



A new european effort: SOTERIA (Solar-TERrestrial Investigations and Archives)

G Lapenta and the SOTERIA consortium

KU Leuven and the SOTERIA consortium

The proposed project realizes a wide synergy in the fields of solar- space- and geophysics to achieve a higher level of processed data and better understanding of solar and space events having terrestrial impact. The study of these events has an increasing importance with the increasing amount of technical equipment (e.g. power lines and telecommunication satellites) that can be damaged during these events. The project mobilizes more than 50 experts and significant resources from EU (including new EU member states) for the process, analysis, and interpretation of a large set of relevant data of more than 20 satellites (including 5 ESA missions) and the complementing ground-based data. It aims at providing better data bases and new methods to access and analyze them. The new databases go beyond the present state-of-the-art in details, and their on-line publication facilitates fast access to the open data acquired during these missions. The data will be further connected with new theoretical and simulation models and their usage will provide the expected impact of improvement of the scientific results that can be obtained from collected space data. The outputs will provide a long-term dissemination contributing to a higher level space monitoring system, and more reliable space weather forecast ability. In the proposal all the aspects are related to the effective exploitation of scientific data from space missions.

The project fulfills the expectations of EU Work Program on space science by "developing tools to archive, access and process the data", and realizing research as "downstream R&D activities complementing space missions". The set of deliverables "enhances the effectiveness and productivity of the European scientific community in terms of usage of this data". The research work will be accompanied with educational and SME-related activities as well as public events.