*Call for contributions:*

# 3rd International Surface Working Group (ISWG)

## 15-17 July, 2019

## Université du Québec à Montréal (UQÀM), Montreal, Canada

(http://cimss.ssec.wisc.edu/iswg/meetings/2019/)

**The ISWG-3 meeting is joint with SnowWATCH-GCW-WMO**
(https://globalcryospherewatch.org/projects/snowwatch.html)
**for a dedicated Snow & Cryosphere session.**

We are happy to announce that the 3rd International Surface Working Group (ISWG) will be held in Montreal, Canada, kindly hosted by Environment and Climate Change Canada (ECCC) with support of the Global Cryosphere Watch (GCW) of the World Meteorological Organisation (WMO) and European Space Agency.

The International Surface Working Group's aim (ISWG) is to gather requirements specific to surface observations to enhance both our understanding and ability to monitor the components of the Earth system including land, vegetation, snow, ice, and coastal and open waters. The World Meteorological Organization (WMO) Global Cryosphere Watch (GCW) Snow Watch is an effort to provide authoritative, clear, and useable data, information, and analyses on the past, current and future state of the cryosphere. One of the target applications of the GCW Snow Watch is to assess and improve the quality of land surface models.

## Focus of the meeting

- **Use of Earth Observation (EO)-data for Cryosphere and Biosphere modelling applications**: both IR/MW, active/passive remote sensing data relevant to study processes at the land-atmosphere interactions;

- **Use of EO-data for parameter optimization**: including land surface temperature, albedo, vegetation state, soil moisture, snow water equivalent, water-body extent, sea surface wind, salinity, canopy parameters, vegetation water content, sea-ice concentration, etc. and the resulting surface emissivity/reflectance spectra;

- **Land Data Assimilation Systems (LDASs)** : state of the operational land surface modelling and assimilation systems and recent developments; sensitivity studies of surface model parameters to remotely sensed data; outcomes of assimilating SMOS, SMAP, GPM observations and their combination with higher resolution sensors such as MODIS/VIIRS, Sentinel-3-OLCI;

- **Radiative transfer and emissivity/reflectivity model development**: VIS/IR/MW, all surface types, review of current parameterization for forward modelling surface boundary; description of available land emissivity databases/atlases (MW and IR); intercomparison/validation of physical models and retrieved emissivity (MW and IR, including land, ocean, and ice surfaces);

- **Other relevant topics**: model-data comparison efforts involving EO dataset and shared experiences from ongoing surface monitoring systems, use of multi-sensor/ multi-platform, multi-temporal approaches to maximize information over heterogeneous or rapidly changing surface types.

## Important Dates

- 17 May 2019: Deadline for Abstracts and Registration
- 14 June 2019: Final Program
- 15-17 July 2019: ISWG-3 Workshop

## Expected Outcomes

This workshop aims at reviewing capabilities of existing technology and the capacity for their use in surface monitoring, data assimilation and modelling applications. This in turn should be used to provide expert recommendations and ***coordination guidance for surface observations***. The International Surface Working Group will:

- Update recommendations to further the coordination and exploitation of Earth Observation data of terrestrial surfaces and land-atmosphere interactions;
- Update recommendation consistent with the evolution of existing satellite systems and how to fill potential gaps in future observations;
- Prepare for the 48th Coordinated Group for Meteorological Satellites (CGMS) to present the ISWG initiatives and its outcomes.

Previous ISWG contributions have been published in a special issue of Remote Sensing in 2018. Two other RS Special issues that covered relevant topics for ISWG are listed below:
http://www.mdpi.com/journal/remotesensing/special_issues/earthsurface_RS
https://www.mdpi.com/journal/remotesensing/special_issues/dataassimilation_rs
https://www.mdpi.com/journal/remotesensing/special_issues/evaporation_rs

For 2019 and ISWG-3 a Remote Sensing special issues of interest (open until November 2019) that we wish to advertise as relevant for contributions is the following:
https://www.mdpi.com/journal/remotesensing/special_issues/LSM