**Interactive comment on** “On the comparison between the LISFLOOD modelled and the ERS/SCAT derived soil moisture estimates” by G. Laguardia and S. Niemeyer

N. Verhoest (Editor)

Niko.Verhoest@ugent.be

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The paper compares remotely sensed and modelled soil moisture products at coarse scales and therefore nicely fits the special issue of HESS on “Remote Sensing in Hydrological Sciences”. I would like to thank both reviewers for their valuable comments.

Based on their reviews, a major revision of the document is needed before it can be accepted for publication. I suggest that you revise this paper taking into account the different remarks of the reviewers, with special attention to the following points:

1. In the literature review, more references to recent papers are needed in order to better reflect the state-of-the-art.
2. Compare SWI instead of pF values. If you still use pF-values, give corresponding ranges of soil moisture that go with it (for different soil types), as this will enhance the interpretation.

3. Discuss the sensitivity of the ERS/SCAT product as function of vegetation/roughness/snow/...

4. Better comment on the modelling issues: layer depth, calibration, validation, uncertainties ...

5. Elaborate the discussion. Account for the limitations in the comparisons as no reference material is available. Also reflect on the scale mismatch between the model and the scatterometer data.

6. Improve the quality of the figures.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 5, 1227, 2008.