

HELCATS



Heliospheric Cataloguing, Analysis and Techniques Service

Aims of the Meeting and WP1 Report

R. A Harrison, J.A. Davies, J. Byrne



Aims of the Meeting



To take stock:

Report on progress

What next?

Raise & discuss any technical issues

Day 1: Report from each WP

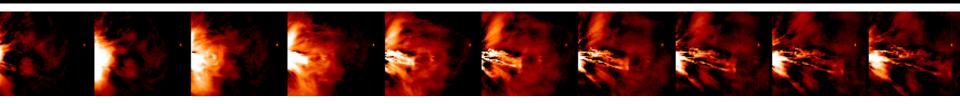
Day 2: Discussion of issues, actions



Why?



FP7 HELCATS (1st May 2014 — 1st May 2017) capitalises on European expertise in heliospheric imaging built up over the last decade, particularly by lead involvement in STEREO, whilst also exploiting the wealth of European experience in solar and coronal imaging, and the interpretation of in-situ and radio measurements of solar wind phenomena.





What?



The general aims of HELCATS are to:

- catalogue transient (CME) and background (SIR/CIR) structures imaged in the heliosphere by STEREO/HI, including estimated kinematic properties from established and speculative techniques;
- verify the kinematic properties, hence assessing the validity of the techniques, by comparing with solar source/coronal observations, and in-situ measurements at multiple points in the heliosphere;
- assess the potential for initialising advanced numerical models based on the derived kinematic properties of both the transient and background solar wind;
- assess the complementarity of combining heliospheric imagery with radio-based methods to detect structures and diagnose processes in the heliosphere (Type II bursts and IPS);
- provide the scientific community with easy access to HELCATS catalogues and methodologies, enabling a much wider exploitation and understanding of heliospheric imaging observations.







Institute	Short name	Institute Lead
STFC-RAL Space, UK (Coordinator)	STFC	R.A. Harrison
University of Graz, Austria	UNIGRAZ	C. Möstl
University Paul Sabatier / Centre National de la Recherche Scientifique, France (third party)	UPS / CNRS	A.P. Rouillard
University of Göttingen, Germany	UGOE	V. Bothmer
Royal Observatory Belgium, Belgium	ROB	L. Rodriguez
Imperial College London, UK	IMPERIAL	J.P. Eastwood
University of Helsinki, Finland	UH	E.K.J. Kilpua
Trinity College Dublin, Ireland	TCD	P. Gallagher
George Mason University, USA (third party)	GMU	D. Odstrčil



How?



Wo	rk Package (WP)	WP Lead
1.	Management	R.A. Harrison (STFC)
2.	Producing a definitive catalogue of CMEs imaged by STEREO/HI	J.A. Davies (STFC)
3.	Deriving/cataloguing the kinematic properties of STEREO/HI CMEs based on geometrical and forward modelling	V. Bothmer (UGOE)
4.	Verifying the kinematic properties of STEREO/HI CMEs against in-situ CME observations and coronal sources	C. Möstl (UNIGRAZ)
5.	Producing a definitive catalogue of CIRs imaged by STEREO/HI that includes verified model-derived kinematic properties	A.P. Rouillard (UPS/CNRS)
6.	Initialising advanced numerical models based on the kinematic properties of STEREO/HI CMEs and CIRs	A.P. Rouillard (UPS/CNRS)
7.	Assessing the complementary nature of radio measurements of solar wind transients	J.P. Eastwood (IMPERIAL)
8.	Dissemination	C.H. Perry



Well?



The following presentations provide a nonexhaustive overview of what has been achieved by HELCATS over the first half of the project...





Task 1.1 – HELCATS Project Management (STFC)

Project oversight
Monthly Steering Committee telecons
(Minutes on Wiki in private project area)
Annual Open Workshop & 2nd Bi-Annual Project
Meeting held in Göttingen, May 2015
Annual Report formally delivered and well received





HELCATS Deliverables (<month 18)

- D1.1 Website launch report delivered/uplinked
- D1.2 Minutes of kick-off meeting delivered/uplinked
- D1.3 Six monthly progress report delivered/uplinked
- D1.4 Annual Report delivered/uplinked
- D2.2 Report on the feasibility of automatic identification of CMEs (ROB) delivered/uplinked
- D3.1 Time-elongation maps (STFC) completed, need to uplink report
- D5.1 Establish online CIR catalogue (UPS) completed, need to uplink report





HELCATS Deliverables (next steps)

D1.5 18 month progress report (due month 19), Draft completed, sent to reviewer
Deliverable includes month 18 cost statements (see later)
D2.3 Report on inter-comparison of manual and automated catalogues (UGOE, due month 18)

Note: Principal catalogue deliverables are completed at the end of the project but are under way (e.g. D2.1)





HELCATS Deliverables (next steps)

18 month financial report – as I understand it!

On the HELCATS management page, on the EC portal, the facility will be enabled to complete the formal financial reporting. We will liaise with the beneficiaries throughout.





GA no: 606692

Next meeting(s)

Month/Date	Meeting	Host	
1 (May 2014)	Kick-Off Meeting	STFC	
6 (Oct 2014)	Bi-annual project meeting/ workshop, plus technical review	ROB	
12 (May 2015)	Bi-annual project meeting/ workshop, plus technical review – plus annual open workshop	UGOE	
18 (Oct 2015)	Bi-annual project meeting/ workshop, plus technical review	UH	
24 (May 2016)	Bi-annual project meeting/ workshop, plus UPS technical review – plus annual open workshop		
30 (Oct 2016)	Bi-annual project meeting/ workshop, plus technical review	TCD	
36 (May 2017)	Bi-annual project meeting/ workshop, plus technical review – plus annual open workshop	IMPERIAL	













EU FP7: GA no: 606692

Task 2.1 – HELCATS website www.helcats-fp7.eu

Continues to be a major tool for project (See WP8):

Homepage – Project details, growing list of news, information, links to products (All public)

Wiki – Includes private (to project) site with minutes, reports, project newsletters, documentation







Issues to raise on second day (from WP1):

- Publication strategy:
 Some WPs leading to publications e.g. CME statistics paper (WP2). Map out publication plan.
 Author strategy?
- 2. 18 month financial report
- 3. Post HELCATS H2020 proposal? 2017
- 4. 2nd Annual Workshop



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