Variations of monitoring parameters and their connection with current seismic activity

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Investigation was performed with the purpose of the current seismic hazard most reliable and update assessment in the territory of Armenia. Variations of time series of 16 different by their nature monitoring parameters measured at the stations of Armenian NSSP multiparameter observation network have been analyzed.

Multilevel data correlation analysis has been carried out. Correlation relations between different parameters were defined. The graphs displaying the effectiveness of stations and observation networks have been compiled. Cross-correlation analysis of time series has been carried out. The pattern recognition method has been used in research as well.

The anomalous displays of monitoring parameters are explained with relation to seismotectonic structure of the territory of Armenia. The most sensitive monitoring stations are revealed. The sequence of display of anomalies - precursors is explained on the basis of the certain physical model of tectonic earthquakes preparation.