



Contribution ID: 494

Type: **Poster**

## New Developments in Web Based Monitoring at the CMS Experiment

*Thursday 24 May 2012 13:30 (4h 45m)*

The rate of performance improvements of the LHC at CERN has had strong influence on the characteristics of the monitoring tools developed for the experiments. We present some of the latest additions to the suite of Web Based Monitoring services for the CMS experiment, and explore the aspects that address the roughly 20-fold increase in peak instantaneous luminosity over the course of 2011. One of these user-friendly tools allows collaborators to easily view, and make correlations among, accelerator configuration information such as bunch patterns, measured quantities such as intensities, vacuum pressures, and background conditions, as well as derived quantities such as luminosity and the number of simultaneous interactions per beam crossing. An additional tool summarizes the daily, weekly, and yearly luminosity and efficiency. Finally, we discuss a trigger cross section and rate fitting service, that uses data from previous runs to validate current running conditions as well as to serve as a predictive extrapolation tool for developing triggers for higher luminosity running.

**Author:** CHAKABERIA, Irakli (Kansas State University)

**Co-author:** SOHA, Aron (Fermi National Accelerator Lab. (US))

**Presenter:** CHAKABERIA, Irakli (Kansas State University)

**Session Classification:** Poster Session

**Track Classification:** Online Computing (track 1)