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# Greenland: Regional changes observed by GRACE and significance of reported accelerations

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In this presentation, we discuss variations in the mass of the Greenland Ice Sheet (GrIS) as observed by GRACE. Our method allows recovery of changes on a regional scale, which shows much more spatial variability than previously reported. For example, in the last few years, mass losses in the south-east appear to have stagnated, whereas the northwestern part of the ice sheet is losing mass at an accelerating rate. Combination of the GRACE data with regional climate models gives insight in the physics behind these changes.
Furthermore, we discuss the accelerations in mass loss that have been reported recently. Mass balance of the GrIS is know to exhibit large interannual variability. The question that arises from this is whether the reported accelerations are significant and how much years of observations are required to obtain a reliable picture.