Geophysical Research Abstracts
Vol. 16, EGU2014-760, 2014
EGU General Assembly 2014

Relationship between magnetic fabrics and active tectonic in Lut block

Hamideh Rashid, Massimo Mattei, and Francesca Cifelli
Roma Tre University, Italy (hamideh.rashid@uniroma3.it)

In Central Iran active strike-slip faults are concentrated along the tectonic boundaries of the different crustal blocks (Yazd, Tabas and Lut). These strike-slip faults do not necessarily link with other major structures at their ends, but they may terminate in thrusts whose topographic expression decreases with distance from the strike-slip fault. An example is represented by the Ferdows NNW-SSE oriented thrust fault, which is located at the western end of the E-W left-lateral strike slip Dasht-e-Bayaz fault in north of Lut block. The activity of this fault is indicated by two earthquakes (Mw = 6.3 and Mw = 5.5) that followed the 1968 Dasht-e-Bayaz catastrophic event (Mw = 7.1).
In this study, AMS data were used to define the deformational pattern of weakly deformed Red Beds Formation marls and siltstones, which are involved in the Ferdorws thrust system. By integrating AMS and structural data (where visible at outcrop scale) we recognize a penetrative deformation during the active growth of the fold systems, which allow to correlate the present-day deformation pattern and the long term kinematics of the fold system.