

Interactive comment on “Analysis of surface and root-zone soil moisture dynamics with ERS scatterometer and the hydrometeorological model SAFRAN-ISBA-MODCOU at Grand Morin watershed (France)” by T. Paris Anguela et al.

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The authors would like to thank for the time and efforts that Referee 1 has put in the reviews.

The spatial comparison between SIM and ERS (Figure 5): the evolution of soil moisture for SIM and ERS within the 3 years period is the same for each season. We will add this representation to Figure 4 and specify the dates accordingly. In the paper we would like to draw more moderate conclusions, and we will further investigate on that point. The mentioned effect is most likely not to be linked with the vegetation effect,

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but more with the algorithmic representation of the root-zone calculation. It is not our intention to discuss algorithm-inherent details on vegetation or scattering of the product, since these topics have been shown already in numerous studies (e.g. Wagner et al., 1999a,b investigate on how land cover, vegetation and scattering mechanisms influence the spatial and temporal behaviour of the ERS scatterometer signal).

Specific comments:

-Page 1907 line 28: we wanted to express that the years 1997-2000 were chosen for this study, because data in this period exist for all sources.

-Page 1914 line 11: we will add some references on the issue of spatial scales.

References:

Wagner, W., G. Lemoine, and H. Rott, 1999a, A method for estimating soil moisture from ERS scatterometer and soil data, *Remote Sens. Environ.*, 70, 191-207.

Wagner, W., Lemoine, G., Borgeaud, M., and Rott, H., 1999b, A study of vegetation cover effects on ERS Scatterometer data, *IEEE Trans. Geosci. Remote Sens.* 37, 938-948.

Interactive comment on *Hydrol. Earth Syst. Sci. Discuss.*, 5, 1903, 2008.

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