

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



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EUMETSAT H SAF SNOW WATER EQUIVALENT (SWE) PRODUCT: H13

Snow Water Equivalent (SWE) is the only remote sensing parameter of snow that provides information on amount of snow. Snow Extent and Fractional Snow Cover obtained by using optical instruments in remote sensing can't provide neither Snow Depth nor Snow Mass which are related to SWE. However, SWE can be estimated to a degree by using passive microwave remote sensing. The EUMETSAT H SAF product H13 provides SWE over the Pan European region (between longitude 25_ W–45_ E and latitude 25_–75_ N). Since passive microwaves do not accurately provide SWE when snow is wet the H13 over flat lands is a data fusion of ground based Snow Depth data and spaceborne derivated estimates. Over mountains the product is based on spaceborne estimates. The product H13 currently is based on SSMI/S instrument brightness temperature data on board DMSP-series satellites. The H13 SWE product is made available on daily basis as NRT service. In addition, the H SAF consortium is developing an improved version of the current operational product H13. The new product will be called H65 and it will cover the Northern Hemisphere and have algorithm improvements compared to H13.

Which session would you like to present in?

1. Remote sensing, hydrological modelling and data assimilation

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