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Global map of the no-topography gravity anomalies

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We compute the global map of the no-topography gravity anomalies, providing that the no-topography gravity anomalies are defined as the gravity anomalies from which the complete effect of topography is subtracted. The complete effect of topography on the gravity anomalies comprises the direct topographical effect and the secondary indirect topographical effect. The solid spherical harmonics of gravity field and the surface height functions of global topography are utilized in expressions formed for computing the reference no-topography gravity field. The coefficients of the global geopotential model (GGM) and global elevation model (GEM) are then used for computation, adopting the mean topographical mass-density distribution. The inaccuracy of evaluating the no-topography gravity anomalies is mainly due to disregarding the actual topographical mass-density distribution as well as the errors within the GGM and GEM coefficients used for a computation.