

***Interactive comment on “Melt ponds on Arctic sea ice determined from MODIS satellite data using an artificial neural network” by A. Rösel et al.***

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As a modeler, I am very interested in these results. Finding observational data for melt ponds to compare with large-scale models has been quite difficult. To make comparisons, however, we need to be careful with how things are defined.

For instance, my understanding of the text is that the "melt pond fraction" is the fraction of a pixel or grid cell. This is different from the melt pond fraction defined in some other observations, which are given in terms of the fraction of the ice in a grid cell. Please confirm that your fractions are per grid cell. (Also, since this is not discussed in the paper, I wonder if you have accounted for this possible difference with the observational data sets with which you compare.)

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Second, the "entire Arctic" referenced in Figure 6 is not well defined. My guess is that this includes all ocean areas north of 60N, excluding land but including open water. Is this correct?

Thank you for your clarifications. I think this will be a very useful data set.

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Interactive comment on The Cryosphere Discuss., 5, 2991, 2011.

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