

The Cryosphere Discuss., author comment AC1
<https://doi.org/10.5194/tc-2021-63-AC1>, 2021
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Reply on RC1

Tamara Annina Gerber et al.

Author comment on "Upstream flow effects revealed in the EastGRIP ice core using Monte Carlo inversion of a two-dimensional ice-flow model" by Tamara Annina Gerber et al., The Cryosphere Discuss., <https://doi.org/10.5194/tc-2021-63-AC1>, 2021

Dear Reviewer,

Thank you very much for your helpful comments and suggestions to improve our manuscript. We appreciate the time and effort you dedicated to providing this valuable feedback.

We agree with most of your comments and concerns and will incorporate your suggestions in the revised version of the manuscript. We are particularly thankful that you pointed out the missing explanations on parameter regularisation and we understand your concern about too strict parameter regularisation, particularly of the basal melt rates around EastGRIP in relation to other studies. We will address this issue by conducting additional model runs with looser parameter constraints and will elaborate more on the correlation of parameters and their effect on the results. We will further emphasize more clearly the advantages and limitations of the model used in this study.

Please find the point-to-point response in the attachment.

On behalf of all co-authors,
Tamara

Please also note the supplement to this comment:
<https://tc.copernicus.org/preprints/tc-2021-63/tc-2021-63-AC1-supplement.pdf>