Natural Hazards
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Discussions

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Interactive comment on "The efficiency of the WRF model for simulating typhoons" *by* T. Haghroosta et al.

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Dear Nan YU,

Thank you for your bright and valuable comments. I replied to your comment as follows, and I hope it can satisfy you.

Comment 1: Page 291: The author should clarify the SST-update function in WRF. (Is the SST a prognostic variable in WRF with this option?)

Response: To update the SST values, the model provides this function (Wang, et al. 2010, ARW modeling system user's guide). Prior to version 3.4 (here 3.3), sst-update must be used in combination with the sst-skin option.

Comment 2: Page 292: The authors missed the reference for the CFSR dataset (Saha et al, 2010)

Response: The missed reference was added to the bibliography.

Comment 3: General comments: In my opinion, the author should take attention in the comparison issue between two datasets (simulation results and CFSR dataset) at different horizontal resolutions. The statistical significance should be addressed in the comparison as well.

Response: That is a good point, but the study used an interpolation method to calculate the values of parameters at the center of typhoons. Furthermore, CFSR data set has different data in different resolutions, but the study considered the one which has the nearest resolution to the WRF resolution(0.5 degree). Furthermore, the t-statistic along with other presented statistical parameters can express the empowerment of the model, but as a completing explanation, the amount of p-values for all simulated parameters except precipitation rate, are higher than 0.05.

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