

# History in Azerbaijan and Contemporary Days: Challenges Ahead

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This research presents seismic studies review through history up to contemporary days to understand the behavior of earthquake occurrences in Azerbaijan and the interrelation between geodynamics and seismicity. Azerbaijan is situated within the central part of the Mediterranean active belt with seismicity stipulated by intensive geodynamic interrelation of Eurasian and Arabic lithosphere plates. Azerbaijan is characterized by high seismicity with a great number of historical strong earthquakes with  $M \geq 6$ . Developments in seismological instrumentation and power systems have allowed increasing the number of seismic stations in the country since the 2000s for high quality as well as cost effective seismological observations. Great efforts have been directed towards developing probabilistic and deterministic seismic hazard assessment standards in Azerbaijan, plotting analytical models, graphs, maps and understanding their implications for seismic hazard and risk assessments. Rising number of strong and damaging earthquakes in the world, growth of data and knowledge in line with new engineering demands and needs for the operational safety for community initiated the research of more effective approaches incorporating new multidisciplinary concepts and integrated tools. Challenges in exploring recent innovative developments in computational techniques, numerical modeling of classical and new seismology problems is further ahead in Azerbaijan.

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