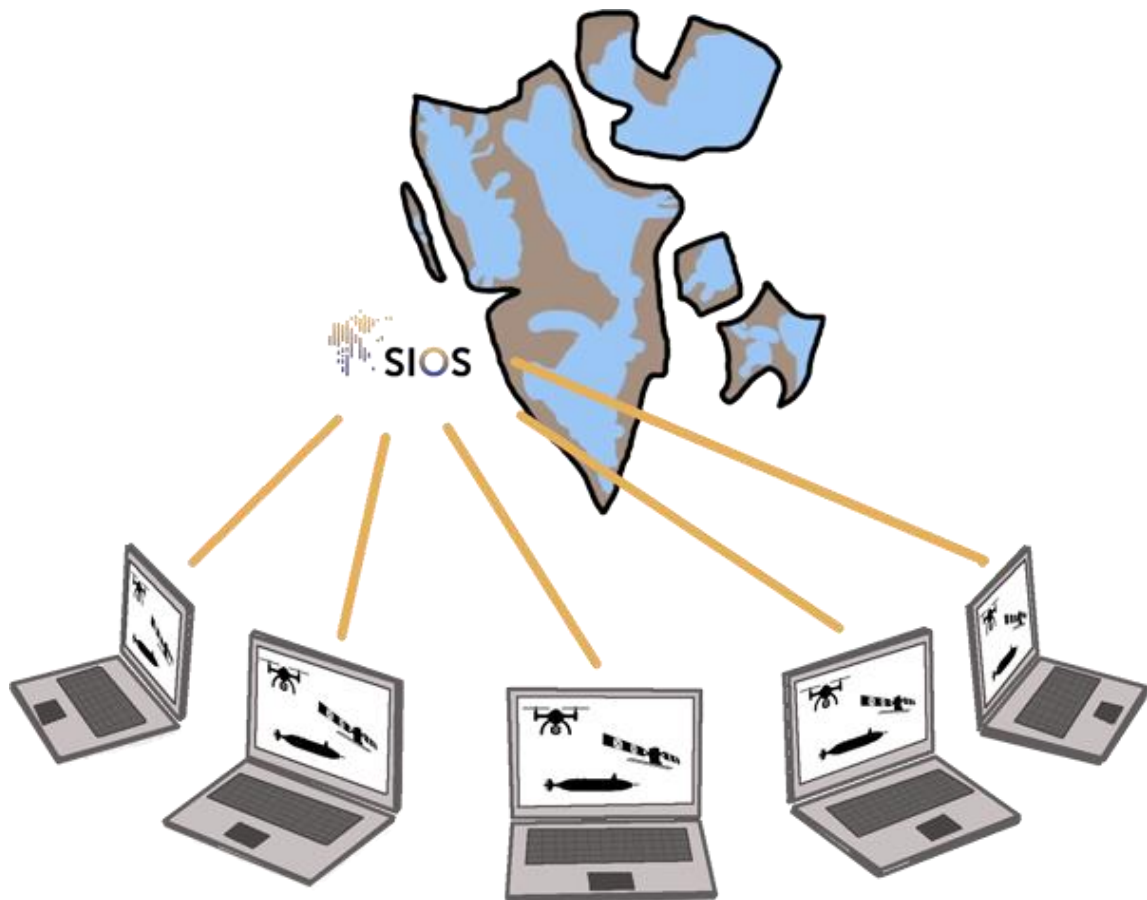


SIOS's Online Conference on "Earth Observation (EO), Remote Sensing (RS) and Geoinformation (GI) applications in Svalbard"



Date and Time: 04-05 June 2020, 09:00 Hrs to 17:35 Hrs CEST* time zone

*You may use [time zone converter](#) to find out the session schedule in your time zone.

Location: Zoom Online Platform**

Registration: Register [HERE](#) in advance for this conference:

After registering, you will receive a confirmation email containing information about joining the conference.

Note: This conference will be fully recorded and selected presentations would be made available on the SIOS website later.

Programme on 4th June 2020 (All times in CEST time zone)

0900: 0930: Welcome and introduction

0900: 0910: Welcome address by SIOS Director. **Heikki Lihavainen**

0910: 0920: Welcome address by RSWG Chair. **Veijo Pohjola**

0920: 0930: Introduction to the SIOS webinar and Online conference. **Shridhar Jawak**

0930: 1130: Keynote talks of the day

0930: 1015: Keynote Talk: ESA's contribution to Arctic Cal/Val activities and its specific relevance to Svalbard research community.

Speakers: Team ESA (Malcolm Davidson, Tommaso Parinello, Mark Drinkwater, and Tania Casal).

1015: 1030: Discussion and/or break

1030: 1050: Invited Talk: Airborne radar system for cal/val activities in Svalbard

Speaker: Tom Rune Lauknes, NORCE

1050: 1100: Discussion and/or break

1100: 1130: Invited Talk: MOSAiC: World's largest drift campaign -Remote Sensing activities

Speakers: Suman Singha, German Aerospace Center (DLR); Gunnar Spreen, University of Bremen; Thomas Krumpfen, Alfred Wegener Institute (AWI); MOSAiC Remote Sensing and Sea Ice Team

1130: 1230: Lunch Break

1230: 1320: Data, observations, and management systems

Convener: Ann Mari Fjæraa

1230: 1240: The first evaluation of observations by Pandora spectrometer in Svalbard.

