**Figures**

* Figure with different visual appearances of melt ponds
* Example that shows that ponds are detectable in IR (comparison to VIS)
* IR image comparison: different size, shape and temperature. Blue correspond to cold and yellow to warm
* Melt ponds with different temperatures
* (simple) edge-based detection does not suffice for mp detection

Discussion:

* Intrusions
* Encoder decoder structure U-Net
* Architecture of baseline model
* Melt ponds are detectable in IR + different conditions (size, shape and temperature). Blue corresponds to cold and yellow to warm. Maybe also display a VIS; melt ponds with different temperatures

Annotation: Annotation was done by a lot of uncertainty. Submerged Ice was labelled. There are ponds that were hardly detected by the Scharr Filter applied and also hardly visible, even with high contrast. An option would have been to label those visible in corresponding VIS images. However, we decided to disregard them as shape didn’t match often. Dark blue ponds likewise. This implicates a possible bias of underrepresentation of ponds compared to VIS.