## Hvar Observatory - SCOSTEP Launches VarSITI Program to Explore the Origin and Consequences of a W

Written by Jaša Čalogović Monday, 13 January 2014 13:52



Although the Sun just recently provided strong flare on <u>7th January&nbsp; 2014, 18:30 UTC</u> connected with coronal mass ejection (CME) and this time luckily with minor impact on Earth, the current 24 solar cycle is in general

much weaker than previous solar cycles

. That something is changing on the longer timescales related to solar activity was already indicated by the

## number of spotless days

in the last solar minimum which was the largest in last century. To investigate rather unusual solar cycle in the last year MiniMax24 campaign was started, leaded by Manuela Temmer from Graz University

, where Hvar Observatory was also involved with expertise and Hvar solar Telescope observations. The continuation of this campaign in now foreseen in new scientific program called

VarSITI (VARiability of the Sun and Its Terrestrial Impact)

One of the scientific elements of VarSITI is ISEST (Internatinal Study of Earth-affecting Solar Transients) which tries to understand the origin, propagation and evolution of solar transients through the space between the Sun and the Earth, and develop the prediction capability of space weather. In the frame of ISEST last year (2013) the ISEST workshop

on Hvar was organized in June

Beside the ISEST, Hvar Observatory performs also research on solar activity influences on Earth's climate and weather (ROSMIC). There are still many contended mechanisms that link the solar activity and Earth's climate. If such weaker solar activity continues in the future, it will be interesting to observe the eventual climatic changes linked to solar activity in the next decades.

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 The Scientific Committee on Solar Terrestrial Physics (SCOSTEP)
 is launching its new

 scientific program
 VarSITI

(Variability of the Sun and Its Terrestrial Impact)

on January 13, 2014. Solar-terrestrial scientists from all over the world participate in the VarSITI program to understand why the Sun is so weak these days and how it will affect Earth and its space environment. VarSITI is an international interdisciplinary research program that will run for next five years.

SCOSTEP is an Interdisciplinary body of the <u>International Council for Science (ICSU)</u>. The ICSU motto is "strengthening international science for the benefit of society". SCOSTEP focuses on the science of Sun-Earth connection relevant to life and society on Earth.

Following a highly successful program known as <u>CAWSES (Climate and Weather of the</u> <u>Sun-Earth System)</u> that just ended, the VarSITI program will focus on the declining phase of solar activity, which is already at its lowest level since the dawn of the space age.

The VarSITI program is established after a collective effort by the international scientific community over the past year. It will focus on four major themes: solar magnetism and extreme events, Earth impacting solar transients, magnetospheric changes, and consequences and processes in Earth's atmosphere. In order to make progress on these themes, four scientific projects have been defined, which are headed by international experts.

We look forward to continuing our global cooperation in solar terrestrial research using data, models, and theory developed from all over the world. In particular SCOSTEP will promote involvement of students and scientists from developing countries in the VarSITI projects.

Various working groups are being formed for a thorough scientific investigation under each VarSITI project. Anyone interested in getting involved should contact Katya Georgieva (<u>kgeorg</u> <u>@space.bas.bg</u>) ) or Kazuo Shiokawa ( <u>shiokawa@stelab.nagoya-u.ac.jp</u>) ), the two co-chairs of VarSITI, and the national contact persons Bojan Vršnak ( <u>bvrsnak@geof.hr</u>

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VarSITI brochure

VarSITI video

For more information, please visit <u>www.varsiti.org</u>