Call for contributions:

Joint Workshop of the 2nd International Surface Working Group (ISWG) and 8th Land Surface Analysis Satellite Application Facility (LSA-SAF)

26-28 June, 2018

Instituto Português do Mar e da Atmosfera (IPMA), Lisbon, Portugal

(http://cimss.ssec.wisc.edu/iswg/meetings/2018/)

(https://landsaf.ipma.pt/en/newsmedia/news-show-cases-2/joint-lsa-saf-and-iswg-workshop/)

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 EUMETSAT Land Surface Analysis Satellite Application Facility (LSA SAF) aims to increase the benefits accrued from satellite data, specifically for terrestrial processes, land-atmosphere interactions and biospheric applications. One of the target applications of the LSA SAF product is to assess and improve the quality of land surface models.

Focus of the meeting

- ***Assimilation of surface observations derived from*** IR/MW, active/passive remote sensing data relevant to terrestrial surfaces, land-atmosphere interactions, and related applications;
- ***Land surface assimilation schemes***: State of the operational land surface modelling systems and recent developments; sensitivity studies of surface model parameters to remotely sensed data; outcomes of assimilating SMOS, GPM, SMAP observations; calibration issues, variable transforms or PDF matching techniques;
- ***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);
- ***Retrieval of surface parameters***: product characteristics and performances and expected evolutions 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;
- ***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

- 16 April 2018: Deadline for Abstracts and Registration
- 01 June 2018: Final Program
- 26-28 June 2018: ISWG/LSA-SAF 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:

- provide recommendations to further the coordination and exploitation of Earth Observation data of terrestrial surfaces and land-atmosphere interactions;
- provide recommendation as to the evolution of existing satellite systems and how to fill potential gaps in future observations;
- formally propose itself to the World Meteorological Organization (WMO) and the Coordinated Group for Meteorological Satellites (CGMS) as a new international science working group.

Special Issue

Contributors are invited to contribute to the journal ***Remote Sensing*** for a special issue:
"Advancing Earth Surface Representation via Enhanced Use of Earth Observations in Monitoring and Forecasting Applications"
(http://www.mdpi.com/journal/remotesensing/special_issues/earthsurface_RS)