

# HELCASTS Annual Open Workshop – Programme

<b>Tuesday 19<sup>th</sup> May</b>		
<b>Session 1: Heliospheric Imaging observations of solar wind structure (e.g. CMEs, CIRs, turbulence): introductory and review talks</b>		
14:00	Welcome address	V. Bothmer
14:10	HELCASTS – Heliospheric Cataloguing, Analysis and Techniques Service ( <i>Invited</i> )	R. Harrison, J. Davies & the HELCASTS Steering Committee
14:40	Dynamic evolution of coronal mass ejections ( <i>Invited</i> )	M. Temmer
15:20	ENLIL modelling support to the HELCASTS project	D. Odstrčil
15:40	<b>Coffee/tea</b>	
16:00	Heliospheric Imaging: the status quo and the future ( <i>Invited</i> )	T. Howard & C. DeForest
16:40	Thomson scattering revisited ( <i>Invited</i> )	B. Inhester
17:20	Comprehensive analysis of CME propagation speeds in STEREO COR2 and HI1 instruments	A. Pluta, V. Bothmer, E. Bosman, J. Davies, L. Volpes, M. Venzmer, N. Mrotzek, R. Harrison, C. Möstl & P. Boakes
17:40	Comparing HELCASTS CIR catalogues derived from white-light images and in-situ measurements	I. Plotnikov & A. Rouillard
18:00	<b>End of session (followed by reception until 20:00)</b>	
<b>Wednesday 20<sup>th</sup> May</b>		
<b>Session 2: Debating standards for making CME associations</b>		
09:00	Linking CMEs to associated solar phenomena ( <i>Invited</i> )	P. Gallagher, P. Zucca & E. Carley
09:40	A review of the use of event associations in CME onset studies from SMM, SOHO and STEREO, leading to suggested standards for the future	R. Harrison
10:00	Discussion (including coffee from 10:20 to 10:40)	Chair: P. Gallagher
12:00	<b>Lunch (followed by excursion at 14:00)</b>	
<b>Thursday 21<sup>st</sup> May</b>		
<b>Session 3: Remote-sensing/in-situ observations of heliospheric phenomena and their sources and impacts</b>		
09:00	The most generic shape of interplanetary CMEs: A comparison of models and interplanetary event catalogues ( <i>Invited</i> )	M. Janvier, P. Demoulin & S. Dasso
09:40	Three-dimensional evolution of fast and slow CMEs from the Sun to 1 AU	A. Isavnin, S. Käki & E. Kilpua
10:00	Visualizations of the HI CME catalogue and solar wind magnetic field data	C. Möstl, P. Boakes, A. Isavnin, E. Kilpua & J. Davies
10:20	<b>Coffee/tea</b>	
10:40	The properties of the very slow solar wind measured inside 0.7 AU	E. Sanchez-Diaz, K. Segura, A. Rouillard, R. Pinto & B. Lavraud
11:00	Tracking the CME-driven shock wave on 2012 March 5 and radio triangulation of associated radio emission	J. Magdalenic, C. Marque, V. Krupar, M. Mierla, A. Zhukov, L. Rodriguez, M. Maksimovic & B. Cecconi
11:20	Internal structure of interplanetary coronal mass ejections and relation to remote sensing observations	E. Kilpua, A. Isavnin, A. Vourlidas, H. Koskinen & L. Rodriguez
11:40	Comparing interplanetary and in-situ properties of CME driven shocks	L. Volpes & V. Bothmer

<b>12:00</b>	<b>Lunch</b>	
<b>14:00</b>	First results of CME arrival time prediction at different planetary locations and their comparison to the in-situ data within the HELCATS project	P. Boakes, C. Moestl, J. Davies, R. Harrison, J. Byrne, D. Barnes, A. Isavnin, E. Kilpua & T. Rollett
<b>Session 3: Posters</b>		
	Assessing the complementary nature of radio measurements	J. Eastwood, M. Bisi, J. Magdalenic & R. Forsyth
	MESSENGER and Venus Express observations of magnetic clouds	S. Good & R. Forsyth
	Estimation of the 3D electron density distributions in the solar corona for more realistic solar wind	J. de Patoul, C. Foullon, D. Vibert, P. Lamy, C. Peillon & R. Frazin
<b>Thursday 21<sup>st</sup> May</b>		
<b>Session 4: Development and application of heliospheric observations and techniques for scientific and space weather usage</b>		
<b>14:20</b>	Initiation and evolution of CMEs in the inner heliosphere <i>(Invited)</i>	S. Poedts & J. Pomoell
<b>15:00</b>	Simulating the solar wind to the inner boundary of ENLIL	R. Pinto & A. Rouillard
<b>15:20</b>	Three dimensional morphology and dynamics of CMEs and CME-driven shocks	L. Feng & B. Inhester
<b>15:40</b>	<b>Coffee/tea</b>	
<b>16:00</b>	The propagation and space weather tools	A. Rouillard, R. Pinto, B. Lavraud & V. Genot
<b>16:20</b>	The new CORIMP CME catalogue & 3D reconstructions	J. Byrne, H. Morgan, S. Habbal & P. Gallagher
<b>16:40</b>	Tomographic reconstruction of CME densities in the ecliptic using STEREO HI1	D. Barnes
<b>17:00</b>	Towards an operational F-corona model for future heliospheric imaging instruments - cancelled	J. Rodmann, V. Bothmer, R. Howard, A. Thernisien, M. Venzmer & A. Vourlidas
<b>17:20</b>	Determination of the photometric calibration and large-scale flatfield of the STEREO HI2 cameras	J. Tappin, C. Eyles & J. Davies
<b>17:40</b>	Ongoing radio space-weather science studies using the LOw Frequency ARray (LOFAR)	M. Bisi, R. Fallows, C. Sobey, T. Eftekhari, E. Jensen, B. Jackson, H. Yu & D. Odstrcil
<b>18:00</b>	<b>End of session (followed by conference dinner at 19:30)</b>	
<b>Friday 22<sup>nd</sup> May</b>		
<b>Session 5: Future heliospheric and space weather instruments/missions</b>		
<b>09:00</b>	Operational Forecasting – what’s required in the heliosphere <i>(Invited)</i>	M. Gibbs
<b>09:40</b>	Carrington-L5: The next generation space weather monitoring mission	M. Trichas - held by R. Harrison
<b>10:00</b>	INSTANT (INvestigation of Solar-Terrestrial Activity aNd Transients)	B. Lavraud, Y. Liu & the INSTANT team - held by A. Rouillard
<b>10:20</b>	<b>Coffee/tea</b>	
<b>10:40</b>	The PROBA-3 mission and its contribution to space weather studies <i>(Invited)</i>	A. Zhukov & the PROBA-3/ASPIICS team
<b>11:20</b>	The Wide-field Imager for Solar PRobe+ (WISPR)	V. Bothmer, R.A. Howard & A. Vourlidas
<b>11:40</b>	Coronal and heliospheric imaging instrumentation development at RAL Space	J. Davies, C. Eyles, D. Griffin, R. Harrison, K. Middleton, A. Richards, J. Rogers, J. Tappin, I. Tosh & N. Waltham
<b>12:00</b>	<b>Wrap up (end of meeting)</b>	

Invited talks: 30 mins plus 10 mins discussion; contributed talks: 15 mins plus 5 mins discussion.