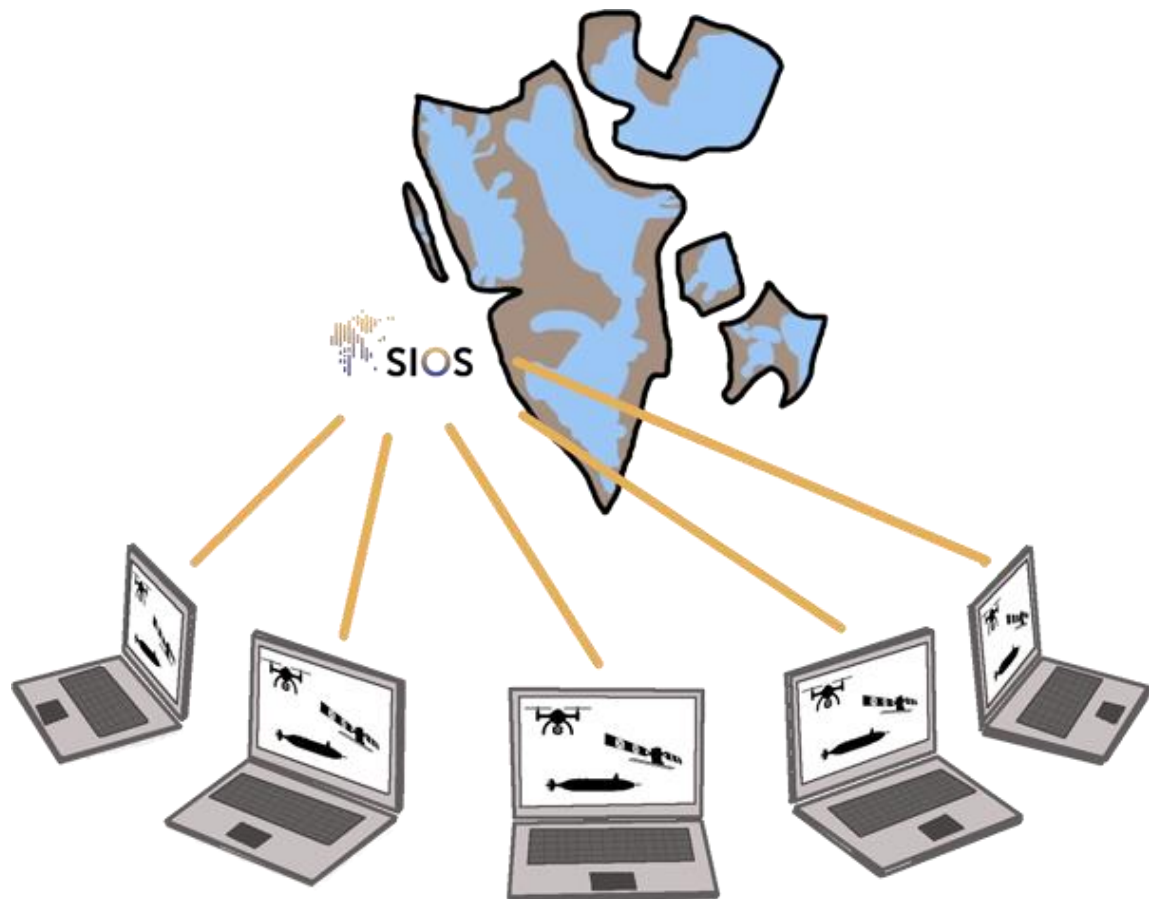


## SIOS Online Conference on "Earth Observation (EO) and Remote Sensing (RS) applications in Svalbard"



**Date and Time:** 08-10 June 2021, 13:00 Hrs to 18:00 Hrs CEST\* time zone

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

**Location:** Zoom Online Platform ([www.zoom.us](http://www.zoom.us))

**Registration:** Register [HERE](#) in advance to attend 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 will be made available on the SIOS website and YouTube channel later.

## Programme on 8<sup>th</sup> June 2021 (All times in CEST time zone)

### **1300 – 1315: Welcome and introduction**

**1300 – 1305:** Welcome address by SIOS Director. **Heikki Lihavainen**

**1305 – 1310:** Welcome address by RSWG Chair. **Veijo Pohjola**

**1310 – 1315:** Introduction to the SIOS online conference. **Shridhar Jawak**

### **1315 – 1515: Keynote talks of the day**

*Convener: Shridhar Jawak*

**1315 – 1345:** Prospects for collaboration with SIOS RS/EO to promote research in the Arctic.  
**Hiroyuki Enomoto**

**1345 – 1355: Discussion and/or break**

**1355 – 1425:** Airborne Remote Sensing Platforms on Svalbard, Opportunities and Limitations. **Rune Storvold**

**1425 – 1435: Discussion and/or break**

**1435 – 1505:** Sounding rocket studies above Svalbard: the grand challenge initiative cusp. **Andres Spicher**

**1505 – 1515: Discussion and/or break**

### **1515 – 1730: SIOS Airborne Remote Sensing Campaigns 2021**

*Convener: Shridhar Jawak and Agnar Sivertsen*

**1515 – 1525:** Introduction to airborne campaigns in Svalbard-2021. **Agnar Sivertsen**

**1525 – 1535:** Airborne Remote Sensing Monitoring in South Of Spitsbergen - 2021 (current evolution of polar environment) (AirborneSIOS-2021). **Aleksandra Osika**

