

## Satellite inspired hydrology in an uncertain future: a H SAF and HEPEX workshop



Contribution ID: 26

Type: **Oral presentation**

### EO-based retrieval of snow cover, overview of selected snow products and their quality assessment

*Tuesday, 26 November 2019 14:20 (30 minutes)*

Monitoring terrestrial snow cover on continental and global scales is complicated by large differences on regional and local conditions as well as large gaps in surface observing networks. Therefore satellite-based observations provide the best spatially and temporally extensive means for snow cover monitoring on hemispherical scale.

The objective of the ESA Snow CCI is to generate homogenized long-time series of daily global snow extent (SE) maps from optical and daily global snow water equivalent (SWE) products from passive microwave satellite data.

The goal of the EUMETSAT H SAF “snow cluster” and the Copernicus Global Land Service “cryosphere theme”, is production of satellite based near real time maps of various snow cover parameters.

The uncertainty associated with current hemispherical datasets on both SE and SWE are significant. There are significant differences even between the well-established snow products which has been made obvious in the ESA SnowPEX project that has investigated and inter-compared the available SE and SWE products.

A brief overview of these ESA, EUMETSAT and Copernicus frameworks is presented. Overview will consider snow cover extent and snow water equivalent retrieval approaches and products, both for operational near-real time purposes and historical climate data records of snow.

#### Which session would you like to present in?

1. Remote sensing, hydrological modelling and data assimilation

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**Session Classification:** Session 2: Hydrological validation and benchmarking

**Track Classification:** H SAF and HEPEX joint workshop on “Satellite inspired hydrology for an uncertain future”