

I thank the authors for the work they have done to address the comments from the other reviewers and me on the previous version of the manuscript. The current work is a clear improvement and I recommend that the paper can be published after some minor edits aimed mostly at improving the clarity of the text.

Comments:

1. Section 2.3's wording was confusing to me. Do the authors calculate the block-median for the ICESAT-2 measurements or for the model results? With the sentence '*we assign the height differences into 2.5 km bins*', do the authors mean that they combined the ICESAT measurements into a map of 2.5 by 2.5 km grid cells? I recommend rewording this paragraph to improve its readability.
2. At line 235, the authors mention that they collected the accumulated melt for each model, but never use it in their analysis of their regression experiments. Why is this variable not used? Instead of making an educated guess about what resulted in the reported overestimation of dhFAC (densification rate, amount of melt, surface density), this variable could tell us what which process is responsible. For example, from figure 2 it seems that MAR overestimates melt in the low elevation regions, but GSFC underestimates melt. It would be nice if you could discuss this.
3. In figure 2, line 235 and line 325 the model total height is mentioned, but also the surface height. Are these variables different from each other? If so, how are they different? If not, I recommend using only one or the other term.
4. The authors use 'height differences' and 'height changes' interchangeably. This was especially confusing while reading the methods section. Please use 'changes' to indicate measured or modelled surface elevation changes and reserve the word differences for when you are comparing ICESat-2 with the model data.
5. The results for the high-elevation subset of your data suggests that there is an overestimation of snowfall in the interior part of the ice sheet (fig 7A-C and 8A-B) in GSFC 1.1 and MAR (and possibly also GSFC 1.2) because the regression leads to a lower dh<sub>m</sub> and dh<sub>SMB</sub>. This may be worth pointing out in the text.