### SpS10 « Dynamics of the star-planet relations » FINAL PROGRAM, version 11 (3 July 2012)

### Session I: Overview of the star-planet relations (2 h) (Monday, Aug. 27, 10:30-12:30)

Chairs: Jean-Louis Bougeret and Xueshang Feng

Time	Title	Speaker
10:30-10:35	Opening	Jean-Louis Bougeret
10:35-10:45	Communicating Heliophysics with the public (invited)	Carine Briand
10:45-11:20	Keynote talk on "The Heliosphere" (invited)	John Richardson
11:20-11:55	Keynote talk on "The Asterospheres" (invited)	Jeffrey Linsky
11:55-12:30	Keynote talk on "Sun-Earth and star-planet relations" (invited)	Sami Solanki

## Session II: Physical processes in the stellar-planetary environment, part 1 (1.5 h) (Monday, Aug. 27, 14:00-15:30) Chairs: Sandra Chapman and Lin-Ni Hau

Time	Title	Speaker
14:00-14:30	Magnetic reconnection and particle acceleration – A review (invited)	James Drake
14:30-14:50	Conditions for the onset of magnetic reconnection deduced from solar wind observations (invited)	Tai Phan
14:50-15:10	Physics of thin current sheet and magnetic reconnection (invited)	Lin-Ni Hau
15:10-15:30	Cross-scale coupling in space plasmas: lessons from multi-spacecraft (invited)	Malcolm Dunlop et al.

# Session II: Physical processes in the stellar-planetary environment, part 2 (2 h) (Monday, Aug. 27, 16:00-18:00) Chairs: Sandra Chapman and Lin-Ni Hau

Time	Title	Speaker
16:00-16:20	Energetic particles in the heliosheath (invited)	Randy Jokipii
16:20-16:40	Impact of the nonuniformity/nonstationarity of a perpendicular shock front on ions dynamics (invited)	Bertrand Lembège et al.
16:40-17:00	Nonlinear dynamics of relativistic electrons interacting with whistler-mode chorus emission and EMIC	Yoshiharu Omura
	triggered emissions in the planetary magnetosphere (invited)	
17:00-17:20	Solar magnetic field (invited)	Jie Jiang
17:20-17:40	MHD turbulence in the solar wind (invited)	Qing-Yu Luo et al.
17:40-18:00	Characterisation of exoplanet atmospheres, magnetospheres and stellar winds from energetic neutral	M. Holmstrom et al.
	atom observations (invited)	

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### Public Forum I on "The Sun-Planet Relations" at Peking University (2 h) (Monday, August 27, 20:00-22:00)

Chairs: S. Fu, J.-L. Bougeret, and A. Chian

Time	Title	Speaker
20:00-20:15	Solar magnetic cycles (invited)	Alan Sacha Brun
20:15-20:30	Origin of the solar wind (invited)	Chuanyi Tu
20:30-20:45	Sun-Earth and star-planet relations (invited)	Sami Solanki
20:45-21:00	The heliosphere (invited)	John Richardson
21:00-21:15	The asterospheres (invited)	Jeffrey Linsky
21:15-21:30	Laboratory experiments of astrophysical phenomena (invited)	Hideaki Takabe

## Session III: Stellar-solar variability (2 h) (Tuesday, Aug. 28, 10:30-12:30) Chairs: Christopher Corbally and Valentin Martinez Pillet

Time	Title	Speaker
10:30-11:00	Solar magnetic cycles (invited)	Alexander Kosovichev
11:00-11:30	From quiet to active inner Sun : what are the consequences on Sun-planet Relationship (invited)	Sylvaine Turck-Chièze
11:30-11:50	From helioseismology to asteroseismology (invited)	Jørgen Christensen- Dalsgaard
11:50-12:10	Dynamic coupling between the photosphere and chromosphere revealed with HINODE (invited)	Yukio Katsukawa
12:10-12:30	Sunspots and Starspots: Cut from the same cloth? (invited)	Svetlana Berdyugina
POSTERS		
	Inspection for secular variation of Earth's rotation inferred from Chinese ancient astronomical records	Yong Li
	A physical reconstruction of solar magnetic field since 1700	Jie Jiang et al.

