عنوان مقاله:

The Use of Monte-Carlo Simulations in Seismic Hazard Analysis in Tehran and Surrounding Areas

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خلاصه مقاله:

Probabilistic seismic hazard analysis is a technique for estimating the annual rate of exceedance of a specified ground motion at a site due to the known and suspected earthquake sources. A Monte-Carloapproach is utilized to estimate the seismic hazard at a site. This method uses numerous resampling ofan earthquake catalog to construct synthetic catalogs to evaluate the ground motion hazard and its uncertainties. The method has been tested for peak ground acceleration and spectral response accelerations of 0.2 and 1.0 sec for sites in Tehran and the surrounding area. The disaggregationtechnique of seismic hazard provides relative contribution to hazards from sources of different magnitudes, M, distance, R and a measure of the deviation of the ground motion from its median value, ε, as predicted by an attenuation relationship. In different sites in Tehran, the major contribution comes from moderate and large magnitudes, at close distances

کلمات کلیدی:

Probabilistic,Hazard,Monte-Carlo,Design earthquake

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