

## ***Interactive comment on “Quantifying the effect of vegetation dynamics on the climate of the Last Glacial Maximum” by A. Jahn et al.***

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General comments: This is a nice paper because it is short, clear, and interesting, but maybe it is too short. I agree with M. Loutre's comments that several additional details should appear in the methods section (see her comments from 4 July 2005).

Specific comments and technical corrections:

1. Change "Lewis et al." to "Levis et al." in the text and references.
2. Section 1, paragraph 2: It is not clear enough how this study differs from Ganopolski (2003). Try to explain it better in this paragraph, but also when you list your simulations. For example it would be helpful to know which simulations are the same as his and which are new and how your method differs from his.
3. Please change "vertical layers" to "layers in the vertical" assuming that you are

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referring to horizontal layers stacked on top of each other.

4. I would change "fci=Tci-Tc-Ti+To" to "fci=Tci-To-(Tc-To)-(Ti-To)" as you have done for fvc. Those who haven't read Stein & Alpert will follow more easily.
5. You describe a set of 7 simulations. Why does the rule "2^n simulations" not apply when you are separating the contributions of ice, co2, and vegetation?
6. Section 2.2 paragraph 2: no need to repeat "see sect. 2.3 and table 1 for their setup."
7. Section 2.3 you write "parametrization of gyres in the N. Atlantic are altered..., although only the changes in ice sheets are mentioned explicitly." Since you don't explain the gyre parametrization explicitly, could you provide references where readers would get more information?
8. Section 2.3: change "...in all simulations. However, sensitivity..." to "...in all simulations because sensitivity..."
9. Section 3, paragraph 3: "caused by a number of positive feedbacks" Please list all the feedbacks involved.
10. Section 3, last sentence: please change "compare well" with "are consistent"
11. Section 4 paragraph 1: "in colder climates than in warmer climates." This is true when snow and ice disappear, right?
12. Section 4, par. 2: Add "due to ocean effects" to the end of "stronger over the SH."
13. I wouldn't announce your forthcoming study because it tempts me to suggest that you add the results of that study to this one. For example I think Ganopolski (2003) talked about ocean effects.

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Interactive comment on Climate of the Past Discussions, 1, 1, 2005.

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