EPOS TCS GNSS Data and Products represented at the 36th General Assembly of the European Seismological Commission in Malta, 2 - 7 September 2018

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The 36th General Assembly of the European Seismological Commission (GA ESC) will be held from the September 2nd to the 7th, 2018, in Valletta, Malta, organized by the Department of Geosciences of the University of Malta.

Although on the Malta conference the main topic is seismology, a group of scientists from the TCS GNSS will present for the first time the preliminary product which is the strain rate map of western Eurasia. Thus, representing EPOS TCS GNSS Data and Products, two approaches: one is the implementation of tools into GNSS permanent reference network data processing and the other one is strain rates.

Eduard Nastase and Alexandra Muntean will present the paper “Implementation of new generation of tools into GNSS permanent reference network data processing to help achieve a more accurate assessment of the impact of Vrancea earthquakes (Romania)”. According to them, “the present paper highlights the results obtained in 2018 following the implementation of the new generation of tools into GNSS permanent reference network data processing in help for a more accurate assessment of the Vrancea earthquakes impact”.

“The involvement in EPOS-IP project as member of GNSS Data and Products Working Group helps us evolve in the same direction, test and implement GLASS software package for the dissemination of GNSS data and dedicated products (time-series, velocities and strain-rates - to be created using state-of-the-art methodologies) for a better understanding of different Solid Earth processes in European region”, states Nastase.


As stated at the paper abstract, “strain rates are of great
importance for Solid Earth Sciences. Within the EU Horizon 2020 project EPOS-IP WP10 (Global Navigation Satellite System - GNSS thematic core services) a series of products focused on strain rates derived from GNSS data is envisaged”. In this contribution will be present preliminary results from 452 permanent European GNSS stations, operating until 2017 and processed at UGA-CNRS (Université Grenoble Alpes, Centre National de la Recherche Scientifique).

“We calculate the strain rate field using two open-source algorithms recommended by EPOS-IP, namely the VISR (Velocity Interpolation for Strain Rate) algorithm (Shen et al., 2015) and STIB (Strain Tensor from Inversion of Baselines), developed by Masson et al., (2014) as well as the SSPX software suite (Cardozo and Allmendinger, 2009)”, explains Athanassios Ganas.

About 36th General Assembly of the European Seismological Commission - The Assembly is primarily a meeting ground for academics and researchers working in the field of seismology and related applications, including applied and social aspects of seismology, such as earthquake hazard and risk, earthquake engineering, education and awareness, and risk prevention. More information.