

General comments

The authors have addressed all issues raised in the initial review and incorporated most suggested changes. In particular the re-analysis (identifying $s_{hv} = -s_{vh}$ and a rounding error), triggered by comments from Reinhard Drews, has improved the manuscript.

The discussion sections now offer a more measured comparison between the presented quad-polarimetric measurement and traditional rotational approach. It is now also acknowledged that a direct quantitative comparison is not possible, as no rotational data-set was obtained in conjunction with the quad-polarimetric data.

While I generally believe the paper to be in good shape, it would be appreciated if the authors could consider some outstanding issues as detailed below.

Specific comments

- The newly provided Figure 3 (mean power return) and in particular the insets are greatly appreciated and address concerns about the observed reciprocity of s_{hv} and s_{vh} as raised in the initial review (RC1.12). The reciprocity seems to hold to a very high degree in the deep ice ~ 1100 m. Yet the same can not be said for the second inset ~ 100 m. The explanations offered by the authors (AC1.12) do not explicitly address this depth dependence.

Regardless of the underlying cause, the fabric derivation is likely not applicable in regions where reciprocity is not experimentally observed and it may be warranted to restrict the analysis to depths where it is (in addition to the newly introduced coherence criterion). This may also resolve the surprisingly large anisotropy derived for the firn.

- The addition of data from 9 additional close-by locations, not mentioned in the original manuscript, is a great addition to the paper. While I agree with the chosen presentation (relegating most plots to supplementary material), I would encourage the authors to also perform the fabric calculation for these locations.

The distance between locations appears to be small enough for the fabric not to be expected to change significantly (and is partially even within the estimated 1000 m beam cone at 1500 m depth) and similar to the distance to WAIS which is already being compared to. The spread between sites as well as the average in comparison to WAIS, might also yield more quantitative insight into the reliability of the method.

Technical comments

- Page 12, line 244 doubled "the".