



An inversion package for interpretation of microgravity data

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Since microgravity aims to delineate subsurface density structures in small scale, it requires more precise resolution of inversion method, which is able to resolve small-scale structures. It can be achieved by adopting a stabilizing functional which separates density boundary distinctly, which is the different concept from smoothness inversion routines based on 2-norm.

We composed Matlab-based interactive microgravity data inversion package containing several kinds of stabilizing functionals, for handling various geologic conditions and survey purposes. The programs in the package were examined and compared by numerical modeling, and also applied to a real microgravity survey data in order to detect an abandoned mineshaft.