

## ***Interactive comment on “Impact of asymmetric uncertainties in ice sheet dynamics on regional sea level projections” by Renske de Winter et al.***

### **Anonymous Referee #2**

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The paper presents impacts of an asymmetric probability distribution of ice sheet dynamics on regional sea level projections using mass loss distributions of ice sheets from three studies. The topic is relevant for adaptation decision making as not only estimates of sea level rise need to be taken into account but also the uncertainties of these assessments. The paper is clearly written. I read it with great interest. I recommend to accept the paper with some minor revisions: - From the paper it was not clear to me what is/are the reasons for assuming an asymmetric distribution (p2 lines 21-27). What are the physical processes that make this plausible? Ice cliff instability? What is causing the shift from median to asymmetric distributions (page 4 first line)? New assumptions? What are they? It is addressed in the discussion, but I would like to have read it in the introduction - Page 3 line 17, where you describe the objective of the pa-

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per. Maybe change this into: ..by comparing the impacts of probability distributions of...  
- Line 16 is confusing. Reinterpretation and using data (of what?) from .. is vague. I would remove the sentence here and explain in method section. - A flowchart/diagram showing the data used and the calculations made could improve understanding the method and the contribution of this paper in comparison to other studies. For example like fig 1 in Kopp et al 2014 10.1002/2014EF000239 - Could you explain why the difference in higher percentiles will be amplified (page 9 line18) - Figure 1 is 2100 and the other figures for 2090, why? - Would be great if there could be a dynamic figure with maps, where you could click on and see a graph like figure 3 Other comments - Page 8 line 16 → remove one ( - References: make consistent: De Vries or de vries - Add reference to Le Bars et al 2017 where you give example of symmetric pdfs

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