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VARSTITI - VARIABILITY OF THE SUN AND ITS TERRESTRIAL IMPACT

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The Scientific Committee on Solar Terrestrial Physics (SCOSTEP) is an interdisciplinary body of the International Council for Science (ICSU) to run international interdisciplinary scientific programs and promote solar-terrestrial physics research. The last solar minimum in 2008-2009 and the current solar maximum of sunspot cycle 24 show much lower activities compared with the recent solar cycles. The scientists in the solar-terrestrial physics are watching very low solar activities and their consequences on Earth, which have never been observed since modern scientific measurements become available. The SCOSTEP program "Variability of the Sun and Its Terrestrial Impact (VarSITI)" (2014-2018) will focus on this particular low solar activity and its consequences on Earth, in order to elucidate the Sun's evolution and activity, and the various sun-earth connections for various times scales from the order of thousands years to milliseconds, and for various locations and their connections from the solar interior to the Earth's atmosphere and climate. To achieve this, we encourage communication between solar scientists (solar interior, sun, and the heliosphere) and geospace and earth scientists (magnetosphere, ionosphere, and atmosphere/climate). Campaign observations are promoted for particular interval in collaboration with relevant satellite and ground-based missions as well as modeling efforts. Four scientific projects are carried out in VarSITI as (1) Solar Evolution and Extrema (SEE), (2) International Study of Earth-Affecting Solar Transients (ISEST/Minimax24), (3) Specification and Prediction of the Coupled Inner-Magnetospheric Environment (SPeCIMEN), and (4) Role Of the Sun and the Middle atmosphere/thermosphere/ionosphere In Climate (ROSMIC).