

Observatory Days 2019

9.-11. January 2019

Sodankylä Geophysical Observatory

Programme

Wednesday, 9th January, afternoon

12:00		LUNCH (own cost)
13:00	Th.Ulich	Welcome & Practicalities
13:10	E Turunen	Opening of 10th Observatory Days
		Session 1 (Chair Esa Turunen)
13:30	E Tanskanen	The Sun–Earth magnetic coupling: seasonal and solar cycle variability
13:45	J Envall	Small magnetometer for aerial magnetic surveys
14:00	I Usoskin	Progress and prospective of cosmic-ray studies at SGO
14:15	A Mishev	GLE 72 on 10 September 2017 and related space weather phenomena
14:30	S Poluianov	Dome C neutron monitors for studies of the cosmic ray multiplicity
14:45		DISCUSSION
15:00		COFFEE
		Session 2 (Chair Thomas Ulich)
15:30	S Kirchner	International Law and the Dawn of the Age of Asteroid Mining (solicited, via video link)
15:50	K Kauristie	Space Weather advisories for civil aviation by the PECASUS consortium
16:05	J Manninen	EISCAT_3D Finland status
16:20	S Oyama	SDI-3D project: MIT coupling study with the EISCAT_3D
16:35		DISCUSSION
17:00		End of Session
19:00		Conference Dinner (included)

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Thursday, 10th January, morning

Session 3 (Chair Maxime Grandin)

- 08:30 C-F Enell EISCAT_3D principles of operation and scheduling
08:45 M Pedersen Estimating thermospheric neutral densities using EISCAT-observations and ionospheric heating
09:00 H Jänkäväära Studies of long-period array methods with Northern Finland Seismological Network
09:15 T Miyamoto Variations of CNA by EEP and changes of the auroral morphology
09:30 **DISCUSSION**

10:00 **COFFEE**

Session 4 (Chair Jia Jia)

- 10:30 D Newnham Simulation study for ground-based Ku-band microwave observations of ozone and hydroxyl in the polar middle atmosphere
10:45 R Kivi Ozone measurements over Northern Finland
11:00 A Salminen Effects of energetic electron precipitation and Quasi-Biennial Oscillation on the northern polar vortex
11:15 A Kero Sensitivity of polar mesospheric ozone-related chemistry to ionisation
11:30 **DISCUSSION**
12:00 Group Photo
12:05 **LUNCH** (included)



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Session 5 (Chair Anita Aikio)

- 13:30 K M Laundal An empirical model of the average magnetic field and polar current system, based on Swarm and CHAMP magnetometer measurements
- 13:45 L Roininen Sparse Hierarchical Non-stationary Models in Geophysical Data Classification
- 14:00 M Grandin Hybrid-Vlasov simulation of auroral proton precipitation and other Vlasov stories
- 14:15 H Vanhamäki Using the SECS method to estimate ionospheric currents from Swarm magnetic data at middle and low latitudes

14:30 **DISCUSSION**

15:00 **COFFEE**

Session 6 (Chair Shin-ichiro Oyama)

- 15:30 Yu Fedorenko Joint VLF studies using Sodankyla Geophysical Observatory and Polar Geophysical Institute data: instrumentation and modeling
- 15:45 J Manninen Simultaneous KAN-ERG observations
- 16:00 A Kozlovsky Recent results from the SGO meteor radar observations
- 16:15 M Grandin Properties and geoeffectiveness of solar wind high-speed streams and stream interaction regions during solar cycles 23 and 24

16:30 **DISCUSSION & CLOSING**

17:00 End of Session

POSTERS

- B V Kozelov Kola Arctic Geophysical Infrastructure Network of the Polar Geophysical Institute: possibilities for collaboration
- J Norberg Recent developments in TomoScand ionospheric tomography project
- I Virtanen Electron Energy Spectrum Estimation from Incoherent Scatter Radar Measurements
- A Workayehu Ionospheric currents in the two hemispheres during low and high magnetic activity by the Swarm satellite

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Friday, 11th 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 2018 (Anita Aikio)
 2. EISCAT SAC meetings in 2018 (Thomas Ulich)
2. EISCAT Activities in 2019
 1. Satellite coordination, e.g. ARASE, SWARM
 2. EISCAT_3D Users Meeting (Uppsala, 21-22 May 2019)
 3. EISCAT Symposium and Optical Meeting (46AM; Oulu, 19-23 Aug 2019)
 4. IS Radar School, Pikku-Syöte, 12-17 Aug 2019
 5. Reporting to EISCAT (Annual Reports)
 6. other
3. EISCAT_3D
 1. EISCAT_3D Finland status and plans (Jyrki Manninen)
 2. Long-term strategy for EISCAT-related research in Finland
4. Any Other Business

10:30 **COFFEE**

11:00 National EISCAT Co-ordination Committee Meeting
(continued)

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