

Neuronal Networks for the Study of the Effects of Cosmic Rays on Climate Variations

Authors : Jossitt Williams Vargas Cruz, Aura Jazmín Pérez Ríos

Abstract : The variations of solar dynamics have become a relevant topic of study due to the effects of climate changes generated on the earth. One of the most disconcerting aspects is the variability that the sun has on the climate is the role played by sunspots (extra-atmospheric variable) in the modulation of the Cosmic Rays CR (extra-atmospheric variable). CRs influence the earth's climate by affecting cloud formation (atmospheric variable), and solar cycle influence is associated with the presence of solar storms, and the magnetic activity is greater, resulting in less CR entering the earth's atmosphere. The different methods of climate prediction in Colombia do not take into account the extra-atmospheric variables. Therefore, correlations between atmospheric and extra-atmospheric variables were studied in order to implement a Python code based on neural networks to make the prediction of the extra-atmospheric variable with the highest correlation.

Keywords : correlations, cosmic rays, sun, sunspots and variations.

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