

## عنوان مقاله:

Large-scale crustal deformation in Iran inferred from GPS measurements

## محل انتشار:

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## نویسندگان:

Frédéric Masson - *Laboratoire Dynamique de la Lithosphère UMR5573, Université Montpellier II/CNRS, Montpellier, France*

Mohammad Anvari - *Geodynamic Department, National Cartographic Center, PO Box 13185 - 1684, Meraj Ave, Tehran, Iran*

Yahya Djamour - *Geodynamic Department, National Cartographic Center, PO Box 13185 - 1684, Meraj Ave, Tehran, Iran*

Farokh Farokh - *Geodynamic Department, National Cartographic Center, PO Box 13185 - 1684, Meraj Ave, Tehran, Iran. Laboratoire de Géophysique Interne et Tectonophysique, Université Grenoble/CNRS, Grenoble, France. \*Khorasan Department of NCC*

## خلاصه مقاله:

A network of 26 GPS sites was implemented in Iran and Northern Oman to measure displacements in this part of the Arabia-Eurasia collision zone. We present the GPS velocity field obtained from three surveys performed in September 1999, October 2001 and 2005 and the deduced strain tensor. This study refines previous studies inferred from only the two first surveys (Nilforoushan et al., 2003; Vernant et al., 2004; Masson et al., 2005). Improvements are significant in NE Iran where a first precise determination of the velocities is provided within the Kopet-Dag and along the Ashkabad strike-slip right-lateral fault. Along this fault, the movement decreases from west (3.4 mm/yr) to east (1 mm/yr), as expected from the seismicity which is dense only west of and along the Baghan-Germab fault. The main direction of the strain tensors appears very homogeneous from the Zagros to the Alborz and the Kopet-Dag (N20°) and in eastern Iran (Makran and Lut block: N30°). Only NW Iran suffers a variable strain pattern which seems to wrap the Caspian basin. The strain tensor map underlines the existence of large homogeneous tectonic provinces in terms of style and amplitude of the deformation.

## کلمات کلیدی:

Deformation, Fault, GPS, Network, Shortening, Strain, Velocity

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/5652>



