



Forecasting area of strong aftershock occurrence

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Forecasting an area of strong aftershock was never, at our knowledge, considered in terms of operational forecasting. Different declustering models exist to separate post-factum the aftershocks from “independent” events. Large number of studies discussed in previous years the form of the distribution of the aftershocks distances from the mainshock fault. Here we present results of our attempts to assimilate the above researches into a model that can be used in operational aftershock forecasting. Our study was based on data provided by ANSS catalog for 1980-2015. We tried more than 20 well known and suggested by ourselves models of aftershock areas to retrospective forecasting of strong aftershock areas. We tried the models based on data for 12 hours after a mainshock and estimated their forecast quality using special modification of L-test to achieve an optimal model. As a result of our study is a model that can be used in operational forecasting area of strong aftershocks.

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