

Alignment Tools

Chris Burr, Chris Parkes and Silvia Borghi

University of Manchester

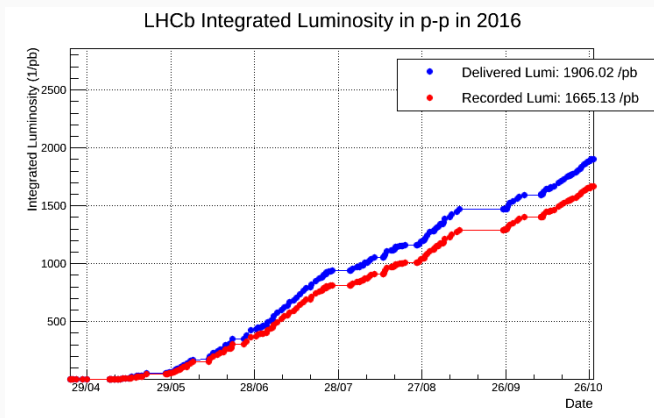
AIDA-2020 WP3 Meeting

November 3, 2016

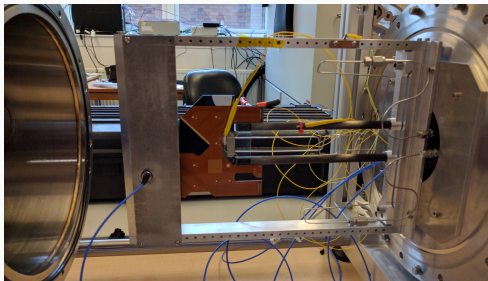


Real-time alignment and calibration of LHCb

- 2016 13 TeV proton-proton running completed
- Collected 1.67 fb^{-1} , taking the Run 2 total to 1.99 fb^{-1}
- 3 weeks of proton-lead running starting soon
 - No modifications required for the change to proton-lead running

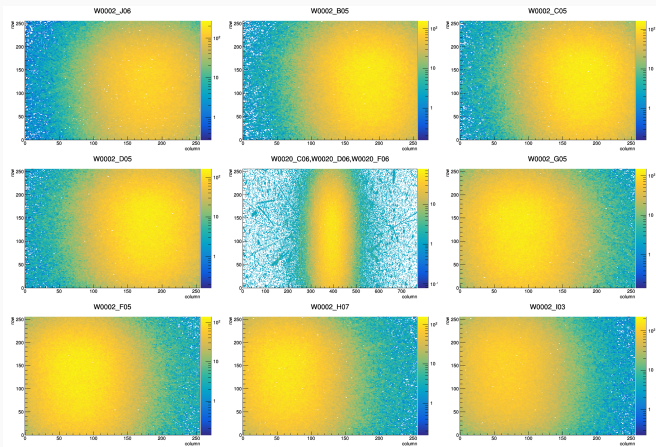


- LHCb Upgrade VeLO will be comprised of 52 hybrid pixel modules
- First prototype of the hybrid pixel modules has been assembled
- Distortions observed in lab tests when cooling and vacuum is applied
- Investigating likely effects on performance...
- ...and if alignment can be used to obtain corrections



Test beam activities with Timepix3 telescope

- November test beam currently under way
- First hybrid pixel module prototype currently being studied
- Supporting with both shifts and alignment



- Continue supporting test beam activities
- Look at the effect of the observed distortions for the LHCb upgrade VeLo
- Work on integration between Bach and DD4hep for Milestone 40