



The use of the WGM2012 gravity model to acquire gravimetric data necessary for the reduction of geodetic observations

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World Gravity Model WGM2012 is the first release of high resolution description inter alia Bouguer and free-air gravity anomaly. It has been created by the Bureau Gravimétrique International (BGI) on base of EGM2008 geopotential model and high resolution topographic model.

The poster provides an assessment of the WGM2012 gravity data sources for use in the reduction of geodetic observations. For reductions of geodetic observations onto geoid and ellipsoid (eg. astronomical coordinates, deflections of the vertical, astronomical azimuth and linear measurements) it is necessary a knowledge of the gravity field parameters. Also, in the leveling network it is necessary to collect such information to calculate the normal (or orthometric) correction.

The study compared terrestrial data from the Polish National Geological Institute including anomalies and data from the WGM2012 model in the context of using model gravity data to issues related to geodesic reductions.