Hydrology and Earth System Sciences Discussions

Hydrol. Earth Syst. Sci. Discuss., author comment AC3
https://doi.org/10.5194/hess-2021-210-AC3, 2021

Reply on RC3

Liguang Jiang et al.

Author comment on "Calibrating 1D hydrodynamic river models in the absence of cross-section geometry using satellite observations of water surface elevation and river width" by Liguang Jiang et al., Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2021-210-AC3, 2021

We thank the reviewer for acknowledging the contributions of our work presented in this study.

We are aware that the power-law relationships between flow area / conveyance and flow depth are not new. However, to the best of our knowledge, we for the first time formulate this parameterization method to calibrate 1-D hydrodynamic models regardless of cross-sectional geometry. We will add a paragraph upfront to justify the novelty presented in this work.

Regarding your concern about the title, we will drop the subtitle to avoid any overselling of this work.