

The Cryosphere Discuss., author comment AC3
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Reply on EC1

Ole Zeising et al.

Author comment on "Basal melt of the southern Filchner Ice Shelf, Antarctica" by Ole Zeising et al., The Cryosphere Discuss., <https://doi.org/10.5194/tc-2021-230-AC3>, 2021

Dear Editor, dear Nicolas,

We are absolutely grateful for the reviews we received for this manuscript! We will add the uncertainties of the pRES measurement and discuss the possible impact of a seasonal cycle to the annual melt rate estimate.

Additionally, we will improve the clarity of the section dealing with the small scale spatial variability. The detailed discussion of mechanisms that influence the (small scale) spatial variability is limited to the ice draft, since we don't have measurements of the ocean velocity, temperature or roughness at the locations of our measurements. However, we can describe which of these processes might be relevant to the small scale spatial variability.

We have also corrected a value in the methods section. The alignment of the signals was done with a 6 m correlation-window instead of a 50 m window.

We have responded to all of the reviewers' comments and will include the suggestions in the revised version.

Best regards,
Ole