Hydrology and
Earth System
Sciences
Discussions

Interactive comment on "Improvement of model evaluation by incorporating prediction and measurement uncertainty" *by* Lei Chen et al.

Anonymous Referee #2

Received and published: 16 November 2017

Authors propose new approaches based on cumulative distribution functions of the predicted and observed data (CDFA) and the Monte Carlo approach in combination with the Soil and Water Assessment Tool (SWAT) to assess model performances within an uncertainty framework in the Three Gorges Region, China, . They reported that the proposed approaches perform better than the classical goodness of fits criteria and that the proposed methods could be extended to other goodness-of-fit indictors and other watershed models to provide a substitution for traditional model evaluations within an uncertainty framework.

The idea of combining both predictive and observed uncertainty to assess model performances and uncertainty is quite interesting. However, it is not clear for me how the assessed uncertainty is used with the model to gain knowledge and to improve model

performance? then, how can the proposed approaches be implemented within the calibration process to reduce model error?

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., https://doi.org/10.5194/hess-2017-66, 2017.