



ILMATIETEEN LAITOS  
METEOROLOGISKA INSTITUTET  
FINNISH METEOROLOGICAL INSTITUTE



Welcome to the 2<sup>nd</sup> International Workshop on  
**Observations and Understanding of Changes in High Mountain and Cold Regions  
(HiMAC2018)**

29-30 October 2018, FMI Arctic Space Centre, Sodankylä, Finland

## CALL FOR ABSTRACTS:

Please send abstracts to: [himac2018@fmi.fi](mailto:himac2018@fmi.fi) by September 28, 2018

We kindly invite you to register by 12 October 2018:

<https://www.webropolsurveys.com/S/69A6BC66C570CC37.par>



### **Organizers:**

*Arctic Space Centre, Finnish Meteorological Institute (FMI)*

*Digital Belt and Road Program (DBAR)*

*Institute of Remote Sensing and Digital Earth (RADI), Chinese Academy of Science (CAS)*

### **Co-Organizers:**

*Ad hoc committee for IEEE at the North and South Poles (INSP)*

*GEO Cold Regions Initiative (GEOCRI)*

*Pan-Eurasian Experiment (PEEX)*

*International Society for Digital Earth (ISDE)*



## GENERAL

### Objective and Participation

We are pleased to announce the 2<sup>nd</sup> International Workshop on Observations and Understanding of Changes in High Mountain and Cold Regions (HiMAC 2018), to be held on October 29-30, 2018, in Sodankylä (Tähtelä), Finland. The workshop will bring together scientists from fields of Earth Observations, Meteorology, Climatology, Ecology and Biogeochemistry to discuss various in situ and satellite observations, data post processing, physical and biological processes that contribute to environmental changes over high mountain and cold regions on Earth. The workshop will contribute to the common understanding on identifying essential variables and their change processes, the role of EO systems, and its relevant big earth data analysis in tracking these for the optimum benefits of diverse science and societal applications.

The workshop also aims to foster connections and collaboration among multidisciplinary scientists and the Earth Observation community. **The official language of the workshop is English.**

### Costs

No participation fees will be charged. Participants are expected to finance their own travel and accommodation expenses. Bus connection between hotel at Luosto and workshop venue in Sodankylä (Tähtelä) will be arranged by FMI free of charge. Workshop dinner is free of charge.

### Themes

The HiMAC2018 workshop is organized around three themes:

- **Earth observations and data products for Arctic and high mountain and cold regions**
  - Ongoing initiatives addressing main observational gaps
  - Essential variables for the societal benefit areas over High Mountains and Cold Regions
  - Present capabilities and data products from Earth Observing satellites
- **New Earth Observing satellite systems for tracking variables in the Earth three poles (Arctic, Antarctic, High Asian areas)**
  - Upcoming observation systems/ Planned gap-filling satellite concepts
  - Role of ground-based reference observations in development of geophysical retrieval algorithms and validation
- **The role of variables in tracking climate, ecology and biogeochemical processes in the three poles**
  - Links of cryosphere processes to carbon cycle
  - Arctic ecology in a changing climate
  - Linkage between Arctic warming and the mid-latitude weather and climate

### HiMAC 2018 Committees

#### Scientific Committee

##### Chairs

- Huadong GUO Digital Belt and Road Program, Institute of Remote Sensing and Digital Earth, China
- Jouni Pulliainen Finnish Meteorological Institute, Finland

## Members

- Adriano Camps                      Universitat Politècnica de Catalunya-BarcelonaTech and IEEE Ad-Hoc Committee on North & South Poles, IEEE Geoscience and Remote Sensing Society
- Xiao Cheng                            Beijing Normal University, China
- Hannakaisa Lindqvist                Finnish Meteorological Institute
- Zhen Li                                 Institute of Remote Sensing and Digital Earth, China
- Xin Li                                    Institute of Tibetan Plateau Research, China
- Jianbo Liu                              Institute of Remote Sensing and Digital Earth, China
- Massimo Menenti                      Delft University of Technology, Netherland
- Ivan Mammarella                      University of Helsinki, Finland
- Aku Riihelä                            Finnish Meteorological Institute
- Stein Sandven                         Nansen Environmental and Remote Sensing Center, Norway
- Changlin Wang                        International Society for Digital Earth (ISDE)
- Peng Zhang                            China Meteorological Administration

## Technical Committee

- Juha Lemmetyinen                    Finnish Meteorological Institute, Finland
- Yubao QIU                             DBAR-HiMAC/GEOCRI Institute of Remote Sensing and Digital Earth, China
- Kari Luojus                            Finnish Meteorological Institute, Finland

## Organizing Committee

- Jyri Heilimo                          Finnish Meteorological Institute, Finland
- Anna Kontu                            Finnish Meteorological Institute, Finland
- Riitta Aikio                            Finnish Meteorological Institute, Finland
- Miia Salminen                        Finnish Meteorological Institute, Finland
- Bin Cheng                              PEEX, Finnish Meteorological Institute, Finland
- Dong Liang                            Digital Belt and Road Program, Institute of Remote Sensing and Digital Earth, China
- Lijuan Shi                              Institute of Remote Sensing and Digital Earth, China

## IMPORTANT DATES

- Abstract submission deadline 28 September 2018
- Notification of Acceptance 08 October 2018
- Preliminary Programme 08 October 2018
- Registration deadline 12 October 2018
- Final Programme available at the workshop
- **HiMAC2018 workshop 29-30 October 2018**

## ABSTRACT SUBMISSION

- We kindly invite you to send a 1-2 page (pdf) abstract by **28 September 2018** to: [himac2018@fmi.fi](mailto:himac2018@fmi.fi)
- All submissions will be reviewed by the Scientific Committee

- Notification of acceptance for oral or poster presentation will be provided to authors by **08 October 2018**

Abstracts should contain the following information:

- Title of paper
- Authors' full name and affiliations
- Name, address, e-mail, telephone of the main author

## REGISTRATION AND PROGRAM

- We kindly invite you to register by **12 October 2018** by filling in the web-form: <https://www.webpolsurveys.com/S/69A6BC66C570CC37.par>

Registration is free of charge. Participants are required to finance their own travel and accommodation. Bus connection between hotel at Luosto and workshop venue in Sodankylä (Tähtelä) will be arranged by FMI free of charge. Workshop dinner is free of charge.

