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# SMOS validation results in the Upper Danube catchment

Florian Schlenz (1), Johanna Dall'Amico (1), Alexander Löw (2), and Wolfram Mauser (1)

(1) University of Munich, Geography, München, Germany (f.schlenz@iggf.geo.uni-muenchen.de), (2) Max-Planck-Institute for Meteorology, Land in the Earth System, Hamburg, Germany (alexander.loew@zmaw.de)

The validation of SMOS L2 soil moisture data requires the maintenance of longterm soil moisture monitoring sites. One such site is the Upper Danube SMOS validation site situated in Southern Germany with a size of 77000 $km^2$. Since 2007, the University of Munich routinely collects in situ soil moisture data within the test site in preparation for the SMOS validation. An operational framework has been built up to compare SMOS soil moisture products against in situ measurements, land surface model simulations and ancillary satellite data.

An airborne SMOS validation campaign has been conducted during spring and early summer 2010 in the Upper Danube catchment. Two airborne L-band radiometers (EMIRAD, HUT-2D) were flown during a multi-week period to validate the satellite data. Comprehensive ground data has been collected during this campaign.

The presentation will give an overview of the existing data sets, the developed infrastructure and ongoing activities in the Upper Danube SMOS validation site. To contribute to SMOS validation, results of the comparisons of SMOS data with other data sets will be presented. These comparisons include SMOS L1c and L2 data products and measured and modelled soil moisture and brightness temperature data. In addition, results from the comparisons of SMOS data with different campaign data sets will be presented. A preliminary assessment of the accuracy of available SMOS data products will be made.