عنوان مقاله:

Iidentification of Suitable Discrete Wavelet for Gravity Data Decomposition

محل انتشار:

دومین همایش ملی زمین شناسی و اکتشاف منابع (سال: 1394)

تعداد صفحات اصل مقاله: 6

نویسنده:

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خلاصه مقاله:

So far, various edge detection methods have been proposed for potential field interpretation. Recognition of the anomaly source boundary can accelerate and facilitate the gravity field analysis. Wavelet transform (WT) is one of these suggested approaches. Several discrete and continuous mother wavelets have been defined. In this study, has been used of 2D discrete wavelet transform (DWT) as a method for determination of gravity anomaly source boundary. The DWT leads to a decomposition of the approximation coefficients in four distinct components: the approximation, horizontal, vertical and diagonal. For comparing the efficiency of wavelets, the synthetic gravity anomalies, with and without added random noise, have been decomposed at 1 level with six discrete, two-dimensional wavelets: Haar, Biorthogonal, Coiflets, Symlets, Discrete Meyer and Daubechies. In this study, for anomaly edge enhancement has been proposed a new formula namely HVC that is computed from the square root of the sum of the squares of the horizontal and vertical components. The results indicate the acceptable performance of the Haar and Biorthogonal wavelets in delineating the edges of the gravity anomaly sources.

کلمات کلیدی:

(Biorthoganal, Gravity , Haar, Meyer, Wavelet Introduction (Heading 1

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