



## HELIO - The Heliophysics Integrated Observatory

R. D. Bentley (1), A. Csillaghy (2), J. Aboudarham (3), and the HELIO Team

(1) University College London, MSSL, Dorking, United Kingdom (rdb@mssl.ucl.ac.uk/ +44 1483 278312), (2) University of Applied Science Northwest Switzerland, Brugg-Windisch, Switzerland (andre.csillaghy@fhnw.ch), (3) Observatoire de Paris, LESIA, Paris, France (Jean.Aboudarham@obspm.fr)

Heliophysics is a new science that explores the Sun-Solar System connection and spans the existing domains of solar, heliospheric, magnetospheric and ionospheric physics. Heliophysics influences the environments studied by the planetary and geo-sciences and also has relevance for the astrophysics community.

HELIO, the Heliophysics Integrated Observatory, will provide integrated access to metadata from the domains that constitute heliophysics in order to facilitate the search for observations that track phenomena as they propagate through inter planetary space and affect the planetary environments. It will provide services to locate and retrieve the desired observations and return them to the user in the format they require.

HELIO is designed around a service-oriented architecture (SAO); many of the resources will be established as stand-alone services that support metadata curation and search, data location and retrieval, data processing and storage. It will be possible to use the services independently or bound into a system through a workflow capability. A semantic-driven approach will be used to describe the relationships between the domains and support the search and data retrieval capabilities.

The HELIO Consortium includes twelve groups from the UK, France, Ireland, Italy, Switzerland and the US. The project has a strong Networking component and through this we wish to involve other groups and individuals who can help us achieve our goals. The HELIO proposal was submitted under the EC's 7th Framework Programme.