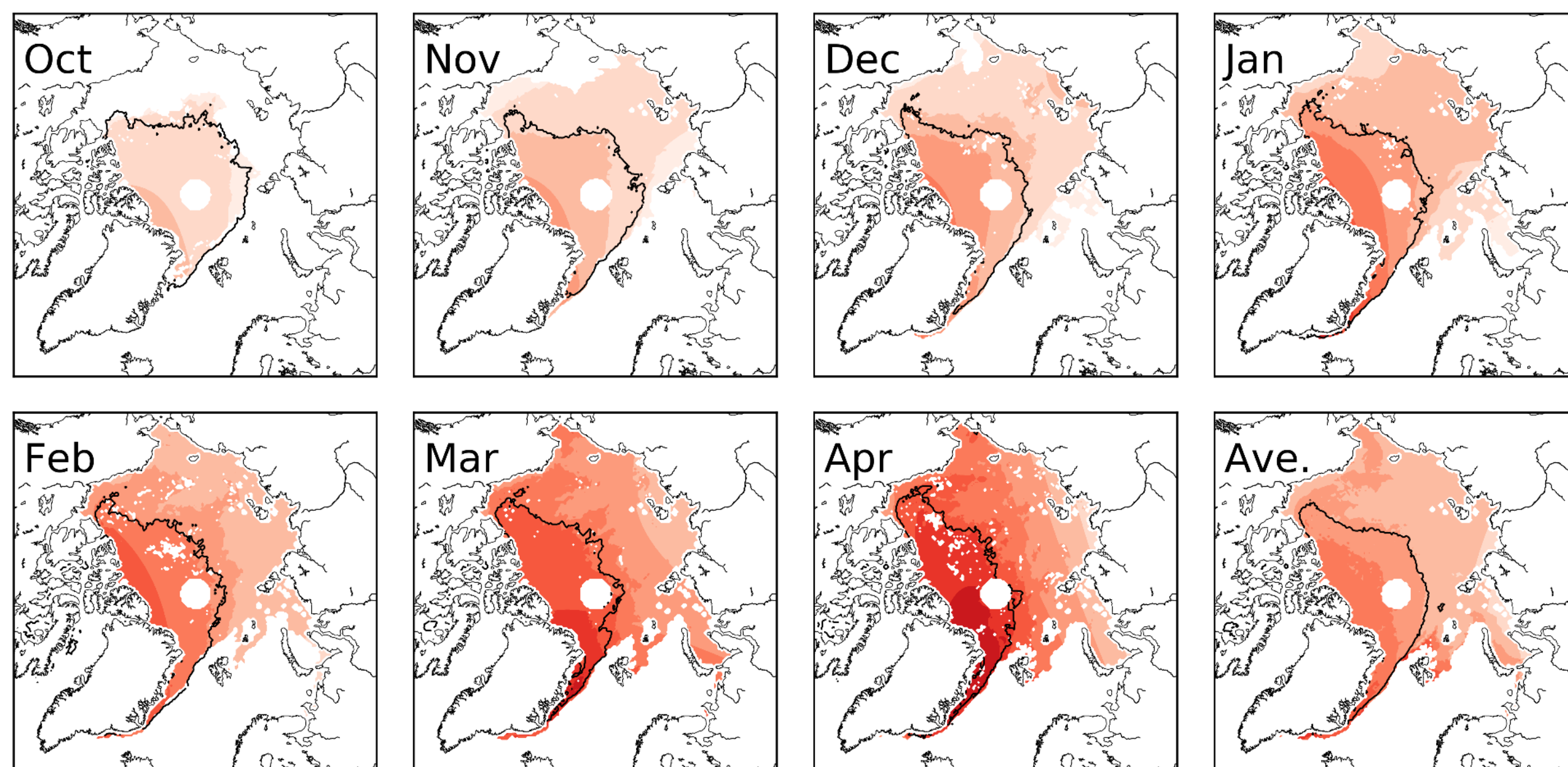


Snow and Sea Ice Thickness



A terrestrial (!) snow pit, used for profiling snow properties (density, grain size etc.) as a function of depth



Sea Ice Thickness Bias (cm)

Biases in sea ice thicknesses induced by assumption of static snow density in radar-wave delay correction

Snow cover on sea ice affects its thermodynamic growth and our satellite estimates of its thickness.

My work has so far focused on snow's electromagnetic influence on our estimates of sea ice thickness (SIT). Snow slows down radar waves and can reflect them before they reflect from the ice surface, introducing uncertainty in radar-altimetry derived SIT estimates.

In future I'm interested in the thermodynamic influence of snow on SIT, particularly with respect to the timing of snowfall events in the early growth season. I plan to run CICE coupled with a terrestrial snow model (CROCUS)

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