Geoscientific
Model Development
Discussions

Interactive comment on "Updated European hydraulic pedotransfer functions with communicated uncertainties in the predicted variables (euptfv2)" *by* Brigitta Szabó et al.

Anonymous Referee #2

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Soil pedotransfer functions are important when used for estimation of soil hydraulic parameters in catchment, regional, or continental scale applications. This manuscript improves the estimation of euptfv1 and provides information about prediction uncertainty, and can be applied for more predictor variable combinations than the euptfv1. Overall, the manuscript is interesting, important, well written, and organized in a logical well. Therefore, I recommend accepting this manuscript after minor revisions that are required to address the general and specific comments provided below.

General comments:

1. The authors compared the estimation of water content at saturation, field capacity,

wilting point, plant available water content, saturated hydraulic conductivity, etc., individually. I think these sections are somewhat lengthy. However, the most interesting part of the comparisons between point and parameter predictions and euptfv1 and v2 are very short. Is it possible to extend the comparisons and the discussion?

2. The authors listed so many PTFs. When I was reading the conclusion part, I can not find which PTF I should use. Is it possible to make some concluding remarks regarding which PTFs should be used for corresponding predictors? I think this will be very helpful for future readers.

Specific comments:

Additional minor comments:

1. Figures 2, 5, and 6: Is it possible to include R2 in these figures? This will make the comparison between different figures easier.

2. In the abstract and conclusion sections: -15.000 should be -15,000

3. Page 6, line 4: why did the authors utilize median values instead of mean values?

4. Page 7, line 19: "in the study of (Khodaverdiloo et al., 2011)" should be "in the study of Khodaverdiloo et al. (2011)"

5. Page 10, line 4: "and RMSE" should be "an RMSE"

6. Page 10, Line 27: ";" should be ","

7. Page 12, line 14: add a connection/linking word before "it is due to"