**Answer to Referee #1**

We thank the referee for their support and final remarks. Please find our response to their recommendations below. Referee comments are in italics while our answers are in blue. Corresponding changes in the revised manuscript are referenced using the lines and pages of the track-changes manuscript.

*Dear authors, well done! I accept almost all changes you did and the responses to my review. There remain only two very small recommendations for improvement:*

*- Figure 1: the left panel should be larger (same size as the right one)*

*„Both maps have been edited to improve readability."*

*Sorry, but this is not much better. Wouldn't it be the best solution to place the two panels not vertically, but horizontally aligned, both of the same height, using the available space in the width? If you don't have the Swiss map picture in a printable resolution to further enlarge it you should search for an alternative. There should be plenty available.*

We increased the size of the Swiss map to the same width as the domain map. Placing the two maps side by side resulted in both maps being smaller, even when using the maximum width available. We hope this makes the map easier to read.

- CHANGES IN THE MANUSCRIPT: Figure 1 (P. 5)

*- Table 1*

*In the new table 1, you could include that FSM2 includes snow-canopy interaction process parameterizations (other than the original FSM).*

To avoid creating overload and confusion in the table, we have decided not to mention snow-canopy interaction processes there, but directly in the text of the revised version.

- CHANGES IN THE MANUSCRIPT: L. 113-114 (P. 4)

**Answer to Referee #2**

We thank the referee for their support and final remarks. Please find our response to their recommendations below. Referee comments are in italics while our answers are in blue. Corresponding changes in the revised manuscript are referenced using the lines and pages of the track-changes manuscript.

*In the revised paper, the authors have addressed very well the questions that I raised during the first stage of the review. The similarity metric that they have introduced allows a quantitative evaluation of the different model experiments and illustrate well the relative importance of wind-induced and gravitational snow transport and their interplay. This paper is an excellent contribution to the literature, and it should be published in TC. I have added below a few minor comments.*

*Line comments (with line numbers referring to the new version of the paper, in Track Change mode):*

*P 9 L 237-238: I recommend the authors to explicitly mention if WindNinja was used to simulate wind speed and direction at the three horizontal resolutions mentioned in the paper (25, 50 and 100 m) or if it has been only used to simulate wind fields at 25 m and that the wind fields at the other resolution have been obtained by averaging.*

For the present study, WindNinja was run separately at the three horizontal resolutions. We clarified it in the revised manuscript.

- CHANGES IN THE MANUSCRIPT: L. 235-236 (P. 9)

*P 10 L 275: did the author used a specific package (in Python, R, …) to compute the Structural Similarity Index? It could be interesting to mention it since I this metric will certainly be used by other researcher working in this field.*

To compute the Structural Similarity Index, we used the ssim function from the Matlab Image Processing Toolbox (https://www.mathworks.com/help/images/ref/ssim.html, last access: 8 May 2024). This metric has been implemented in several other languages, for example in Python using the scikit-image library (https://scikit-image.org/docs/stable/auto_examples/transform/plot_ssim.html, last access: 8 May 2024). We mentioned it in the revised manuscript.

- CHANGES IN THE MANUSCRIPT: L. 277-280 (P. 11)