

T1.5-P38. Some peculiarities of stress field and active faults "behavior" derived from focal mechanisms on the territory of Armenia

Armenia lies within the complex zone of continental collision between the Arabian and Eurasian plates. The Arabian plate is moving northward at the rate of 20-30 mm/year and collides with the Eurasian plate. The Anatolian and the Iranian blocks are squeezed westward and eastward respectively. In the present work, on the basis of analysis, kinematic and dynamic interpretation of individual focal mechanism solutions, we attempt reveal some features of active faults "behavior", and time –space peculiarities of tectonic stress field on the territory of Armenia. Based on the analysis of stress map of Armenia we attempt to differentiate local zones with comparatively homogeneous orientations of tectonic stresses and seismic regimes, thus providing information for seismic hazard re-assessment in future. Based on our study, we show the existence of more than one stress regimes in the territory, and we suggest that complex active tectonics, connected not only to the convergent motion between above mentioned plates, but also to the motion of several micro plates, producing a wide range of tectonic regimes.

Primary author: TOVMASYAN, Ashkhen (Ministry of Emergency Situations of the Republic of Armenia)

Presenter: TOVMASYAN, Ashkhen (Ministry of Emergency Situations of the Republic of Armenia)

Track Classification: 1. The Earth as a complex system