## Response to the editor

Dear Bertrand,

Thanks a lot for your detailed point-by-point response to the remarks of the referees. The paper has benefited a great deal from the corrections and the discussion of the results is definitely presented in a clearer way. I therefore accept the paper for publication in The Cryosphere.

We thank the editor for his positive comments on our work and on the corrections we provided with the paper. We are pleased that the paper has been accepted. We have now made the remaining small corrections that were suggested, as listed below, and have included these in the manuscript (see text in blue in the manuscript).

I have only a couple of small corrections to the manuscript, listed below:

Page 3, Line 13: Then the focus shifted to the simulation of grounding line migration

Done.

Page 3, line 16: or by enforcing

Done.

Page 13: The use of dots after (a), (b), (c) is ambiguous in the text, since a 'dot' marks the end of a sentence (period). Please remove these dots or use other marks if you wish to differentiate.

Done.

Page 14, line 11: in order to both verify

Done.

Page 18, line 13: For example, at  $\ldots$ 

Done.

Thank you again for your attention and consideration as editor of The Cryosphere.

Yours,

Bertrand Bonan, Mike Baines and Nancy Nichols