

***Interactive comment on “Brief communication:
Full-field deformation measurement for uniaxial
compression of sea ice by using the digital image
correlation method” by Anliang Wang et al.***

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Dear Authors I find your paper interesting and well written. It demonstrates the use of a (to me at least) novel technique that can be used to monitor the strain field in field testing of ice. I do not understand the DIC technique, but assume that you have described it and used it correctly. Page 1, Line 29. I don't think there is a close and precise relationship between large-scale models and small-scale properties. The same goes for ice action on ships and structures. The ice properties are of course essential, but, the current models are not detailed enough to make real use of small-scale mechanical properties of ice. Page 3, Line 14. How many Vertical and how many Horizontal samples did you

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test? Page 4. I assume you find the displacement field from the DIC method. Which strain definition did you use? Page 5, Line 4. The samples most probably responded with delayed elastic and perhaps even creep early in the test. It is too simple to claim that V1, V2, H1 and H2 were in purely elastic range. Page 5. What about plotting the von-Mises strain, or the shear strains also?

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2018-263>, 2019.

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