Statistical properties of earthquakes clustering

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Often in nature the temporal distribution of inhomogeneous stochastic point processes
can be modeled as a realization of renewal Poisson processes with a variable rate.
In this work we investigate one of the classicalexamples, namely, the temporal dis-
tribution of earthquakes. We show that this process strongly departs from a Poisson
statistics for both catalogue and sequence data sets. This result indicate the presence of
correlations in the system probably related to the stressing perturbation characterizing
the seismicity in the area under analysis. As shown by this analysis, the catalogues, at
variance with sequences, show common statistical properties.