Contribution ID: **19** Type: **not specified**

CMS: Cosmic muons in simulation and measured data

Tuesday 18 August 2009 14:00 (1 minute)

Please give a brief summary of your poster

A dedicated cosmic muon Monte-Carlo event generator CMSCGEN has been developed for the CMS experiment. The simulation makes use of parameterisations of the muon energy and the incidence angle, based on measured and simulated data of the cosmic muon flux, taking the energy dependence of the incidence angle into account. The geometry and materiel density of the CMS cavern and access shafts are taken into account, too. The event generator is integrated in the complete CMS detector simulation chain. Cosmic muons can be generated on earth's surface as well as for the detector located underground. Many million cosmic muon events have been generated and compared to measured data, taken with the CMS detector at its nominal magnetic field of 3.8 T during commissioning.

Primary author: Dr SONNENSCHEIN, Lars (RWTH Aachen IIIA)

Co-authors: Dr HOEPFNER, Kerstin (RWTH Aachen IIIA); Dr BIALLASS, Philipp (RWTH Aachen IIIA); Prof. HEBBEKER, Thomas (RWTH Aachen IIIA)

Presenter: Dr SONNENSCHEIN, Lars (RWTH Aachen IIIA)

Session Classification: Poster Session

Track Classification: Poster Session