

The revised version of the manuscript has significantly improved. I have only some technical corrections that should be considered before publication.

We appreciate the reviewer's time and suggestions for technical corrections. Please find our response below, colored in blue.

P2, L42: "including extremes". What exactly do you mean with extremes? What kind of extremes? Of precipitation? Give an example.

The original sentence, "high-frequency characteristics of simulated precipitation, including extremes", is intended to read as the "extremes" pointing to that of "simulated precipitation." To clarify, we revised the sentence as "its extremes".

P2, L42: The PMP results -> The PMP comparison results

Revised accordingly.

P2, L42: "in the context of all model simulations contributing to..." Not clear, please rephrase. Instead of writing "in the context" I would rather write "using".

Thank you for the suggestion. Revised accordingly.

P2, L43: "priority"? I would rather say "objective" is here the correct term.

Thank you for the suggestion. Revised accordingly.

P2, L45: process? Rather use singular than plural?

Thank you for the suggestion. Revised accordingly.

P3, L53: ".....has been an exponential growth of data size..." Mentioning this here makes no sense. You further mention this some lines below ones again, where it makes more sense.

Thus, I would suggest to remove this text part here.

Revised accordingly.

P4, L118 and 119: Section should be abbreviated as Sect. except at the begin of the Sentence (see manuscript preparation guidelines). This should also be corrected throughout the manuscript.

Thank you for pointing this out. Revised accordingly throughout the manuscript.

P5, L131: "...protocol constrains the simulation with..." Is here not "prescribes" the correct term rather than "constrains"?

While we consider the terms are interchangeable, we prefer to keep the original sentence, “The AMIP experiment protocol **constrains** the simulation with **prescribed** sea surface temperature (SST),” to avoid repeating of the word “prescribe” in one sentence.

P5, L143: priority -> objective

We revised it to “with this objective in priority”

P6, L188 and 189: “We also release ...” and “are also available online” -> this is a repetition and the sentence should be rephrased.

Thank you for pointing this out. Revised accordingly by removing the “We also release” part.

P6, L189 - 190: Add comma after “statistics” and add a comma before include, so that it reads: “The archive of these statistics, stored as JSON files (.....), includes.....”.

Thank you for the suggestion. Revised accordingly.

P6, L191: See -> see

Revised accordingly.

P7, L228: delete “at” before regional scales (?)

Thank you for the suggestion. However, we respectfully disagree and prefer to keep it as is because it is indicating “the application of user-custom domains at regional scales.”

P7, L230: these -> the (?)

Revised accordingly.

P10, L323: Write SAM_SON without a dash. Even better it would be if you would skip the abbreviation SON since it has not been introduced and is not in the list of abbreviation.

Revised as “SAM in September-October-November (SON)”

P11, L375ff: pentads? I do not see any pentads here, but only squares or rectangles.

I think there might be some confusions. The word “pentad” indicates a “group or set of five”, not a “pentagon”. Here we use the term to indicate precipitation in 5-day length time chunks obtained from the daily time series, following the metric definition in the reference paper, Sperber and Annamalai (2014). To avoid such confusion, we revised the description as “climatological pentad data” from “climatological pentads”.

P13, L435: Figure 8 -> Fig. 8

Revised accordingly.

P13, L450 and P14, L481: Tropics -> tropics

Revised accordingly.

P14, L462: evaluations -> evaluation

Revised accordingly.

P29, L887: reference of Hintze -> remove indent for the first line of the reference.

Revised accordingly.

P30, L893: hydrometeorology -> Hydrometeorology

Revised accordingly.

References in general: Journal names are usually abbreviated (see Copernicus manuscript preparation guidelines)

Thank you for pointing this out. Revised accordingly.