

## Review:

I would like to thank the authors for revising the manuscript in response to the reviewers' comments. The revisions have significantly improved the clarity and overall quality of the manuscript. At this point, I have only a few minor suggestions, which are described below. I recommend the publication of this manuscript in TC following minor revisions.

## Specific comments:

L104: “... *so that it varies linearly*...” => ...so that **it** varies linearly...

L111: “...*set to equal half of the maximum melt rate below the floating tongue.*”: Why is it set to half of the maximum basal melt rate? Please clarify and add a reference.

L177-184: This part reads more like a discussion. Consider moving this paragraph to the Discussion section.

L248: “*Here, ...*” => “In the Ctrl simulation, ...”

L283: “*the spike in frontal velocities up to 900 m/yr...*”: Isn't the spike in the mean frontal velocity 2,000 m/yr in Fig. 6a?

L290: (Fig. 7b) => (Fig. 7f)

Figure 6 (caption): “Where the pink and green lines meet, ...” => “Where the **magenta** and green lines meet, ..”