**Singular value decomposition for interpretation of gravity data**

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**Abstract**

Singular value decomposition (SVD) was effectively used to handle gravity signals. The singular value decomposition combined with multi-fractal method to form a new technique that for delineation of subsurface features using gravity eigenimage is proposed to separate the gravitational anomalies from its background. Then Images reflecting different eigenimages were rebuilt. The method tested on several synthetic gravity anomalies and also applied to field gravity dataset.

The eigenimage of gravity data helps to understand the relationship between the geological structure and source of anomaly. Thus multi-fractal singular value decomposition could be the principal contributor that depicts regional and local geo-anomalies for the fields of structural exploration and assessment.

**References**

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