



Contribution ID: 119

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## Sunspot Number, Solar Flares and Atmospheric Gravity Waves

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The purpose of the experiment was to determine the effect the sunspot number would have on the number of solar flares. The hypothesis stated that as the sunspot number increased, the number of solar flares would also increase during the same time period. With the ability to predict the occurrence of solar flares from sunspot activity, it may be possible to prevent the damage to power grids and satellites caused by solar flares. A catalogue solar flares, geomagnetic activities and It's driver have been created to assist this project. The catalogue starts from 2000 January to 2022 December. From the study reveal that there are remarkable differences on the relationship between sunspot number (SSN) and M- and X- solar flares during the solar cycle phases of low (-activity), high (-activity), ascending, and descending. For future studies the catalogue will be used to assess the atmospheric gravity waves at low latitude during disturbed times (during geomagnetic storms only, solar flares only and geomagnetic storms + solar flares)

### Apply to be considered for a student ; award (Yes / No)?

Yes

### Level for award;(Hons, MSc, PhD, N/A)?

MSc

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