Ann Mari Fjæraa

1240: 1250: SIOS Data Management System (SDMS) - toward open data in Svalbard research. *Dariusz Ignatiuk*

1250: 1300: NextGEOSS data hub and platform - enhancing remote sensing data and analysis in Svalbard. *Bente Lilja Bye*

1300: 1310: The metadata profile for a snow-ice spectral library. *Sabina Di Franco*

1310: 1320: Session discussion

1320: 1330: Leg stretching and group photograph break

1330: 1430: Terrestrial remote sensing and sea ice studies:
Convener: Roberto Salzano

1330: 1340: Ground-based monitoring of snow spectral reflectance. *Rosamaria Salvatori*

1340: 1350: Terrestrial photography applications for snow cover monitoring: implementation of a shared approach. *Roberto Salzano*

1350: 1400: Unmanned Vehicles for Autonomous Sensing and Sampling near glacier fronts in the Arctic region. *Azzaro Maurizio*

1400: 1410: Interannual variability of sea ice concentration over the Svalbard Archipelago: March 2020, a case study. *Suchithra Sundaram*

1410: 1420: Automating the surveillance of sea ice using artificial intelligence in the Extreme Earth project. *Åshild Kiærbech*

1420: 1430: Session discussion

1430: 1440: Leg stretching break

1440: 1540: Open RSWG meeting led by Veijo Pohjola (Chair, RSWG)
Agenda of the meeting is appended as an Appendix 1

1540: 1600: Coffee Break

1600: 1650: SIOS (Infranor, ACCESS, and SESS) supported activities:
Convener: SIOS KC

1600: 1610: Role of EO technologies to optimise the sustained observing system in Svalbard: Recommendations from the State of the Environmental Science in Svalbard (SESS) Report. *Christiane Hübner*

1610: 1620: Sentinel-2 based mapping of the growing season (phenology) in central parts of Svalbard. *Stein Rune Karlsen*

1620: 1630: An overview of EO activities in the SIOS access programme and SIOS-InfraNor project. *Inger Jennings*

1630: 1640: Airborne geophysical evaluation of ICESat-2 altimeter data over the surging Negribreen, Svalbard. *Ute Herzfeld*

1640: 1650: Session discussion

1650: 1700: Leg stretching break

1700: 1730: Early Career Researchers (ECRs) Session:

Convener: Shridhar Jawak

1700: 1710: Svalbox: an interactive digital portal to Svalbard's geoscientific data.
Peter Betlem

1710: 1720: Marine robotics for unmanned safe observation of tidewater glacier fronts: the CNR experience. **Roberta Ferretti**

1720: 1730: Satellite remote sensing estimation of suspended particulate matter in the coastal waters of Svalbard. **Rakesh K. Singh**

1730: 1735: Day 1: Closing remarks

Programme on 5th June 2020 (All times in CEST time zone)

0900: 0930: SIOS's Earth Observation and Remote Sensing activities

0900: 0910: Introduction to the 2nd day of the conference. **Shridhar Jawak**

0910: 0920: SIOS's vision on EO and RS activities in Svalbard. **Bo Andersen**

0920: 0930: SIOS's EO/RS/GI activities in Svalbard. **Shridhar Jawak**

0930: 1000: Invited Talk:

0930:0950: Norwegian Space activities in the Arctic, **Maria Høegh Berdahl**, Norwegian Space Agency

0950: 1000: Discussion and/or break

1000: 1030: NIPR's EO/RS activities

0900: 1010: A new way to derive the sea ice thickness from satellite observation data of AMSR. **Hiroyuki Enomoto**

1010: 1020: Development of microwave observation techniques of melting of the snow-covered area and Rain-on-Snow in Polar Regions. **Hiroyuki Enomoto**

1020: 1030: Discussion and/or break

1030: 1145: SIOS's Airborne remote sensing campaigns in Svalbard:

Convener: Shridhar Jawak/Agnar Sivertsen

1030: 1035: Introduction: Shridhar/Agnar

- 1035: 1045:** Mapping of perennial firn aquifers and firn characteristics on Svalbard ice fields (PFA) and Mapping surface properties on Lomonosovfonna (SurfPro) Project: ***Veijo Pohjola***
- 1045: 1055:** Kongsvegen surge: Digital Elevation Model 2020 (KNG_SURGE_DEM2020): ***Jack Kohler***
- 1055: 1105:** Airborne Remote Sensing in South of Spitsbergen (current evolution of polar environment) (AirborneSOS): ***Małgorzata Błaszczuk***
- 1105: 1115:** Hindcasting and projections of hydro-climatic conditions of Southern Spitsbergen (HyMote): ***Marta Majerska***
- 1115: 1125:** The Vanishing White (VANWHITE) - Airborne Remote Sensing campaign Svalbard 2020: ***Hans Tømmervik***
- 1125: 1135:** Automatic system for monitoring vegetation and environmental seasonal changes on Svalbard using hyperspectral data (ASMoVen): ***Lennart Nilsen***
- 1135: 1145:** Long term changes in vegetation and permafrost in Rosenbergdalen (Rosenbergdalen) and Barnacle Goose Ecology: interactions with a changing environment (GOOSE): ***Maarten Loonen***

