



## Ice-mass changes in Antarctica from GRACE

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We present linear trends in the present-day geoid change over Antarctica inferred from the GRACE gravity field solutions. We consider 5 time series of monthly gravity field solutions provided by the processing centers at the GeoForschungsZentrum (GFZ) Potsdam and the Center of Space Research (CSR), Texas. We split the time series of each gravity field coefficient into a periodic and a linear component, and reject coefficients with low statistical confidence. We compare the spatial rate of geoid-height change over Antarctica inferred from GRACE with the predictions based on the present-day mass balance after *Rignot and Thomas (2002)*, and the modeling of post-glacial rebound. We evaluate the quality of each time series, and point out agreements and necessary improvements.