عنوان مقاله:

Applying Semi-Markov Models for forecasting the Triple Dimensions of Next Earthquake Occurrences: with Case Study in Iran Area

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خلاصه مقاله:

In this paper Semi-Markov models are used to forecast the triple dimensions of next earthquake occurrences. Each earthquake can be investigated in three dimensions including temporal, spatial and magnitude. Semi-Markov models can be used for earthquake forecasting in each arbitrary area and each area can be divided into several zones. In Semi-Markov models each zone can be considered as a state of proposed Semi-Markov model. At first proposed Semi-Markov model is explained to forecast the three mentioned dimensions of next earthquake occurrences. Next, a zoning method is introduced and several algorithms for the validation of the proposed method are also described to obtain the errors of this method.

کلمات کلیدی:

Semi-Markov Model, Probabilistic Forecasting Matrix, Forecasting Error, Karakaisis zoning

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