



Heterogeneous terrain: a challenge to derive evapotranspiration with remote sensing and scintillometry

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Despite the importance of evapotranspiration for Meteorology, Hydrology and Agronomy, obtaining area-averaged evapotranspiration estimates is cost as well as maintenance intensive: usually area-averaged evapotranspiration estimates are obtained by distributed sensor networks or remotely sensed with a scintillometer. A low cost alternative for evapotranspiration estimates are satellite images, as many of them are freely available. This approach has been proven to be worthwhile above homogeneous terrain, and typically evapotranspiration data obtained with scintillometry are applied for validation.

We will extend this approach to heterogeneous terrain: evapotranspiration estimates from ASTER 2013 images will be compared to scintillometer derived evapotranspiration estimates. The goodness of the correlation will be presented as well as an uncertainty estimation for both the ASTER derived and the scintillometer derived evapotranspiration.