

Interactive comment on “Hourly soil moisture mapping over West Africa using AMSR-E observations and a satellite-based rainfall product” by T. Pellarin et al.

J. Liu (Editor)

water21water@yahoo.com

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This article provides an original and simple method to map hourly soil moisture on a large scale with observations and satellite-based rainfall data. The method is interesting and useful. However, the presentation is far away from clear. The English language is too poor to understand in many places. I suggest publishing it with major revision.

Besides the comments from Referee #1, the authors should pay attention to the following issues:

- (1). The English language is rather difficult to understand. The authors have to ask C1833

help from a native English speaker to polish the language.

- (2). The abstract is too long. It has to be substantially shortened.

- (3). Two resolutions are mentioned in the article: 10 * 10 km² and 30 min. 30 min is equivalent to 50 * 50 km³. It is not clear whether the authors use both the resolutions or you only use one. Please clarify this. In addition, "30 min" is not professional at all. "30 arc-minutes" should be used.

- (4). P4036 Line26: SHOWN→ showed

- (5). P4037 Line 26: 10 * 10 km², 30 min. what's your meaning? do you think they are the same resolution?

- (6). P4038 LINE 10-12: this sentence is not clear at all. Pls polish it!

- (7). P4039 Line 1-4: explain the reasons for the differences. Line 18: P_j (subscript!!)

- (8). P4042 Line 11 "This yields to modify..." I do not understand this sentence.

- (9). P4043 Line 3 "locale" is not correct. locale→local. This word is used incorrectly many times in the paper. Correct all! Line 12: June 1st to 30 September: both the dates do not share the same format. LINE 20: "Untrue" is not a correct word here.

- (10) P4045 Line 5-7: this sentence is not clear at all. Polish the language.

- (11) P4046 Line 1-3: not clear at all. Line 8-9: not clear at all. Line 22-24: not clear at all. Line 29: R² coefficient → R². This suggestion applies to other places.

- (12) Line 17: based on the use of a rainfall.. →based on a rainfall (13) P4049 Page 7: "essentially" is not a suitable word here. Page 10: Calibration/Validation → calibration/validation

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