Hydrology and
Earth System
Sciences
Discussions

Interactive comment on "Predicting tile drainage discharge using machine learning algorithms" *by* Saghar Khodadad Motarjemi et al.

Christian Stamm (Editor)

christian.stamm@eawag.ch

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Editor comment

HESSD-Manuscript **"Predicting tile drainage discharge using machine learning algorithms"** (HESS 2019-650).

Dear Dr. S. Motarjemi

I'd like to add a few further remarks in addition to what the other two reviews commented.

L. 83: The year of the citation of Wong is inconsistent between the main text and the reference list.

L. 156 - 157 The number of models seems to be inconsistent.

L. 190 - 191: What could be reasons why KF performs worse? Is there a spatial bias?

L. 238: What is the basis for this statement?

L. 244: Does the predictive value of DEM-derived indices not depend very much on the spatial support and resolution of the data? Have you calculated these indices as averages across the catchments?

Fig. 1a: The data seem to separate into two clusters. Do the points with high discharge but rather low percolation have something in common that could explain the differences?

Fig. 1a&b: Combining the two data suggests that drainage discharge is well correlated (and predicted) by the amount of precipitation. How does this relationship look like if you additionally distinguish between clay and sandy soils?

Tab. 1: Please provide the distribution of predictors (as supporting information).

Sincerely

Christian Stamm

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2019-650, 2020.