



Upscaling of soil moisture measurements in NW Italy

Stefano Ferraris (1), Davide Canone (1), Maurizio Previati (1), Christian Brunod (2), Sara Ratto (2), and Marco Cauduro (2)

(1) DIST, Interuniversity Department Politecnico and Università di Torino, Italy, (2) Centro Funzionale Regione Valle d'Aosta, Italy

There is large mismatch in spatial scale between the climate and meteorological model grid, and the scale of soil and vegetation measurements. Remote sensing data can help to fit the model scale, but they cannot provide rootzone data.

In this work some soil moisture datasets are analysed for the sake of providing larger scale estimation of soil moisture and water and energy fluxes. The first dataset refers to a plain site near Torino, where measurements are taken since 1997 (Baudena et al., 2012), and a mountain site close to the town. The second one is a dataset in the mountains of Valle d'Aosta (Brocca et al., 2013), where 4 years of data are available. The use of digital elevation models and vegetation maps is shown in this work. Some soil processes (e.g. Whalley et al., 2012) are usually disregarded, but in this work their possible impact is considered.

References

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