

I would like to thank both reviewers for their constructive comments on this manuscript and also the authors for posting their response to the reviewers' comments.

The original manuscript provides a detailed analysis of the factors affecting firn densification modelling, but the reviewers raise a number of issues that should be addressed to confirm the robustness of the results.

In their response, the authors outline the steps that they propose to take to address the points raised by the reviewers. These include providing clearer justification for their choice of performance metric and the completion of additional simulations that will explore the sensitivity of the results to boundary conditions, including climate forcing, and model assumptions. I also encourage the authors to consider steps they could take to make their findings more useful to the wider glaciological community, for example by providing a quantitative assessment of different sources of uncertainty – as suggested by one of the reviewers.

In general, both reviews are positive, and I therefore encourage the authors to submit a revised manuscript that addresses the points raised during the preliminary review process.

Kind regards,

Pippa Whitehouse