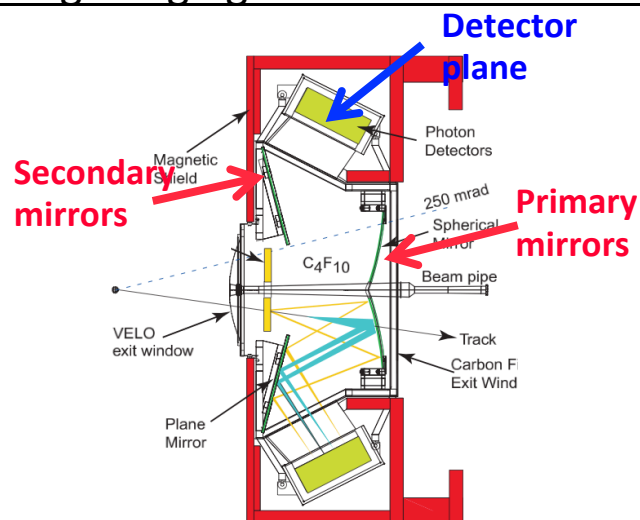


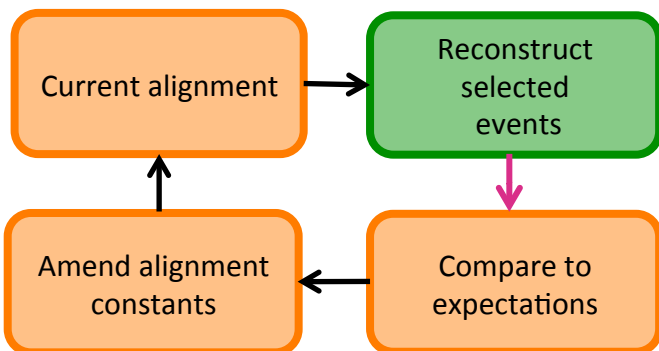
Real-time alignment of the LHCb RICH detectors

Ring Imaging Cherenkov detector:



If mirrors are misaligned, the Cherenkov angle is reconstructed incorrectly => bad PID ☹

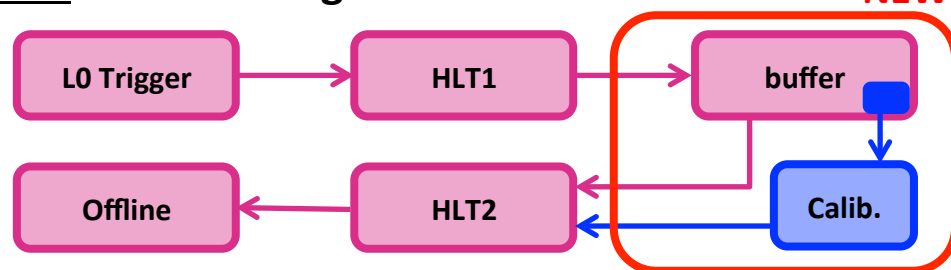
Alignment Procedure: data driven, iterative



Run I: offline alignment after data-taking, twice a year (?)
=> reprocessing of data

Run II: **real-time alignment on HLT farm**

NEW!



Implementation on HLT farm:

- ~1800 farm nodes used for event reconstruction
- Central node evaluates results from reconstruction and calculates new alignment constants
- Everything steered by a Finite State Machine
- Super fast! :D

