Review hess-2021-511 R1

TITLE

How can we benefit from regime information to make use of LSTM runoff models more effectively?

Formerly: How can regime characteristics of catchments help in training of local and regional LSTM-based runoff models?

RECOMMENDATION

Accept

REVIEWER

John Quilty

GENERAL COMMENTS

The authors have satisfactorily addressed my comments on their initial manuscript. I recommend the paper be published after correcting the minor issues noted below.

Thank you for the opportunity to review this interesting paper!

MINOR COMMENTS

All comments below refer to the track-changes version of the article.

1. A reference should be included in the sentence just before Equation 4. The source of all equations that were not developed by the authors in this paper should be clearly indicated.
2. Line (L) 250-251: "Also, since the temperature feature can take negative values, we can not in principle benefit from a [0, 1] scaling." What principle is being referred to? If a variable that takes negative values is scaled to [0, 1], it still (qualitatively) conveys the same information (as it did on the original scale), where the origin is shifted from 0 to some corresponding number in [0, 1].
3. Table 3: should the terms 'runoff index' and 'total precipitation index' in the first column be swapped with one another?
4. Equation 15: what was epsilon set to?
5. Grammatical issues:I noticed a few grammatical issues related to the authors' replies to my various comments from the initial review. I suspect there may be others. Again, I suggest the authors do another run through the manuscript to catch similar issues.

    a. L210: 'brief' instead of 'quick.
    b. L225: 'disregard' instead of 'throw away'.
    c. L233: remove 'of'.