

Interactive comment on “On the Retrieval of Sea Ice Thickness and Snow Depth using Concurrent Laser Altimetry and L-Band Remote Sensing Data” by Lu Zhou et al.

Anonymous Referee #1

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Thank you for the rebuttal and providing the additional reference to the publication in the International Journal of Remote Sensing. The idea with the combination of lead data is very good. However, after reading the other paper even more questions arose because the publication also lacks traceability. I would not be able to reproduce your results with the somehow limited information given in the paper. Really important information is missing, some details are even wrong. For example, the used permittivity is not even mentioned. The native SSM/I resolution of the 19 GHz channels used in the NASA-Team algorithm (Cavalieri et al. 1996) is about 69x43 not 10 km.

Regarding the present manuscript submitted to The Cryosphere, I am still not happy

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with your answers. I still think you could be fooled by circular reasoning. You should split the data into independent "training" and "test" parts to do a real verification, and this for multi-year and first year ice separately. Thereby the very different resolutions and spatial samplings of the sensors involved have to be carefully considered.

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2017-133>, 2017.

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