Contribution ID : **84** Type : **not specified**

Study of the CMS RPC detector performance in high radiation background conditions

Abstract

The RPC system at the CMS Detector is operating successfully from beginning of the data taking. The high instantaneous luminosity causes an extremely high flux of ionizing particles. The long period of operation (Run1 and Run2) in a huge radiation background conditions, gives the opportunity to study the operation capability of the RPCs and also to predict a data-driven extrapolation about the expecting particle rates at HL LHC (High Luminosity) scenario. The obtained results in terms of measured rate, currents and integrated charged will be presented in the talk. When it is possible they will be compared to the relevant results obtained from the dedicated study where a set of test chambers have been irradiated at GIF++ laboratory setup.

Primary author(s) : Mr. MIGUEL COLÍN, Osvaldo (Universidad Iberoamericana)

Co-author(s) : CARRILLO, Salvador (Universidad Iberoamericana); Dr. OROPEZA BARRERA, Cristina (Universidad Iberoamericana); Mrs. VÁZQUEZ VALENCIA, Elsa Fabiola (Universidad Iberoamericana)

Presenter(s) : Mr. MIGUEL COLÍN, Osvaldo (Universidad Iberoamericana)