Natural Hazards
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Discussions

Interactive comment on "Multi-objective optimization of typhoon inundation forecast models for water-level gauging network by integration of ARMAX with a Genetic Algorithm" *by* H.-T. Ouyang

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Thanks the Referee for the valuable comments. The author accepted with pleasure all the comments and made the following replies.

Comment 1: In figure 1 I cannot see the river and basin in this study basin. The author can improve the sketch of the watershed.

Reply: The figure will be amended by adding the drainage waterways and sub-basins in the area in the revised manuscript.

Comment 2: In figure 6, comparing model predictions (3-hr lead time) with measured ones, the results by models display significant fluctuations of the hydrographs. Can the author explain more detailed inside?

Reply: The models predict future water-levels by using two input variables: (1) the cumulative rainfall, and (2) the water-level data from an associate site. while the associate water-level data is rather stable, the rainfall data however exhibits fluctuating pattern, as shown in Figure 2 taking Typhoon Trami as an example. As a result, the predicted water-level also displays certain fluctuations. However, the global trend of the predicted hydrograph is compatible with the measured data.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., doi:10.5194/nhess-2016-1, 2016.