

Background Radiation Studies for the High Luminosity Phase for the RPCs at the Muon System of the CMS Experiment.

Abstract

The High Luminosity will be a challenge for the detector, the high rate of particles coming of the collisions and the radioactivity induced in the material of the detector will cause significant damage and could result in a progressive degradation in his performance. In order to study the expected flux and hit-rate of background particles and the impact in the detector, the FLUKA tool is used for this simulation. In this work a overview of the studies of the background radiation is presented.

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