

# **SEARCH FOR POSSIBLE ENHANCEMENT IN THE FLUX OF HIGH ENERGY MUONS DUE TO THE SOLAR FLARE OF JULY 14, 2000 WITH THE L3+C MUON SPECTROMETER**

**L. Ding, on behalf of the L3 collaboration**

Laboratory of Cosmic Ray and High Energy Astrophysics, Institute of High Energy Physics, Beijing, 100039, China.

linkai.ding@cern.ch

Several experiments have reported observations on possible correlations between the flux of high energy muons and intense Solar flares. If confirmed, these observations would have significant implications for the acceleration processes in the heliosphere so as to be able to accelerate protons and other particles to energies of at least tens of GeV.

The Solar flare of July 14, 2000 offers a unique opportunity for the L3+C experiment to search for correlated enhancement in the flux of high energy muons using the precision muon spectrometer of the L3 experiment, as the flare occurred at 10h 24m UT when the Sun was almost overhead at Geneva. Details of the L3+C experimental system and its capabilities for observing a directional excess in the flux of high energy muons are presented here along with details of observations on July 14, 2000.