Online beam position measurement and monitoring with ATLAS

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- Use previous beam spot measurement at *nominal* reference in the data
- Use MC truth information when testing with simulation





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Online monitoring in the ATLAS X OHP Nexus - [BeamSpotVertex

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Vertices Zoom Errors



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ACCELERATOR

Entries 8555 Mean 2.493 RMS 0.2169

Have both passive display of all histograms (Online *Histogram Presenter*, **OHP**) as well as **DQM** framework for processing and publishing

Online beamspot

results

Delivering beam position information to the LHC

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Beam position information extracted using DQMF and fed into central ATLAS-LHC communication system.

Beamspot parameters delivered to LHC control room, along with other lumi. Information such as hit rates in lumi. Counters and rate of level-1 triggers.

