

Interactive comment on “Investigation of spatiotemporal variability of melt pond fraction and its relationship with sea ice extent during 2000–2017 using a new data” by Yifan Ding et al.

Anonymous Referee #1

Received and published: 25 September 2019

Thank you very much for the prompt response which enables a real interactive discussion.

I am still concerned about the correlation of ice concentration and your MPF retrieval. You mention that the bad MPF retrievals are primarily located in the sea ice edge area (with small concentration). For me this sounds like a clear argument that the MODIS MPF retrievals are not independent of the ice concentration. The problem is that the NASA TEAM SIC which you use for correction is estimated on a much coarser resolution. Moreover, the NASA TEAM SIC is strongly influenced by the occurrence of melt ponds. Unfortunately, I can not see how you solved this problem of different

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spatial scales and correlated measurements.

Interactive comment on The Cryosphere Discuss., <https://doi.org/10.5194/tc-2019-208>, 2019.

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