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Seismicity of Eastern Alps and North western Dinaric Alps

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Our study region is placed on Adriatic Plate and the boundaries are Dinaric Orogenic Belt, Carnic, Tolmezzo and Julian Alps. The area has normal, reverse and strike slip faults which can generate big earthquakes such as 1976 Mw 6.5 Friuli Earthquake, 1998 and 2004 Bovec-Krn Earthquakes. The area is located between Austria, Slovenia and Italy. Our group, SEISRAM, has dense seismic station on the Italian part of the region and has access to get data from other countries on the region. We are monitoring the region with a good coverage by collaborating with other institutes on the Ce3RN project which we are also part of. We can detect lower than 0.5 Magnitude earthquakes. We use our database and other seismological centers to investigate the seismicity of the region between 1960 and 2016. Gutenberg – Richter magnitude frequency relationship is applied in order to get a knowledge about the seismicity of Friuli region. By using the database 'a' and 'b' values of the region are found. Same procedure is done for each fault line, separately. Magnitude of completeness for each fault are calculated. Calculation of earthquake probabilities for fixed periodic times for possible from magnitude 3 to magnitude 6 earthquakes. All calculations are done by using Matlab based ZMAP program.