## Session IV: Sun-planet relations (1.5 h) (Tuesday, Aug. 28, 14:00-15:30) Chairs: A. Boss and N. Gopalswamy

Time	Title	Speaker
14:00-14:30	Multi-spacecraft observations of solar wind-magnetosphere interactions (invited)	Hiroshi Hasegawa
14:30-14:50	A 3-D magnetohydrodynamic simulation of the correspondence of EIT and CME induced waves (invited)	S. T. Wu and C.C. Wu
14:50-15:10	Acceleration and deceleration of Coronal Mass Ejection and its driven shock (invited)	Chin-Chun Wu et al.
15:10-15:30	3D MHD numerical study of two CMEs' evolution and their interaction	Fang Chen et al.
POSTERS		
	Solar flares generated by impacts of comets with the Sun	Firuz Ibodov and Subhon Ibadov
	The star-planet interaction: 3D gas dynamic simulation of the flow structure in the vicinity of the hot Jupiter	Dmitry Bisikalo et al.
	Solar excitation of millennial Earth rotation oscillations	Yavor Chapanov et al.
	Langmuir waves associated with type III bursts and impulsive electron events	Sonja Vidojevic et al.
	The space weather and geomagnetic storms program of the ON/MCTI – instrumental network, plans and first findings	Alexandre Humberto Andrei et al.
	Significant variability in the Sun-Earth interaction events during solar cycles 23 and 24	Nat Gopalswamy et al.
	Venus transit : preliminary data on solar diameter	Costantino Sigismondi
		and Xiaofan Wang
	Earth-based detection of Uranus' aurorae	Laurent Lamy et al.
	Observation of unusual burst at decameter wavelengths	Valentin Melnik

### Session V: Star-planet relations, part 1 (2 h) (Tuesday, Aug. 28, 16:00-18:00)

Chairs: A. Boss and N. Gopalswamy

Time	Title	Speaker	
16:00-16:30	Star-planet interactions in a stellar-planetary system (invited)	Annie Baglin	
16:30-17:00	Solar System evolution and the diversity of planetary systems (invited)	Patrick Michel and	
		Alessandro Morbidelli	
17:00-17:20	Planets at very wide orbits from re-capture of free floating planets	Thijs Kouwenhoven and	
		Hagai Perets	
17:20-17:40	Interaction between a close-in exoplanet with the magnetosphere of its host star: planetary migration and	Randy Laine and Douglas	
	inflation	Lin	
17:40-18:00	Single evolved stars with enhanced rotation: A signature of planetary accretion?	Bruno Canto Martins et al.	

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## Session V: Star-planet relations, part 2 (2 h) (Wednesday, Aug. 29, 10:30-12:30) Chairs: A. Boss and N. Gopalswamv

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Time	Title	Speaker
10:30-10:50	Bow shocks around exoplanets (invited)	Aline Vidotto et al.
10:50-11:10	Physics and evolution of the stellar winds from low to intermediate stars (invited)	Takeru Suzuki
11:10-11:30	Observation and modelling of transits and starspots in the WASP-19 planetary system	Jeremy Tregloan-Reed
11:30-11:50	Modeling stellar granulation as seen in disk-integrated intensity	Réza Samadi et al.
11:50-12:10	Spectrophotometric explorations of chromospheric activity variations for star systems with exoplanets	Yuliana Kuznyetsova et al.
12:10-12:30	Jupiter's polar activities driven by high-speed magnetized solar winds (invited)	Yu-Qing Lou
POSTERS		
	Periodic orbits in the Chermnykh-Like problem with oblateness	Badam Singh Kushvah
	Zero velocity surfaces and linear stability of triangular equilibrium points in the generalized	Ram Kishor and Badam
	photogravitational Chermnykh-like problem with power-law profile	Singh Kushvah
	Internal structure and geometrical flattening of mantle and liquid core of the Moon	Alexander Gusev
	Connection between the solar activity and the Earth's rate of rotation	Dusan Marceta and Stevo Segan
	Effects of radiation on the geometry of zero-velocity surfaces in the photo-gravitational circular restricted 3-body problem	Dusan Marceta et al.
	Investigation of some transiting exoplanet systems	Viktoriia Krushevska et al.
	Calibration in the ultraviolet : the FONDUE star catalog	Aurélie Reberac and the FONDUE team
	The fate of planetary systems in open clusters	X.C. Zheng and Thijs Kouwenhoven
	The dynamical evolution of Brown Dwarf systems formed from disk fragmentation	Yun Li et al.
	The influence of terrestrial planet formation in the observed chemical anomalies in the Sun	Jorge Melendez
	Whether planet systems affect stars' initial rotation velocities and the Lithium abundance	Ge Zhishuai
	Asteroseismology analysis of host stars with exoplanets observed by Kepler	Zhijia Tian et al.
	Gravitational field's description and dynamical laws of the fields' interaction	Ji Ľuo

#### Session VI: Heliosphere and Asterospheres, part 1 (1.5 h) (Wednesday, Aug. 29, 14:00-15:30)

Chairs: Rosine Lallement, Brian Wood and Vlad Izmodenov

Time	Title	Speaker
14:00-14:20	Multi-component nature of the SW/LISM interaction : models vs. Observations (invited)	Vladislav Izmodenov
14:20-14:35	Magnetic reconnection in the heliosheath and its signatures and consequences (invited)	James Drake et al.
14:35-14:50	Modeling of heliosphere and magnetic reconnection in the heliosheath (invited)	Merav Opher et al.
14:50-15:10	The heliosphere and the interplanetary ultraviolet background (invited)	Eric Quémerais
15:10-15:30	Effects of the solar wind-LISM interaction on the properties of backscattered solar Lyman-alpha radiation	Olga Katushkina et al.
	measured by SOHO/SWAN	_

