SMILE SST #13 and Consortium meeting #7 Vienna International Hotel 12-16 May 2019

<u>Agenda</u>

Sunday, 12 May 2019: SMILE modelling working group meeting

Meeting place: the Second Floor, Mozart Hall(莫扎特厅)

Monday, 13 May 2019 Start 08:30

Science Study Team meeting (open to all Consortium meeting participants)

Meeting place: the Second Floor, Beethoven Hall(贝多芬厅)

Morning #1 (8:30am) [Chair: WANG Chi] Presentations 12mins + 3 questions /discussions

- 1. Welcome WANG Chi /WANG Cheng (Secretary General, China Space Foundation)
- 2. Welcome-Graziella Branduardi-Raymont/Philippe Escoubet
- 3. SST -> Science Working Team Philippe Escoubet
- 4. Minutes and action items from last SST Philippe Escoubet
- 5. ESA project status David Agnolon
- 6. Payload module design overview Chris Runciman
- 7. CAS project status LI Jing
- 8. Spacecraft design overview and status CHEN Wen/ZHU Xiaocheng
- 9. Payload status, ESA side Walfried Raab

Group Photo: first floor (ground floor) at the main entrance of the hotel

Morning Break (11:00 - 11:15am)

Morning #2 (11:15am) [Chair: Walfried Raab]

- 10. Payload status from PIs
 - LIA Ling-Gao KONG/Lei DAI/Dihiren Kataria/Matthieu Berthomier
 - MAG Lei LI/Jin-Dong WANG
 - SXI Steve Sembay
 - UVI-Marko Marko Adamovic, Oleg Djazovski, WANG Yongmei, WANG Tianfang, Jérôme Loicq

Lunch (12:15- 1:15pm): 1st floor

Afternoon #1 (1:30-4:00pm) [Chair: Graziella Branduardi-Raymont]

- 11. Science requirements Philippe Escoubet
- 12. ESA advisory structure feedback on redbook Philippe Escoubet
- 13. Orbit analysis: 70° AoP 282 vs 287.5 ZHU Xiaocheng
- 14. Orbit files delivery: stop GSE format? ZHU Xiaocheng
- 15. Orbits (70° AoP 282 vs 287.5), views, efficiencies Andy Read (Webex 15:30-16:00)

Adjourn 16:00, SWT executive session 16:00-17:30

Tuesday, 14 May 2019 [Talks to be 15 min long, including questions] Start 08:30

Morning #1 (8:30am) ---- [Chair: Jenny Carter]

- 16. UVI end-to-end simulator and operations centre development status by UofC- Eric Donovan
- 17. Chinese Ground Support System MA Fuli
- 18. Chinese ground segment: Science Application System DAI Lei
- 19. ESA science operations Harri Laakso
- 20. Ground-Based and Additional Science Working Group report- Jenny Carter
- 21. In-situ Working Group report DAI Lei

Morning Break (10:00 - 10:15am)

Morning #2 (10:15—11:30am) ---- [Chair: Philippe Escoubet]

- 22. Outreach Working Group report Graziella Branduardi-Raymont
- 23. Data format working group Harri Laakso
- 24. Modeling working group -SUN Tianran / Hyunju Connor
- 25. SMILE data rights and rules, and authorship of papers/presentations Philippe Escoubet
- 26 AOF
 - SMILE community directory Philippe Escoubet
 - DONM

End 11:30 on 14 Tuesday May

Lunch (11:30-12:30pm):

Afternoon #1 (12:30-2:45pm)---Focus on magnetosphere [Chair:SUN Tianran]

- 27. Cluster-MMS-THEMIS conjunctions in the magnetosheath and plasmasheet and preparation for SMILE -Philippe Escoubet
- 28. The statistical estimation of X-ray emissivity in the cusp and equatorial magnetosheath as a function of solar wind flux –Andrew Peter Dimmock
- 29. Magnetosheath parameters along SMILE trajectory from MHD simulations--Andrey Samsonov
- 30. Magnetopause Crossings and also SWARM results- Malcolm Dunlop
- 31. Some Properties of Charged Particles in the Cusp Region-SHI Jiankui
- **32.**On the Use of Magnetopause Models when Estimating Radiation Belt Electron Loss-Frances Staples
- 33. Solar wind modulation of flux transfer events- Iain Jonathan Rae
- 34. Remote sensing of the substorm onset instability- Iain Jonathan Rae
- 35. Examining Local Time Variations in the Gains and Losses of Open Magnetic Flux During Substorms.—Michaela Mooney

Break (2:45- 3:00pm):

Afternoon #2 (3:00-5.00pm)---Ionosphere and Ground Based [Chair: DAI Lei]

