



THE RAPID RAW STRONG MOTION (RRSM) DATABASE

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The use and exchange of real-time accelerometric data in monitoring networks is rapidly evolving to be used for real-time estimation of relevant earthquake parameters, early-warning systems, shake maps and rapid damage evaluation scenarios. During the last decades a number of projects successfully initiated and strengthened the collaboration between networks collecting strong motion data. Currently, the NERA project (www.nera-eu.org) has given the opportunity to further improve collaboration between European accelerometric networks and to coordinate relevant, common standards in (real-time) data exchange, processing and services with the seismological broad-band community. An important product of this collaboration within NERA is the development and implementation of the the Rapid Raw Strong Motion (RRSM) database: an automatically produced strong motion database that takes advantage of the state-of-the-art in seismic network processing to provide near-immediate access to any openly available strong motion data following a significant earthquake in Europe. Raw waveform data and basic station information are collected through the ORFEUS distributed archive system EIDA (European Integrated waveform Data Archive (www.orfeus-eu.org/eida/)). The RRSM database is build on SeisComp3 (SC3) with an extension to include event-based strong-motion parameters computed by the SC3 processing module 'scwfparam' (extension and module both developed by ETH). The RRSM is implemented by and hosted at ORFEUS Data Centre and routinely collects and processes in near real-time accelerometric data after an earthquake alert dissemination by the EMSC. Within NERA, ETH and ODC are developing an user interface to search for and give access to both raw waveform data, station information and peak ground motion values as well as response spectral ordinates of engineering interest. A related component in the RRSM database is the development of a 'Station Book' containing seismic station information (metadata) and site specific characteristics. This presentation will highlight the present status and capabilities of the RRSM and the Station Book.

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