

Interactive comment on “Last interglacial temperature evolution – a model inter-comparison” by P. Bakker et al.

M. Kageyama (Editor)

masa.kageyama@lsce.ipsl.fr

Received and published: 3 December 2012

Editor comment on Bakker et al,

Dear Authors,

I have now received two reviews on your manuscript, which are already online. Both reviews are positive in the sense that they value the work which is presented, which represents a synthesis of a very large amount of data. Both see a high potential for these data and would like to see more analyses performed from this data set. While Reviewer 1 suggests improving the manuscript by quantifying the qualitative relationships illustrated in the manuscript, Reviewer 2 would like to see more in terms of processes explaining the temperature changes to the evolution of the AMOC, or to the

C2625

gyre circulation or sea-ice.

Considering the value of the synthesis you performed, even if obviously such a synthesis can never be as complete as a reader would wish given his/her own interests, I would recommend that you submit a revised version of your manuscript taking the reviewers' comments into account as much as possible given the available data. In this technical sense, Reviewer 1's might be easier to tackle, but I find it would be interesting to include more data (e.g. sea-ice, gyre circulation), if available, in the discussion of the relationship between AMOC and temperatures. This could also be done for a subset of models which show a typical behaviour.

However, my first requirement would be that you improve the manuscript: - by including the missing model description and missing reference to plotted data, e.g. the insolation on the various figures, which should be referring to Berger 1978 if it is indeed the reference, - by including a discussion of the caveats mentioned by Reviewer 2: possible impact of the changes in calendar (this could be analysed from the results for one model for which you have more data, for instance you own model), possible impacts of the acceleration factors (for the models which use them) on the deep circulation/state of the ocean (again, you might conduct an experiment with a simpler model to quantify this impact).

I am looking forward to reading your revised manuscript and your responses to the reviewer's comments.

Interactive comment on Clim. Past Discuss., 8, 4663, 2012.

C2626