

Interactive comment on “Role of atmospheric horizontal resolution in simulating tropical and subtropical South American precipitation in HadGEM3-GC31” by Paul-Arthur Monerie et al.

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Received and published: 13 August 2020

We thank the reviewers for their constructive comments and suggestions. We have given full consideration to the comments in the revised manuscript. We have added a short discussion in the paper, following your suggestion, and have included the citation to Bombardi et al. (2018).

Please see, lines 565-568: “Although we hypothesized that increasing resolution might affect the ability of climate models to predict precipitation, Bombardi et al. (2018) have shown that an improvement of South American precipitation prediction due to an increase in resolution is not straightforward. In addition to resolution, further works

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should, therefore, be devoted to understanding the effects of physics, on prediction system performance.”

Interactive comment on Geosci. Model Dev. Discuss., <https://doi.org/10.5194/gmd-2020-125>, 2020.

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