Swarm 15th DQW & 1st NanoMagSat Symposium Agenda

6 - 10 October 2025, Oslo, Norway

Webex link https://esait.webex.com/esait/j.php?MTID=m98d60ecf5a2472fd2c0b29c09998107d

Day 1	**Monday 6/10/2025**		
	Room	**Morgenstjerne**	
09:00	09:30	**Registration**	
09:30	10:00	**Welcome**	
		Session 1: Mission overview and future prospects	**Chairs: Anja Strømme / Nils Olsen**
10:00	10:20	Swarm mission:current status	Anja Strømme
10:20	10:40	Swarm DISC - Present and Future	Nils Olsen
10:40	11:00	Swarm FOS Status	Filippo Inno
11:00	11:20	Coffee break	
11:20	11:40	Swarm Data quality status	Leda Qamili
11:40	12:00	Constellation status of the Swarm mission	Detlef Sieg
12:00	12:30	**Open Discussion on the future of Swarm**	
12:30	**14:00**	**Lunch**	
		Session 2: L1B data quality status / 1	**Chairs: Roberta Forte / Elisabetta Iorfida**
14:00	14:20	Swarm Electric Field Instrument and Processor: status and updates	Roberta Forte
14:20	14:40	Swarm LP and Faceplate	Stephan Buchert
14:40	15:00	Update on EFI Thermal Ion Imager measurement performance	Johnathan Burchill
15:00	15:20	Plasma satellite environment disturbances revealed by so-called Te spike trains	Matthias Foerster
15:20	15:40	Coffee break	
15:40	16:00	Swarm Accelerometer Level 2 Data Processing	Sergiy Svitlov
16:00	16:20	Status of Swarm GPS receiver and L2 orbit and density products	Jose van den IJssel
16:20	16:30	**Discussion and Recommendations**	
17:00	**20:00**	**Ice Breaker & poster session at Oslo Kunst Forening**	

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Day 2	**Tuesday 7/10/2025**		
	Room	**Morgenstjerne**	
		Session 3: L1B data quality status /2	**Chairs: Vincenzo Panebianco / Jonas Bregnhøj Lauridsen**
09:00	09:20	Swarm Magnetic Suite: Instruments overview and Processor status	Vincenzo Panebianco
09:20	09:40	Latest Results on VFM Calibration and dB_Sun Investigations	Lars Tøffner-Clausen
09:40	10:00	On the Swarm Y component calibration issue	Gauthier Hulot
10:00	10:20	Status of ASM Burst and Whistler data	Robin Deborde
10:20	10:40	Noise Features in Swarm ASM Burst-Mode and Updates on the World Data Centre for Geomagnetism	Adam Emsley
10:40	10:50	**Discussion and Recommendations**	
10:50	11:10	Coffee break	
		Session 4: Swarm-based sevices	**Chairs: Daria Kotova/ Matt Taylor**
11:10	11:15	Swarm visualization and data processing tools: DISC view (or overview)	Nils Olsen
11:15	11:30	Swarm and related data in the Timeline Viewer, current status and future plans	Eelco Doornbos
11:30	11:45	SwarmPAL and the Python for Swarm ecosystem	Ashley Smith
11:45	12:00	Swarm VirES and VRE Services - 2025 Update	Martin Paces
12:00	12:15	Swarm Data Fusion Toolbox: initial results	Margot Decotte
12:15	12:30	Using GeospaceLAB to support Swarm mission	Lei Cai
12:30	12:40	**Discussion and Recommendations**	
12:40	**14:00**	**Lunch**	
		Session 5: Swarm-based L2 data products and services	**Chairs: Chris Finlay /Ewa Slominska**
14:00	14:20	Statistics and model of equatorial plasma irregularities occurrences from magnetic and electron density data	Claudia Stolle
14:20	14:40	Modelling Swarm Non-gravitational Accelerations through Surface Degradation Simulations	Sabin Viorel Anton
14:40	15:00	Enhancements to the L2 EEJ product	Patrick Alken
15:00	15:20	Extending the capabilities of the TFA toolbox	Georgios Balasis
15:20	15:30	**Discussion and Recommendations**	
15:30	16:00	Coffee break	
		Session 6: Swarm4Ionosphere	**Chairs: Jesper Gjerloev / Arnaud Chulliat**
16:00	16:20	Modeling field-aligned currents and their poloidal magnetic field	Karl Laundal
16:20	16:40	Ionospheric F-region currents estimated from Macau Science Satellite-1 and Swarm satellite magnetic data	Juyuan Xu
16:40	17:00	Towards a physically constrained empirical model of climatological variations of ionospheric F-region magnetic field and electric currents	Martin Fillion
17:00	17:20	Detecting Magnetic Signatures of Traveling Ionospheric Disturbances	Yosuke Yamazaki
17:20	17:40	Joint Analysis with Swarm, Cluster and Ground Stations: Ionospheric Current System and GICs	Malcolm Dunlop
17:40	17:50	**Discussion and Recommendations**	

