Parker Solar Probe

Solar Working Group Meeting #18 – Nov. 20-22, 2019

Caltech Campus
Hameetman Auditorium, Cahill Building
1216 East California Blvd, Pasadena, CA 91125

Meeting Agenda – Nov. 20, 2019

Sessions	Contributions	Speakers	Time Allocations (minutes)	Clock
Opening, Project Status and Overview After the First three Orbits	Welcome and Logistics	N. Raouafi M. Wiedenbeck	**5**	8:00-8:05
	NASA/Heliophysics Division Update & Parker Silver Medal Team Award	Nicky Fox	**25**	8:05-9:00
	Project Status Update	Patrick Hill	**15**	9:00-9:15
	Project Science Update	Nour Raouafi	**15**	9:15-9:30
	System Engineering & Operations	Robin Vaughan	**20**	9:30-9:50
	Dust Analysis	Doug Mehoke	**20**	9:50-10:10
	Data Public Release	Lan Jian	**15**	10:10-10:25
	Solar Orbiter	Teresa Nieves	**10**	10:25:10:35
BREAK			**15**	10:35-10:50
Science Investigations: Status and Overview After the First Three Orbits	ISΘIS	D. McComas	**25**	10:50-11:15
	WISPR	R. Howard	**25**	11:15-11:40
	FIELDS	S. Bale	**25**	11:40-12:05
	SWEAP	J. Kasper	**25**	12:05-12:30
BREAK			**15**	12:30-12:45
Dust	The Near-Sun Dust Environment: Initial Observations from Parker Solar Probe	Jamey Szalay	**20**	12:45-13:05
	Variability of Inner Heliospheric Dust: Comparing and Contrasting the First Three Solar Encounters	David Malaspina	**20**	13:05-13:25
	PSP/WISPR Observations of the Dust Trail of (3200) Phaethon	Karl Battams	**20**	13:25-13:45
	Interplanetary Dust Observations	Guillermo Stenborg	**20**	13:45-14:05
LUNCH			**85**	**14:05-15:30**

Splinters 15:30-18:30	**Topic**	**Lead(s)**	**Contributors**	Room
	Data Workshop: Orbit 3	J. Szalay	Four Science Teams	370 (capacity 28)
	Large-Scale structures	A. Szabo/K. Korreck		312 (capacity 18)

November 21, 2019

Sessions	Contributions	Speakers	Time Allocations	Clock
Switchbacks, Jets, Polarity Reversals	Sharp Alfvénic Impulses in the Near-Sun Solar Wind	T. Horbury/S. Bale	20	8:00-8:20
	Alfvenic turbulence, switchbacks and solar wind acceleration	M. Velli	20	8:20-8:40
	Localized Magnetic Field Structures and their Boundaries in the Near-Sun Solar Wind from Parker Solar Probe Measurements	Volodya Krasnoselskikh	20	8:40-9:00
	Heat Flux and Switchbacks	Phyllis Whittlesey	20	9:00-9:20
Venus	Venus Flyby 2 Science and Beyond	Shannon Curry	20	9:20-9:40
CMEs, SEPs, and CIRs	**BREAK**		15	9:40-9:55
	Up-Close Imaging of a Pristine CME: I. Remote Sensing Observations	Philip Hess	20	9:55-10:15
	Morphological Reconstruction of a Small Transient Observed by Parker Solar Probe on 2018 November 5	Brian Wood	20	10:15-10:35
	3He-rich Solar Energetic Particle Observations at Parker Solar Probe and Near Earth	Mark Wiedenbeck	20	10:35-10:55
	Seed Population Pre-Conditioning and Acceleration Observed by Parker Solar Probe	Nathan Schwadron	20	10:55-11:15
	Solar Wind Streams and Stream Interaction Regions Observed by Parker Solar Probe with Corresponding Observations at 1 AU	Robet Allen	20	11:15-11:35
	A small "Z-rich" SEP Event (2-3 April 2019) Observed at 0.18 AU by ISOIS/EPI-Lo: Acceleration, Propagation, and Magnetic Connection	Ed Roelof	20	11:35-11:55
	Observations of the 4 April 2019 Solar Energetic Particle Event at Parker Solar Probe	Rick Leske	20	11:55-12:15
	Identification of Magnetic Flux Ropes from Parker Solar Probe Observations during the First Encounter	Lingling Zhao	20	12:15-12:35
	BREAK		15	12:35-12:50
	Analysis of the Internal structure of the Streamer Blow Out Observed by the Parker Solar Probe during the First Solar Encounter	Teresa Nieves-Chinchilla	20	12:50-13:10
	Solar Energetic Particles Produced by a Slow Coronal Mass Ejection	Joe Giacalone	20	13:10-13:30
	Energetic Particle Increases Associated with Stream Interaction Regions	Christina Cohen	20	13:30-13:50
	Properties of Suprathermal He Nuclei Associated with Dispersionless Intensity Enhancements observed by the Parker Solar Probe during the First Two Encounters	Mihir Desai	20	13:50-14:10
	CME -Associated Energetic Ions at 0.23 AU — Consideration of the Auroral Pressure Cooker Mechanism Operating in the Low Corona as a Possible Energization Process	Don Mitchell	20	14:10-14:30
LUNCH			60	14:30-15:30

