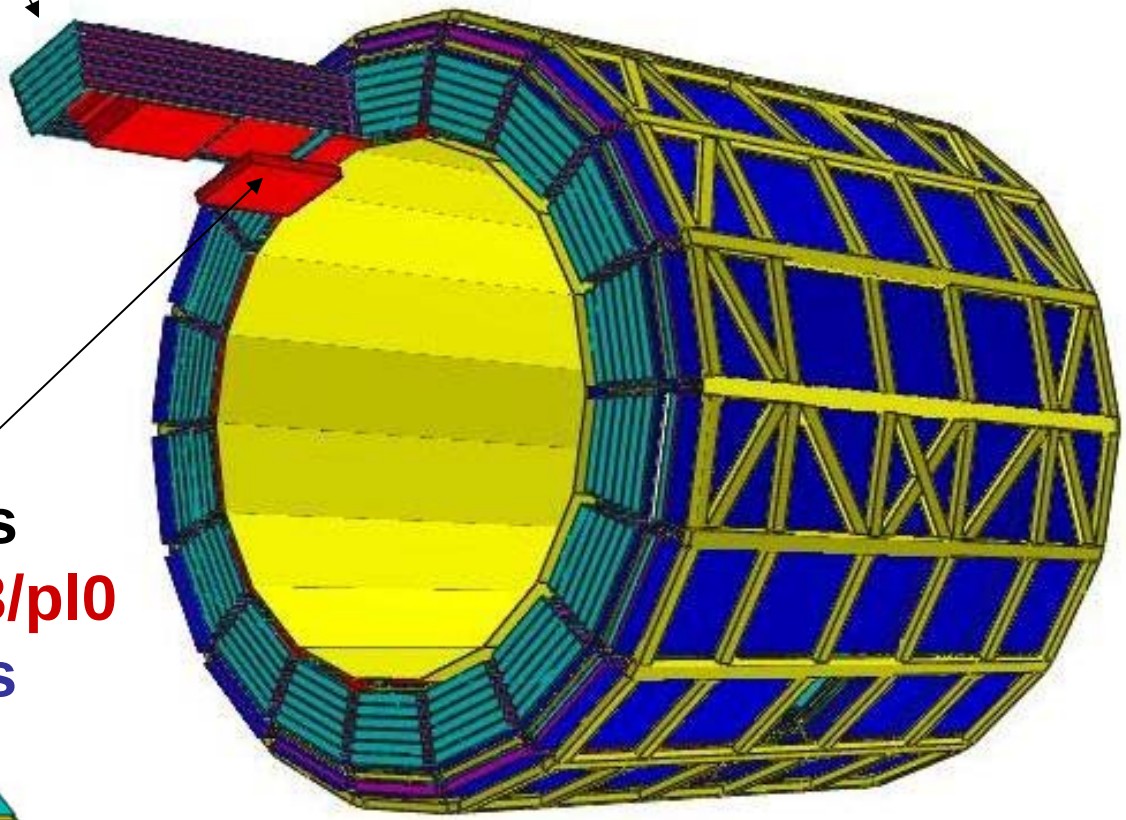
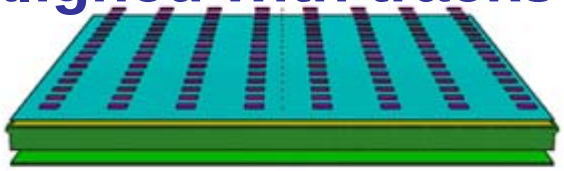


alignment procedure with AliAlignmentTracks



Alignable volumes in TRD

18 TRD supermodules
like /TRD/sm03
aligned by survey



540 TRD chambers
like /TRD/sm03/st3/pl0
aligned with tracks