

Interactive comment on “How much should we believe correlations between Arctic cyclones and sea ice extent?” by Jamie G. L. Rae et al.

Anonymous Referee #1

Received and published: 25 September 2017

This paper has tried to correlate the sea ice anomalies with the summer cyclonic activity in Arctic and found that the correlations are highly sensitive to the model and resolution used for tracking the cyclonic activity. While the paper is generally well written and the authors explain well their methodology, I do not recommend to accept this paper for publication in TC because this subject has already been discussed in many papers (as well presented by the authors) and that this paper only shows that the variability of sea ice extent is definitely NOT driven by the summer cyclonic activity! The correlations found (< 0.44) are not enough relevant to justify a paper in TC and obviously explains why the results are very sensitive to the model and resolution used. If the correlations would be scientifically robust, the sign of the correlations should be for example every time the same which is not the case here. Correlating sea ice extent

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with summer T850 will give likely better correlations but it is out of the scope of this paper. Sorry to not be more positive...

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2017-140>, 2017.

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