

Velocity Model of Seymareh Region: Southwest of Iran Using Local Seismic Network Data

The velocity structural model of Seymareh dam, central Zagros region, is computed using recorded data from local seismic network of Seymareh dam and Velest one-dimensional inversion technique. The study has performed after creating the catalog by phase picking of all data recorded during the network operation from 2010 to 2015. 3000 events were processed, at radii of 50 km and filtered down to 474 events for Velest run considering conditions of azimuthal gap less than 180, residual RMS less than 0.5, and uncertainties in epicenter less than 6 km. V_p/V_s ratio was computed to be about 1.74 and a four layer velocity model is resolved where the top layers are 3, 4, 6 and 12 km respectively. Using hypoDD, the resulted velocity model was used relocating the seismic events. The relocated map of distribution and depth cross section for the area are prepared and presented. Keywords: velocity model, inversion, local seismic network, Seymareh dam, relocation

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