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## Mass change of Antarctica from new GRACE/GRACE-FO releases

**Barbara Jenny**, Nicolaj Hansen, Tim Jensen, and René Forsberg

DTU, Space, GEO, Kgs. Lyngby, Denmark (barbj@space.dtu.dk)

An important application of the NASA/GFZ GRACE and GRACE-FO satellites is the derivation of ice mass changes in the arctic regions from the gravity field changes. Looking at climate change, it is important to know how fast the ice caps are melting for global sea level rise estimation and validation of climate models. We use recently released L2 GRACE/GRACE-FO models, including the latest CSR release 6.1, which show major improvement over earlier models, especially for Antarctica, as well as the latest TU Graz models. We also compare the GRACE results to a new surface mass balance model, and joint high-resolution inversion with ESA's Earth Explorer CryoSat altimetry data, highlighting areas of dynamic changes and giving a higher resolution on the main mass change areas. The study is a precursor to a project for demonstrating use of Level-1 laser data for glacial change detection.