



Ocean Tide Analysis by GRACE Data

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Since launch of the GRACE satellite mission in 2002, time series of monthly GRACE gravity fields have been generated both at GFZ and University of Bonn. These time series clearly depict various time-varying mass variation signals in the system Earth such as the continental hydrological cycle, ice mass change in Antarctica and Greenland, or the Sumatra Earthquake in December 2004.

Within the project DAROTA (Dynamical and Residual Ocean Tide Analysis) in the framework of the German DFG special priority program “mass transports in the system Earth”, it is currently investigated if GRACE data is also capable to solve for the (spatial) long-wavelength part of the major ocean tide constituents. Residual ocean tide parameters relative to the applied a-priori ocean tide model FES2004 have been estimated. First results and evaluations by tide gauge data as well as by comparison of orbit residuals will be presented.