

Interactive comment on “Investigating the Local Scale Influence of Sea Ice on Greenland Surface Melt” by Julienne C. Stroeve et al.

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To the Authors,

First, I was excited to read this Discussion paper, and start to decipher the main results. This is mostly since I'm part of a group exploring (using GCM output) the impact of climate variability on regional Antarctic snowfall. Part of this work involves exploring the impact of regional sea ice variability on regional AIS snowfall (or lack thereof). So there are strong analogies between the two studies.

Secondly, a minor point; I'd noticed you'd cited Fyke et al. (2014) a few times. There are actually two Fyke et al. (2014) papers that I think you may be convolving into a single citation. First one (which you cite) describes an increase in variability in integrated SMB due to, primarily, increased ablation area. Second one

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(<http://onlinelibrary.wiley.com/doi/10.1002/2014GL060735/abstract>) involves the detection of emergence of an anthropogenic signal in GrIS SMB (which you seem to describe, but wrongly cite as results from the 'variability' paper). Perhaps in the final revisions this could be clarified, one way or another.

Again, a minor technical issue, which is definitely overshadowed by the neat aspects of this climate dynamics study.

Thanks

Jeremy Fyke

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