



Investigation of The Tectonic Structure of Cilicia Basin by Applying Wavelet Analysis Method to Gravity Data

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In this study, we demonstrate wavelet analysis as a method of delineating the boundaries of subsurface geological structures. We applied wavelet transform to Bouguer anomaly data of Cilicia Basin. We have detected the borders of the Cilicia Basin and proposed the tectonic model of this real complex structure using the wavelet transform. Wavelet outputs of gravity anomalies indicate that various types geological units which shown to differ in terms of densities separated. Also some lineaments of the basin was founded. The dominant direction of lineaments is indicative to the direction of the generating tectonic forces (NE-SW). In the study area, three major lineaments direction were expressed using wavelet transform. This three major lineaments meet one another to form a triple junction at the Amik Basin near Antakya.