

Notes on lithosphere density modeling: main and complementary data and techniques

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Abstract: Density models of the whole lithosphere play an important role in forming the geodynamic models and in lithosphere evolution. It is necessary to implement additional inhomogeneities into the former conception of the isostatic equilibrium, which is crucial for the gravitational instability of the lithosphere – asthenosphere system. This leads to more complex and complicated relationships between the model and its gravitational representation. The techniques and implementation of the independent data into the models must be performed according to their credibility, some of which are uniquely defined, some partially, others arbitrarily chosen inhomogeneities.

Key words: isostatically balanced lithosphere models, principles of the independent data consideration, gravity field characteristic utilization

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