

LHC First Beam Event Display at CMS from online to the World Press - the first 3 minutes

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Geneva, 10 September 2008. The first beam in the Large Hadron Collider at CERN was successfully steered around the full 27 kilometers of the world's most powerful particle accelerator at 10h28 this morning. This historic event marks a key moment in the transition from over two decades of preparation to a new era of scientific discovery. (<http://www.interactions.org/cms/?pid=1026796>)

From 9:44 am CET attention of the CMS physicists in the control room is drawn to the CMS event display - the "eyes" of the detector. We observe the tell-tale splash events, the beam gas and beam halo muons. We see in real time how the beam events become more and more clean as the beam is corrected.

The article describes the key component of the CMS event display: IGUANA - a well-established generic interactive visualisation framework based on a C++ component model and open-source graphics products. We describe developments since the last CHEP, including: online displays of the first real beam gas and beam halo data from the LHC first beam, flexible interactive configuration, integration with CMSSW framework, event navigation and filtering. We give an overview of the deployment and maintenance procedures in the commissioning and early detector operation and how the lessons learnt help us in getting ready for collisions.

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