

Interactive comment on “Characterizing Arctic sea ice topography using high-resolution IceBridge data” by A. A. Petty et al.

Anonymous Referee #2

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Petty et al. present an in-depth analysis of Arctic sea-ice topography data and associated geophysical parameters, for example height and volume of ‘features’ (ridges and keels above and below the surface) and their spatial and temporal variability, as best as their data set allows.

The authors perform a rigorous and thorough examination of Operation IceBridge data collected off the Canadian and Alaskan Arctic, between 2009 and 2014. The methodology is complex, but well presented/structured and comprehensible. The work addresses one of the most pressing research questions with respect to the state of the sea-ice environment: it’s three-dimensional structure.

While I echo the comments provided by Reviewer #1, I have only a few additional remarks.

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An editorial suggestion: It is common convention to hyphenate ‘sea-ice’ when followed by a <noun> (for example: topography, cover or surface). The authors were consistent (using no hyphen) throughout the manuscript, however I’d encourage to consider changing the spelling.

Figure 2 is not discussed in the manuscript (only referred to in the caption of Fig. 3 and in section 4.3). It is an informative/necessary figure, but could be moved to the supplement.

page 6513 line 27: replace ‘proceeding’ with ‘preceding’?

Thoroughly double check the List of References again.

Interactive comment on The Cryosphere Discuss., 9, 6495, 2015.

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