

Interactive comment on “Improving evapotranspiration in land surface models by using biophysical parameters derived from MSG/SEVIRI satellite” by N. Ghilain et al.

Anonymous Referee #2

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It is unclear what contribution to the scientific literature this paper lends. The question seems to be how ET estimates in LSMs change with new LAI/fAPAR information. Why ET? Why not look at the variety of LSM outputs that are impacted by new veg data? This would be a more insightful probe into LSM behavior. Or, if the authors were truly interested in ET for ET's sake, then why not remove the complexity of LSMs and just focus on the dedicated ET models that rely heavily on veg data (e.g., Jiménez et al., 2011)? In fact this whole field of the literature was missed by the authors, showing clear negligence in ET background research, which is particularly poor given the submission to HESS. The ET focus also seems somewhat redundant with the other Ghilain et

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al. HESS paper. It actually seems that the authors were primarily interested in H-TESSEL and the context in which it is held (e.g., real/near real time applications), but instead of focusing the paper clearly on that, this underlying interest is wrapped in a multitude of layers of text that need to be whittled down greatly. If the authors were more interested in what new LAI/fAPAR means, they should have constructed their analysis towards a LAI/fAPAR intercomparison across the multiple products. The ECOCLIMAP-I comparison is not very useful given that ECOCLIMAP-I is not actual direct measurements (like the flux data are—this part was good) so it's difficult for the reader to take anything meaningful from it. The title is also misleading because of the plural designation on "models" (only one LSM was "improved" or analyzed).

In general the paper is poorly organized in terms of layout, intention and thought process. A strong, coherent argument is lacking, there are a lot of random thoughts and analysis/information scattered throughout, and generally reads more like an engineering document than a scientific paper.

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