

Workshop of the International Space Science Institute (ISSI)

**Multi-scale physics in coronal heating and solar wind acceleration -
from the Sun into the inner heliosphere**

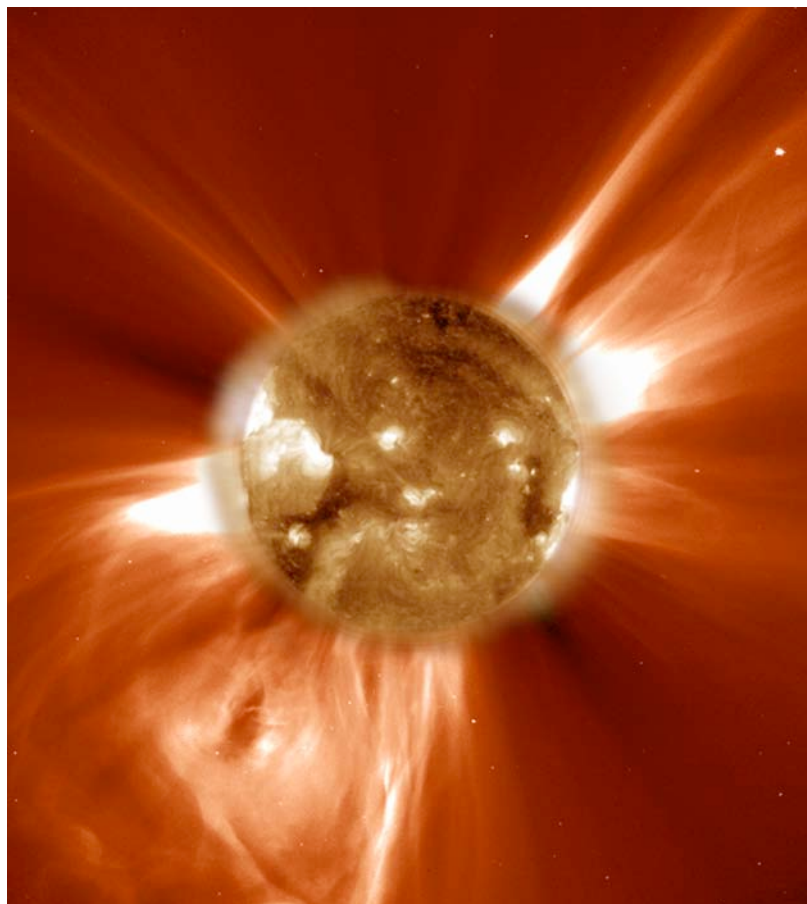
Bern, Switzerland, 25-29 January 2010

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Schedule

Monday 25-Jan-10			Tuesday 26-Jan-10			Wednesday 27-Jan-10			Thursday 28-Jan-10			Friday 29-Jan-10		
Chair:	von Steiger			Cranmer			Krucker			Zurb. & Drake			Marsch	
		9:00-9:30		Malara	9:00-9:30		Shay	9:00-10:30	Discussion	9:00-9:30		Matteini		
		9:30-10:00		Verdini	9:30-10:00		Edmondson		Session	9:30-10:00		Kasper		
10:00-10:30	Opening		10:00-10:30	Matthaeus	10:00-10:30		Drake		II	10:00-10:30		Bale		
10:30-11:00	Antonucci									10:30-11:00		Young Sci.		
		10:30-11:00		Coffee	10:30-11:00		Coffee	10:30-11:00	Coffee					
11:00-11:30	Coffee									11:00-11:30		Coffee		
Chair:	von Steiger			Velli & vSt			Zurbuchen			Burgess			Bur. & Marsch	
		11:00-12:30		Discussion	11:00-11:30		Mason	11:00-11:30	Hellinger					
11:30-12:00	Marsch			Session	11:30-12:00		Landi	11:30-12:00	Vocks	11:30-1:00		Discussion		
12:00-12:30	Zurbuchen			I	12:00-12:30		Daughton	12:00-12:30	Pierrard			Session		
		12:30-2:00		Lunch	12:30-1:00		Cassak					III		
									Lunch	1:00-1:30		Closing		
Chair:	Antonucci			Drake		1:00-7:00	Sight-seeing:			1:30		Adjourn		
							Einstein		Mason					
							Klee							
2:00-2:30	von Steiger	2:00-2:30		Antiochos			Bear park	2:00-2:30	Pantellini					
2:30-3:00	Wilhelm	2:30-3:00		Linker				2:30-3:00	Horbury					
3:00-3:30	McIntosh	3:00-3:30		Shibata				3:00-3:30	Carbone					
Chair:	Velli			Antiochos						Horbury				
3:30-4:00	Tea	3:30-4:00		Tea				3:30-4:00	Tea					
4:00-4:30	Hansteen	4:00-4:30		Krucker				4:00-4:30	Chandran					
4:30-5:00	Wang	4:30-5:00		Gosling				4:30-5:00	Shekochihin					
5:00-5:30	Cranmer	5:00-5:30		Crooker				5:00-5:30	Araneda					
5:30-	Welcome Drink					7:00-	Dinner							

Workshop Program

Monday 25 January 2010

10:00-10:15	ISSI	Welcome to ISSI
10:15-10:30	Convenors	Opening of the Workshop

Session I. What is the physical process that is responsible for the heating and acceleration of the solar wind from coronal holes?