**1535 – 1545:** Kongsvegen & Holtedahlfonna DEM 2021 (KoHoDEM). **Jack Kohler**

**1545 – 1555:** Mapping surface properties on Lomonosovfonna (SurfPro). **Veijo Pohjola**

**1555 – 1605:** De-icing of Arctic Coasts: Critical or new opportunities for marine biodiversity and Ecosystem Services (ACCESS). **Janne E. Søreide**

**1605 – 1620: Discussion and/or break**

**1620 – 1630:** Automatic system for monitoring vegetation and environmental seasonal changes on Svalbard using hyperspectral data (ASMoVen). **Lennart Nilsen**

**1630 – 1640:** The Vanishing White - Airborne Remote Sensing campaign Svalbard II 2021 (VANWHITE). **Hans Tømmervik**

**1640 – 1650:** How many reindeer? Animal detection with unmanned aerial vehicles (UAVs) in the High Arctic. **Ingrid Paulsen and Åshild Ønvik Pedersen**

**1650 – 1700:** Climate Change Drives Fluctuations of Glacier Lakes in Svalbard - Crammerbreane Study Case (Crammerbreane Glacier Lakes) (GLIS). **Iwo Wieczorek**

**1700 – 1710:** Spatial-temporal evolution of sorted periglacial circles (Cryo-Sort). *Livia Piermattei*

**1710 – 1720:** Past constraints on a warmer and wetter future Arctic climate (PASTFACT). *Benjamin Aubrey Robson*

**1720 – 1745: Discussion session, group picture and end of the first day**

**1745: 1830: Open RSWG meeting led by Veijo Pohjola (Chair, RSWG)**

Agenda of the meeting is appended as an Appendix 1.

---

### **Programme on 9<sup>th</sup> June 2021 (All times in CEST time zone)**

**1300 – 1420: Keynote talks of the day**  
*Convener: William Harcourt*

**1300 – 1330:** SIOS's valuable contribution to operational sea ice monitoring around Svalbard and the Arctic. *Penelope Wagner*

**1330 – 1340: Discussion and/or break**

**1340 – 1410:** CIRFA: Remote Sensing in Arctic operations. *Torbjørn Eltoft*

**1410 – 1420: Discussion and/or break**

**1420 – 1630: Success stories from SIOS (InfraNor and SESS) supported activities:**  
*Convener: Christiane Hübner and Shridhar Jawak*

**1420 – 1430:** Introduction to the SESS report. *Christiane Hübner*

**1430 – 1445:** A comparison of satellite- and model-based snow cover datasets for Svalbard. *Hannah Vickers*

**1445 – 1500:** Towards a Svalbard Time-Lapse Network: the PASSES experience. *Roberto Salzano*

**1500 – 1515:** Svalbard: decadal trends in snow cover and sea-ice area. *Mari Anne Killie*

**1515 – 1530:** Scientific Applications of Unmanned Vehicles in Svalbard. *Richard Hann*

**1530 – 1540: Discussion and/or break**

**1540 – 1550:** Introduction to the SIOS InfraNor project. *Shridhar Jawak*

**1550 – 1605:** Time-series of cloud-free Sentinel-2 NDVI data used in mapping the onset of growth of central Spitsbergen, Svalbard. *Stein Rune Karlsen*

**1605 – 1620:** Toward a new vegetation map of Svalbard based on Sentinel 2 data. *Bernt Johansen*

**1620 – 1630: Discussion and/or break**

**1630 – 1830: Early Career Researchers (ECRs) Special Session:**

*Convener: William Harcourt, Maren Hansen and Shridhar Jawak*

**1630 – 1640:** Integration of geomorphological mapping and InSAR kinematics for a comprehensive inventory of rock glaciers in Nordenskiöld Land. ***Line Rouyet***

**1640 – 1650:** Retrieving fractional snow-covered area from optical satellites using data assimilation, ***Kristoffer Aalstad***

**1650 – 1700:** Impact of Operator Performance Variability on the Thematic Classification of Glacier Facies. ***Sagar Filipe Wankhede***

**1700 – 1710:** Transfer learning to Svalbard for deep learning-based remote sensing algorithms for damage assessment. ***Thomas Y. Chen***

**1710 – 1720:** Observing flow dynamics of Svalbard glaciers using Radar remote sensing techniques. ***Bala Raju Nela***

**1720 – 1740: Discussion and leg stretching break**

**1740 – 1750:** Disturbance Detection and Classification with UAV Images as a Tool in Ecosystem Monitoring –A Case Study from High Arctic Tundra. ***Isabell Eischeid***

