



First ICESat-2 data from the cryosphere

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NASA's ICESat-2 launched successfully from Vandenberg Air Force Base in California on 15 September 2018. ICESat-2 is a state-of-the-art laser altimeter that will accurately and precisely measure the Earth's surface at the centimeter scale. The mission goals for the satellite are generally associated with the polar regions where continent-scale changes in ice-sheet elevation at the centimeter scale have a large impact on mean sea level. Similarly, sea ice freeboard and freeboard changes also require centimeter-level precision. However, ICESat-2 will collect data globally and therefore the mission has a suite of data products including products for atmospheric science, vegetation canopy height, ocean elevation and inland water surface elevation. This presentation will provide an early look at ICESat-2 data, with a focus on data from the ice sheets. We will present some initial analysis, including assessments of ICESat-2 accuracy and precision based on ground-based GPS data collected near the South Pole.