

## ***Interactive comment on “A mechanistic model for electrical conduction in soil–root continuum: a virtual rhizotron study” by Sathyanarayan Rao et al.***

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I thank the reviewer for constructive comments as well as for pointing out the mistakes in English grammar. I have considered and implemented most of the referee comments which has definitely improved the readability of the paper. The changes are highlighted in red in the attached pdf.

I highlight some of my responses below.

Specific comments:

Referee comment: "The conclusion is very long and is more a discussion of the results

C1

than a conclusion."

Response: I have now split the conclusion section to discussion and conclusion as suggested by the referee. I have also added a paragraph discussing the possibility of errors that can be introduced in water content estimates due to usage of wrong pedophysical model as suggested.

Technical Corrections:

All the minor English grammar corrections suggested by referee has been changed accordingly and highlighted in red in the pdf file added in the supplement.

Referee comment: "Fig. 7: The difference between the symbols for arithmetic and harmonic mean is not clear to me (in 7b and 7d). The same applies to the symbols in c and e. Maybe also another colormap (e.g. jet) would be better in b and d."

Response: I have separated the arithmetic and harmonic mean into separate figure with jet colormap.

Referee comment: "Line 232 until the end of the paragraph: I do not understand what you did exactly and why you did that. Please clarify."

Response: I have added some lines to make it clear. Please check lines 231 to 244 highlighted in red in the attached pdf.

Referee comment: "Lines 240-264: From my point of view these paragraphs already include some results (e.g. Figure 7). Please check if you could clearly separate the methods from the results and move the results into the appropriate section."

Response: The reference to Figure 7a is to just show a picture of mesh. However I agree Figure 7 b to g contain results, but Here I refer to just Fig. 7a.

Referee comment: "Tab. 2: Maybe a figure would be easier to understand than this table."

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Response: I would still prefer a table. The reason being, the data is less and for numerical comparison, a table is more efficient.

Please also note the supplement to this comment:

<https://www.biogeosciences-discuss.net/bg-2018-280/bg-2018-280-SC1-supplement.pdf>

Interactive comment on Biogeosciences Discuss., <https://doi.org/10.5194/bg-2018-280>, 2018.

C3

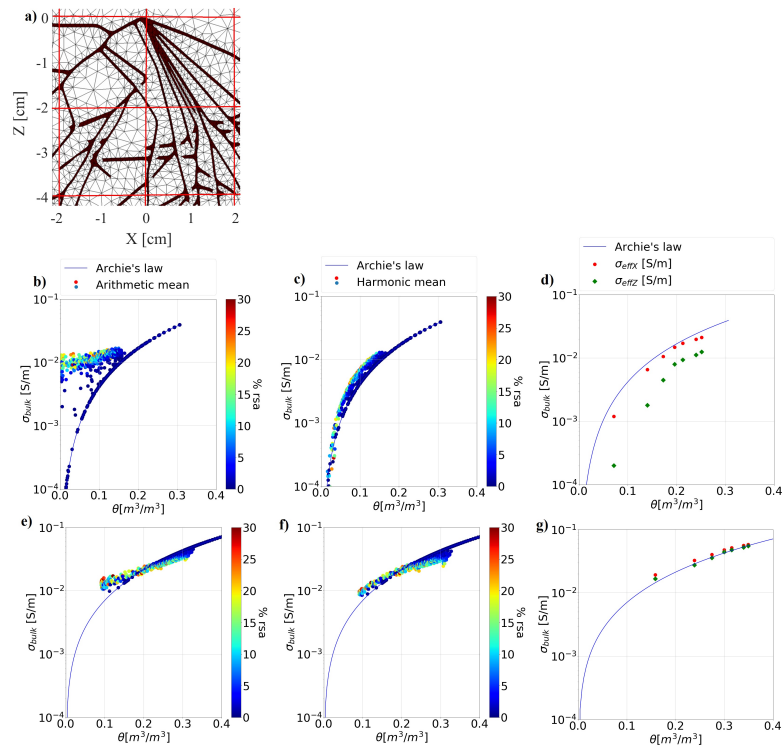


Fig. 1.

C4