

***Interactive comment on “Strategies for validating
and directions for employing SMOS data, in the
Cal-Val project SWEX (3275) for wetlands” by
W. Marczewski et al.***

Anonymous Referee #2

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In general, I try to recommend major revisions rather than rejecting a paper. However, this paper shows substantial shortcomings wrt English grammar and spelling, scientific content and understanding. I therefore cannot recommend publishing the paper.

Many sentences and statements are hard to understand, unreadable or simply wrong. I will only list a few examples from the conclusions: - If one of them cannot obey properly under retrieving, is out of acceptable ranges, then the retrieval is unsuccessful, and requires a supervision on reasons. - The same, but a bit differently is done in the

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process of retrieving SM in L2 data, by the the SMOS data production system. - One can also conclude that SMOS develops new paths for integrating many kinds of other Earth Observation data and means.

The science presented is weak. Using CMEM to produce brightness temperatures at TOA is not new but a standard operation, which is performed operationally by ECMWF on the global scale.

CMEM will produce H and V pol brightness temperatures at the top of the atmosphere in the Earth reference frame! These values must not be compared against level 1C data, which are xx and yy pol in the antenna frame. A transformation is needed taking the geometry angle and Faraday rotation into account. The statement "Output product from CMEM is only comparable to TB in L1C data." indicates that the authors are not aware of this fundamental problem.

I am truly sorry that I cannot be more positive.

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 7007, 2010.

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