Dear Editor,

Thank you very much indeed for giving the useful suggestions and comments.

We corrected the typo, the definite article, grammatical errors and so on, following your comments. Further, your suggestions are taken into account and we amended the manuscript.

Editor: Please consider adding a few words to describe how this calibration is performed

Following description was added to explain the calibration procedure.

All SPC sensors are accurately calibrated in advance using spinning wires of various diameters, enabling us to effectively account for any sensitivity differences. Detailed procedures are provided in Sato et al. (1993).

Editor: Unclear sentence: please consider rephrasing.

We changed the description as follows.

Numerous long-term observations have been conducted in the Alps (e.g., Naaim-Bouvet et al., 2010, 2014; Gilbert, 2019), the Arctic (e.g., Lenaerts et al., 2014; Frey et al., 2020), and Antarctica (e.g., Sigmond et al., 2021; Wever et al., 2023), all of which attest to the reliability of the SPC.

Editor: What is meant by "clarity in the figure". Consider rephrasing as, e.g., "which limits the spatial resolution",

I am not sure to understand how a 30cm-peak can be identified with a 1.5m spatial resolution. Please consider elaborating on the influence of the interpolation procedure on this result and on the autocorrelation shown in Fig. 8. You could maybe

consider adding a lower limit on the spatial resolutions that are attainable?

Unfortunately, it is hard to describe the resolution specifically. Instead, we added the explanation of the interpolation procedures applied in this analysis. The Delaunay triangulation is a strong By minimizing skinny triangles, it ensures that the interpolation is more stable and accurate and is widely used in various applications, including interpolation, mesh generation, and computer graphics.

Hope it will be of help.

The 1.5-meter spacing between SPCs may not always be sufficient to capture precise structures. However, the Delaunay triangulation (Cheng et al., 2012) used in Figure 7 is a powerful tool for interpolation, mesh generation, and graphical applications. It is widely used in Geographic Information Systems (GIS) to create terrain models, where triangulating elevation points constructs a surface that accurately represents the terrain with minimal distortion. Consequently, the structures observed at 1 cm above the surface, with widths around 2 meters, peak fluxes about 30 cm wide, and lateral spacing of approximately 5 meters, as shown in Figure 7, are quite plausible. Notably, the 2D autocorrelation of horizontal mass flux in Figure 8 indicates a lateral spacing of about 5 meters, which is more than three times the 1.5-meter sensor spacing.