[EJ] Eveningポスター発表 | セッション記号 S (固体地球科学) | S-SS 地震学

[S-SS08] 活断層と古地震

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内陸活断層やプレート境界断層の活動履歴およびその地震像は、被害地震の長期予測にとって基本的なデータであり、各地で調査・研究が行われている．本セッションでは、活断層の現在の動き、活断層の歴史的な活動履歴（地質断層の再活動も含む）、活断層の浅部構造、活断層・歴史地震の調査手法、アクティブテクトニクス、地震発生の長期予測モデル、歴史文書から推定される古地震像および地震災害軽減のための活断層・古地震研究の活用についてなど、広範な発表を歓迎する．

[SSS08-P29]Source Parameters of Moderate and Strong Earthquakes for Turkey and its Surrounding Area (1938-2017)

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キーワード：Mediterranean, source parameters, focal mechanism, stress analysis , faulting type

Turkey is located in the eastern Mediterranean sector of the Alpine-Himalayan orogenic belt. This area comprises the technically most active in the Mediterranean region. Because the country is located at the junction of the main tectonic plates namely, African, Arabian and Eurasian. Global kinematic models based on the analysis of oceanic spreading, fault system, and earthquake slip vectors indicate that Arabian plate is moving in the north-northwest direction relative to Eurasian at an average rate of about 25 mm/yr. Turkey is escaping from Eastern Anatolia due to collision between Arabia and Eurasian, and trust over the African oceanic plate along the Hellenic arc. The motion is taken up by strike-slip deformation along the North Anatolian and East Anatolian faults. As a consequence of the above condition the direct impact to this country leads to continuous earthquake events. According to the statistics, over 15.000 earthquakes occur per year in Turkey. An important part of these earthquakes is felt by people. This requires quick information about the earthquake, especially earthquake source parameters, specific fault type and moment magnitude.

The main goal of this study, calculating earthquake source parameters with inversion technique and preparing Focal Mechanism–Moment Tensor–faulting types data bank of Turkey and surrounding area and performing regional stress analysis. Source parameters–faulting mechanisms occurred in Turkey and surrounding area, compiling them and collecting in a complete data base in order to present the researchers attention from the date which the instrumental seismology started of 1938 until these days, consist the main work package of this research.

This research was aimed to complete the previously made researches and updating of them. Approximately 60% of the fault parameters of all earthquakes were calculated within the scope of this study. Homogeneous and integrated data set preparation by calculating all missing parameters belonging to previous earthquakes was aimed within the scope of research. Regional faulting type map prepared with moment tensor set, regional stress analysis and axial directions at regions belonging different tectonic regimes in Turkey by using parameters for each earthquake (direction, strike, dip, rake, seismic moment Mo; P and T axes azimuth and plunge). In this context, a total of 1900 earthquakes (M≧4.0) source parameters and fault plane solutions have been compiled and a large part of them have been calculated within the scope of the study.

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