

The ISC-GEM Earthquake Catalogue for Global and Regional Seismic Hazard Assessment

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The original ISC-GEM Global Instrumental Earthquake Catalogue (1900-2009) was released in 2013 (www.isc.ac.uk/iscgem/index.php). The catalogue was especially prepared for use in global and regional seismic hazard assessment. The main advantage of this catalogue is an improved homogeneity and accuracy of the earthquake parameters over the entire period of global instrumental seismological observations. The uncertainties and quality assessments of the main earthquake parameters are the other important features of this product.

The original ISC-GEM catalogue included only earthquakes greater than or equal to the following cut-off magnitudes: MS 7.5 for earthquakes occurring before 1918, MS 6.25 between 1918 and 1963 and MS 5.5 from 1964 onwards. With further funding from several commercial and public organizations, we are adding both recent earthquakes as well as those in the early instrumental period that fell below the original cut-off magnitudes. Here we present the Ver. 4.0 of the extended ISC-GEM catalogue, released in January 2017, that includes many thousands of additional earthquakes that occurred during 1920-1959 period.

The ISC-GEM catalogue (1900-2013) is freely available from the ISC website and is widely used by researchers working in both public and commercial organizations worldwide.

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