

## ***Interactive comment on “Estimation of Degree of Sea Ice Ridging Based on Dual-Polarized C-band SAR Data” by Alexandru Gegiuc et al.***

**Anonymous Referee #1**

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This is a good paper. The importance of navigation charts in ice infested seas is undeniable and ridging ice is an important parameter for navigation. The paper would benefit from a good proof reading. I put comments below that I consider should need attention: P1. Line 17: change se thickness to ice thickness P1line 21 and 23: change Seina and Peltola (1991). to (Seina and Peltola, 1991). All text: references are wrongly cited (might be LaTeX-based problem) P2. L18 I wouldn't say that these egg code polygon represent uniform ice areas but uniform areas with up to 3 ice types (normally) P3. L26-34 I think this could be simplified to half of that. P4. L 8 100 m (use ~ between 100 and m) P4. L 23 delete “already” P5 L 5 delete “some” P5 L 11 correct “CarlstrÅlöm” P5 L 16 using ~ between 100 and m will prevent its separation P5 L 18 use N 61° 40' P6 L 9-16 you should offer some evidence of this problem, otherwise

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it seems a bit arbitrary. P7 L 11 eq. 1 should be in multiple lines... very confusing this way P12 L 4-7 This information would be better presented in a table. P12 L 11 In summary we found that the RF classification presents the following advantages: P12 section 4.1 it would greatly add value if we could see some of the field data campaign P13 L 11 the 2 top figures of figure 5 appear to be the same. P13 L 9 and L 13 first you mention Table 1 and then Table 5 is this right? P13 L 15 histogram of Figure ? P13 L 25 64N 23E to SW → 64°N 23°E to SW??? P14 L 8 values ? P 14 even though a correction for incidence angle has been applied, there is still influence of the incidence angle on the response, especially for rough ridging ice – this should also be part of the discussion on dB values: one should expect differences between near range and far range. P15 L 23 what's a “ had a correct mode ice class” ? P 17 L 15-25 a bit of wishful thinking in this section Conclusions: this part appears to be more badly written than the rest. References: I saw quite a few errors including in some of the titles, authors names. One has to be careful while copying and pasting references taken “as is” on the internet; they are not always reliable.

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