HOMogenized instRUmental Seismic catalog (HORUS) of Italy from 1960 to present

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We implemented an automatic procedure to update in near real-time (hourly to daily) a catalog of instrumental seismicity to be used for forecasting experiments in Italy. The magnitude of all events is homogeneously revalued so that to be consistent with Mw standard estimates made by the Global CMT project. For the time interval from 1960 to 1980 it is obtained by combining data from the Catalog of the Progetto Finalizzato Geodinamica (PFG) with magnitude determinations made by other sources. For the period from 1981 to present it is compiled by merging various catalogs (CSTI, CSI) and online resources (INGV and ISC Bulletins, CMT catalogs, etc.) available for the Italian area and by homogenizing the magnitudes to Mw according to empirical relationships derived using General Orthogonal Regressions (GOR). An automatic procedure continuously downloads new data from the ISIDE database of the INGV (via Web Services) and from online CMT catalogs, merges the different sources and applies magnitude conversions. We will provide soon the final catalog on a web site for public dissemination. The minimum Mw completeness threshold is about 4.0 from 1960, 3.0 from 1981, 2.5 from 1990, 2.1 from 2003 and 1.8 from 16 April 2005.