

**2<sup>nd</sup> Round** Review of “Typhoon rainstorm simulation with radar data assimilation in southeast coast of China” by Tian J., Liu R., Ding L., Guo L. and Zhang B. (Manuscript ID: NHSS-2020-146)

I would like to thank the authors for addressing extensively all the review comments. The manuscript has been adequately improved. However, I still have some concerns that can be found below:

1) The computation of CSI and m-RMSE in terms of spatial and temporal distribution is still confusing for the reader. As I mentioned in the first review round, it seems that spatial m-RMSE refers to the evaluation of the modeled 24-h rainfall considering all 8 stations, while temporal m-RMSE refers the evaluation of the basin-averaged (areal) rainfall using 24 model-observations averaged over all 8 stations. Is that correct? If yes, the both metrics consider the spatial dimension. Thus, the spatial-temporal discretization has no point. Similar conclusions can be drawn for CSI.

Furthermore, the term “areal” is still unclear. Do you refer to the average of the modeled rainfall over the 8 rain gauges or to the basin-averaged modelled rainfall? In Figures 7-9, the rainfall observations at each hour are averaged over the 8 stations? To the end, do you compare the average of the modeled and observed rainfall over the 8 rain gauges or the basin-averaged modelled and observed rainfall? In the latter case, how do you compute the basin-averaged observed rainfall since you have point observations?

I suggest finding a more clear and robust way to describe the different metrics and its applications.

2) I still do not understand the phrase “Considering the application effect in southeast coast of China”. I suggest keeping the justification of the physics options selection based on previous studies.

3) English grammar and style still need further improvements (e.g., use of past tense in the description of the studied events in Section 2).