

Hydrol. Earth Syst. Sci. Discuss., referee comment RC4
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Comment on hess-2021-393

Anonymous Referee #4

Referee comment on "Ensemble streamflow forecasting over a cascade reservoir catchment with integrated hydrometeorological modeling and machine learning" by Junjiang Liu et al., Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2021-393-RC4>, 2021

This is an interesting manuscript that is well structured and presented. The topic is worthy of publication in HESS. However, before publication please address the following comments:

1. Line 201: What is the full name of GR4J? Please check throughout (e.g., TIGGE, ECMWF, CMA, SCE-UA).
2. Lines 179-182: Please list the values or ranges of the calibrated parameters in a table.
3. Line 189: How to perform the bias correction of the TIGGE-ECMWF forecast forcing?
4. Line 190: Please give a detailed description of the workflow in Fig. 2.
5. Line 204: Please check the equation number.
6. Line 205: Please clarify the input and output variables here.
7. Lines 215: The meaning of the $F(y)$ in Eq. 1 is not clear. Also for ref in Eq. 2. Please clarify the meaning of the variables in each equation.
8. Line 291: Is the diurnal cycle in Fig. 8 the climatology averaged result? If so, please give the ranges to indicate the uncertainty. It also looks a bit strange that the rainfall reaches its maximum in the early morning rather than the afternoon in summer. Please clarify.
9. Lines 298-301: Why would the combination of heavy rainfall and the decrease of upstream flow make the hydrological model performance worse? Does the model consider the reservoir?
10. Line 328: Please add some implications of this work and as well as its deficiencies that need to be improved in the last section.
11. Add the units in Figs. 6 and 7.