

Response to reviewer comments

(Author responses in blue)

Summary:

The revised version of manuscript clearly addresses the reviewers' comments raised during the first round of review. It improves the clarity of both results and discussion. Below are some minor issues that I believe could further improve the manuscript.

Specific comments:

L178: What range is being referred to, specifically? I assume it is the range of SLR values for RR1?

We have clarified the sentence here to explicitly state that we are comparing the range of responses to climate forcing and the range of responses to calving front retreat rate.

L178-181: Why are these two ranges being compared? What is the purpose or significance of this comparison? Currently, I don't see further discussion on this point. I believe expanding on this comparison would improve clarity and help strengthen the interpretation of the results.

This acts as a comparison between the full range of the response to changing our climate forcing choice, and the range of response to changing the calving front retreat rate. This point is picked up in section 4.4, but it was not obvious so the text has been updated to explicitly state the connection.

L245: Could you add more details about the curve for the 2150? What competing signals are affecting its behavior?

An example has been added of potential causes for competing signals, specifically numerous small pinning points and embayments which would affect buttressing as the grounding line retreats.

L261: Does 'changes in geometry' refer to the lowering of bed topography as explained in Appendix A? Please clarify.

This refers to changes in the location of the zero-velocity boundaries between basins over time, and the text has been edited to clarify the point.