



Seismicity ratio with applied mechanism

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A new algorithm for seismicity analysis has been developed. In this simple algorithm we analyze the seismicity in the SISZ area by looking at the ratio between the number of earthquakes in the compressive and tensile quadrants at any given point in a grid of points covering the SISZ. The purpose was to check if the seismicity pattern could be made more sharp by adding this a priori knowledge of mechanism of the large earthquakes in the area. In the analysis we use data from South Iceland Seismic Zone from 1991 through May 2000. Two major anomalies are found, the strongest located in the vicinity of the June 17th 6.5 earthquake and the other anomaly in the vicinity of the second 6.5 earthquake. When running the algorithm on various periods between 1991 and 2000 gave similar results already in 1993 although with less pronounced anomaly, particularly around the second event.