

Time-Clustering Behavior in Absheron-Prebalkhan Seismicity (Azerbaijan)

We performed the Allan factor analysis on the 1842-2012 seismicity of the Absheron-Prebalkhan seismogenetic zone of Azerbaijan. The historical and instrumental catalog of the Absheron-Prebalkhan region in the Caspian Sea area was analyzed in order to reveal the existence of temporal clustering in the time dynamics of the seismicity. The timespan of the catalog is from 1842 to 2012 and the magnitude of the events ranges from 2.5 to 6.8. The Gutenberg-Richter analysis indicates 4.0 as the completeness magnitude of the catalog. The methods have revealed the presence of time-clustering behavior in the time dynamics of large events in the Absheron-Prebalkhan region. Our findings suggest a non-Poissonian behavior of the seismicity of the investigated area, could contribute to a deeper knowledge of the time dynamics of the seismicity and to a better assessment of the relative seismic hazard.

Primary author: BABAYEV, Gulam (Institute of Geology and Geophysics, Azerbaijan National Academy of Sciences)

Presenter: BABAYEV, Gulam (Institute of Geology and Geophysics, Azerbaijan National Academy of Sciences)

Track Classification: Theme 2: Events and Their Characterization