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FORBUSH EVENT DETECTED BY CARPET ON 2012 MARCH

We present preliminary results of cosmic rays flux behavior during a disturbed geomagnetic period detected by CARPET installed in CASLEO at the Argentinian Andes. CARPET was conceived to study cosmic rays modulation during transients and, sporadic events associated with coronal mass ejections (CME) and solar proton events, as well as long duration phenomena associated with 11-year solar cycle. CARPET data was corrected by pressure and temperature effects, which influence in the cosmic rays counts. We chose a period, 2012 March 6 - 12, with 2 geomagnetic storms associated with a CME/X1 flare on March 5. CARPET detected a gradual decrease on the muons count rate, namely a Forbush decrease. Comparison was made with neutron monitor data, Dst and kp indexes for this period. Forbush decrease event detected by CARPET exhibits a good time correlation with neutron monitor and geomagnetic indexes.

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