We thank the editor and the reviewers for taking the time to read through our revised paper and for their positive assessment of our work. Please find our replies to the points of reviewer 2 below as inserted in red text.

I think the authors did an excellent job revising the manuscript by focusing on snow-related analysis. I only have some minor comments as outlined below. Thank you.

One of the main findings in this study is “Results demonstrate the need for resolutions higher than 0.25deg for accurate snow simulations in topographically complex terrain (L10)”. One question one may ask is: Does the resolution have to be 1km? Would 5km or 10km resolutions work? It’d be nice if the authors could address this question by performing some additional tests. While we agree that this is an interesting question, this would require significant additional computational resources. Unfortunately, we are not able to perform such tests at this stage and will reserve it for future studies.

L12 change “recling” to declining. Done

L154, note Wmax is the maximum accumulated snow water equivalent. Done

Eq (3) in Swenson and Lawrence (2012) is incorrect. According to CLM5 code, Nmelt = 200/max(10, σtopo). Thanks for catching this, we corrected the equation.

Section 2.4.2, I would suggest including a brief description about the physics in FSM2, e.g. what’s the snow and fractional snow cover schemes? Rain-snow partitioning method? We have included a brief description of the physics in FSM2, please have a read through Section 2.4.2.

L360-361: I’d suggest rewording “too fast settling”. Done

Table A1, some information about the snow depth would be helpful, e.g. the maximum snow depth for each station. Thanks for this suggestion. We have included an extra column showing maximum measured snow depth for each station during the 2017/18 season.

Fig.C2&C4 show that ClimCRU tends to have more precipitation than ClimOSHD in the southern part of the study area, can you explain and/or elaborate this a bit? The reason for higher precipitation rates of $Clim_{CRU}$ in the southern part of the study area (Ticino) most likely is due to the inability of the relatively coarse resolution CRU dataset to reflect topography, which ultimately is responsible for the dryer conditions in the inner alpine valleys in the south. Instead, precipitation patterns in the south of the $Clim_{CRU}$ dataset are properly affected by the drier conditions of the Po plain. At the same time, $Clim_{OSHD}$ might slightly underestimate precipitation rates in this area, as a larger proportion is falling as rain as compared to the northern areas and rainfall is not corrected since assimilation of snow data can only correct for biases in snowfall.