

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



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Operational validation of H SAF snow products

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H SAF provides satellite-derived products of precipitation, soil moisture and snow. These products are yearly validated to guarantee optimal performance. Under the project, different snow products are distributed in near real-time, namely, SE-E-SEVIRI (Snow detection by VIS/IR radiometry); WS-E (Snow status - dry/wet - by MW radiometry); FSC-E (Effective snow cover by VIS/IR radiometry) and SWE-E (Snow water equivalent by MW radiometry). The snow products validation includes both product validation and hydrological validation.

In product validation each product has a dedicated common validation procedure: SE-E-SEVIRI, WS-E and SWE-E are validated using ground data from stations over the European area while FSC-E is validated using high resolution satellite data from COPERNICUS Sentinel 2 satellites. In this study, we present the adopted methodologies for the validation and a summary of the results trying to highlight products benefits and limitations. The hydrological validation is used to assess the product ability to improve the prediction of hydrological modelling, it will be shown that the assimilation of snow products (SWE and SCA) in hydrological models, with different approaches, can improve the model states and runoff prediction performance.

Which session would you like to present in?

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