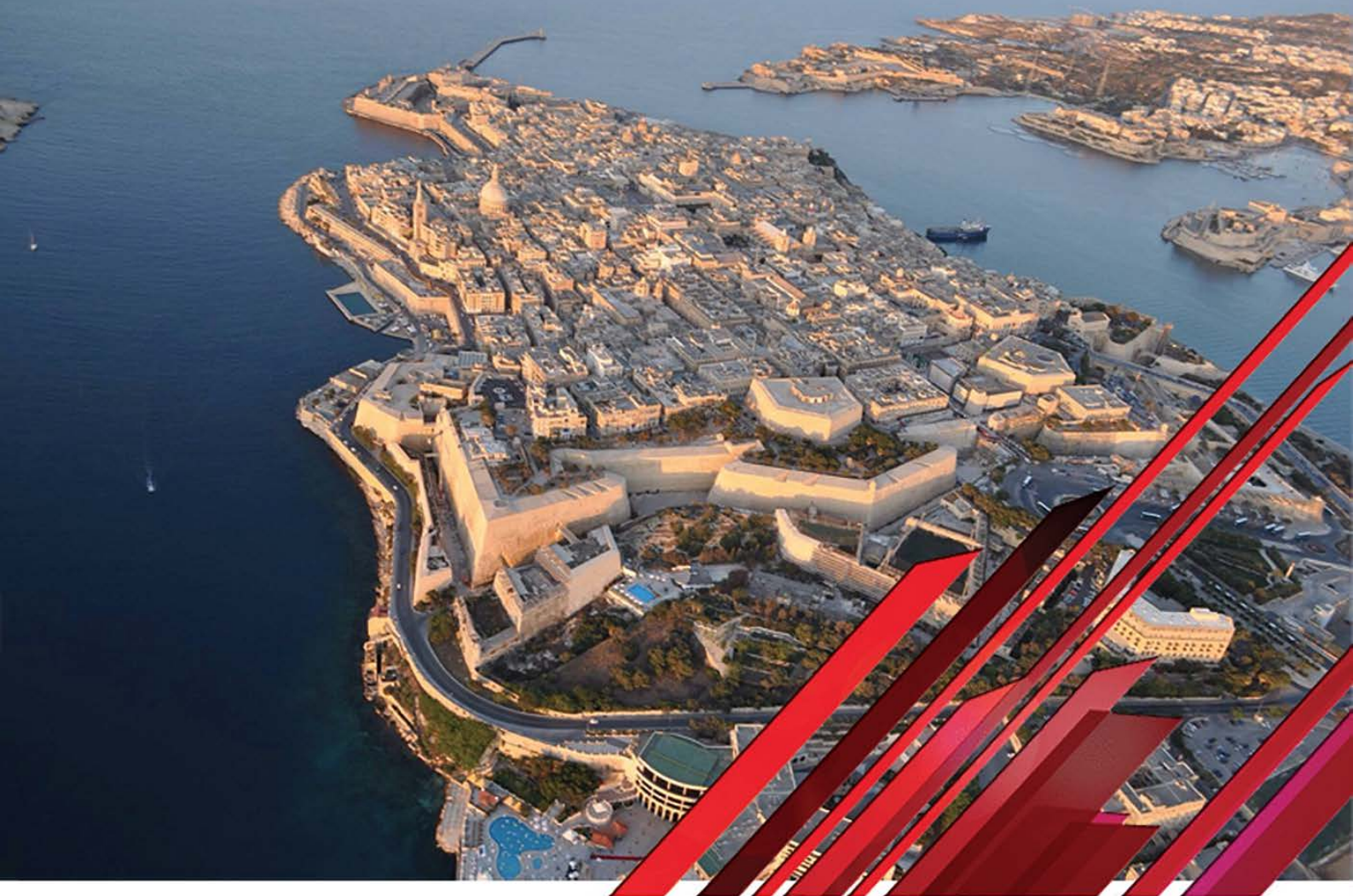




BOOK OF ABSTRACTS



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THE NEW CFTI5MED - CATALOGUE OF STRONG EARTHQUAKES IN ITALY AND IN THE EXTENDED MEDITERRANEAN AREA: AN ADVANCED, USER-FRIENDLY WEB-INTERFACE TO ACCESS A UNIQUE DATABASE OF HISTORICAL SEISMOLOGY

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A new, largely revised and updated version of the Catalogue of Strong Earthquakes in Italy and in the extended Mediterranean area, termed CFTI5Med, was released in 2018 by Guidoboni et al. (<http://storing.ingv.it/cfti/cfti5/>). The catalogue collects the results of over three decades of research on historical seismicity in Italy and is listed as the reference study for the vast majority of damaging earthquakes in the Catalogo Parametrico dei Terremoti Italiani (CPTI15: Rovida et al., 2016; <https://emidius.mi.ingv.it/CPTI15-DBMI15/>) and for several earthquakes listed in the Archivio Storico Macrosismico Italiano (Italian historical macroseismic archive, ASMI), which is part of the European Archive of Historical Earthquake Data portal (AHEAD), the European node for the collection and distribution of historical earthquake data in the framework of EPOS. What makes CFTI5Med different from all other earthquake catalogues is that its database does not only contain parametric data and macroseismic intensities assigned to individual localities, but also textual descriptions of the seismic scenario for each investigated earthquake sequence. The information is organized in a set of historical-critical comments providing a complete account of the territorial impact and of the social and economic upheaval caused, through both general descriptions for the entire earthquake sequences and specific comments for each individual locality. In addition to the effects on the built environment, CFTI5Med provides also

descriptions of the effects induced by earthquakes on the natural environment, such as ground cracks, chasms, landslides, rockfalls, changes in the discharge rate of rivers and springs, tsunami effects,

overflowing of lakes, etc.

For every investigated earthquake sequence, CFTI5Med supplies also the relevant bibliography in an organized

form, allowing the reader to navigate upstream from the parameters of a specific earthquake to the original

sources that were used to investigate that event.

A totally re-designed and more efficient web- and web-GIS interface now allows the user to fully appreciate and

exploit the wealth of information gathered in the Catalogue. CFTI5Med provides information on over 1100

events in Italy (250 with epicentral intensity equal to or larger than intensity VIII on the MCS scale) and about

470 additional events in the whole Mediterranean area. With the new web-interface, the contents of the

Catalogue can be accessed through database queries on various parameters of earthquakes and localities;

detailed information on each earthquake and locality of the Catalogue is reported in specific, dedicated pages.

We implemented also a page dedicated specifically to the information on the earthquake effects on the natural

environment, allowing for an immediate use of these data in case of an emergency. This is particularly

important, as it is known that earthquake-induced effects on the natural environment tend to occur where they

have occurred in the past.

The new CFTI5Med website, therefore, does not represent just a simple web-interface to access the data

contained in the Catalogue, but is in fact an advanced e-infrastructure to navigate the CFTI database at

different levels, allowing users to access the whole data tree from the original sources to the parametric data.

Starting from CFTI5Med, specific tools have been developed for the investigations in space and time of

complex earthquake sequences and for the comparison of different historical earthquakes. Particular attention was paid to the ease of use in order to allow users with different backgrounds to easily navigate through the highly diverse contents of the Catalogue. It is therefore a versatile application open to both expert users for new elaborations and to the general public.