

Dear authors,

I am happy with the way you reorganized your manuscript to take into account the reviewers' comments. The manuscript is now almost ready for publication.

However, I still have comments.

1. Minor comment

I invite you to double check the writing of the supplementary material and make it 'easier' to read. In particular the first sentence (l21-22) looks very strange to me. I think it would be worth to remind the readers what are GA, GC, GO, GIS (only the 'full words' for the acronyms, such as 'Global Atmosphere', 'Global Ocean', ... nothing more. And would it be possible to explain in a few words what you mean with 'bottom-up and top-down developments' (l24-35)?

2. Major comment

Your data availability section does not comply with the requirements from COPERNICUS. I asked the Climate-of-Past co-editors-in-chief and I copy here the answer:

*The data availability is where the authors indicate the DOIs of the datasets.*

*Now I checked the indicated datasets and some of datasets in this paper are not freely accessible. In such case I wish that the dataset is available elsewhere in PANGAEA or NOAA.*

*The authors indicate that they WILL be uploaded to the "ESGF ...", this site should have an internet address that could be available and therefore mentioned. I am personally against papers indicating what the authors are presently indicating that something should happen sometimes because this will remain like that unless some corrigendum is published.*

Here are two examples of how the data should be cited:

*datasets may be listed in the data availability with a reference like "Martrat et al. (2004b)" which in fact refers to the following reference in the bibliography list:*

*"Martrat, B., Grimalt, J. O., Shackleton, N. J., de Abreu, L., Hutterli, M. A., and Stocker, T. F.: Sea surface temperature estimation for the Iberian Margin, PANGAEA, <https://doi.org/10.1594/PANGAEA.771894>, 2007b. Therefore in theory you get 2 citations for the same work, one for the published paper and another one for the deposited dataset.*

*Now for the NCDC-NOAA dataset, there is no DOI. Therefore no citation of the dataset in the reference list but the citation in the data availability section is "<https://www.ncdc.noaa.gov/paleo-search/study/20127> (last access: 8 December 2018, Mokeddem and McManus, 2016)"*

*Sorry to be a bit technical but this the new policy and publishing process related to FAIR.*

I am looking forward to reading your amended data availability section,

Marie-France Loutre