

Interactive comment on “Impact of oceanic processes on the carbon cycle during the last termination” by N. Bouttes et al.

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Both reviewers support the ultimate publication of the paper but neither are happy with it as it stands.

Reviewer#1 provides an extensive list of major comments that at the very least will require substantial additions to the discussion and possibly additional simulations/figures. Their point#1 that alternative approaches 'can explain some fraction of data-based changes over the glacial/interglacial cycles without the apparent major process of the Bouttes approach (brine rejection)' especially needs careful attention.

Reviewer#2 states that 'This is not a process that is interactively simulated in the model, but an ad hoc manipulation of deep-water formation in the Southern Ocean'. This

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needs to be dealt with clearly with appropriate caveats in both the conclusion and abstract.

The comments of both reviewers therefore sum up to 'major changes' and I anticipate that this will go out to review again before final acceptance in *Climates of the Past*. Please respond in full to both major and minor comments.

Interactive comment on *Clim. Past Discuss.*, 7, 1887, 2011.

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