

Interactive comment on “Real-time forecasting of typhoon inundation extent in a partially-gauged area through the integration of ARX-based models and a geographic information system” by Huei-Tau Ouyang and Yi-Chun Chen

S.-S. SHIH

uptreeshih@gmail.com

Received and published: 5 October 2016

This paper presents studies regarding typhoon inundation extent forecasting in a partially-gauged area by integrating ARX-based models and a GIS. The paper deals with an interesting subject which is topical. It is my opinion that the paper deserves to be published and the quality of the paper can be further improved by addressing the following comments.

1. It seems that both raw data and numerical modelling data were fed into the black-box model. What is the weighting between these two different data? How to decide

C1

which data would dominate? Would different weighting alter the model performance? 2. Page 1 Ln14: what is the definition of flat-water? 3. Page 2 Ln27: three approaches? Do you mean numerical model, black-box model? What else? 4. Page 3 Ln28-30: I'm wondering this sentence is based on your finding or other literature. 5. Page 5 Ln25: How to and why select these representative points? 6. Page 8 Ln8: Did you try to filter or/and fix the historical records? 7. Page 10 Ln14: "...For example, arx 4 [5 3][1 0] refers to...", seems some typo errors and missing references? 8. Figure 4: indication of the relationship between the division of sub-areas and the representation points is necessary. 9. Figure 5: Y-axis uses "Water stage" and differs from the Y-axis of Figs 2&3 (i.e. Water level).

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-412, 2016.

C2