

Shallow anomalous bodies in the area of the Kolárovo gravity high interpreted by the TFM

P. Vajda, M. Bielik, V. Pohánka

Geophysical Institute of the Slovak Academy of Sciences¹

Abstract: A sample set of shallow anomalous point masses is forecasted in the Kolárovo gravity high region based on the interpretation of the gravity anomaly by means of the Truncation Filtering Methodology (TFM), in order to demonstrate the power and resolution of the TFM. These positive and negative point masses are assumed to represent centers of mass of very local and shallow inhomogeneities of a small density contrast within the sediments, positive and negative respectively, or alternatively to represent the position of peaks and dips of the morphology of a shallow interface of small density contrast within the sediments. The issue of noise to signal ratio in the used gravity data is not discussed. For our sake of highlighting the interpretation capabilities of the TFM the data are deemed faultless.

Key words: gravity inversion, inverse problem, dimple, Danube Basin

¹Dúbravská cesta 9, 842 28 Bratislava, Slovak Republic
e-mail: geofvajd@savba.sk; geofmiro@savba.sk; geofpohv@savba.sk