

Special Issue on  
**Big Data Processing and Modeling in Solar Physics**

# CALL FOR PAPERS

Solar storms could interfere with the radio communication, the precision of Global Positioning Systems, and the safety of satellites and astronauts. Thus, it is important to understand the laws of solar physics and to forecast solar activities.

Although the physical laws of solar activity are not yet completely clear, data mining technology can help researchers to discover potential knowledge from big data. Up to now, massive amounts of solar data have accumulated and the volume of solar data continues to grow each day; therefore there is an increasing need for automatic detection technologies in order to cope with the rapidly growing solar data. The knowledge mined from the big data will bring tremendous benefits to the solar physics and solar activity forecast communities, and the state-of-the-art technology in data mining can help researchers achieve this.

This special issue welcomes original research articles as well as review articles that explore the data processing and modeling technology for solar data, including, but not limited to, the automatic detection of solar activities, the discovery of new rules in solar physics, and the building of effective forecasting models for solar activities.

Potential topics include but are not limited to the following:

- ▶ Algorithms for solar big data processing
- ▶ Solar big data storage and retrieval
- ▶ Automatic detection and recognition from big solar database
- ▶ Association rule mining for solar big data analysis
- ▶ Big data supported solar activity forecasting models

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/aa/bdpp/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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**Submission Deadline**

Friday, 3 May 2019

**Publication Date**

September 2019