

Interactive comment on “The Global SMOS Level 3 daily soil moisture and brightness temperature maps” by Ahmad Al Bitar et al.

Anonymous Referee #1

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General comments This paper presents the SMOS L3 SM products. The paper is well structured and presents key elements for this dataset which is already used by numerous scientific groups. In this respect it was a needed paper. When comparing the L3 and L2 products with in-situ data, the statistics (RMSE, bias etc) for the L3 product are not improving the L2. The wet bias, from my point of view, is not sufficiently explained. I would suggest to deeper analyse the reasons for that bias and also to include in the conclusions some outlook to try to improve this.

Specific comments

L73 not clear what decadal time series means. 10 days periods, 10 years?

L77 Please precise that you refer to 'passive' microwave sensors (not active)

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L170 - 178. Not clear what you are trying to explain here. It might seem the decrease of TB measurements is related to the calibration phase. Might be clear if you just plot the average number of measurements as a function of the swath position

L474- L475 Is it really higher difference between ASC/DESC passes than between polarizations. How can that be? And why? What about emissivities?

L508 Refers to ASC right? What about DESC?

L524 - 525 Only for ASC. Why?

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