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Response Spectra for Selected Cities Along the Northwestern Coast of Egypt

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Unknown to the most Egyptians, of all natural hazards earthquakes pose the greatest damage potential. Large scale events are fortunately quite rare, however, if they strike, they can cause far reaching and very costly damage, which lead to potentially hundreds or even thousands of fatalities. So far, earthquakes cannot be prevented or even reliably predicted. But, due to extensive research, much is now known about how often and intensively the earth could shake at given location.
Probabilistic seismic hazard analysis (PSHA), at the national level, enables societies to make well informed decisions on earthquake safety. On a technical level, a PSHA defines, for building engineers, the kind of ground motions which can be expected for an earthquake and to couple them to the response of local soil and the building characteristics. The design response spectrum considering the different soil conditions for five selected sites along the northwestern coast of Egypt, have been estimated. Seismic hazard maps and design response spectrum are illustrated as selected hazard output for the selected five cities (Alexandria, Alamein, Dabaa, Marsa Matrouh and Negelah).

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Promotional text

The aim of the present work is to assess the probabilistic seismic hazard analysis at five selected cities across the northern coast of Egypt, in addition to determining the design response spectrum, considering different soil conditions.

Oral preference format

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