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2. CRs at Earth and planets (GEO)

The Temperature Effect on Cosmic-Ray Intensity as observed at Mid latitude City

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The investigation of meteorological effects is of special importance to the study of the cosmic ray variations, since only after correction for such effects are the measured data able to provide information on the variations due to causes beyond the Earth's atmosphere. In this paper, we analyze the temperature effects on the records of the cosmic ray recorded by KACST detector. This detector has monitored secondary cosmic ray muon since 2002 at (Riydah, Saudi Arabia; lat 24 43; long. 46 40; alt. 613 m) where the geomagnetic rigidity cutoff, R_c , is 13 GV. Two methods were used. The first is to correlate the surface temperature with the cosmic ray counts and the second is based on the study of the temperature effect at the altitude of maximum production of secondary cosmic rays.