

**Subject:** Sensitivity of Greenland ice sheet projections to spatial resolution in higher-order simulations: the AWI contribution to ISMIP6-Greenland using ISSM.

I am pleased with this version of the paper and I thank the authors to have followed the guidelines of the reviewers. This paper adds to the comprehension of ice sheet modeling and should get published.

I have added a few minor comments that I caught while reading this version.

**Comments:**

General comment about the figures: When comparing G750 and G4000, it would be nice to be consistent throughout the paper which one is placed on the left-hand side and which one is place on the right-hand side. It makes switching from figures to figures easier.

Line 17 (after abstract): remove "Copyright statement"

Page 5 line127: go back to it after reading sect 2.4 and 2.5.2.

Page 5, last paragraph: this strategy is fine for time scales short enough that will allow the grounding line not to retreat too excessively and remain in the highly resolved part of the grid.

Page 6, figure 2: You forgot to label (a) and (b) in your figures to refer to G750 and G4000 (it was there in the first version of the paper). Also, in all your other figures comparing these 2 resolutions, you clearly label G750 and G4000 inside the figure boxes. I would do the same here for clarity.

Page 7, figure 3: Remove "See" in last sentence of caption.

Page 10, line 220: "When employing..." a word is missing between "parameterization" and "the" (maybe "to" or "at").

Page 11, line238: Replace "On the hand" by "On one hand".

Page 11, line 244: the ";" after "runs" is out of place, you don't need it here. Also, replace "not the case" by "not be the case".

Page 13, line 283: in your case, you have not initialized your model to be at steady state but rather match observations. It happens that the GrIS was in a steady state for some time and matching your observation data set might lead to your model initial state to be in steady state. That said, it should not be surprising if your model experiences some drift during your control experiment (as it does for the coarse resolution).

Page 16, line319: Replace "RP8.5-Rnone" by "RCP8.5-Rnone".