

## Point-By-Point Reply to Editor's Comments

Thank you for the changes you have made to this manuscript. This should now go forward for publishing after the following technical corrections have been made:

Response: We would like to thank you for handling and reviewing our manuscript. Thank you for your helpful comments and patience in this review process. We have addressed all the corrections in the final version.

1. Line 73 - is this enhanced cohesion compared with colder temperatures?

Response: Thanks for pointing this out. We have revised this sentence in lines 72 to 73 as: “At this temperature, the cohesion of snow particles is significantly enhanced compared with colder temperatures (Tobias et al., 2022).”

2. Line 191 - average net deposition rate is a confusing term - is this the same as the growth rate (equation 4), in which case perhaps include 'i.e. growth rate'. If it is not the same, please clarify.

Response: Yes, it is indeed the same meaning, and we have revised this sentence in lines 190 to 191 to: “The averaged cornice length growth rate  $\bar{l}_g$  (equal to  $\bar{l}_d - \bar{l}_e$ ) reaches its maximum when the wind speed is approximately 40% higher than the threshold wind speed.”

3. Line 195. The length erosion rate is approximately 30% lower than the thickness erosion rate (mathematically this is not the same as the thickness erosion rate being 30% higher).

Response: Thanks. It is indeed a misrepresentation. We have revised this sentence in lines 193 to 194 to: “The erosion in length takes place later than in thickness, and the averaged thickness erosion rate is always approximately 30% higher than the length erosion rate ( $h_e = 1.3 l_e$ ).”

4. Line 329. Add 'for this site' to the end of the sentence to link it to Gruvefjellet rather than the laboratory measurements.

Response: Thanks for this comment. We have revised this sentence in lines 327 to 329 to: “It is found that the most favorable wind condition for cornice growth is approximately 30% higher than the local threshold wind speed for this site.”

I would like to thank the authors and all reviewers for their work and inputs to this paper, which are publicly available. There are a range of opinions given earlier historic laboratory measurements, with two positive reviews and a third noting the potential contribution to avalanche applications. None identify any technical flaws. Taking all things into account I consider this worthy of publication as it models cornice formation in a way that can be used in snow evolution and avalanche models, links to other field measurements and this is generally an understudied area.

Response: We appreciate the editor and reviewers in taking the time in reviewing and helping us improving the manuscript.