

## A Study of Cosmic Ray Intensity with different Event variations of Solar Activity in the Ground-Level Enhancement

Chaudhary Vidya Sagar<sup>1</sup>, Saxena A K<sup>2</sup>, Tiwai C M<sup>3</sup>,  
Department of Physics, Awadhesh Pratap Singh University, Rewa (MP)  
*Email-id: vidyasagar342@gmail.com*

### Abstract

To investigating of these innovative problems of cosmic ray variations with different association in the Ground-level enhancement analyzed through the solar particles mechanism. The determination of cosmic ray associations in the Ground-level enhancement (G-LE) that representing with various configurations of particle events intensity. Consistently Ground-level enhancements are associated with several solar-flares although the increasing mechanism particles of up to maximum variations manufacturing are maintained. To consider the periodic behavior and association of sunspot records through cosmic ray intensity along with solar event speed, we proposed investigation from daily data generated through day to day from previous years. Overall determining of this learning that considers the characteristics and configuration of cosmic ray intensity with different behavior events and solar energetic-particles (SEP) in the Ground-level enhancement (G-LE).

**Keyword:** *Cosmic Ray, X-ray Flares, Solar Events, SEP, GLE, CRI, Solar cycle 24, etc.*

### 1. Introduction

The cosmic-rays intensity that consist of atomic nucleus, electrons and neutrons which contains accelerate to very high momentum in there associations. There in accumulation to this source of solar, an extensive cosmic radiation of sun-spot, they solar derivation and an electron nutrition to solar activities of high radiation energy. The cosmic ray intensity unconstructively correlates with the sunspot figures, exhibiting a solar events and solar energetic-particles (SEP) association Ground-level enhancement. Leaning in cosmic-ray intensity with different variations that indicates undergoes the above 10 year modulation, mostly depends on the solar event activity within the hemisphere. The solar energetic-particles since the Sun, throughout the stage of upper solar activity. Otherwise while there intense flare activity that the confidently stimulating particles protons with strong energies achieve to several amounts, they particles are moved at solar cosmic-rays [1]. The origin of astrophysical cosmic-rays activity since, most important particles that associations like helium, neutrons, electrons and, protons. The intensity of cosmic-rays fundamental composition that provide the information of element variations in the source of constituency as glowing with some energetic-particles. The environment of these cosmic variations and determination of cosmic-rays

intensity in messenger space, the distinction of solar particles to various activities and gathering composition with radiation energy [2].



**Figure: 1. Messengers from space to cosmic ray intensity**

Here, the associations with the atmospheric Ground-level Enhancement that analyzing magnetic field to the activity of cosmic ray intensity. Weather of Space is determined the messengers to cosmic ray through the periodic variation of energetic particle of magnetic ground in the above surface of solar activity in figure 1. The magnetic-ground in the above association this energetic radiation will ultimately exist to organism transformed into radiation of energetic-particles through the solar flares [7]. In Magnetic-field emitting into the sun-spot through activity of solar intensity, the effect of solar variation with satellites in radio based transmission and grid power of enhancement.

## **2. Magnetic Activities with Solar cycle 24**

The cosmic variations of energetic-particles that consider solar cycle of magnetic activities near about constantly above ten years, in the activity of Sun that change to various particles of different solar activity. The fields of magnetic particles of Sun flick through the duration of every one associations of solar-cycle,

taking place with sun flick while solar-cycle of sun-spot is close highest position. The stages of solar broadcast and extraction for the materials of solar particles that measured with energetic variations, the amount or dimension of sun particles or imperfections and other solar flares [14]. Thus, observation and appearance of sun imperfections with different energetic solar-particles discussing in following figure 2 through the solar-cycle 24 association.

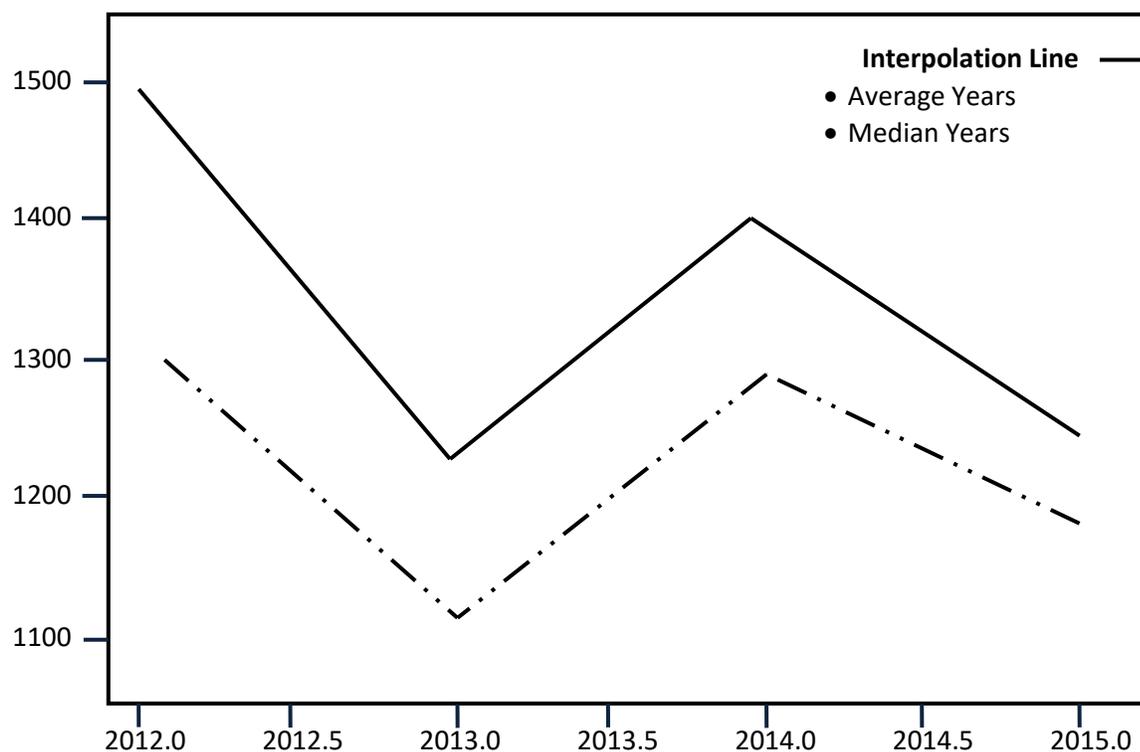


Figure: Analysis of Solar Energetic-particles in solar-cycle 24

Hence, this point we present energetic-particles of solar-cycle 24 in the association of cosmic-rays in figure 2 through the appearance of sun imperfections. The observation of above cycle that determines average years and median years with line of interpolation and they express to maximum appearance of sun particles in their solar environment.

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#### **4. Conclusion and Future work**

The observation of this learning that considered mostly the powerful flares of solar particles associated with different events and intensity of cosmic ray particles. We determine the messengers of space in cosmic intensity rays and measuring the analysis of solar cycle reorientation with figure 1 and 2. We are considering in our learning the different and various maximum appearance of solar energetic radiation particles by the association of sun imperfections. The association of ground-level enhancement that exist the various observations for Analyses to measuring the relatively and interactive appearance of energetic-particles of solar radiation with sun-spots in the cosmic intensity. So, we suggest it is not sufficient and complete the learning in this paper; they will discuss with more interactive appearance in future again or next studies.

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