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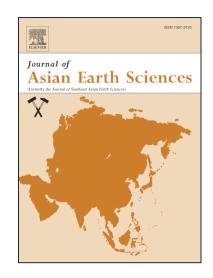
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1Compiling an earthquake catalogue for the Arabian Plate, Western Asia

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Abstract

8 The Arabian Plate is surrounded by regions of relatively high seismicity. Accounting for this seismicity is of great importance for seismic hazard and risk assesoments, seismic zoning, and land use. In this study, a homogenous earthquake cataldgue of moment-magnitude (Mw) for the Arabian Plate is provided. The comprehensive and homogenous earthquake catalogue provided in the current study spatially involves the entire Arabian peninsula and neighboring areas, covering all earthquake sources that can generate substantial hazard for the Arabian plate main Fand. The catalogue extends in time from 19 to 2015 with a total number of 13156 events, of which 497 are historical events. Four polygons covering the entire Arabian Plate were delineated and different data sources including special studies, local8 regional and international catalogues were used to prepare the earthquake catalogue. Moment magnitudes (Mw) that provided by original sources were given the 20 ghest magnitude type priority and introduced to the catalogues with their refe2dnces. Earthquakes with magnitude differ from Mw were converted into this scal@2applying empirical relationships derived in the current or in previous studies. The2four polygons catalogues were included in two comprehensive earthquake cata24gues constituting the historical and instrumental periods. Duplicate events were iden25 ied and discarded from the current catalogue. The present earthquake catalogue

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