

The paper introduced a novel four-source hydrological model and discussed the value of high-resolution data in hydrological simulations as well as the transferability of model parameters under different conditions. The content is comprehensive, addressing key issues that are critical in hydrological modeling. The writing is clear, well-organized, and the methods are appropriate. Thereby, I recommend the manuscript for acceptance after addressing the following issues.

Below, I outline the issues that I believe need to be resolved or further clarified, which could help improve the quality of the paper.

1. The authors have also investigated the value of high-resolution data for hydrological simulations in another manuscript submitted to this journal. I believe it is necessary to further elaborate on the background, objectives, and the similarities and differences in content and results between this study and the previous one. This will provide readers with a deeper understanding of the topics addressed in this paper.

2. According to Figure 1, it seems that there are some nested relations among the seven catchments, which are not clearly showed by the figure. Besides, it seems that BHP and ZJF belong to the same catchment, and the BHP station is not mentioned in the main text or Table 1. The methodology used to address such nested catchments should be clarified more clearly.

3. In lines 305–306, the authors mention " In all catchments except for XTZ, when parameters calibrated with a specific data resolution were transferred to other resolutions, simulation accuracy improved as the resolution of the data used increased." However, the reasons behind the observed anomalies in this catchment have not been explained. Although the manuscript includes a discussion of another watershed anomaly, I suggest that the authors also provide some explanation or discussion of the observed anomalous behavior in the XTZ catchment to improve the comprehensiveness of the analysis.