Geophysical Research Abstracts
Vol. 16, EGU2014-9741-1, 2014
EGU General Assembly 2014

Heliophysics Research at the National Observatory of Athens: Communicating Science

Olga Malandraki, Athanasios Papaioannou, Ioanna Patsou, and Kostas Tziotziou
National Observatory of Athens, IAASARS, Athens, Greece (atpapaio@astro.noa.gr)

The term heliophysics refers to the physics that controls the system that is being defined by the Sun, the heliosphere and the surrounding planets. Today, we are aware that we people live within the extended atmosphere of a living star, the Sun. Although, the light that the Sun provides creates and sustains life on Earth, its variability gives birth to streams of high energetic particles and radiation which could be harmful for the human life. The magnetic field and the atmosphere of the Earth provide powerful shielding against these threats, making the Earth an oasis within the Universe were life is in place to evolve and grow. We should all keep in mind, however, that the fate of life at Earth is bounded to the way it responds to the variability of the Sun. This united system that is being analyzed through heliophysics demands the understanding of the processes that take place within and at the face of the Sun as well as the interaction of the solar plasma and the emitted radiation with the Earth and the rest of the planets. Research on heliophysics at the National Observatory of Athens focuses at the analysis of the effect of the stormy Sun to the Earth. With this respect we use data from energetic particles, recoded onboard an armada of spacecraft, trying to decode the impact of solar storms. Given the fact that heliophysics is a vital and dynamic part of our everyday life, great care is being devoted to the communication of our research results to the general public in Greece, participating at large public outreach events like the Researcher's Night and with lectures/presentations delivered regularly to a variety of audiences, but also at a worldwide scale as our team acts as the National contact point for the International Space Weather Initiative (ISWI). In this work we present vital facts of our dominant Sun, we illustrate its effect at Earth and we discuss the effectiveness of the communication techniques that have been used in order to promote heliophysics research at a wider public.