Thanks for the detailed response to reviewers. The revised manuscript clearly addressed the questions and comments from reviewers. However, some of the descriptions need further improvement.

Here are some specific comments:

P3, L73: (Goldberg, 2011) → Goldberg (2011)

P3, L81: Measrues → MEaSUREs

P3, L83: How do you decide the grounding fraction? Do you use sub-grid parameterisation method to decide the fraction? If yes, I think you need to further clarify it here.

P5, L132: a 0.01 value → a value of 0.01

L242: shows → show

L244: rapid melt rates → high melt rates

L254: are€?

L278: 'SLR than in the zero-melting case, increasing to ~0.3 mm/yr and ~0.1 mm/yr, in the warm case, respectively, ' → 'SLR in the warm case than in the zero-melting case, increasing to ~0.3 mm/yr and ~0.1 mm/yr, respectively '

L283: I'm curious what is causing the noise?

L293: 27% for all the three glaciers or you just talk about Thwaites here?

L371-372: the new added sentence is not quite clear to me. 'the last pinning point' → 'the last pinning point in group 'a''

L385-387: "with an average pinning point duration over warm/cold matching pinning locations of ~6 years" → "with an average pinning point duration of ~6 years over warm/cold matching pinning locations"

L387: ungrounding times → ungrounding timings

L484: "Without this" ?

L485: "the timings of pinning point ungroundings" → 'the timing when pinning point becomes ungrounded'

L493: recent observations of ??

L580-584: here you mention 'they may have the greatest impact' in the no melt case twice. Please rephrase it. Again, in this paragraph, I don't recall the gap between the east and west of Thwaites Ice Shelf. Have you mentioned it earlier in the manuscript? What do you mean "these gaps cannot recover during the simulation"? It is hard to follow what you discuss here without a context. Correct me if I have missed it somewhere.