



# On parametric seismicity catalogues: the impact on the seismic risk assessment in Mediterranean regions

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Accepted: 20 December 2022 / Published online: 25 January 2023  
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This special issue is dedicated to the late Professor Assia Harbi (1964–2021), whose work was devoted to building seismicity catalogues with parametric data. Her outstanding efforts in preparing parametric catalogues for Algeria and Tunisia have definite implications for the seismic hazard and risk assessment of the Maghreb regions. The parametric seismicity catalogue of Algeria includes some of the well-studied seismic events, such as the large earthquake that affected the Jijel–Bedjaia Bay on 21 and 22 August 1856 (Io VIII, IX). The historical earthquakes of Algiers in 1356 and 1716, Oran in 1790, Blida in 1825 and Jijel in 1856 have required significant historical and bibliographic research to extract their seismic characteristics.

Preparing a summary of the three decades of seismological studies of Assia Harbi is a real challenge. Our aim here is to account for the collaborative work I have been involved with Assia since her early years in CRAAG, her months as visiting scientist in Strasbourg and close teamwork for the historical earthquake studies of northern Algeria. Assia's definite research trend was not easy, but she decided to confront the complicated task of a one-by-one re-appraisal of historical earthquakes. Her objective was to collect sound and detailed earthquake data from historical documents, old letters, press reports and eyewitness accounts to build macroseismic intensity maps. The other objective was also to create a catalogue with parametric data and provide intensity with damage distribution, magnitude, accurate earthquake location and estimated depth, level of ground motion and correlation with tectonic structures. She collected data on a

large number of historical earthquakes for which only some seismic events were the subject of publication. The seismicity catalogue of Algeria became parametric and included some of the well-studied seismic events, such as the large earthquake that affected the Jijel–Bedjaia bay on 21 and 22 August 1856 (Io VIII, IX). Her outstanding efforts in building the parametric catalogue have definite implications for northern Algeria's seismic hazard and risk assessment.

The special issue is organised around the following topics:

1. The importance of historical seismicity and associated archives (perspectives of seismological databases in the digital era).
2. State of the art in terms of integration of disciplines in seismology and seismotectonic.
3. Seismotectonics and the implications for seismic hazard and risk.

Editors

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