1   Predicting Earthquakes by using Preliminary Kandilli Earthquake Catalog

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In analysis of earthquake prediction, seismological methods of earthquake prediction are investigated as the aim of this research field. Particularly investigations of properties and generation mechanisms of various seismic precursors such as seismic gaps, abnormal seismic activities, foreshocks and others get importance for the goal of our study. Although many of earthquake catalogs exists, they are inhomogeneous and incomplete. Therefore, as a first step, we tried to get homogeneous and complete earthquake catalog in order to study the prediction of devastating and moderate earthquakes in Turkey. Also, before starting the study, we tried to acquire reliable results from statistical analysis. Afterwards, null hypothesis test is discussed by using generalization of the central limit theorem in the study because it coverages unequal prediction probabilities. Furthermore, we try to support and critize our results by using a statistical test for this possibility by using ZMAP. This is a cooperated study interesting in statistical analysis, stress triggering, declustring and earthquake prediction. In this part of the study, earthquake prediction will also be evaluated by using new methods in this subject. In this ongoing study, temporal variations of seismic activities and crustal movements will be investigated on the basis of multivariable time series analysis of observational data, for the analysis of earthquake prediction to detect precursory changes in stress field.