

Review of “The efficiency of the WRF model for simulating typhoons” by Haghroosta et al.

Overall Recommendation: Major Revisions required

This article studied combination of physical parameterization in meso-scale numerical model, for typhoon simulations. They employed the WRF (Weather Research and Forecasting) Model with external forcing from global analysis dataset, namely NCEP FNL, to reproduce a specific typhoon case in South China Sea. In an operational weather forecasting point of view, it is essential to find proper combination of physical parameterizations of numerical model that behaves best performance. The authors seemed to try; however, their conclusion is hard to be generalized what is best for their model operations. In the real-time numerical model operation, we do not simulate various model sets for each variable, while we usually do simulate a best combination model for comprehensive prediction of various variables. If the authors are willing to strengthen this paper’s scientific insight, a reason for different performance of each combination on each variable should be analyzed, or the conclusion should be more generalized. Current conclusion is not new, which is already endeavored by hundreds of previous studies. This reviewer thought this article should be revised before the publication. Thus, I recommend return of this article for *major revision*.

Followings are specific comments.

- In introduction, the authors introduced about MM5 model and abruptly adverted to WRF model. There are lots of similar studies conducted using WRF model, which should be sufficiently reviewed in this article.
- There is no statement that which version of WRF model is used in this study.
- In page 290, Wang et al. (2010) is not included in the reference list.
- In page 291, full name of CFSR is omitted in the content.
- In Table 1, each scheme has corresponding reference paper, which should be cited in this paper.