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Day 3	**Wednesday 8/10/2025**		
	Room	**Morgenstjerne**	
		Session 7: Swarm Science and Projects	**Chairs: Astrid Maute/ Martin Fillion**
09:00	09:20	Recent Secular Acceleration Observed by Swarm and Its Impact on WMM2025 and IGRF-14 Forecasts	Arnaud Chulliat
09:20	09:40	The impact of MSS vector data on the recent secular variation in the CHAOS-8 model	Clemens Kloss
09:40	10:00	Results from the Swarm for Ocean Dynamics Project	Chris Finlay
10:00	10:20	Ocean-induced magnetic field: Spatio-temporal characteristics and sensitivity to ocean models	Jakub Velímský
10:20	10:40	Results from the Swarm QUID-REGIS project	Jaroslav Urbář
10:40	11:00	Coffee break	
11:00	11:20	JOIN project - Joule heating effects on ionosphere-thermosphere coupling and neutral density	Heikki Vanhamäki
11:20	11:40	Developments on FAC density estimations with Swarm	Adrian Blagau
11:40	12:00	Improving Equatorial Electrojet Variability in Numerical Models Using Magnetometer Data	Astrid Maute
12:00	12:20	The Ionosphere-Thermosphere system during geomagnetic storm at mid and low latitude	Loredana Perrone
12:20	12:40	Recent research results using IPIR L2 data product	Wojciech Miloch
12:40	12:50	**Discussion and Recommendations**	
12:50	**14:30**	**Lunch**	
		Visiting Fram Museum	

19:00	**Dinner at Nedre Foss Gård**

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Day 4	**Thursday 9/10/2025**		
	Room	**Morgenstjerne**	
		Session 8: Multimission synergies	**Chairs: Claudia Stolle/ Jiaxuan Zhang**
09:00	09:20	CASSIOPE/e-POP new data products	Andrew Howarth
09:20	09:40	MagQuest Update	Mike Paniccia
09:40	10:00	ESA Swarm: Resolving outstanding problems in M-I coupling	Jesper Gjerloev
10:00	10:20	Progress in Magnetic Data Processing and Data Quality Assessment for the MSS-1 Mission	Jiaxuan Zhang
10:20	10:40	Preliminary results from the CSES-02 magnetic field measurement	Yanyan Yang
10:40	11:00	Coffee break	
11:00	11:20	The preliminary performance of ionospheric ion parameters observed by CSES-02 satellite	Dapeng Liu
11:20	11:40	Geomagnetic Virtual Observatories from the Macau Science Satellite mission	William Brown
11:40	12:00	Analysis of neutral mass density scale height using the measurements from two coplanar LEO satellites	Lei Cai
12:00	12:20	Multi-constellation geomagnetic field analysis of the May 2024 magnetic storm and its interpretation for electrical mantle conductivity	Erwan Thebault
12:20	12:30	**Discussion and Recommendations**	
12:30	**12:40**	**Overall recommendation and closing remarks**	
12:40	**14:30**	**Lunch**	
		Session 9: NanoMagSat Programmatic, Design and Payload	**Chairs: Gauthier Hulot/Florian Deconinck**
14:30	14:55	NanomagSat science goals and mission requirements	Gauthier Hulot
14:55	15:15	NanoMagSat in the context of the ESA Scout framework, the ESA perspective	Jean-Pascal Lejault
15:15	15:35	MagSat programmatic and design update	Florian Deconinck
15:35	15:55	From Swarm to NanoMagSat, evolutions of the magnetic payload	Jean-Michel Leger
15:55	16:25	Coffee break	
16:25	16:45	NanoMagSat Star Tracker Payload	Christian Bang Stoltze*
16:45	17:05	NanoMagSat multi-needle Langmuir Probe payload	Espen Trondsen
17:05	17:25	NanoMagSat platform design and GNSS instruments	Nicholas Hwang
17:25	17:45	NanoMagSat boom and optical bench design and stability	Jorge Pinazo *
17:45	**18:00**	**Discussion and Recommendations**	

