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Seismic risk assessment for Yerevan city

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The purpose of the study was to conduct a seismic risk assessment for the territory of Yerevan city with the aim to evaluate potential earthquake hazard and associated risk and losses. This study enables the assessment of seismic risk in the city and evaluates the geographical distribution of potential human and building losses due to proposed earthquake scenarios. The results of this study are presented in form of various mapped seismic hazard parameters such as peak ground acceleration, spectral acceleration, as well as assessed parameters for expected life, building and lifeline losses. The study has been the first of its kind for Yerevan city that will serve as the first step in building a risk analysis tools to be used by governmental entities and other organizations for planning future disaster response efforts.