

Sea Ice Physics

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Title: Impact of sea ice morphology on formation of melt ponds

Data: Airborne laser scanner and photography of sea ice

Impact of sea ice morphology on formation of melt ponds

- In the Arctic, intensive surface melt happens every summer, and the melt water accumulates in topographic depressions, where it strongly affects feedbacks of continued, accelerated ice loss. The distribution and geometry of melt ponds therefore strongly depend on the initial surface morphology
- The goal of this MSc thesis is to compare melt ponds in different ice roughness regimes.
- Processing and use of airborne laser scanner and photography (DLR MACS system) **data acquired during the IceBird 2020 summer campaign**
- There is also an opportunity to use similar data from Mosaic
- Requirements: Good programming and English language skills, good grades, (experience with working with large geographic data sets is of advantage)

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