

Tectonic and Kinematic viable cross section of the eastern Achara-Trialeti Fold and Thrust Belt in the Georgian foreland.

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Master's Thesis in Earth Sciences

This Master project was developed in the Caucasian region, specifically in Georgia. The zone of interest of this project is located to the south of the Greater Caucasus, starting with the Kura-Kartli foreland basin, Kura fold and thrust belt, Achara-Trialeti fault and thrust belt (ATFTB) and the Khrami and Loki massif to the south, already located within the domains of the Lesser Caucasus.

The work will be more focused on the ATFTB because of the density of information available (seismic profiles) which will give us hints of the processes of inversion and thrusting of the former Mesozoic basin Achara-Trialeti, located eastwards of the Eastern Black Sea Basin considered as an extension of it.

Based on the available mapped geological units, seismic profiles and surface information, a near surface geological cross section was conducted in order to compile former works, information provided by Georgian Oil and Gas Limited (GOG) and the Tectonics group from the Fribourg University and also to generate a first approach to the studied zone.

The aim of the project was to develop a kinematic viable cross section of the above named subsurface structures. The models were performed in the geological software model MOVE from PETEX SOLUTIONS.

Based on the results of the seismic interpretation developed within this work, the models were performed, having as a result three different forward models displaying several options for the evolution of this geological region.

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