



Revised Iranian earthquake catalog for moderate and strong earthquakes

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An updated seismicity catalog has been developed for moderate and strong earthquakes in Iran, in which all events are characterized by moment magnitude using the reports of the national and global seismological centers in nearly hundred years. The coverage of the reports is assumed complete within the following time-magnitude windows: $M > 3.9$ since 1996, $M > 4.4$ since 1964, $M > 4.9$ since 1957, $M > 5.6$ since 1920 and $M > 6.2$ since 1903. In the new catalog, reported body wave magnitudes of the events with $m_b > 6.0$ for the time interval of 1920 to 1963 corrected using the relation; $m_b(\text{corrected}) = 0.8 m_b + 0.7$. The revised catalog also includes scalar moment tensor (M_0) for each event with magnitude M ($M = m_b$ $4.0 < M < 6.0$, $M = M_s$ $M \geq 6.0$) using the relation $\text{Log}(M_0) = (1.26 \pm 0.04) M + (17.57 \pm 0.23)$ and the corresponding moment magnitude is given by $M_w = (0.84 \pm 0.03) M + (0.96 \pm 0.16)$.