

Lateral variations of the Poisson's ratio in the Southern Anatolia lithosphere deformation

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This paper offers regional tectonics realities using two lateral seismic velocity and Poisson's ratio (σ) around the upper-crust regarding southeast Anatolia. The body seismic velocities and Poisson's ratio (σ) lateral tomography changes get from 704 vertical recorded waveforms by six stations were used to comment geotectonics attitude of the study area. The lateral seismic tomography maps variations demonstrated different crustal thickness and inhomogeneous compressional activation of north and east Anatolian fault zone that were developed by thrust of the Bitlis Zagros suture. The lowest Poisson's ratio is observed in the west of the study area. The highest Poisson's ratio values were obtained in the northwest and southeast part, while the lowest σ values were obtained in the central portions of the study area. These values offers enlightening information on the incidence of local earthquakes and lithospheric deformation.