X. Workshop on Resistive Plate Chambers and Related Detectors

Contribution ID: 8

## ATLAS RPCs operation and performance tuning through the Detector Control System at the startup of 2009 LHC run

Tuesday, 9 February 2010 12:30 (20 minutes)

Detailed studies on the behavior of ATLAS RPCs have been performed during last year of commissioning by using cosmic rays data and the first proton-proton collisions at 450 GeV.

Detector parameters like the environment variables (temperatures, pressures, gas mixture) or other working parameters (high voltage levels, front-end discriminating thresholds, pull-down currents) have been used to optimize the efficiency and the stability of the system. The correlations of these parameters with gas gap currents and trigger rates are shown.

An overall status of the detector readiness and its performance at the start of 2009 LHC operation is presented. Data are compared with those from the previous year running conditions, focusing on the improvement of trigger tower coverage and on the overall functionality of the detector.

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