

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



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Comparison results between the ATMS PMW cross-track product (H18) and the Dual-frequency Precipitation Radar (2A-DPR) product over the European and African areas

In the portfolio of operational precipitation products (PP) released in HSAF (Satellite Application Facility on support to Hydrology), recently was added the H18 product based on passive microwave (PMW) acquisitions from the ATMS (Advanced Technology Microwave Sounder) cross-track scanning radiometer on board the Suomi-NPP satellite. The product provides instantaneous surface precipitation estimates over the entire full disk as observed by the MSG (Meteosat Second Generation). The HSAF Precipitation Product Validation Group (PPVG) analyses annually all the PP released by the consortium in order to evaluate their performance over time. On the European area validation is carried out by comparison with ground radar and raingauge data available within the consortium. For products with hemispherical/global coverage the comparison is made with precipitation estimates by the DPR (Dual-frequency Precipitation Radar) product that combines both Ku and Ka frequencies. The methodology recently developed in HSAF provides the analysis of the data regridded over a regular 0.5° grid for a 1-year period, diversifying the results by surface, seasonality, intensity and classes of precipitation. Continuous statistical scores and multi-category scores are computed to highlight particular behaviors as function of precipitation intensity. The comparison results are shown with particular attention to the different geographical areas.

Which session would you like to present in?

1. Remote sensing, hydrological modelling and data assimilation

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