

# Alignment Tools

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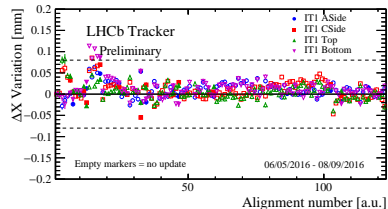
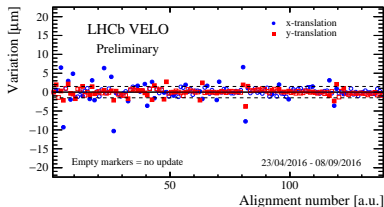
AIDA-2020 WP3 Meeting

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# Real-time alignment and calibration

- Real-time alignment procedure continues to operate well
- Following same Run 2 strategy
- Monitor and only change alignment constants when required:
  - Every  $\mathcal{O}(5)$  fills for the VeLo
  - Every  $\sim 2$  weeks for the tracker



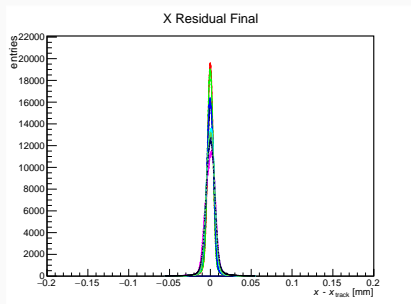
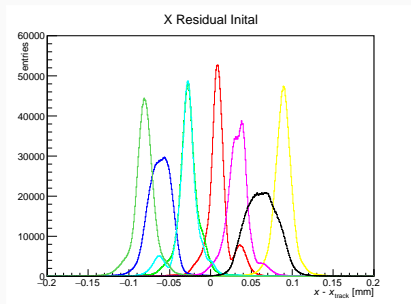
# Timepix3 telescope

- 8 planes of Timepix3 silicon pixel detectors
- Primarily being used in preparation for the LHCb phase 1 upgrade
- Beam provided by SPS at the North Area beam facility



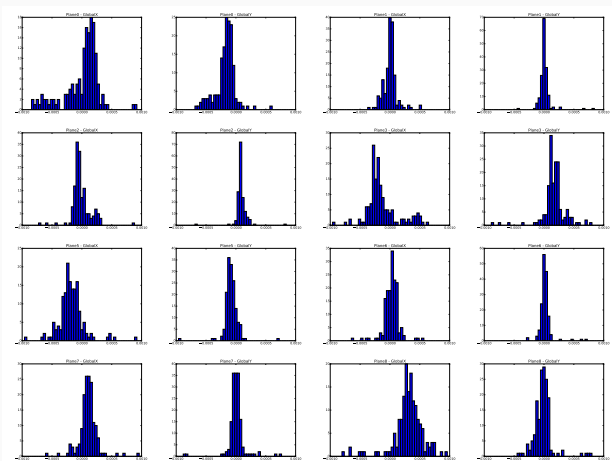
# Alignment of the Timepix3 telescope

- Each run aligned individually for both the telescope and DuT
- Same method used as available in the Bach alignment package
- Providing alignment support for 2016 test beams:
  - 11th-17th May 2016 - 1192 runs
  - 10th-17 August 2016 - 297 runs
  - November 2016 - ??? runs



# Results for May 2016

- Telescope alignment looking good
- Work ongoing for the DuT alignment



Histogram of the mean value of the residuals for around 200 runs

- Continue supporting test beam activities
- Work on integration between Bach and DD4hep for Milestone 40