

been applied for samples with large and small ($n < 20$) number of events respectively.

An effort was made to distinguish foreshocks and aftershocks from the main shocks, as it was proved that χ^2 -test cannot be applied in clustering process.

The results showed that the large main shocks which occurred in various regions of the world, with magnitudes $M \geq 7.0$, follow a Poisson process. Consequently we can reach to the conclusion that the rate of seismic energy release remains almost constant, since the seismic energy is mainly released by the large earthquakes. This probably indicates that the large shocks are independent events, while the smaller ones are affected by the occurrence of the large earthquakes.

SEISMIC ACTIVITY IN THE KASSANDRA GULF (NORTHERN GREECE)

E.M. Scordilis

Dept. of Geophysics, University of Thessaloniki, Thessaloniki, 54006, Greece

An attempt is made to study the seismic behaviour of the southern part of the Kassandra gulf (Chalkidiki peninsula).

Three seismic sequences with numerous and small earthquakes occurred in the area near Paliouri village, where a seismological station of the permanent telemetry network of the Geophysical Laboratory of the University of Thessaloniki is operated. The first one took place between 18 and 25 December, 1983. During this time period about 2380 small earthquakes were recorded by the Paliouri station (PAIG). The second one occurred four months later between April 30 and May 3 1984 at the same area, and about 780 small earthquakes were recorded by the PAIG station. These two sequences were considered as swarms, since there were no earthquakes with magnitudes large enough to be considered as main shocks. The third sequence started on August 10, 1988. The main shock of this sequence had a magnitude of 4.5 and it was preceded and followed by foreshocks and aftershocks.

The space, magnitude and space-time distribution of these three sequences is studied in the present work. It is concluded that there must be two parallel faults in this part of the gulf with direction NNW-SSE. The seismic energy from these faults is released with numerous small earthquakes, although the potential of these faults is probably high enough to generate larger earthquakes.