We thank the reviewer for taking the time to read through our paper and for their insightful comments. Please find our replies below as inserted in red text.

The manuscript by Malle et al. investigates the impact of spatial resolution, quality of atmospheric forcing datasets and land-use information on the simulated snow depth, GPP and ET over the spatial extent of Switzerland and adjacent watersheds of neighboring countries by using the Community Land Model 5 (CLM5). Simulations of different combinations of meteorological forcing and land-use information were conducted to analyze changes in model performance. In addition, CLM5 simulated snow depth were compared with station observations and results from a spatially distributed, physics-based snow model. The authors find the combination of increased spatial resolution of model and high-quality input datasets can improve the representation of snow cover in CLM5, and these improvements further propagate through the model, directly affecting GPP and ET. The manuscript demonstrates the importance of high spatial resolution and high quality input datasets for climate impact studies.
The manuscript dedicated a detailed description of methodology, but the explanation of the results is somewhat brief, and most of them are descriptive, lacking of model processes related analysis and discussion. Such as, what controls the snow depth simulation in CLM5, how the different forcing datasets affect snow simulation? how the improvements in snow propagate in CLM5 in a cascade way, what's the linkage between snow cover and GPP and ET. I suggest the authors improve these parts. In addition, the figures in the manuscript should be improved. e.g. Figure 3 & 5 are too small and hard to read.

Thank you for this assessment. In an updated version of our manuscript, we will include a more process-based description of our results and discuss implications in greater detail. We have decided to reframe the paper to be more focused on input data, resolution, and snow, while removing in-depth discussion of links of all that on GPP/ET estimates, following valid suggestions from Reviewer 1 and 2. We will further include a more detailed description of snow cover dynamics in CLM5.

We will omit Figure 5 from a revised version of this manuscript but will make Figures 3 easier to read.