

RELATIONSHIP BETWEEN GRAVITY ANOMALY AND SEISMICITY IN IRAN

RAEESI, M. ZARIFI, Z., and GHEITANCHI, M.R. Institute of Geophysics, Tehran University, Tehran, Iran.

Iran as a part of Alpine-Himalayan belt frequently experiences destructive earthquakes due to continent-continent collision of Arabian and Eurasia plates. Every 1.5 years an earthquake with magnitude greater than 6 occurs in Iran. After preparing Geoid map of Iran by National Cartography Center of Iran (NCC) and Institute of Geophysics of Tehran University (IGTU) on the basis of gravity, leveling and GPS data, it was revealed that there is a clear conformity between high-gradient areas of gravity undulation and the macroseismic regions of destructive earthquakes with reverse mechanism. Also, such conformity is observable in India especially at Himalayan Ranges. This study deals with seismic districts and their relation to gravity field anomalies in Iran. The mechanism of earthquakes in such regions and also determination of other potential candid regions for destructive earthquakes are discussed.