

# Energetic Solar activities during cycle 22, 23

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## Abstract

Energetic Solar particles and Geomagnetic Indices during the last two cycles were given. The data of the grouped flares and 10.7 cm radio flux were obtained from Solar Geophysical data reports by the US Department of Commerce, during the solar cycle 22 and 23. Power spectrum analyses method were used for the data treatments, to find the intermediate - term periodicities, 14, 28, 35 are significant. Long - term periodicities periodicity 154 days appeared, and confirmed with the other results. Halloween storms during Nov. 2003 and its effects on the geomagnetic storms have been studied analytically. The data of amplitude and phase of most common indicators of geomagnetic activities during solar cycle 23 has been analyzed.

***Keywords:*** *Geomagnetic, Halloween storms, Power spectrum*

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