

## **SCOSTEP's 13th Quadrennial Solar-Terrestrial Physics Symposium (STP13)**

**October 12 – 17, 2014 Xi'An, Shanxi, China**

### **First Announcement and Call For papers**

The thirteenth Solar-Terrestrial Physics Symposium of the Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) will be held in Xi'An, China during October 12-17, 2014. The Climate and Weather of the Sun-Earth System (CAWSES) program ended in 2013 and followed by the Variability of the Sun and Its terrestrial Impact (VarSITI) program. The VarSITI program expands the solar terrestrial physics to a broader context to star-planet interaction, which might further our scientific understanding of Sun-Earth connection. This Symposium will highlight results obtained during the Climate and Weather of the Sun-Earth System (CAWSES) program and the new Variability of the Sun and Its terrestrial Impact (VarSITI) program.

The scientific sessions of STP13 feature the chains of physical processes that operate in the solar terrestrial domain. These are: (i) the mass chain in the form of plasmas and particles emitted from the Sun, (ii) the electromagnetic radiation chain in the form irradiance (total and spectral) and flare emissions, and (iii) the intra-atmospheric chain representing energy flow from Earth into space. The processes considered include the generation of energy in the interior of the Sun and near Earth and its flow in various directions. In particular, the symposium will address recent advances in solar dynamo theory and predictions of the future solar activity, long-term variations of solar activity and their impact on terrestrial climate, and the origin and probability of solar extreme events. Finally, a one-day workshop session will be held to analyze the data collected during the MiniMax24 campaign.

#### **1. Mass Chain**

- a. Origin, evolutions, and Earth impact of coronal mass ejections
- b. Origin, evolution, and Earth impact of high speed streams
- c. Origin, evolution, and Earth impact of energetic particles from solar, magnetospheric and galactic sources

#### **2. Electromagnetic Chain**

- a. Long-term solar variability (magnetism, total irradiance, and spectral irradiance) and its impact on geospace and Earth
- b. Origin of solar flares and their impact on Earth's ionosphere/atmosphere
- c. Coronal and Interplanetary radio bursts including auroral kilometric radiation

#### **3. Intra-Atmospheric Chain**

- a. Geospace response to variability of the lower atmosphere
- b. Trends in the entire atmosphere, including anthropogenic aspects
- c. Regional, hemispheric and inter-hemispheric couplings and transport in the atmosphere

#### **4. Workshop to analyze Sun-to-Earth MiniMax24 Events**

The STP13 scientific sessions consist of tutorial lectures/keynotes in the mornings and focused

presentations (invited talks, contributed papers) in the afternoons. Original research papers are solicited on any of these topics or on topics related to other aspects of Sun-Earth connection. Papers involving the origin and consequences of the current weak solar activity are encouraged.

Details on the registration, abstract submission, travel, and accommodation can be found on the conference web site: <http://stp13.csp.escience.cn>.

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