

Abstract :

In this paper, the subsurface structural boundaries of the Hoggar shield are delimited by the multiscale analysis of the potential Bouguer gravity anomaly data using the 2D directional continuous wavelet transform. The main idea is based on the mapping of maxima of the modulus of the continuous wavelet transform for the full range of scales that are used in the wavelet transform calculation; the analyzing wavelet is the Poisson's kernel. Data of the International Gravimetric Bureau (BGI) are used, and obtained results exhibit a big correlation with the structural map of the area.