

Access to GRACE/GRACE-FO Mass Anomaly Time Series: The GFZ Web Portal GravIS

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The GFZ German Research Centre for Geosciences, in collaboration with the Alfred-Wegener-Institute (AWI) Bremerhaven and Technische Universität Dresden, has developed and implemented the web portal GravIS (Gravity Information Service). At GravIS, user-friendly mass anomaly products (Level-3) based on GFZ's GRACE and GRACE-FO monthly global gravity field (Level-2) releases can be visualized interactively and are described in detail.

These Level-3 products comprise globally gridded mass anomalies as well as basin average time series and are available for three dedicated applications: (1) terrestrial water storage over non-glaciated regions; (2) bottom pressure variations in the oceans; and (3) ice mass changes in Antarctica and in Greenland. Several post-processing steps have been applied to the Level-2 spherical harmonic coefficients before the mass anomaly inversion to achieve the highest possible accuracy for the Level-3 products.

For the initial version of GravIS, intended to make users familiar with the portal, the Level-3 products were based on the GFZ RL05a time series and were not available for download. Meanwhile, GravIS is fully operational with Level-3 products based on the most recent GRACE time series GFZ RL06 which are now also offered for download via GFZ's data archive ISDC. As soon as GFZ RL06 GRACE-FO Level-2 products are publically available, the Level-3 time series will be extended with GRACE-FO as well.

The poster gives an overview of the GravIS web portal, describes the applied corrections and processing steps, and shows examples of the latest Level-3 products.