A NEW CONCEPT OF ANALYSIS OF SOLAR DAILY VARIATION IN COSMIC RAY INTENSITY

Santosh Kumar, Rekha Agarwal, Rajesh Mishra and S.K. Dubey Department of P. G. Studies and Research in Physics and Electronics, Rani Durgawati University, Jabalpur (M.P.) 482 001. INDIA. (E-MAIL : s_kumar123@rediffmail.com) (Fax : 0091-0761-603752)

A new concept of data analysis has been introduced for studying the long/short term daily variations in cosmic ray (CR) intensity recorded with neutron monitors/meson telescopes. Fourier Technique has been applied on four different types of groups of days chosen according to their different geomagnetic conditions. The selected groups are 60 quietest days (60 QD), 120 quiet days (120 QD), continuous quiet days (CQD) and All Days (AD) in a year. CQD is a new set of days selected on the basis of Ap and Kp values. These are the days when transient magnetic variations are regular and smooth continuously for a span of atleast three days. The criteria of selection is based upon the mathematical manipulation of Ap index. Thus, the consequences of the analysis are being discussed.