

Interactive comment on “Characterizing sudden changes in Arctic sea ice drift and deformation on synoptic timescales” by Jennifer V. Lukovich et al.

A. Provenzale (Referee)

antonello.provenzale@cnr.it

Received and published: 1 December 2016

The paper "Characterizing sudden changes in Arctic sea ice drift and deformation on synoptic timescales" discusses the use of Lagrangian triplet dynamics, combined with characterizations such as the Okubo-Weiss parameter, to identify "sudden changes" in sea ice drift in the Arctic.

The material is interesting and it builds upon previous works by the same lead author. However, I find the paper rather difficult to read, and not very clear in its message.

First, most of the figure are simple displays of time series, without too much statistical analysis and/or quantitative interpretation.

The paper would benefit from a more quantitative approach, with results of the statisti-

Printer-friendly version

Discussion paper



cal analyses, to assess the validity and significance of the conclusions.

I also urge the authors to streamline the paper, making it more palatable and understandable. In particular, I would like to add a paragraph at the beginning of the Introduction explaining some more fact about Arctic sea ice and sea ice drift.

Finally, it is not clear what "sudden changes" in sea ice are, and to what meteorological/climatic events are related. This point should be further explored and clarified.

Interactive comment on The Cryosphere Discuss., doi:10.5194/tc-2016-219, 2016.

TCD

[Interactive
comment](#)

[Printer-friendly version](#)

[Discussion paper](#)