- 36. Invited Presentation: New opportunities for high-latitude ionosphere dynamics research in the era of SMILE-Zou Shasha
- 37. Large-scale polar cap aurora and their linkage with SMILE mission—ZHANG Qinghe
- 38. Geoelectromagnetics Characterizing Ground Response in Eastern North America Martin Connors
- 39. Solar Storm and the Variation of Space Electric Field near the Earth Surface—CHEN Tao
- 40. Magnetospheric Multiscale Observations of ULF Waves and Correlated Low Energy Ion Monoenergetic Acceleration–LI Bin

- 41. Relation between magnetic reconnection and cross polar cap potential during sudden enhancement of solar wind pressure - Hyunju Connor
- 42. A Global Time-Dependent Model of Magnetosphere-Ionosphere Coupling with Solar Wind Driving-Robert Rankin
- 43. U.S. Participating Investigator Team Report and Plan- Syau-Yun Hsieh

Splinter meeting(14 Tuesday May 13:00-15:30)

- Interface and actions discussion with CCC-Christopher Runciman Meeting place: the Second Floor, Mozart Hall(莫扎特厅)

Wednesday 15 May: Consortium meeting

Splinter meeting:

- co-engineer meeting PF-PLM-Christopher Runciman (9:00-12:00) Meeting place: the Sixth Floor, B Conference Room (B 会议室)
- PA meeting, IAMC, ESA, CSA, NSSC-Massimo Falcolini (9:00-12:00) Meeting place: the Second Floor, Mozart Hall(莫扎特厅)
- pre-PDR meeting for the UVI- Marko Adamovic (13:00-17:00)
 Meeting place: the Second Floor, Mozart Hall(莫扎特厅)
- any others

Thursday 16 May: ESAC/CSSDC meeting on SMILE data archiving (9:00-12:00)

Meeting place: the Second Floor, Mozart Hall(莫扎特厅)

Meeting WebEx Information

Day 1 (13th May):

Webex: <a href="https://smile-ch.webex.com.cn/mw3200/mywebex/default.do?service=1&siteurl=smile-ch-en&nomenu=true&main_url=%2Fmc3200%2Fe.do%3Fsiteurl%3Dsmile-ch-en%26AT%3DMI%26EventID%3D38196657%26UID%3D1005310317%26Host%3DQUhTSwAAAAJUFPa91-JiymKkYeloyQqLUAinK8RJibtdR7CAKqCmkD8WJAlLfRSzHtZQxqPpnCqJDH_GHRfjDahCeDToc1r0%26FrameSet%3D2%26MTID%3Dm 4765debfaa71d517049aaded8f23659d

Meeting number (access code): 186 549 672

Meeting password: SMILE1234!

SMILE Modelling Working Group May. 12, 2019, in Xi'an

Meeting Agenda

Morning session on May. 12 (9:00-13:00)

Topic: MHD/hybrid/Vlasov simulations of X-ray emissions

Chair: Tianran Sun

9:00 – 09:10 Brief overview about the Modelling Working Group – Tianran Sun

09:10 – 09:40 Comparison of MWG simulations for artificial and real events – Andrey Samsonov

09:40 - 10:10 Reconnection outside the box: magnetopause structure from exhaust observations – Jef Broll (webex)

10:10 – 10:40 Tracing the magnetopause location from the soft X-ray observations: tangential direction approach – Hyunju Connor

10:40 - 11:00 coffee break

Chair: Andrey Samsonov

11:00-11:30 Boundary detection in three dimensions with application to the SMILE mission – Anders Jorgensen

11:30 – 12:00 Deriving the magnetopause position from an X-ray image – Tianran Sun

12:00 – 12:30 First results on X-ray emissivity in the magnetosheath with the Vlasiator global hybrid-Vlasov

model – Maxime Grandin (webex)

12:30 – 13:00 Hybrid simulations of the solar wind charge exchange X-ray emission in the near-Earth environment – Dimitra Koutroumpa (webex)

13:00 - 14:00 Lunch

Afternoon session on May. 12 (14:00-17:30)

Topic: X-ray photon counts and satellite observations

Chair: Hyunju Connor

14:00 – 14:30 SXI SIM: A simulator for the SMILE SXI instrument – Steve Sembay

14:30-15:00 From Int N p N n V to Counts; Current and Future – Kip Kuntz

15:00 – 15:30 Applications of Charge-Exchange in Astrophysics – Li Ji

15:30 – 16:00 coffee break + picture

Chair: Steve Sembay

 $16:00-16:30\ Relation\ or\ non-relation\ between\ solar\ wind\ protons\ and\ highly\ ionized\ ions\ -Phillippe\ Escoubet$

16:30 – 17:00 X-ray emission, and magnetopause & cusp structures, as observed using SMILE orbits – Andy

Read (webex)

17:00-17:30 The statistical properties of the dayside magnetosheath for the SMILE modelling challenge conditions – Andrew Dimmock