Focal parameter analysis of earthquakes of the S-SE of the Iberian Peninsula (1900-1923)

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The aim of this study is to make a review, actualization and homogenization of the seismic parameters of the Seismic Catalogue of the National Seismic Network of Spain, which belongs to the National Geographic Institute. Our analysis focusses on the region that spans from 36.0 to 39.5° N and from 3.25° W to 1° E, which is a seismically very active region. The studied time period refers to earthquakes occurred between 1900 and 1923, where most information comes from macroseismic data and macroseismic effects.

The study begins by searching and collecting information from seismic bulletins and seismic catalogues, seismograms, seismic surveys, photographs, specific studies, historical newspapers and different digital archives. Then, the achieved information from all the different sources were reviewed and, whenever possible, the seismic parameters such as localization, seismic intensity and magnitude were recalculated.

The objective of this work is, from one hand, to establish the study methodology that allow to develop an overall review of all the earthquakes occurred in Spain from 1900 to date, and on the other hand, to provide good quality seismic data (improving the completeness and homogeneity of this seismic catalogue). Seismic data is important because it is used to make seismic hazard maps, studies of seismic risk, to update the seismic building standards and it is also used to make seismic characterization of the territory.