

Response Letter

Title: A Hydrological Emulator for Global Applications – HE v1.0.0

Journal: Geoscientific Model Development

We would like to thank the Editor for favorable consideration of our work. The responses to the Editor's comments are shown in [blue](#) font below. All the line numbers indicated refer to the main text of the revised manuscript (clean version without tracking changes).

Editor's comments:

Topical Editor Decision: Publish subject to technical corrections (19 Feb 2018) by Bethanna Jackson

Comments to the Author:

Thanks for the careful revisions; I'm satisfied the (already positive) suggestions from the reviewers have been carefully addressed. As a personal suggestion for further work, I would be very interested to see the approach applied to further models with more spatial and temporal complexity if this is possible!

Response 1: We thank the Editor for accepting our manuscript with corrections. We have added some discussions for future work accordingly (lines 469-474):

“This HE could be used to emulate a wide range of models with different spatial and temporal complexities, and its performance may vary from model to model. Thus, examining and comparing the extent to which the HE could mimic the behaviors of different GHMs and LSMs is of our future research interest. In addition, future research can extend this work by systematically investigating the role of different levels of inputs and parameters on model performance in different basins across the globe.”