

# **Authors reply to revised manuscript egosphere-2025-5193: High spatio-temporal velocity variations driven by water input at a Greenlandic tidewater glacier**

We thank the editor and the reviewers for their positive feedback and the decision to accept our manuscript for The Cryosphere. The additional comments by both the reviewer and the editor were added to the final version of our revised manuscript:

- 1) The units at L238 were changed to “million cubic metres”.
- 2) Figure A8: the line styles of the grey lines were changed to dotted.
- 3) The section title 2.2.1 is changed to "terrestrial radar interferometry".
- 4) The code on Github now has a time-stamped Zenodo DOI, and the link was adjusted accordingly.

Finally, we want to address this questions by the editor:

“What baseline errors are you referring to in l 189 (tracked changes)? Unlike as is the case for satellites, the spatial baseline of the TRI should hopefully not be a significant sources of uncertainty.”

Strozzi et al. (2012) points out that uncertainties in the baseline can (among other parameters) lead to principal errors associated with height measurements (DEMs). However, our TRI baseline is in line with the recommended baseline of 0.25 m by Strozzi et al. (2012). This baseline avoids phase unwrapping problems while still providing a large sensitivity to elevation changes. Therefore, we do not consider it a significant source of uncertainty.

Reference:

Strozzi, T., Werner, C., Wiesmann, A., and Wegmuller, U. (2012). Topography Mapping With a Portable Real-Aperture Radar Interferometer. *IEEE Geoscience and Remote Sensing Letters*, 9(2):277–281.