1145 to 1230 Lunch Break

1230: 1430: Keynote Talks of the day

- 1230:1300: Keynote Talk:** Arctic Amplification (AC)³ Project
Speaker: John Burrows (Team AC³), University of Bremen

1300: 1315: Discussion

- 1315: 1345: Keynote Talk:** Satellite remote sensing of sea ice - recent advances and remaining challenges
Speaker: Eero Rinne, Finnish Meteorological Institute (FMI)

1345: 1415: Discussion

1415: 1430: Leg stretching and group photograph break

1430: 1600: EO and RS applications in glaciology and modelling
Convener: *Veijo Pohjola*

- 1430: 1440:** Modelling glacier mass balance and seasonal snow conditions in Svalbard.
Ward van Pelt
- 1440: 1450:** Two decades of Climatic and Environmental Monitoring on Lomonosovfonna.
Veijo Pohjola

1450: 1500: Characteristics of a surge of Franklinbreen detailed from remote sensing archives. **Robert McNabb**

1500: 1510: Long-term monitoring of glaciers in Hornsund (Svalbard) with remote sensing data. **Malgorzata Blaszczyk**

1510: 1520: The Svalbard glaciers response to the climate change: an investigation into Hansbreen dynamics. **Joanna Tuszynska**

1520: 1530: The identification of previously unknown surge-type glaciers in Spitsbergen. **Osip Kokin**

1530: 1540: Discussion

1540: 1600: Coffee break

1600: 1730: Early Career Researchers (ECRs) Session:
Convener: Shridhar Jawak

1600: 1610: Current activities and development in the Norwegian Ice Service.
Ole Jakob Hegelund

1610: 1620: Opportunities and Challenges for Remote Sensing with UAVs in Svalbard.
Richard Hann

1620: 1630: Ocean eddies around Svalbard from multi-mission SAR observations.
Igor Kozlov

1630: 1640: Mapping the timing of seasonal thaw subsidence and frost heave in central western Spitsbergen using InSAR. **Line Rouyet**

1640: 1650: Modelling a Perennial Firn Aquifer using MODFLOW 6. **Tim van den Akker**

1650: 1700: Use of Multiple Information Extraction Techniques for Mapping Facies on Svalbard and Himalayas Glaciers. **Sagar Filipe Wankhede**

1700: 1710: Evaluation of satellite-derived estimates of lake ice cover timing on Linnévatnet, Kapp Linné, Svalbard using in-situ data. **Samuel Tuttle**

1710: 1720: Exploring Relationship between Atmospheric Variables and Sea Ice in Svalbard.
Bhasha Harshal Vachharajani

1720: 1730: Aerodynamic Surface Roughness of Crevassed Glaciers from UAV Mapping.
Armin Dachauer

1730: 1735: Closing Remarks

Appendix 1: Agenda of the Open RSWG meeting:

Date and Time: 4th June: 1440 to 1540

RSWG Chair: Veijo Pohjola

SIOS Online conference to facilitate engagement

Can we have this conference as an annual activity to understand the state-of-the-art applications of EO in Svalbard?

Feedback from the conference

SIOS Monthly Webinar series:

Interested speakers, suggest speakers, suggest topics, panel discussion topics

Svalbard Earth Observation and Remote Sensing User Forum

Shall we formulate such a platform for (1) engaging RS and EO experts (2) facilitating dialogue between RSWG and users?

Hosted on SIOS Remote sensing web page

Participants can express their interest if they would like to join this forum

Next year training course requirements from the community

Requirements from participants, anyone interested in teaching this course?

Suggest teachers, topics, field excursion

InSAR Svalbard: requirements from the community

Any specific inputs from permafrost community

Other users of this product

High-resolution satellite data for field scientists in summer

How frequently would we need such data?

What is the optimal period to fulfil the requirements of most of the users?

How many images per season?

Assessment of research areas with great EO support potential in Svalbard

Which research areas in Svalbard would be highly benefitted by using EO?

Which areas should be prioritized?

Remote sensing services

Which specific service Svalbard community would be interested in?

Which remote sensing products would be helpful for the community?

COVID-2019 and damage mitigation using Earth observation:

How EO/RS would help field scientists during cancelled field campaigns?

Any specific remote sensing service for damage mitigation?

Which remote sensing services would be beneficial for field scientists?

Contact details

SIOS Remote Sensing Officer <https://sios-svalbard.org/Staff#RemoteSensingOfficer>