

## Response to: “Editor decision: Publish subject to minor revisions (review by editor)”

Dear author, co-authors, first of all, sorry for the delay in my decision on your revised version of the ms submitted for publication in ESD on the conceptual ice sheet dynamics model PACCO and its application to evaluate the role of ice sheet dynamics and interactions with climate in explaining the peak signal in GIV at 100kyr. But now finally found the time to carefully check the revision and your response to the reviews. Overall it seems that you have handled well the last list of comments/feedback shared by the two reviewers but there is still one remaining issue. Indeed once more again carefully reading the revision and then checking the figures in support of the statements on the model features, I also got confused and needed to go back and forth between those figures and the text. This has also to do with the fact that the initial use of the different colors referring to the different values of the sliding factor changed to other colors to assess the sensitivity to different parameters (e.g.  $\tau_{kin}$ ). Here the interpretation of the figures would be more straightforward if this would be more explicitly mentioned in the figures captions (and possibly shortly in the introduction of the figure in the text). The main issue was with Figure 16 where it was not clear (not indicated in the figure captions) what the different colors reflected. A minor but essential feature to still fix also to fully appreciate the end result of the model development and application,

Laurens Ganzeveld

Dear editor,

Thank you for your comments. We have carefully reviewed the text again and added some sentences to explicitly say what each figure represents. All the changes can be found in the version comparison document but here we will summarize some of them:

**line 190:** ... over 800 kyr (Fig. 3 shows the simulations performed using different values of the sliding parameter  $C_s$ ), glacial inception ...

**Figure 13 caption:** ... Time series obtained from the model using  $\tau_{kin}$  (colors) ...

**line 360:** ... A realization for different values of  $\tau_a$  is given in Fig. 15. ...

**Figure 15 caption:** Results of the AGING simulation. (a, c, e) Time series obtained from the model using different aging times  $\tau_a$ . (b, d, f) Normalized periodograms obtained from the time series in the left column. We use a color bar for a range of periodicities in the GIV interval (10-120 kyr, from blue to green colors) and add some extreme values (1, 400, 1000, 10000 kyr), represented by lines with red shadings. Note that when normalizing spectra, series were cut off for periods larger than 200 kyr.

**Figure 16:** We have moved the legend above the panels to clarify the meaning of the colors.

For the sake of being systematic, we have also placed the color bars and legends above the plots to facilitate the reading of the figures. Finally, some typos have been corrected and some missing doi have been added to the bibliography.

Sincerely,

Sergio Pérez-Montero et al.