ID: Type: **Oral**

T1.2-O3. Geophysical methods in tracing Palaeozoic suture zones within the lithosphere of Uzbekistan

This paper presents interpretations of deep refraction and wide-angle reflections “deep seismic sounding” (DSS) data and analyses of potential fields data. An integrated model of the physical properties and lithosphere structures displays distinct features that are related to tectonic history of the study area. Linear positive magnetic anomalies reflect the position of associated deep faults, which define the location of palaeosubduction zones. These zones are recognized on crustal DSS profiles and potential fields, crossing orogenic part of Southern Tien Shan and partly Amy Darya basin. We have analyzed also the travel times of seismic P and S waves from deep-focus Hindu Kush earthquakes recorded at some seismograph stations in Uzbekistan. We adopt the hypocentral location and origin times of the concerned earthquakes as reported by the ISC to obtain the necessary travel times. The epicenters of the Hindu Kush earthquakes whose data are analyzed were clustered in a 100 km by 50 km area. The focal depth of these earthquakes as estimated by the ISC ranged between 102 to 262 km approximately. We have plotted and analyzed time series of Vp and Vs at stations, located in zones separated by palaeosubduction zones of Gissar and Turkestan oceans.

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