



Deterministic earthquake scenarios based on macro seismic information

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Abstract: Earthquakes are the most deadly of the natural disasters affecting the human environment. Global seismic risk is increasing steadily as urbanization and development occupy more areas that a prone to effects of strong earthquakes. The assessment of seismic hazard and generation of earthquake scenarios is the first link in the prevention chain and the first step in the evaluation of the seismic risk. The territory of Bulgaria (situated in the eastern part of the Balkan Peninsula) represents a typical example of high seismic risk area. In the present study deterministic scenarios (expressed in seismic intensity) for the cities Plovdiv and Rouse are presented. The work on scenarios was guided by the perception that usable and realistic (also in the sense of being compatible with seismic histories of cities that are often several centuries long) ground motion maps had in the end to be produced for urban areas.

