

SMILE SST #12 and Consortium #6 Meeting

Banff, Canada - 29-31 October, 2018

Monday October 29th -- Science Study Team meeting (open to all Consortium meeting participants)

Breakfast (7:00am- 8:30am): Crave Mountain Grill

Morning #1 (8:30am) [Chair: Eric Donovan] Presentations 12mins each + 3 questions/discussion

- Welcome – Eric Donovan/Éric Laliberté/Graziella Branduardi-Raymont/Chi WANG/Philippe Escoubet
- Minutes and action items from last SST – Philippe Escoubet
- ESA study status – David Agnolon
- China study status – Jing Li/Jian-Hua ZHENG
- Spacecraft status – Hua-Wang LI/Jin-Pei YU/Zhi-Ming CAI/Na MENG
- Payload status, ESA side – Walfried Raab
- Project status, CSA side – Marko Adamovic/Oleg Djazovski

Morning Break (10:15 – 10:30am)

Morning #2 (10:30am) [Chair: Walfried Raab]

- Payload status overview
 - LIA – Ling-Gao KONG/Lei DAI/Dihiren Kataria/Matthieu Berthomier
 - MAG – Lei Li/Jin-Dong WANG
 - SXI – Steve Sembay
 - UVI – Eric Donovan/Emma Spanswick

Lunch (12:00- 1:00pm): Summit

Afternoon #1 (1:00-3:00pm) [Chair: Emma Spanswick]

- Science requirements – Philippe Escoubet
- Orbit differences CAS – ESOC - Philippe Escoubet/Xiaocheng ZHU
- SMILE data rights and rules – All
- SMILE red book - Philippe Escoubet
- Orbits, views, efficiencies – Andy Read

Afternoon Break (3:00-3:30pm)

Afternoon #2 (3:30-5:00pm) [Chair: Philippe Escoubet] Pres. 12mins each + 3 questions/discussion

- Chinese Ground Support System – Fuli MA
- Chinese ground segment: Science Application System – Lei DAI
- ESA science operations - Harri Laakso
- Ground-Based and Additional Science Working Group report– Jenny Carter
- In-situ Working Group report - Lei DAI

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Tuesday October 30th

Breakfast (7:00am- 8:30am): Crave Mountain Grill

Morning #1 (8:30am) ----- SST Overflow (data products and performance) [Chair: Philippe Escoubet]

- Predicting the performance and current testing status of the SXI CCD's at the Open University [Matthew Soman, Steven Parsons, George Randall]
- UVI – coating development [Jerome Loicq]
- Outreach Working Group report - Graziella Branduardi-Raymont
- Data format working group – Harri Laakso
- Calibration Discussion?
- AOB: Date of next meeting

Morning Break (10:15 – 10:45am)

Morning #2 (10:45am) ---- SMILE Consortium Meeting Kick-off [Chair: Eric Donovan]

- Welcome – Eric Donovan
- Science Overview
- History of Auroral Science in Canada – Eric Donovan

Lunch (12:00- 1:00pm): Summit

Afternoon #1 (1:00-2:30pm) ---- Focus on Dayside and Convection [Chair: Lei Dai]

- Determining field-aligned currents from ionospheric radars and comparisons with AMPERE measurements [Kathryn McWilliams] – INVITED
- Detailed convection measurements in the polar-cap [Rob Gillies]
- Dipole tilt effect on the cusp location: Cluster observation [Jianku Shi]
- Current carriers at the magnetopause measured by Cluster and MMS [Malcom Dunlop]
- Optical Field Line Resonances [Megan Gillies]

Afternoon Break (2:30-3:00pm)

Afternoon #2 (3:00-5:00pm) ---- SMILE modelling working group

- Brief introduction of MWG by Hyunju Connor
- A brief summary on modelling the X-ray emissions from the geospace environment [Tianran Sun]
- Reconstructing Magnetopause Surface from SMILE soft X-ray images [Hyunju Connor]
- Deriving the 3D Magnetopause from a 2D X-ray image [Tianran Sun]
- Empirical magnetosphere models with the SXI instrument simulator [Steve Sembay]
- Calculations of X-ray image and finding magnetopause position with BATSRUS model [Andrey Samsonov]
- From Q to X, the Broad-Band Charge-Exchange Production Factor for Hydrogen [Kip Kuntz]
- Discussion of grand modelling challenge

Adjourn

Wednesday October 31st

Breakfast (7:00am- 8:30am): Crave Mountain Grill

Morning #1 (8:30am) ----- Focus on Simulation [Chair John Manuel]

- *Space Weather Science and Couplings to SMILE* [Consuelo Cid – remote presentation from Spain]
- Variations of the magnetopause distance during the last five solar cycles [Andrey Samsonov]
- MHD simulations of the OCB accounting for global scale convection and self-consistent magnetosphere-ionosphere coupling [Robert Rankin] -- INVITED
- Vlasiator: Understanding near-Earth space in 6D [Maxime Grandin]

Morning Break (10:00 – 10:30am)

Morning #2 (10:30am) ---- Focus on Ground-Based [Chair: Jenny Carter]

- Night-side Magnetospheric Science Opportunities [Rumi Nakamura]
- Magnetospheric-ionospheric coupling under northward IMF [Jenny Carter]
- Inferring Cross-Meridian Currents from Electrojet Inversion [Martin Connors] -- INVITED
- Optical identification of the polar cap boundary [Bea Gallardo-Lacourt]
- Ballooning campaign coordinated with SMILE [Tao Chen]
- Optical and radar support of satellite missions in Northern Scandinavia [Tima Sergienko]

Lunch (12:00- 1:00pm): Summit

Afternoon #1 (1:00-3:00pm) ---- Focus on Storm and Substorms [Chair: Jing Li]

- The Wide-field Auroral Imager onboard FY-3D and the preliminary results [Li Jiawei]
- Where is the Magnetopause? [Frances Staples]
- Substorm Injections and Pulsating Aurora: SMILE and TReX [Bing Yang]
- Comparison between proton and electron aurora during substorms [Jun Liang]
- Substorms and SMILE [Eric Donovan]
- S.T.E.V.E. [Bea Gallardo-Lacourt]
- Auroral Effects on GNSS: Space Weather Products and SMILE [Emma Spanswick]

Afternoon Break (3:00-3:30pm)

Afternoon #2 (3:30-5:00pm) ---- Discussion [workshop style – led by Eric Donovan]

Adjourn