

# ***Interactive comment on “Mean and extreme precipitation over European river basins better simulated in a 25km AGCM” by Reinhard Schiemann et al.***

## **Anonymous Referee #1**

Received and published: 8 February 2018

Review of: " Mean and extreme precipitation over European river basins better simulated in a 25km AGCM"

By: Schiemann et al. Submitted to: Hydrol. Earth Syst. Sci. Manuscript # HESS-2017-732

Recommendation: Minor revisions

Overview:

The Authors investigate the role of the horizontal resolution in representing mean and extreme precipitation over Europe, through a General Circulation Model, with a special

[Printer-friendly version](#)

[Discussion paper](#)



focus on the different results over different river basins.

General comments:

1. This manuscript is well written and seems suitable for publication on HESS after a minor revision. 2. I would suggest to add a chapter, at least some sentences, comparing the 25 km GCM results with state of the art RCM results (EURO-CORDEX) in terms of biases. It is not necessary to show maps but a general evaluation based on existent literature is encouraged. 3. Few minor comment follow.

Specific comments:

- Page 2, line 2: “General Circulation Model”, is more appropriate than “Global Climate Model”. - Page 3, line 14: Can you expand a bit on the kind of parameterization used? Is there any difference between different resolutions/versions? - Page 4, line 20: in Figure 1,4,5,6 I would see also the intermediate resolution. Also I suggest to plot the bias in b,c,e,f instead of the absolute value. - Page 6, figure 2: I suggest to reduce the y range to 0.4-1.0. - Page 8, line 3: In order to highlight the catchment basin of the three rivers I suggest to use contours (or also the 3 rivers drawn in red colour) in figure 5a. - Figure 4: not clear the meaning of circles: verify the usage of the “observed maxima” description in figure 4. Also I suggest to uniform the ytick number in all of the subplots. - Figure 7: please add stippling to the model bias. The same for S4 and S6. - Page 15, Discussion: I think that this chapter must also include a discussion relative to chapter 3 and 4 results. - Page 16, line 3: Sentence not true when focusing on the Alps. - Page 20, line 30: I appreciate the “bullets approach” for the Conclusion but this is applied to half of the concluding remarks: the conclusion relative to 5.1 and 5.2 are not listed as bullets. Also part of the bullets is repeated in the last part of the conclusions (page 21).

---

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., <https://doi.org/10.5194/hess-2017-732>, 2018.

HESSD

Interactive  
comment

Printer-friendly version

Discussion paper

