

Second review of “ Coupled climate-carbon cycle simulation of the Last Glacial Maximum atmospheric CO₂ decrease using a large ensemble of modern plausible parameter sets”

The changes made by the authors result in a much better article, but there are a few changes that should have been made and that seem to have been forgotten, in particular concerning figures (changing the scale, merging all three ensembles on the bar plots). Also the ensemble names have been changed but the old names have been used in a few places. In addition, I have a few technical comments. Once these changes have been made this article is suitable for publication.

Technical comments

p4. l.24 “The ensemble”: could you be more precise? For example, it could be replaced by “the simulation ensemble”?

p.5 l.3 A point is missing after “(Holden et al., 2010b)”

p.5 l. 5 Replace “global average carbonate preindustrial weathering rates” by “global average preindustrial carbonate weathering rates”

p.7 l.10 replace “..” by “.”

p.7 l.18 Define what you call “snowball Earth” (in terms of temperature for example, what threshold you used).

p.7 l.25 I suggest to remind what GWS is: “scaled by GWS (land to ocean bicarbonate flux scaling factor).”

p.9 Figure 1 (and following) As said in the previous stage of review, you could plot all three ensembles (grey, red and yellow) on the same plot.

p.10 l.32. Replace “simulate” by “simulated”

p.12 l.9-10 Put the units in the right place just after the numbers given: “level is 2.84 ± 0.62 and the range is 2 to 4” -> “level is 2.84 ± 0.62 % and the range is 2 to 4 %”

p.12 l.11 Replace “in ENS104 than in both ENS315” by “in ENS104 and in both ENS315”

p.13 l.6 replace “..” by “.”

p.15 Figure 6 Could you have the same scale for panels a and c?

p.16 l.8 Replace “(Bartlein et al., 2011 in Alder and Hostetler, 2015)” by “(Bartlein et al., 2011; Alder and Hostetler, 2015)”

p.17 l.9 replace “..” by “.”

p.20 Figure 9 Could you also have the same scale for panels a and c here?

p.21 l.4 Replace PGACF by ENS104

p.21 l.8 Re-explain here what scenario 1 is when you mention it.

p.26 l.15 no coma after "further"

p.30 l.7 Replace PGACF by ENS104

p.32 l.8 Re-explain what %LOC is

p.34 l.27 replace "2013 in Köhler et al.," by "2013; Köhler et al.,"