

Response to Reviewer #1 (amt-2021-411)

First of all, we would like to thank the editor and reviewers for their valuable comments. We have taken all the suggested changes into consideration and revised the manuscript accordingly. The reviewers' comments are copied here as texts in BLACK, our responses are followed in BLUE, and the major corrections are marked in RED in the manuscript.

1. How much differences would different RF parameters be introduced for the model, and this should be briefly discussed.

Response: Thanks for the suggestion, and we have tested our models with different RF parameters, which are illustrated in Figure 3 (also see below) of the revision. As shown in the figure, the model performance becomes almost consistent after the N_{tree} and $M_{feature}$ values becoming larger than ~ 200 and ~ 10 respectively. See the revision for details.

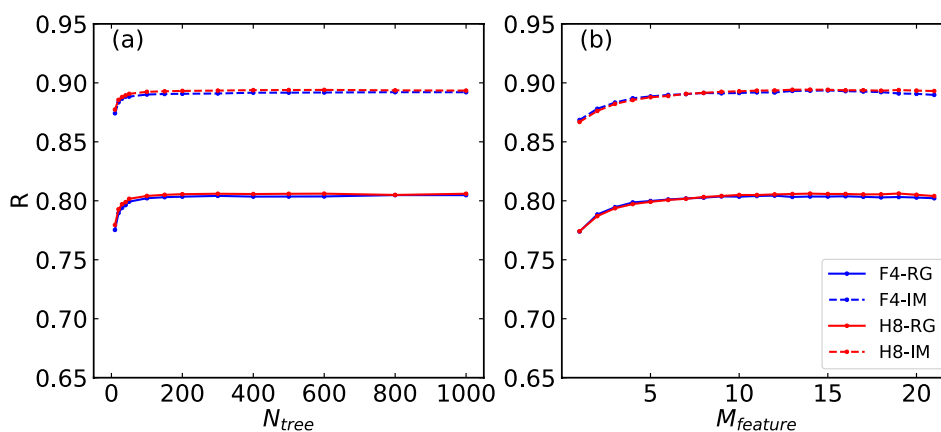


Figure R1 (Figure 3 in the revision): Dependence of the correlation coefficient (R) on the parameters N_{tree} (a) and $M_{feature}$ (b).

2. Line 221: The session title is suggested to be rephrased.

Response: Sorry for the confusion, and we have modified the title as “Performance for typhoon precipitation integrations”.

3. As noticed in Figure 8, once the models are developed, it would also work for precipitation over ocean but maybe with less accuracy. This should be clarified in the paper.

Response: Thanks for the suggestion, and we have added the following discussion in the revision:

“It is worth noting that our models can give precipitation distribution over ocean as well, while its performance could hardly be fairly evaluated due to the lack of the ground-based observations.”

4. There are some unnecessary texts in Figure 9(a), which should be removed.

Response: Thanks, and we have updated the figure.