10:30-11:00	Ester Antonucci	UVCS observations of T and V profiles in coronal holes
11:00-11:30		Coffee
11:30-12:00	Eckart Marsch	Helios: evolution of distribution functions 0.3-1 AU
12:00-12:30	Thomas Zurbuchen	What are the sources of the slow wind?
12:30-14:00		Lunch
14:00-14:30	Rudolf von Steiger	Solar wind charge states and coronal temperatures
14:30-15:00	Klaus Wilhelm	SUMER observations of coronal hole temperatures
15:00-15:30	Scott McIntosh	Source observations of the fast solar wind in coronal holes
15:30-16:00		Tea
16:00-16:30	Viggo Hansteen	Solar wind models from the chromosphere to 1 AU
16:30-17:00	Yi-Ming Wang	Slow and fast phenomenological/empirical solar wind models
17:00-17:30	Steve Cranmer	Self consistent solar wind models
17:30		Welcome Drink

Tuesday 26 January 2010

09:00-09:30	Francesco Malara	Role of waves in coronal heating and solar wind acceleration
09:30-10:00	Andrea Verdini	Fully self-consistent MHD turbulence models of the solar wind
10:00-10:30	William Matthaeus	The role of incompressible MHD turbulence in the solar wind
10:30-11:00		<i>Coffee</i>
11:00-12:30	Marco Velli & Rudolf von Steiger	Discussion Session I
12:30-14:00		<i>Lunch</i>

Session II. What is the relative role of the magnetic topology and reconnection in the release of slow wind and coronal mass ejections?

14:00-14:30	Spiro Antiochos	Current sheets in the corona and the complexity of slow wind
14:30-15:00	Jon Linker	Interactions of closed field with open field in the corona: Importance of interchange reconnection
15:00-15:30	Kazunari Shibata	Fractal reconnection and particle acceleration in the corona
15:30-16:00		<i>Tea</i>
16:00-16:30	Säm Krucker	Observations of particle acceleration in partially occulted flares
16:30-17:00	Jack Gosling	Reconnection in the solar wind
17:00-17:30	Nancy Crooker	Interchange reconnection, signatures and importance for flux balance

Wednesday 27 January 2010

09:00-09:30	Mike Shay	Do kinetic reconnection models produce fast reconnection in large systems?
09:30-10:00	Justin Edmondson	The role of reconnection in the generation of slow solar wind
10:00-10:30	Jim Drake	Particle acceleration and power law distributions during magnetic reconnection
10:30-11:00		<i>Coffee</i>
11:00-11:30	Glenn Mason	Power law distributions of suprathermal particles in the quiet solar wind
11:30-12:00	Simone Landi	3D simulations of magnetic reconnection with and without velocity shears
12:00-12:30	Bill Daughton	The transition from collisional to collisionless reconnection
12:30-13:00	Paul Cassak	The onset of fast reconnection in the corona
13:00-19:00		<i>Free afternoon: Visit the Einstein Exhibition at the Historical Museum, the Einstein House, the Zentrum Paul Klee, the new Bear Park, or ...</i>
19:00		<i>Workshop dinner: Fondue at the Ober-Gerwern Cellar, Herrengasse 6</i>

Thursday 28 January 2010

09:00-10:30	Thomas Zurbuchen & Jim Drake	Discussion Session II
10:30-11:00		Coffee

Session III. What are the processes that dominate the thermodynamic evolution of the solar wind in the inner heliosphere?

1) Kinetic processes in solar wind acceleration:

11:00-11:30	Petr Hellinger	Coupling global expansion with local instabilities
11:30-12:00	Christian Vocks	Vlasov kinetic models of coronal expansion and solar wind acceleration
12:00-12:30	Viviane Pierrard	Solar wind electron transport - heat conduction and interplanetary electric field
12:30-14:00		Lunch
14:00-14:30	Filippo Pantellini	Heat flux transport

2) Turbulence from fluid to kinetic scales:

14:30-15:00	Tim Horbury	Magnetohydrodynamic turbulence spectra in the solar wind - evolution and anisotropy -
15:00-15:30	Vincenzo Carbone	MHD turbulence - scaling, cascading and intermittency
15:30-16:00		Tea
16:00-16:30	Ben Chandran	The theory of anisotropic MHD turbulence
16:30-17:00	Alexander Schekochihin	Turbulent cascading in the framework of gyrokinetic theory
17:00-17:30	Jaime Araneda	Nonlinear Alfvén/ion-cyclotron wave interactions with ions in the solar wind

Friday 29 January 2010

09:00-09:30	Lorenzo Matteini	Effects of plasma wave instabilities on solar wind particle evolution <i>3) Role of plasma instabilities in thermodynamic evolution:</i>
09:30-10:00	Justin Kasper	Particle observations and solar wind thermodynamics
10:00-10:30	Stuart Bale	Solar wind plasma waves - excitation, propagation and absorption
10:30-11:00		Free slot for young scientists' presentations
11:00-11:30		<i>Coffee</i>
11:30-13:00	David Burgess & Eckart Marsch	Discussion Session III
13:00-13:30	Convenors	Closing of the Workshop, Publication plans
13:30		<i>Adjourn</i>