

## ***Interactive comment on “Interaction of ice sheets and climate during the past 800 000 years” by L. B. Stap et al.***

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1. Does the paper address relevant scientific questions within the scope of CP?

Yes

2. Does the paper present novel concepts, ideas, tools, or data?

No individual item (concept, ideas, tools, or data) are themselves novel, however, the synthesis of these within the structure of extremely simplified model domains (zonally-averaged climate driven by CO<sub>2</sub> and insolation, coupled with a 1D idealized ice sheet model) yields results, which given their agreement with available data, allows the authors to draw substantial conclusions about the relative importance of various climatic feedback mechanisms.

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3. Are substantial conclusions reached?

Yes, the need for both CO<sub>2</sub> and insolation forcing to obtain reasonable fits to date, as well as a robust estimate of the relative strengths of albedo and elevation feedbacks.

4. Are the scientific methods and assumptions valid and clearly outlined?

Yes, although as I initially read I was concerned that there might have been excessive “tuning” to get the results obtained, however, in the latter part of the paper a good analysis of the sensitivity of their choices to parameter choices is described.

5. Are the results sufficient to support the interpretations and conclusions?

Yes, to the best of my knowledge.

6. Is the description of experiments and calculations sufficiently complete and precise to allow their reproduction by fellow scientists (traceability of results)?

Yes.

7. Do the authors give proper credit to related work and clearly indicate their own new/original contribution?

Yes.

8. Does the title clearly reflect the contents of the paper?

Yes.

9. Does the abstract provide a concise and complete summary?

Yes.

10. Is the overall presentation well structured and clear?

Yes, although the sensitivity analysis that appears late in the paper could have been highlighted earlier-on so as to ameliorate the initial feeling that the model is over-tuned.

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11. Is the language fluent and precise?

Yes.

12. Are mathematical formulae, symbols, abbreviations, and units correctly defined and used?

Yes.

13. Should any parts of the paper (text, formulae, figures, tables) be clarified, reduced, combined, or eliminated?

No.

14. Are the number and quality of references appropriate?

Yes, to the best of my knowledge given my unfamiliarity with the literature cited.

15. Is the amount and quality of supplementary material appropriate?

Yes.

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Interactive comment on Clim. Past Discuss., 10, 2547, 2014.