A MODEL FOR GEOMAGNETIC DEVIATIONS OF MUONS IN INCLINED SHOWERS

M. Ave (1,2), **R.A. Vázquez** (2) and E. Zas (2)

(1) Department of Physics and Astronomy, University of Leeds, Leeds LS2 9JT, UK, (2) Departamento de Física de Partículas, Universidad de Santiago de Compostela, E-15706 Santiago, Spain..

We present a new approach to describing the muon density patterns at ground level as induced by high energy cosmic rays incident at large zenith angles. The approach combines parameterizations of muon lateral distributions in the absence of any magnetic field and a method for calculating the distortions induced by the Earth's magnetic field. As a checking procedure predictions based on this framework are compared to simulation results.