

The features of sequences at different tectonic regions and the forecasting research

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In this paper uses the epidemic-type aftershock sequence (ETAS) point process model to study the various features within sequence decay for Chinese cases of North China, Northwest China, Southwest China and Taiwan area. The types of cases are such as the main-aftershock and the swarm; which are distribution at intra-plate and inter-plate earthquakes. The various features of different sequences are shown in the fitted parameters from ETAS model. The obvious precursory quiescence is appeared in prior to comparatively big events or the cluster of aftershocks within the each sequence. And the results are compared between the cases of Chinese and other tectonic zones of the earth.

The parameters of modeling technique can be used to update aftershock forecasting, the significance of seismic quiescence is analyzed. And we study the relation between quiescence and comparatively large earthquakes in quantity and extrapolate the probability of earthquake occurrence using kernel estimate method effectively. The methods could be used to aftershocks prediction tentatively.