



Moment tensor map of Iran

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Iran is a country with high seismic activity within which many destructive earthquakes have been occurred during historical and recent times. The present state of active tectonics and earthquake activity in Iran are closely related to each other and both are related to the convergent plates in the southern and the northern parts of the Persian Plateau. The resulting deformation and seismic activity is diffused within the country. Seismicity and seismotectonics of this plateau is studied by several authors, but it seems that there is a lack of information about focal mechanism solutions, mainly because of the dispersion in projects or data collection. Focal mechanism solutions provide information about the faults on which shocks happen and about the regional stress behavior. First motion focal mechanisms provide fault and stress axes orientations, while one can determine duration, depth and moment of event by forward or inverse waveform modeling. As seismic moment tensors can be used to place constraints on directions and styles of active deformation, it was decided to compile a map including moment tensor solutions. Solutions including CMT ones are gathered from different databases. They are compared with each other and their parameters are compared with recent GPS results to give a preliminary seismotectonic and active tectonics picture of the country.