

Interactive comment on “Modeling Error Learning based Post-Processor Framework for Hydrologic Models Accuracy Improvement” by Rui Wu et al.

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Received and published: 17 April 2019

I find the work presented here interesting and informative. The work presented here is thought provoking and offers another way to approach hydrologic modeling. I have a couple comments:

On page 7, the authors note that the uncalibrated models with default values are compared with the calibrated cases from traditional calibration and post-processor methods. To what extent do the default values impact the results of this study? Are the default values relatively close to the traditionally calibrated values, or are they significantly different? Do the default values accurately, or inaccurately, physically represent the system being modeled. I think it's important for the authors to discuss how the

C1

default values in the models studied here impact the results presented.

Are the authors able to attribute errors identified through their Modeling Error Learning algorithm to any model biases that are physically based? For example, is there a particular streamflow behavior or weather pattern that is not accurately captured in the HEC-HMS or PRMS models due to a limitation into how a physical process is modeled or represented in those models? If there is no attributable physical reason for the errors identified through the learning algorithm, is it really appropriate to be making those changes; that is, are we getting the right (or more accurate) answer for the wrong reason? The modeling Error Learning algorithm may be just identifying a limitation of the model.

Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2018-136>, 2018.

C2