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## Probability seismic hazard analysis (PSHA) for Eastern Macedonian Seismogenic zone

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The aim of this research was to analyze the earthquake hazard of the Eastern Macedonian seismogenic zone by determining the  $a$  and  $b$  values in Gutenberg-Richter law. For this purpose, the previously known division of the zone to six epicentral areas was used. The  $b$  and  $a$  values were calculated for the epicentral areas where the seismic data permits, using the least square method. Using these values, the mean return period, the most probable maximum magnitude in  $t$  year time period and the probability for an earthquake occurrence with magnitude  $\geq M$  within time span of  $t$  years were estimated too. Furthermore, maps with spatial variations of the parameters will be provided.

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