

## **Processing of velocity fields of modern horizontal displacements of the Earth's crust according to the network of GPS stations of the Republican Seismology Survey Center of Azerbaijan**

Gurban Yetirmishli, Ilyas Kazimov, and Sabina Kazimova  
RSSC ANAS, Dynamic parameters of earthquakes, Baku, Azerbaijan (sabina.k@mail.ru)

The Azerbaijani part of the Caucasus is one of the most geodynamical active regions of the republic. In this work we researcher a dense of velocity field and corresponding strain-rate pattern computed using Global Positioning System (GPS)-Global Navigation Satellite System (GNSS) data from 24 permanent stations of the RCSS and 11 closely located by IGS network permanent stations. Refinements of geodetic coordinates of 24 GPS stations were processed and refined on the AUSPOS server. Selected reference stations with the specified encoding are included in the implementation of the international terrestrial reference frame (ITRF2008). GPS data analysis is based on the GAMIT/GLOBK 10.6 software, which was developed and maintained mainly by Massachusetts Institute of Technology during the period 2013-2017 yy. Obtained results correlated with the focal mechanisms of strong ( $m_l > 5.0$ ) earthquakes which occurring in the territory of Azerbaijan for the period 2003-2016 yy. And with the active tectonic faults.