

ASSOCIATION OF COSMIC RAY FORBUSH DECREASE EVENT OF FEBRUARY 1999 WITH GEOMAGNETIC STORM

Pankaj Kumar Shrivastava

Department of Physics, Govt. New Science College, Rewa (M.P.)

Pin - 486001 INDIA. E-Mail : pankaj_in_2000@usa.net

Using the data from world grid of neutron monitoring stations we have obtained a large Forbush event during the recent epoch of maximum solar cycle 23. The onset of Forbush decrease took place on February 9, 1999 and attained its maxima on February 17. This cosmic ray storm coincides with a major geomagnetic storm. The geomagnetic storm is a worldwide disturbance of the geomagnetic field, which is distinct from the regular variation. We have done a systematic study to investigate the variation of cosmic ray intensity and geomagnetic activity during the period of a major geomagnetic storm. We observed a significant decrease in cosmic ray intensity as well as in geomagnetic Dst and Ap index during the main phase of storm. Preliminary results suggest a strong relationship between geomagnetic activity and cosmic ray intensity decrease on short-term basis. Analysis of this event may lead to a significant improved understanding of ring current on cosmic ray decrease in association with geomagnetic activity.