

Interactive comment on “Characterisation of the melting layer variability in an Alpine valley based on polarimetric X-band radar scans” by Floor van den Heuvel et al.

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We thank the anonymous referee for his insightful and helpful comments. Our responses are numbered in accordance with the referee's remarks:

Major comments:

- (1) Several analyses were performed in this respect, including the analysis based on data extracted from a DEM along the transects of the RHI scans. The results of this analysis are now displayed in Figure 13, and described on page 15 lines 1-7.
- (2) The figure has been modified to show both selections in a single figure so that it

C1

now comprises two panels instead of four. The text and the axes labels have also been enlarged. The figure legend and the text on page 12 lines 27-32 have been modified accordingly.

Minor comments:

- (1) X-labels have been inserted for these figures and in accordance with the comment from Referee #2, changed to “Spatial scales” for the other figures. To enhance readability, the scales are now given in km rather than m for all figures except figure 5.
- (2) The previous label of Figure 7 was indeed confusing. A legend has been added within the figure and the figure label has been changed to: “Box plots illustrating the effects of median filtering, de-trending and tapering on the original melting layer tops.” Which should facilitate the interpretation of the figure.

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C2