*remote participant

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Day 5	**Friday 10/10/2025**		
	Room	**Morgenstjerne**	
		Session 10: NanoMagSat Data Processing and End-to-End simulations	**Chairs: Pierdavide Coïsson/Jose van der Ijssel**
09:00	09:20	NanoMagSat MAM/HFM/STR L2 data processing and End-to-End Simulations	Louis Chauvet
09:20	09:40	NanoMagSat m-NLP L2 data processing End-to-End simulations	Lasse Clausen
09:40	10:00	NanoMagSat GNSS L2/L3 data processing and End-to-End simulations	Maximilien Salinas
10:00	10:20	NanoMagSat Precise Orbit Determination (POD)	Jose van der Ijssel
10:20	10:40	**Discussion and Recommendations**	
10:40	11:00	Coffee break	
		Session 11: NanoMagSat Science, Global Magnetic Fields	**Chairs: Chris Finlay/Louis Chauvet**
11:00	11:15	The NanoMagSat public website	Audrey Le Reun
11:15	11:30	Using NanoMgSat to recover fast core field signals	Patrick Alken
11:30	11:45	Modelling rapid ionosphere-magnetosphere variations with NanoMagSat and Swarm for space weather applications	Alexander Grayver
11:45	12:00	NanoMagSat and the ocean circulation magnetic signal	Chris Finlay
12:00	12:15	Modeling Ionospheric Sq magnetic variations from NanoMagSat data	Arnaud Chulliat
12:15	12:30	Plans for recovering the EEJ/EEF with the help of NanoMagSat	Patrick Alken
12:30	12:45	Recovering oceanic tidal magnetic signals, how can NanoMagSat help	Alexander Grayver
12:45	13:00	**Discussion and Recommendations**	
13:00	**14:30**	**Lunch**	
		Session 12: NanoMagSat Science, Ionospheric Environment	**Chairs: Lasse Clausen/Lucas Schreiter**
14:30	14:45	NanoMagSat TEC Level 3 product for science applications	Lucas Schreiter
14:45	15:00	NanoMagSat ionospheric measurements from GNSS radio occultations and whistlers	Pierdavide Coïsson
15:00	15:15	Monitoring and characterising ionospheric meter-scale plasma density structures with NanoMagSat	Yaqi Jin
15:15	15:30	Additional Science from the NanoMagSat Star Tracker	John Leif Jørgensen*
15:30	15:45	Coffee break	
15:45	17:00	**General Discussion and End of Symposium**	

*remote participant

Poster session at Oslo Kunst Forening

Poster board Nr.	Title	Author
1	Observatory data during and beyond the Swarm era	Callum Watson
2	Towards multi-source 3-D inversion of Swarm satellite data in terms of mantle electrical conductivity	Jakub Velímský
3	Effective ion masses estimated by Swarm EFI devices	Matthias Foerster
4	Unusual high frequency Pc1 pulsations	Ewa Slominska
5	The Swarm-derived family of geomagnetic activity indices	Constantinos Papadimitriou
6	Applying Machine Learning to Swarm Satellite Data for Modeling High-Latitude Ionospheric Electrodynamics	Levan Lomidze
7	Characteristics of Non-polar Cross-Track Ion Drift from Swarm TII Measurements.	Alexei Kouznetsov
8	Swarm L2 Ionospheric Indices NeGIX and TEGIX: Overview, Developments, and Challenges Towards FAST Implementation	Juan Andrés Cahuasquí
9	Performance assesments of the Swarm VIP-Dynamic models	Jaroslav Urbář
10	Electron density depletion in the high- and mid-latitude ionosphere during the super storm in May 2024	Yaqi Jin
11	Combining the physics-based TIEGCM and magnetic data to represent the dynamics of the spatially three-dimensional ionospheric electric currents during geomagnetic storms	Martin Fillion
12	Swarm field-aligned currents conjugate to Cluster bursty bulk flow events	Octav Marghitu
13	Comparisons of Field-Aligned Currents under CME and CIR Regimes	Yimin Han
14	FACs Evolutions during the May and October 2024 Events: Comparisons between Observations and Models	Maosheng He
15	A model of the magnetic field generated in the magnetosphere derived from magnetic data	Yalei Shi
16	Automated Detection of Equatorial Plasma Bubbles from the Magnetic Measurements of Macau Science Satellite-1 Using Machine Learning	Xinyi Rang
17	AMARETTO - opticAlly puMped mAgnetometers foR EarTh observaTiOn	Guram Kervalishvili
18	Swarm & SMOS VTEC observations	Lorenzo Trenchi
19	Swarm PDGS status and evolutions	Giulia Lovati