



Global map of the isostatic gravity disturbances

Robert Tenzer (1), Wenjin Chen (1), and Pavel Novák (2)

(1) School of Geodesy and Geomatics, Wuhan University, 129 Luoyu Road, Wuhan, China (rtenzer@sgg.whu.edu.cn), (2) New Technologies for Information Society, Faculty of Applied Sciences, University of West Bohemia, Univerzitní 8, Plzen, Czech Republic (panovak@kma.zcu.cz)

We compile and compare global maps of the isostatic gravity disturbances for different isostatic models. The Airy-Heiskanen, Pratt-Hayford and Vening-Meinesz Moritz models of isostasy are taken into consideration. These isostatic gravity data are then used to interpret the Earth's inner density structures and geophysical processes occurring within the lithosphere and sub-lithosphere mantle. The investigation is done separately for the oceanic and continental crustal structures. The isostatic gravity disturbances are computed globally using the global geopotential model (GOCO-03c), global topographic/bathymetric model (DTM2006.0) including ice-thickness data, and sediment data taken from the global crustal model (CRUST2.0).