



Time-Variable Geophysical Background Models for High-Frequency Non-Tidal Variability in the Earth's Gravity Field, its Surface Deformation, and its Rotation provided by GFZ

Henryk Dobslaw, Robert Dill, Inga Bergmann-Wolf, Lea Poropat, and Maik Thomas
GFZ Potsdam, Geodesy and Remote Sensing, Potsdam, Germany (dobslaw@gfz-potsdam.de)

Mass variability in atmosphere, oceans, and the terrestrially stored water is reflected in time variations of the Earth's gravity field, its surface deformations, and its rotation that are reliably picked up by geodetic networks and satellite missions since many years. For studies attempting to unveil signatures of solid Earth processes from such observations, it is highly important to remove signals caused by geophysical fluids on or above the surface as accurately as possible.

At this poster, we are going to give a summary about the current status of the time-variable geophysical background models suitable for geodetic purposes that are currently processed at GFZ Potsdam. This will include the latest versions of the GRACE AOD1B background model; effective angular momentum functions for atmosphere, oceans, and the continental hydrosphere; as well as surface deformations due to tidal and non-tidal mass loads on the continents and the ocean floor. Latest news and all access details to the datasets are available at

<http://www.gfz-potsdam.de/en/section/earthsystemmodelling/services>.