



## **Shear accommodation across the Lut block (eastern Iran) measured by GPS**

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The aseismic and rigid Lut block in eastern Iran is 500 km long and 350 km wide and situated between the Central Iran block to the west and the Hellmand block (Eurasia) to the east. The limits are NS trending right-lateral strike-slip faults, the Gowk-Nayband fault system to the west and the Sistan Suture Zone to the east. South of the Lut block is the Makran subduction zone and in the north the EW trending left-lateral Doruneh and Dasht-e-Bayaz faults. 14 mm/yr of right-lateral NS shear between the Central Iranian Block and the Hellmand block is observed across the Lut block, with 6.5 mm/yr localized across its western limit (Bam, Gowk and Sabzevaran faults) and 7.5 mm/yr across its eastern limit (Sistan Suture zone). Part of this shear is absorbed at the northern limit of the Lut block on the major EW trending left-lateral strike-slip faults (Dasht-e-Bayaz 1.5 mm/yr, Doruneh 2.5 mm/yr). The GPS present-day slip rates are compared with short term and long term geological slip rates as well as with tectonical models.