



## **Tsunamis in the Euro-Mediterranean region: analysis of five events as possible benchmarks**

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The Euro-Mediterranean region has been affected along the time by several strong tsunamis. The analysis of tsunami catalogue allow to establish the main tsunamigenic sources and reveal that most of the events were local and some important tsunamis propagated regionally, involving more than one country. In this study we analysed five tsunami events, both local and regional, to be considered as benchmarks in the Euro-Mediterranean region. The five studied events are the best documented for each one of the most prone areas. In particular, the case study representative for the NE Atlantic area is the Lisbon 1755 event, one of the most destructive tsunami ever occurred in the European region, causing severe damage and a lot of victims and propagated as far as the south-eastern coast of England. The 2003 Algerian tsunami, not destructive but propagated regionally with effects observed along the Balearic islands coast, has been selected for the western Mediterranean area. For the central Mediterranean the 1908 Messina event has been chosen, definitely the most important Italian tsunami which caused destruction and many victims along the Sicily and Calabria coast and with effects observed in Malta. The 1956 Cyclades tsunami, locally very strong and propagating as far as Crete, has been selected as representative for the eastern Mediterranean area and, finally, the 1999 Izmit tsunami, severely affecting the Izmit Bay, has been identified for the Marmara Sea area. For the five events a careful analysis of the sources has been performed in order to obtain a detailed picture of the effects and, when possible, a reconstruction of the inundation areas and runup values.