

Interactive comment on “Using Satellite-Based Evapotranspiration Estimates to Improve the Structure of a Simple Conceptual Rainfall-Runoff Model” by Tirthankar Roy et al.

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In the submitted manuscript, results about three different ways of incorporating satellite-based actual ET (AET) data into conceptual hydrologic modeling framework to improve its performance in terms of streamflow and AET simulations are reported (process constraining within the model, structural change, and a combination of both). The key points that I have found are:

This study shows how the new sources of information such as satellite AET can be used to improve the performance of hydrologic models.

A strategy that includes several important aspects of modeling is described, which in-

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cludes process constraining, model recalibration, use of newly available information, and finally a diagnostic structural improvement in model together with uncertainty analysis.

From the results exposed, both structural improvement and process constraining are important for models that have practical applications. This idea would be helpful for further developments in hydrological modeling. From my point of view, this paper represents important novelty in the field of hydrological research and is quite suitable for HESS.

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