

Interactive comment on “Bayesian performance evaluation of evapotranspiration models for an arid region in northwestern China” by Guoxiao Wei et al.

Guoxiao Wei et al.

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Referee #2: Comments: 1. Response to comment: The grammar of this paper needs some improvements, some grammar errors and ambiguous sentences can be found. Response: It is really true as you suggested that our manuscript needs the revision of English sentence. After the revision according to the reviewer's comments, the manuscript will be edited by the professional translation services.

2. Response to comment: The universality of this study and its conclusions need to be clarified since the study area and methodology are both very spatial and temporal specific. PS, are the conclusions valid under other conditions or not? Response: The

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ET models and BME model selection can be applied to other conditions as long as the required data can be obtained. Although there are many studies on ET model evaluation, their conclusions about model ranking are all based on traditional error metrics. Just as you said, the conclusion about whether SW model is optimal selected by BME method under other conditions still needs further confirmation. We will add relevant contents in this section.

3. Response to comment: Following the last comment, is it possible to provide results for other study areas or using other time scales? This will provide strong evidences to support the conclusions. Response: It is meaningful to provide results for other study areas or using other time scales to support the conclusions. We've been looking for reliable data from other study area or from other crops for BME model selection to confirm whether the SW model is the optimal model under other conditions. We are trying our best to connect with some agriculture institutes. However, it is difficult to obtain the required data by ET models, especially the soil water contents. So far, we have require a data-set but the data quality has not been validated yet. And thus, we will perform a deeper research on different crops when the data is available in the future study.

4. Response to comment: I am not sure I can agree with some conclusions, for example, the one in lines 531-532, the authors suggest prioritizing BME over other measurements, but BME can also provide inaccurate results. Response: This is true but not contradict. The BME is the best measurement in our test. However, as a method, itself is not perfect especially when applied in the practical field. To clear express our opinion, the confusing words will be modified in the following process if possible. Once again, thank you very much for your comments and suggestions.

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