#### Session VI: : Heliosphere and Asterospheres, part 2 (2 h) (Wednesday, Aug. 29, 16:00-18:00)

Chairs: Vlad Izmodenov, Rosine Lallement and Brian Wood

Time	Title	Speaker
16:00-16:20	The Astrospheres of Sun-like stars (invited)	Brian Wood
16:20-16:40	Recent discoveries and investigations into infrared bow shocks between stellar winds and the ISM	Toshiya Ueta
	(invited)	
16:40-17:00	Dust in bow shocks and shells : Probing the interaction between stellar winds and the ISM (invited)	Nick Cox et al.
17:00-17:20	Radio observations of the interfaces between red giant stellar outflows and the ISM (invited)	Thibault Lebertre et al.
17:20-17:40	Multiple interaction features in the slow and dusty winds of AGB stars (invited)	Andreas Mayer et al.
17:40-18:00	The interaction between the runaway O star HD34078 (AE Aurigae) with the surrounding molecular cloud	Pierre Gratier et al.
	(invited)	

#### Public Forum II on "The Star-Planet Relations" at Tsinghua University (2 h) (Wednesday, August 29, 20:00-22:00)

Chairs: Y.-Q. Lou, A. Chian, and K. Meech

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Time	Title	Speaker
20:00-20:15	The interior of stars (invited)	Sylvaine Turck-Chièze
20:15-20:30	Stellar-planetary dynamos (invited)	A. Brandenburg
20:30-20:45	Stellar wind evolution and its effect on planets (invited)	Brian Wood
20:45-21:00	Sun-planet relations (invited)	WH. Ip
21:00-21:15	Star-planet interactions in a stellar-planetary system (invited)	Annie Baglin
21:15-21:30	Observation and characterization of exoplanet's atmosphere-magnetosphere environment (invited)	Helmut Lammer

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### Session VI: : Heliosphere and Asterospheres, part 3 (2 h) (Thursday, Aug. 30, 10:30-12:30)

Chairs:, Brian Wood, Vlad Izmodenov and Rosine Lallement

Time	Title	Speaker
10:30-10:50	The role of stellar plasma interaction in terrestrial planetary atmosphere evolution (invited)	Helmut Lammer et al.
10:50-11:10	The wind effects of weak-lined T Tauri stars on the environment of extrasolar planets (invited)	Vera Jatenco-Pereira et al
11:10-11:30	Probing the stellar plasma environment around exoplanets via Energetic Neutral Atom modeling (invited)	Kristina Kislyakova et al.
11:30-11:50	Space weather at small distances from the Sun and in extra-solar planet environment (invited)	Merav Opher
11:50-12:10	Physics and evolution of the stellar winds (invited)	Moira Jardine
12:10-12:30	Numerical simulation and nonlinear dynamics of turbulent dynamos (invited)	Erico Rempel et al.
POSTERS		
	How does merging affect the CMIR-driven shocks as they propagate into the heliosheath?	Elena Provornikova et al.
	Astrosphere or Asterosphere?	Jean-Louis Bougeret

#### Session VII: Perspectives of the star-planet relations, part 1 (Friday, Aug. 31, 8:30-10:00)

Chairs: A. Chian, G. Qin, and N. Vilmer

Time	Title	Speaker
08:30-08:45	Future programs in star-planet relations (invited)	Magali Deleuil
08:45-09:05	Will superfares occur on our Sun? (invited)	Kazunari Shibata
09:05-09:25	Laboratory experiments of shocks and magnetic reconnections (invited)	Yasuhiro Kuramitsu et al.
09:25-09:45	Magnetic twist: a source and property of space weather	Joern Warnecke et al.
09:45-10:00	Coronal magnetic topologies and dynamics of interplanetary electrons	Chuan Li et al.

#### Session VII: Perspectives of the star-planet relations, part 2 (Friday, Aug. 31, 10:30-12:30)

Chairs: A. Chian, G. Qin, and N. Vilmer

Time	Title	Speaker
10:30-10:50	Particle acceleration and transport in the Heliosphere (invited)	Gang Li
10:50-11:10	Dispersive Alfvénic turbulence in solar-terrestrial relations	Yuriy Voitenko and Johan
		De Keyser
11:10-11:30	Signatures of Coronal Mass Ejections in the Heliosphere (invited)	Nat Gopalswamy
11:30-11:50	Are CMEs really mass motions? (invited)	Peng-Fei Chen
11:50-12:10	CMEs and the buildup of magnetic flux in the Heliosphere	David Webb et al.
12:10-12:30	Perspective of future space- and ground-based projects for solar observations in China (invited)	Yihua Yan
	Closing	SOC chairs