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60 years of parametric instrumental data collection from pre-WWSSN seismic stations

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Large set of station parametric data (e.g., phase arrival times, amplitude and period measurements, etc.) stored in printed seismological bulletins before the beginning of the digital era have been digitized and integrated in the International Seismological Centre (ISC, www.isc.ac.uk) database. The early instrumental bulletins contain fundamental data for relocating and reassessing the magnitude of earthquakes that occurred since 1904 and before the introduction of the WWSSN. The digitalization and the organization of the parametric data has been carried out in the context of the ISC-GEM Global Earthquake Instrumental Catalogue project originally funded by the GEM Foundation (www.globalquakemodel.org) and now being extended thanks to additional support of USGS, NSF and commercial companies in the US, UK and Japan. The parametric data obtained and processed during this work complements the data freely available from the International Seismological Centre (ISC) bulletin starting in 1964.
We digitized different sources to retrieve body-wave arrival times in part manually (e.g., BAAS bulletins, 1913-1917) or, where possible, with the help of optical character recognition methods (e.g., ISS bulletins, 1918-1959).
To digitize amplitude-period data of seismic phases relevant to magnitude (particularly MS), we used the worldwide collection of paper-based bulletins stored at the ISC and other institutions and entered relevant station parametric data into the database.
Most of the original paper bulletins were also scanned by INGV-SISMOS and made available at the http://storing.ingv.it/bulletins/ website.
These newly available digital instrumental data are significant for future studies of earthquakes that occurred in the pre-WWSSN period.