

A browser-based tool for space weather and space climate studies

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Abstract

A browser-based research tool has been developed for time series analysis on-line. Large amount of high-resolution measurements are nowadays available from different heliospheric locations. It has become an issue how to best handle the ever-increasing amount of information about the near-Earth space weather conditions, and how to improve the social data analysis tools for space studies. To resolve the problem, we have developed an interactive web interface, called Substorm Zoo, which we expect to become a powerful tool for scientists and a useful tool for public.

1. Introduction

The Substorm Zoo tool (1) provide a combined data repository for different heliospheric measurements including the geomagnetic activity indices with a possibility to customized views, (2) enable the use of pre-identified event lists, creation and sharing of own lists, (3) allows discussion on individual activity events e.g. substorms from the users of the site, and (4) enable the interactive data analysis on-line with a possibility to write and share comments. In this presentation, we will show the basic features of Substorm Zoo and give examples of their use for scientific, educational and public outreach purposes.

3. An overview of the tool

Below, you will find an overview of the Substorm Zoo data analysis tool. The figure shows a wavelet spectra of the sunspot number for two 11-year long solar cycles.

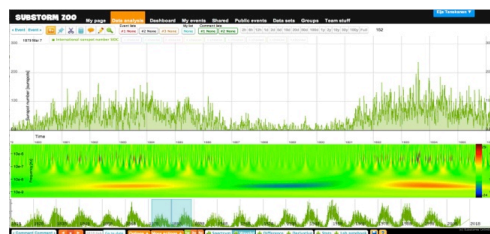


Figure 1: An overview of the “Data analysis” tool.