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## Adria-Eurasia collision front: insights from GNSS time series in NE Italy

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North-Eastern Italy is a region of particular interest in tectonics because it is located on the northernmost edge of the convergent margin between Eurasia and the Adria microplate with consequences on the regional deformation and seismicity. The FReDNet (Friuli Venezia Giulia Deformation Network) GNSS network was established in 2002 to monitor the crustal deformation in NE-Italy and it is currently counting 19 permanent GNSS stations. In order to place the regional deformation in a broader tectonic context, we processed the data from FReDNet and other geodetic networks covering northern Italy and surrounding areas (including some sites in Slovenia and Austria) in the period 2002-2021. We used the GAMIT-GLOBK software ver10.71 to process multi-satellite data and to calculate the position and velocity for each station. We processed the whole dataset by using Galileo and G100 CINECA HPC clusters.

In this study, we will show the processing strategies and analyze the GNSS time-series of NE-Italy stations, as well as the outcoming deformation field. The preliminary results confirm the decrease in the velocity module from the Friuli plain toward the Alps, suggesting a possible deformation accrual in the latter.

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