

Dear Dr. Martin, Dear Reviewers,

We are pleased to submit a revised manuscript in which we have dealt with the numerous comments and suggestions of the reviewers as *indicated in our initial responses*.

As most notable points we mention:

- The limitations of the MGM have been spelled out in more detail.
- The previous calving law has been replaced by a water-depth dependent calving law, and *all the calculations have been redone*. The results differ not so much from the previous calculations.
- The discussion on the climate forcing has been extended, and it is explained why the simulation of Van Pelt et al, when used as forcing to the glacier model, does not give a good result.
- Figures 5 - 11 have been replaced by updated versions.

We hope that the reviewers appreciate all the changes we made and will be positive about the result.

With kind regards, also on behalf of the co-authors,
Johannes Oerlemans

Utrecht, December 21, 2021