

Interactive comment on “The potentials of high-resolution photogrammetry for analyzing glacier retreat in the Ötztal Alps, Austria” by Joschka Geissler et al.

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Dear Referee,

thank you for your feedback, that is of great value for our manuscript and will further improve our publication.

In general, as already mentioned in our AC1,

- we will add more references to relevant publications in the introduction. More precisely, we will add references working on photogrammetry for glacier studies (RC1), elevation changes (RC2) and geodetic mass balance assessments (RC2).

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- we will try to clarify explanations (e.g. gradual change of the density function) and the discussion.

- we will improve our results by incorporating meteorological data for the temporal correction, following the DDF or similar approach. This might slightly change our results but improve transferability.

We will take into account your specific comments while working on the revised manuscript. By doing so, we will

- improve some of our figures as suggested (e.g. thicken glacier outlines and add scalebar + legend (Fig. 5), mark dead ice body (Fig. 4), spatial visualisation of the geodetic mass balances (Fig. 11))

- add geodetic mass balances (9 yrs) of 25 glaciers to the supplement of this paper. This data will be submitted to WGMS.

We are convinced that those corrections and improvements will not take too long and will further improve the quality of our manuscript. Therefore, we would be happy to submit a revised manuscript after receiving the final response by the editor.

Joschka Geissler and Co-Authors

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2020-263>, 2020.

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