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Ocean Science
Discussions

Interactive comment on "Operational SAR-based sea ice drift monitoring over the Baltic Sea" *by* J. Karvonen

Anonymous Referee #2

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This paper evaluates the use of SAR data for operational sea ice drift monitoring. The paper is of high interest for the OS readership and is well balanced between theory and practice. The description of the proposed methodology is good. Nonetheless, the following aspects should be further explained:

Major issues:

1) It is hard to evaluate whether the proposed methodology uses substantial new concept/ideas or not. The author directly describes the methodology after a very (too) short introduction. In particular, the context of ice drift monitoring with SAR data should be further analyzed:

- Impact of the frequency: L-C-X band

- Other available SAR-based methodology?

- Other operational ice drift methods/products with/without SAR? impact of the resolution ?

Please add news references.

2) The validation section should be further detailed. Specifically, the validation is found quite limited. Please provide new quantitative assessments such as the RMS Error, and provide a clear explanation with a Table. In addition, could you find some correlations between the scaled quality parameter and the error for long drift data? You should also provide a critical assessment about these results. Are they good enough for end users? Provide some comparisons from other algorithms in the literature.

Minor issues:

- The figures 1 and 2 (to a lesser extent) should be modified as they are not very nice (e.g. the text overlaps the box, the font in bold is may be not adequate. . .)

- The figures 8-10 should be modified as well. As they are "correlation figures", the x- and y-ranges should be preferably equal. Outliers could be mentioned in the caption. The "y=x" line could be added and different colors could be used depending on the value of the scaled quality parameter.

Interactive comment on Ocean Sci. Discuss., 9, 359, 2012.