

Observatory Days 2020

8.-10. January 2020

Sodankylä Geophysical Observatory

Programme

Wednesday, 8th January, afternoon

12:00		LUNCH (own cost)
13:00	Th Ulich	Welcome & Practicalities
13:05	E Tanskanen	Opening of 11th Observatory Days Session 1 (Chair Jyrki Manninen)
13:10	E Tanskanen	Aurora Dancing in the Rhythm of Space Storms
13:25	R Hynönen	Seasonal and latitudinal variation of geomagnetic pulsations
13:40	O Kärhä	Scandinavian Magnetometer Array recordings and the digitisation method
13:55	J Envall	Miniaturised magnetometer payloads onboard UAV's and small satellites
14:10	Y Sakharov	Large GIC in Northwest of Russia
14:25	J Nevalainen	Modelling of airborne Full Tensor Magnetic Gradiometry
14:40		COFFEE
		Session 2 (Chair Eija Tanskanen)
15:15	B Kozelov	Current state of PGI observations, nearest plans and collaboration with SGO
15:30	S Nikbakhsh	Solar cycle variation of simple and complex active regions
15:45	A Binios	Predicting the Sun's Near Side Activity Based on Far Side Observations
16:00	M Grandin	Hybrid-Vlasov simulation of auroral proton precipitation in the cusps: Comparison of northward and southward interplanetary magnetic field driving
16:15	P T Verronen	Radiation Belt Electron Impact on Polar Atmospheric Ozone: a Simulation Study on Importance of Magnetic Local Time Dependency
16:30	J Jia	MeMO: Ozone retrieval using Ku-band radiometer
16:45	R Kivi	Long term ozone observations at Sodankylä
17:00		DISCUSSION
17:30		End of Session
19:00		Conference Dinner (included)



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Thursday, 9th January, morning

Session 3 (Chair Antti Kero)

- 08:30 Th Ulich SGO Observations – Towards a Nordic Observatory Roadmap
08:45 T Raita Geomagnetic observations at SGO
09:00 S Poluianov Cosmic ray measurements by SGO: status report
09:15 I Usoskin Extreme solar events and their effects
09:30 N Thomas Statistical survey of Energetic Electron Precipitation events using coordinate observations from Arase and ground Riometer network
09:45 **DISCUSSION**

10:00 **COFFEE**

Session 4 (Chair Thomas Ulich)

- 10:30 S Kirchner Mega-constellations vs. Astronomy - International Law and the right to see the stars (via Zoom)
10:45 K Kauristie Finnish interests in the ESA Space Safety Program (via Zoom)
11:00 A Mishev Application of the global NM network for operational space weather purposes
11:15 R Leussu NOSWE - The Norwegian Centre for Space Weather
11:30 A Amor Spacefaring nations: space threats and resources
11:45 **DISCUSSION**
12:00 **Group Photo**

12:05 **LUNCH** (included)

POSTERS

- M Khansari The effects of Aerosols and solar activity on the Global Atmospheric Electrical Circuit in a changing Climate
N Partamies Studies of energetic particle precipitation at UNIS
E L Macotela Ground-based observation of banded-structure VLF emissions in the 5-39 kHz frequency range at subauroral latitudes

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Session 5 (Chair Anita Aikio)

- 13:30 I Virtanen On incoherent scatter observations with EISCAT and KAIRA
- 13:45 H W Tesfaw Bayesian Filtering Incoherent Scatter Analysis
- 14:00 C-F Enell EISCAT 3D data and metadata
- 14:15 M Lehtinen New software radio and FPGA based general purpose radio signal sampler introduction
- 14:30 M Fletcher Superb scientific data by mitigation of environmental radio interference
- 14:45 T Tallkvist Software defined scientific radio instruments for harsh conditions

15:00 **DISCUSSION**

15:15 **COFFEE**

Session 6 (Chair Pekka Verronen)

- 15:45 S-I Oyama Diversity of the auroral-subauroral ionosphere and thermosphere during very low Kp condition
- 16:00 N Ellahouny Characteristics of an HSS-driven magnetic storm in the high-latitude ionosphere; A case study of 14th of March 2016 storm
- 16:15 M N Pedersen Impact of Solar Wind High Speed Streams on Ionospheric Current Systems
- 16:30 H Vanhamäki Field-aligned and horizontal currents in the Northern and Southern hemispheres from the Swarm satellite
- 16:45 E Sarkar Temperature estimation at meteor peak height over Sodankylä
- 17:00 A Kozlovsky Occurrence and altitude of the non-specular long-lived meteor trails during meteor showers
- 17:15 G E Sambarov Analysis of the dynamical evolution of the Quadrantid meteoroid stream

17:30 **DISCUSSION & CLOSING**

17:45 End of Session



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Friday, 10th January

09:00 National EISCAT Co-ordination Committee Meeting
(Chair Anita Aikio)
Everyone is welcome to participate.

Preliminary Agenda

1. Overview Reports
 1. EISCAT Council meetings in 2019 (Anita Aikio)
 2. EISCAT SAC meetings in 2019 (Thomas Ulich)
2. EISCAT Activities in 2020
 1. Satellite coordination, e.g. ARASE, SWARM
 2. EISCAT_3D Users Meeting (Uppsala, 12-13 May 2020)
 3. other
3. EISCAT_3D
 1. EISCAT_3D Finland status and plans (Thomas Ulich & Jyrki Manninen)
 2. Long-term strategy for EISCAT-related research in Finland
4. Any Other Business

COFFEE will be served during the meeting at 10:30.

12:00 **LUNCH** (own cost)