

Tromsø,
10.07.2024

**Response to the comments from Karen Heywood on
“Hydrography and circulation below Fimbulisen Ice Shelf, East Antarctica, from
12 years of moored observations”**

Thank you for your comment. We have now uploaded a response on how we are planning to address the referees' concerns/suggestions.

We would also like to give you an update on the data for our manuscript. During the recovery of new data from the under-ice-shelf moorings and subsequent data inspection, it was discovered that there is a temperature record from a second temperature sensor on the instruments. These data had been discarded before since the channel appeared to have recorded only noise. However, it was found that with the right calibration coefficients applied, this channel provides another record of good quality temperature data. This temperature record is more reliable than the one we used previously, although with only a minor mean offset in the order of magnitude of 0.01 °C. In particular, this new temperature record includes data at M1_{upper} and M2_{upper} after 2016, when no data were available from the previously used temperature sensor.

In addition, the data from the latest data recovery in December 2023 (M1 and M2) have now been processed. We would like to include these data in the revised manuscript, extending the length of our data record to 14 years instead of 12 before. M3 was not visited during this expedition.

All the above-mentioned data will fill some gaps and extend our time series, strengthening the statistical analyses, but not affecting the overall results. Where applicable, we will adjust the text accordingly.

Best regards,
Julius Lauber on behalf of all co-authors