	Topic	Lead(s)	Contributors	Room
Splinters 15:30-18:30	Alfvénic Switchbacks	M. Velli	Velli, Bale, Chaston, Horbury, Drake, Tenerani	370 (capacity 28)
	WISPR Meeting	A. Vourlidas	WISPR Team	273 (capacity 22)

November 22, 2019

Sessions	Contributions	Speakers	Time Allocations	Clock
Heating & Acceleration of the Solar Wind	Stability in the Inner Heliosphere: Extending Inward from Helios	Kris Klein	20	8:00-8:20
	The Enhancement of Proton Stochastic Heating in the near-Sun Solar Wind	Mihailo Martinovic	20	8:20-8:40
	PSP observations of magnetic reconnection during Encounter 1	Tai Phan	20	8:40-9:00
	Ion Scale Electromagnetic Waves in the Inner Heliosphere	Trevor Bowen	20	9:00-9:20
	Near-fce Plasma Waves in the Solar Wind	David Malaspina	20	9:20-9:40
	Statistics and Polarization of Type III Radio Bursts Observed in the Inner Heliosphere	Marc Pulupa	20	9:40-10:00
	Enhanced Energy Transfer Rate in Solar Wind Turbulence Observed near the Sun from PSP	Riddhi Bandyopadhyay	20	10:00-10:20
BREAK			15	10:20-10:35
Magnetic Field Mapping and HCS Locations	Global MHD modeling of the Solar Corona and Inner Heliosphere during PSP's First Perihelion: Comparison with Observations	Pete Riley	20	10:35-10:55
	Magnetic structure in the first PSP Encounters: PFSS results and multi-spacecraft comparisons from Encounters 1-3	Sam Badman	20	10:55-11:15
	The Heliospheric Current Sheet observed by Parker Solar Probe during Encounter 1	Adam Szabo	20	11:15-11:35
	Exploring solar wind origins and connecting plasma flows from Parker Solar Probe to 1 AU: non-spherical source surface and Alfvénic fluctuations	Olga Panasenco	20	11:35-11:55
	Observations of a Magnetic Island	Mark Linton	20	11:55-12:15
	Modeling Solar Wind and Magnetic Field along the Parker Solar Probe Trajectory with the Multi-Scale Fluid-Kinetic Simulation Suite	Nikolai Pogorelov	20	12:15-12:35
LUNCH			65	12:35-13:40
Turbulence & Instabilities	Evolution and Role of Solar Wind Turbulence in the Inner Heliosphere	C. Chen/S. Bale	20	13:40-14:00
	Measures of Scale Dependent Alfvénicity in the First PSP Encounter	Tulasi Parashar	20	14:00-14:20
	Turbulence Transport Modeling and First Orbit Parker Solar Probe (PSP) Observations	Laxman Adhikari	20	14:20-14:40
	PVI statistics and its relation to heating and energetic particles from PSP	R. Qudsi	20	14:40:15:00
	Observations of enhanced energetic-particle population along intermittent structures near the Sun from PSP. Lead author and presenter	Riddhi Bandyopadhyay	20	15:00-15:20
	Validity of the Taylor Hypothesis During the First Two PSP Orbits	Alexandros Chasapis	20	15:20-15:40
Summary of Splinters				15:40-16:30
Meeting Adjourn				**16:30**

