

Interactive comment on “Soil moisture and evapotranspiration of wetlands vegetation habitats retrieved from satellite images” by K. Dabrowska-Zielinska et al.

Anonymous Referee #2

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The paper “Soil moisture and evapotranspiration of wetlands vegetation habitats retrieved from satellite images” proposes an analysis of multi-configuration satellite images to estimate land surface parameters and evapotranspiration. However, this paper is not clear. Data base and methodologies are not clearly described. There is no validation of proposed approaches. Therefore, I propose that this paper version could not be accepted.

Comments: 1) Introduction is not clear. We don't observe clearly objectives of the paper. Authors propose a limited number of references concerning the proposed dis-

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cussion. The paper organisation is not clearly proposed. 2) section 1.2. Authors present ground truth measurements without any quantitative details concerning measurements and dates of acquisitions. 3) section 1.3 satellite: authors don't propose any detail about satellite data (dates of acquisition, configurations of radar measurements, number of images. . .). 4) sections 2. and 3. propose titles which not correspond to scientific objectives. 5) section 2. The authors talk about relationship between NDVI and LAI. Relationship is not written. There is no validation. Statistical error estimation is not clear (mean difference??, what about RMSE, correlation . . .). 6) It is not clear how LE and H are computed, what about validation of maps function of vegetation types? 7) We observe analysis for different dates (May 2003, 2008, 2009), what about ground validation and changes of land use during this long period? 8) Section 3. There is an analysis of relationship between backscattering and biomass and moisture, what about radar configurations (polarisations, incidence angles, frequency), are all data with the same incidence angle? 9) Authors propose a mapping of soil moisture, what about roughness and vegetation effects? 10) There is no validation of proposed algorithms for radar signal inversion?

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 7, 5929, 2010.

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