- Preliminary Programme will be available **08 October 2018**
- Final program will be available at the workshop

## VENUE

### Arctic Space Centre in Tähtelä, Sodankylä

Arctic research has a long history in FMI. The activities date back to 1858, when the *Societas Scientarum Fennica* founded the first weather station near the community of Sodankylä (orig. *Soađegilli* in the Sami language), north of the Arctic Circle. Due to the warming effect of the Gulf Stream, the area is included in the boreal region. However, with regard to stratospheric meteorology, Sodankylä can be classified as an Arctic site, often lying beneath the middle or the edge of the stratospheric polar vortex and in the zone of polar stratospheric ozone depletion. Its strategic location, coupled with ready accessibility from all parts of the world, makes the FMI-ARC an excellent base for studying various themes of global change in a northern context. The location in Finnish Lapland is ideal for atmospheric and environmental research in the boreal and sub-Arctic zone.

The principal Arctic observation infrastructure of the FMI is situated in two main areas: the FMI-ARC headquarters in Sodankylä (67.368°N, 26.633°E) and the Pallas clean air research station (67.967°N, 24.117°E).

The Sodankylä facility hosts programs exploring upper-air chemistry and physics, atmospheric column measurements, snow/soil hydrology, biosphere-atmosphere interaction and satellite calibration-validation studies. The site also hosts the main infrastructure of FMI for Earth Observation satellite data reception, storage and distribution. Today, FMI staff working at the Sodankylä site comprises of ~25 researchers, students, technical personnel and administration.

More information: <http://fmiarc.fmi.fi>

## Workshop dinner

Workshop dinner will be arranged on **29 October 2018**.



FMI main building "Polaria" at FMI-ARC

## TRAVEL AND ACCOMMODATION

### Travel info

The workshop is organized in Sodankylä, Finland. We recommend arriving by plane in Rovaniemi (RVN) via Helsinki (HEL) on Sunday, Oct 28, and continuing by bus to accommodation in Luosto area. Finnair (<https://www.finnair.com/fi/gb>) and Norwegian (<https://www.norwegian.com/en>) fly to Rovaniemi.

Flights from Helsinki to Rovaniemi on Oct 28:

Operator	Departure from Helsinki	Arrival in Rovaniemi	Bus connection
Finnair	12:10	13:30	
	16:20	17:40	Skibus Rovaniemi 17:45-18:00 -> Luosto 19:30
	20:05	21:25	
	21:15	22:35	
Norwegian	8:55	10:15	
	15:00	16:20	Skibus Rovaniemi 17:45-18:00 -> Luosto 19:30
	20:35	21:55	

Recommended return time is on Wednesday, Oct 31, and the flights from Rovaniemi to Helsinki are:

Operator	Departure from Rovaniemi	Arrival in Helsinki	Bus connection
Finnair	05:45	07:00	
	09:45	11:00	Skibus Luosto 6:50 -> Rovaniemi 8:20
	12:10	13:30	
	14:10	15:30	
	18:15	19:30	Skibus Luosto 15:30 -> Rovaniemi 17:00
Norwegian	8:25	9:45	
	15:00	16:20	

Skibus drives between the airport and the hotel. We recommend using the flights with Skibus connection. A one-way bus ticket costs 28 €. Please indicate your arrival and departure time in the registration form. We'll try to arrange bus transportation (on your own expense) to other flights if possible. If you don't know your travel schedule during registration, please inform Riitta Aikio ([riitta.aikio@fmi.fi](mailto:riitta.aikio@fmi.fi)) after booking your tickets. Information on Skibus and Luosto area can be found from <https://luosto.fi/en/luosto/luosto-1/travel-to-luosto>.

Another recommended possibility is to rent a car from Rovaniemi airport. A list of rental companies operating at the airport can be found from <https://www.finavia.fi/en/airports/rovanieniemi/parking-access/car-rentals>. There is also a train connection between Helsinki and Rovaniemi. Tickets can be booked from the train company VR <https://www.vr.fi/cs/vr/en/frontpage>.

The bus connection between the hotel at Luosto and the workshop venue in Tähtelä will be arranged by FMI free of charge.

## Accommodation

There is a block reservation in Lapland Hotel Luostotunturi, <https://www.laplandhotels.com/EN/hotels-in-lapland/luosto/lapland-hotels-luostotunturi.html>, in the Luosto area, about 50 km from the workshop venue in Tähtelä. Please book your own accommodation from [inga.orn@laplandhotels.com](mailto:inga.orn@laplandhotels.com) using the reference 'HiMAC 2018'. The price for a single room is 80 € per night.

Bus connection between hotel at Luosto and workshop venue in Tähtelä will be arranged by FMI free of charge.

## CONTACTS

General: [himac2018@fmi.fi](mailto:himac2018@fmi.fi)  
Travel & accommodation: [riitta.aikio@fmi.fi](mailto:riitta.aikio@fmi.fi)  
Address FMI-ARC Tähteläntie 62, 99600 Sodankylä, Finland

<http://www.fmi.fi/>, <http://fmiarc.fmi.fi/>, <http://space.fmi.fi/himac2018/>