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A Review of the Greek Strong Motion Database: Needs, Improvements and Future Development

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During last decades the rapid progress of strong motion seismology and earthquake engineering practice lead to an increasing number of seismic hazard studies. The multi-parametric nature of these studies implies that the development observed so far is related to a number of components; technical and analytical ones. In this paper we will focus on the importance of the strong motion database itself since it provides the basic seismological data for any seismic hazard study. The revaluation of the quality of analogue and digital records combined with the implementation of advanced signal processing techniques lead to the Greek Reprocessed Strong Motion Database (GReD). A secondary purpose of this paper is to introduce the future user of any strong motion database to criteria, for choosing between existing databases and among strong motion records, depending on the researcher's needs.