Splinter Sessions

Data Workshop

Description: limited attendance from key members of the four instrument teams to work on issues in the data and foster closer collaborations on projects.
Leads: Jamey Szalay, …
Attendance: S. Bale, J. Kasper D. McComas, R. Howard, N.E. Raouafi,
Room (capacity)**:**

WISPR Team Meeting #3, Nov. 20, 2019, 2:30-6:00pm

Description: Agenda is being formulated. The first half (2:30 – 4 pm) is devoted to WISPR instrument and operations status. The 2nd half is focused on science results and future plans.
Leads: A. Vourlidas, R. Howard
Attendance (15-20 people)**:**
Room (capacity)**: 273**

Alfvénic Switchbacks: Properties & Potential Sources, Nov. 20, 2019, 2:30-6:00pm

Description: Agenda is being formulated. The first half (2:30 – 4 pm) is devoted to WISPR instrument and operations status. The 2nd half is focused on science results and future plans.
Leads: M. Velli
Attendance (15-20 people)**:**
Room (capacity)**: 273**

1. **Room 204 (14)**
   i. **11/20 = 2 pm – 6 pm**
   ii. **11/21 = 9:30 am – 6 pm**
   iii. **11/22 = 7 am – 8 am and 3 pm – 6 pm**

2. **Room 211 (10)**
   i. **11/20 = 7 am – 3 pm and 4 pm – 6 pm**
   ii. **11/21 = 7 am – 1 pm**
   iii. **11/22 = 7 am – 11 am and 12 pm – 6 pm**

3. **Room 273 (22)**
   i. **11/20 = 2:30 pm – 6 pm**
   ii. **11/21 = 3 pm – 6 pm**
   iii. **11/22 = 7 am – 1 pm and 3 pm – 6 pm**

4. **Room 370 (28)**
   i. **11/20 = 7 am – 7 pm**
   ii. **11/21 = 7 am – 10:30 am and 1:30 pm – 4 pm**
   iii. **11/22 = 7 am – 10:30 am**

5. **Room 312 (18)**
   i. **11/20 = 7 am – 7 pm**
   ii. **111/22 = 7 am – 3 pm**

Meeting Logistics

Location

The SWG (Nov. 20-22, 2019 will be at Hameetman Auditorium, Cahill Building, Caltech Campus. The address of the building is 1216 East California Blvd, Pasadena, CA 91125. A map can be found at https://sppgway.jhuapl.edu/docs/SWG/20191120/Caltech_Map.pdf

Parking

https://sppgway.jhuapl.edu/docs/SWG/20191120/Caltech_Parking_Map_Calif_Structure.pdf

Meals and Breaks

At Caltech, the standard place to get lunch is the Chandler Café. There are also a few other options (other, smaller lunch places on campus, places to buy a sandwich for take-out, one lunch truck, and some commercial places that require a walk of ~0.5 mile).

Poster Session

TBC.

Internet Access

TBC.

Remote Access

A WebEx will be circulated to the SWG mailing list for those who cannot attend in person.

Emergency Contacts

If you have a question or problem during the visit feel free to contact Mark Wiedenbeck (mark.e.wiedenbeck@jpl.nasa.gov) or Deborah Miles (Debby) (dmiles@caltech.edu).