**Study of Solar and Others Atmospheric Parameter Affecting Monsoon Rainfall over North-East Indian region**

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**Abstract**

Present work is study of the long-term monsoon rainfall (1972-2006) with solar activity and others atmospheric parameter over North-East Indian region. Solar activity is considered as an external driving force for Indian summer monsoon (June-September). Coronal green line emission (Fe Xiv 530.3 nm) is the most important emission lines in the visible part of solar spectrum and its variable component have significant trend with monthly mean monsoon rainfall over North-East India. Using sunspot number from 1972-1980, probable fitting equation between two parameters, coronal index and sunspot number is: Y (Coronal index) =0.0603X +2.6005 is obtained through regression analysis. It is observed that the variable component of coronal index has 2 year periodicity with monsoon rainfall. Monthly mean maximum and minimum temperature difference and global galactic cosmic rays are fitted with monthly mean rainfall and a significant trend with high positive and high negative correlations are found for the periods 1972-2003 & 1993-2006 respectively.

**Keywords:**  Monsoon, Coronal index, Sunspot number, Temperature, Cosmic rays.