**1750 – 1800:** Observation of cloud base height and precipitation characteristics at a polar site Ny-Ålesund, Svalbard. ***Asutosh Acharya***

**1800 – 1810:** Multi-sensor analysis of snow dynamics and SAR signal sensitivity to vegetation growth in Adventdalen. ***Laura Stendardi***

**1810 – 1820:** Investigating changes in Svalbard's cryosphere by using ICESat, ICESat-2, Sentinel-1 and TanDEM-X remote sensing data. ***Lukas Sochor***

**1820 – 1900: group picture and break**

**1900 – 20:30: Online Social Event and Zoom Quiz**

Join us for a chance to meet new people and maybe say hi to some old friends. We will be running a social event, followed by a quiz in which we will test your Svalbard knowledge, ranging from the serious to the not so serious facts. And the winning team will receive our famous and exclusive SIOS wooden cups from Svalbard!

---

**Programme on 10<sup>th</sup> June 2020 (All times in CEST time zone)**

**1300 – 1400: Invited talks of the day**

*Convener: Maren Hansen*

**1300 – 1315:** Multiscale mapping of plant functional groups and plant traits using field spectroscopy, UAV imagery and Sentinel-2A data. ***Eleanor Thomson***

**1315 – 1330:** Progress of Cryosphere Virtual Laboratory (CVL). ***Eirik Malnes***

**1330 – 1345:** 50 years of tidewater glaciers on the east coast of Svalbard: surface elevation and retreat dynamics. ***Jan Kavan***

**1345 – 1400: Discussion and/or break**

**1400 – 1515: Arctic Apps and Hackathon**  
*Convener: Dariusz Ignatiuk*

**1400 – 1415:** Policy Bear: Creating simple arguments from complex data. *Friedrich Röseler*

**1415 – 1430:** NoHaze: an app to track the atmospheric pollution and visibility in the arctic. *Pramit Kumar Deb Burman*

**1430 – 1445:** Combining data analysis with app development to increase access to remotely sensed and reanalysis data around Svalbard. *Robert William Schlegel*

**1445 – 1500:** IcySea: Providing polar navigators with near-real time sea ice information. *Alexandra Stocker*

**1500 – 1515: Discussion and/or break**

**1515 – 1700: Final session**  
*Convener: Veijo Pohjola*

**1515 – 1530:** The Arctic Amplification over Svalbard: A remote sensing perspective. *Igor Esau*

**1530 – 1545:** Year-round Thermal Infrared measurements of methane emitted by Arctic seas. *Leonid Yurganov*

**1545 – 1600:** Towards swath-to-swath and summer season sea-ice drift. *Emily Down*

**1600 – 1615:** Dynamics of Svalbard glaciers from Sentinel-1 SAR. *Adrian Luckman*

**1615 – 1630:** Snow measurement surveys using a drone-borne ultrawideband radar. *Markus Eckerstorfer*

**1630 – 1645:** Evaluation of iceberg detection limits from remote sensing data - An investigation around Negribreen. *Laust Færch*

**1645 – 1700: Discussion and/or break**

**1700 – 1800: Keynote talks of the day**  
*Convener: Shridhar Jawak and Maren Hansen*

**1700 – 1730:** Surge-Related Changes in Negribreen, Svalbard, Observed with ICESat-2. *Ute Herzfeld*

**1730 – 1800:** An Embarrassment of Riches; We now have better topography for the ice on Earth than the land. *Paul Morin*

**1800 – Discussion and closing remarks**

**1900 – 20:30: Online Social Event on Gathertown**

Join us as we end the SIOS Online Conference in style in Gathertown (<https://gather.town/>)! Please register your interest through conference registration process. You will receive additional information on how to join separately.

## Appendix 1: Agenda of the Open RSWG meeting:

**Date and Time: 8<sup>th</sup> June: 1745 to 1830**

**RSWG Chair: Veijo Pohjola**

### **SIOS Online conference**

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

Feedback from the first day of conference. e.g. programme, duration of talks, keynote speakers.

### **SIOS special issue on EO and RS applications in Svalbard**

Closing soon: 31<sup>st</sup> December 2021.

Are you planning to submit your manuscript?

### **SIOS Monthly Webinar series:**

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

### **Reflections from ECR observer:**

How shall we promote ECRs in RSWG?

### **Continuous cal/val or ground truthing of satellite data**

How to promote in situ data from Svalbard for continuous cal/val of satellite derived products

What are challenges?

Which products can be considered?

### **Citizen science projects in Svalbard**

Which research areas in Svalbard would be highly benefitted by citizen science initiatives?

Do we have simple field protocols that can be easily done by citizens or tourists?

### **How much data gaps can be filled using EO and RS in pandemic times?**

Which cryospheric products are matured to replace ground-based data?

At what extent we can fill data gaps in long term timeseries using purely EO data?

### **Next year training course requirements from the community**

Requirements from participants, anyone interested in teaching this course?

Suggest teachers, topics, and virtual activities.

### **Contact details:**

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