

Interactive comment on “Numerical rainfall simulation with different spatial and temporal evenness by using WRF multi-physics ensembles” by Jiyang Tian et al.

Anonymous Referee #1

Received and published: 4 January 2017

This paper try to evaluate a multi-physics ensemble of simulations for six cases at two different regions. The model runs are performed with a spatial resolution of 1km in the inner domain. The physical parametrizations tested are two microphysics schemes, two PBL schemes and 3 Cumulus schemes. Cumulus parametrizations are not needed at this spatial resolution (1km,3km ,and even 9km). Therefore, at this point the full paper makes no sense for this reviewer.

In addition I provide some more comments.

- The nomenclature is not right. The authors call ensemble N, to the member N of the ensemble.

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- Plots showing the domains and orography would be desirable.

- What are the differences between semi-humid and semi-arid? The authors state that in both regions annual precipitation is 600mm.

-Fig 1, does not show the location of the rain gauges.

-What is the criterion to choose 0.4 as critical value for C_v ?

- The way of calculating mean observed precipitation could be not appropriated, specially for "uneven" cases. Why not using directly the output of the model at the observation sites?

-The way of presenting the results should be improved. Figures 6 and 7 do not permit to extract fast conclusions.

Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., doi:10.5194/nhess-2016-356, 2016.

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