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## Reply on RC2

Bartosz Zawilski

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Author comment on "Wind speed influences corrected Autocalibrated Soil Evapo-  
respiration Chamber (ASERC) evaporation measures" by Bartosz M. Zawilski, Geosci.  
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I would like to thank my second referee (RC2) for his work to truly read my text and for his suggestions which are all embedded in the revised version.

I am answering point by point for particular suggestions or questions. Concerning all the typesetting's suggestions and corrections, it will be done in a revised version so, I am not answering it individually.

RC2: "I found many difficulties in reading the paper, both for the English style (which, to my opinion, needs extensive revision) and for the overall structure of the work."

I do agree to revise the structure and to correct English writing by a professional. In the new structure, in response to both, CR1 and RC2, Laboratory findings on RE are moved to an appendix. A more detailed description of slow sensor simulation and possible resulting overestimation is moved to another appendix in order to shorten the "conclusions" section. Also, description of used algorithms and description of a correct sensors use is moved to M&M section. All the changes make "Conclusions" shorter.

RC2: "Abstract should be focused more on the goals and the structure of this research, providing then specific highlights on the main findings and conclusions. Introduction should provide a general background on the current state of the art, leave at the disposal of the reader all the elements for contextualize the topic and what will discuss later. As an example, Par. 1 could be moved to this section."

Effectively the structure was rearranged.

RC2: "Par. 2.4: is it necessary to add a paragraph for a few sentences?"

It was merged with the previous section and moved to M&M section.

RC2: "Par. 3: the nested structure of this paragraph heavily affects the readability of the paper. Furthermore, I would appreciate if the whole paragraph should be reformulated in a shorter form."

This section is much shorter in the new version.

RC2: "Please, check the compliance of formal use of unit of measurement to the International System"

In general, I am always following the USI except when measured scalars are better described with others units. Example: water fluxes USI would be in  $\text{kg/m}^2/\text{s}$  but it will be too small so I am adopting rather  $\text{g/m}^2/\text{s}$ . PWM is unitless but expressed in % as every PWM generator requires inputs as %. Consequently,  $Z$  is also unitless and expressed in %.  $W$ , gravimetric soil water content, is unitless too and also expressed in % as we are always converting it to % rather than conserving it in  $\text{Kg/Kg}$  or  $\text{g/g}$  (number comprised between 0 and 1).

RC2: "A table of acronyms and unit of measures can be a precious support for the readers"

Effectively, as I am using lot of acronyms and a list is welcome. I am adding it.

R2: "Line 22: are you sure that "WMO168 2008" is the right way to cite the reference?"

Reference changed.

RC2: "Line 40: could you add a general framework related to eddy covariance technique?"

Done

RC2: "Line 51: Zawilski in progress...what is this reference?"

Not yet and I have withdrawn it.

RC2: "Line 61: why reporting this information about the maize? Is it necessary for the discussion?"

I am citing it as illustration to show that the evapotranspiration measurement and then some *models* used in order to split it to the soil evaporation and vegetation transpiration gives results that are model dependent. And models are numerus.

RC2: "Lines 121-122: again, are you sure that is the right way to cite the reference?"

These lines are describing the used programming language (Labview) and its designer owner.

RC2: "Lines 170-183: is it necessary to report the mathematical description of the solution?"

Based on my personal experience and exchanges with my colleagues, I found useful to recall why a physical phenomenon with variations proportional to difference between the actual state and the equilibrium state displays an exponential rise behavior. And this explanation resides in a mathematic consideration. The exponential rise behavior is widely present in the nature and appears several times in this paper (water vapor accumulation, slow sensor measurements, soil water vapor sorption....)

Line 187: please, check Eq. 5

Absolutely, as answered to my CR1, I have corrected it by adding factor  $V/S$  (chamber volume by collar surface) on the right side and completed by the initial slope calculation.

RC2: "Line 211: could you provide references to this sentence?"

Not yet as it is always my current work and consequently, I have changed "are" to "will".

RC2: "Line 241: tau\_63 stands for...?"

As stated in the concerned sentence, it is a "response time". This notation, is very often used for the sensor's characteristics description. For a better understanding, it is listed in the "often used acronyms and unit" list.

RC2: "Line 242: RH is Relative Humidity?"

As described in the text, yes. Listed now in the acronyms and unit table.