



## **Key results and services of HELCATS**

Volker Bothmer (1), Richard Harrison (2), Jackie Davies (2), Alexis Rouillard (3), and the HELCATS

(1) University Göttingen, Institute for Astrophysics, Göttingen, Germany (bothmer@astro.physik.uni-goettingen.de), (2) STFC-RAL Space, Rutherford Appleton Laboratory, Harwell Campus, Didcot, OX11 0QX, UK, (3) Institut de Recherche en Astrophysique et Planetologie, 9 Ave du Colonel Roche, 31028 Toulouse Cedex 4, France

The EU FP7 project HELCATS (HELIOSPHERIC CATALOGUING, ANALYSIS & TECHNIQUES SERVICE) has provided new insights into solar wind structure through combining the comprehensive analysis of heliospheric imaging observations from the NASA STEREO spacecraft, in concert with associated remote-sensing and in-situ measurements, with a thorough assessment of appropriate techniques and models. The project recognised that the advent of wide-angle imaging of the inner heliosphere has revolutionised the study of transient and quasi-stationary structures in the solar wind, in particular Coronal Mass Ejections (CMEs) and Co-rotating Interaction Regions (CIRs). Prior to the development of wide-angle imaging of the inner heliosphere, signatures of such solar wind features could only be observed within a few solar radii of the Sun, and in the vicinity of a few near-Earth and interplanetary probes making in-situ measurements of the solar wind. Heliospheric imaging has, for the first time, filled that vast and crucial observational gap. This presentation summarises the key results and services established by the HELCATS project.