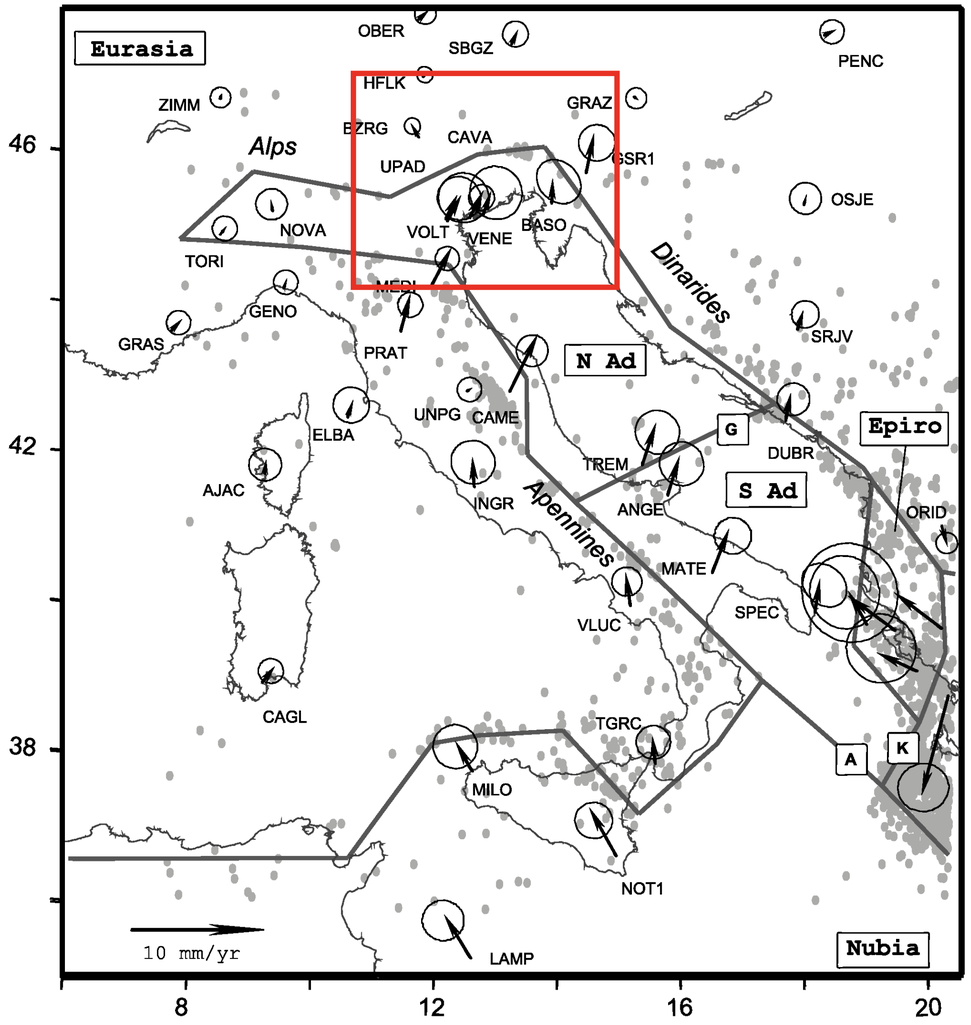
OGS National Institute of Oceanography and Applied Geophysics

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

Andrea Magrin, Lavinia Tunini,
David Zuliani, Giuliana Rossi

Introduction: the studied region



Northern edge of Adria microplate

Boundary of Adria (modified from Battaglia et al., 2004)

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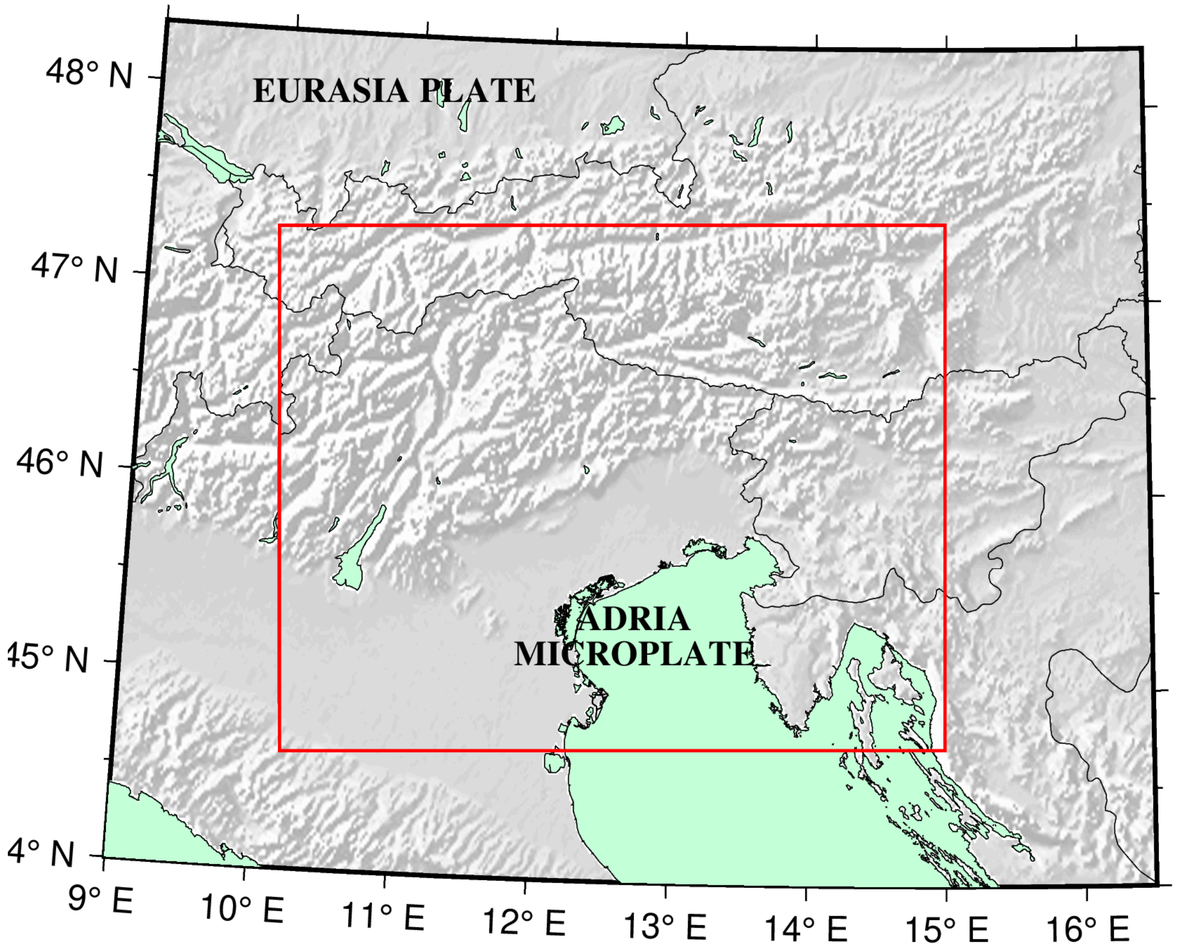

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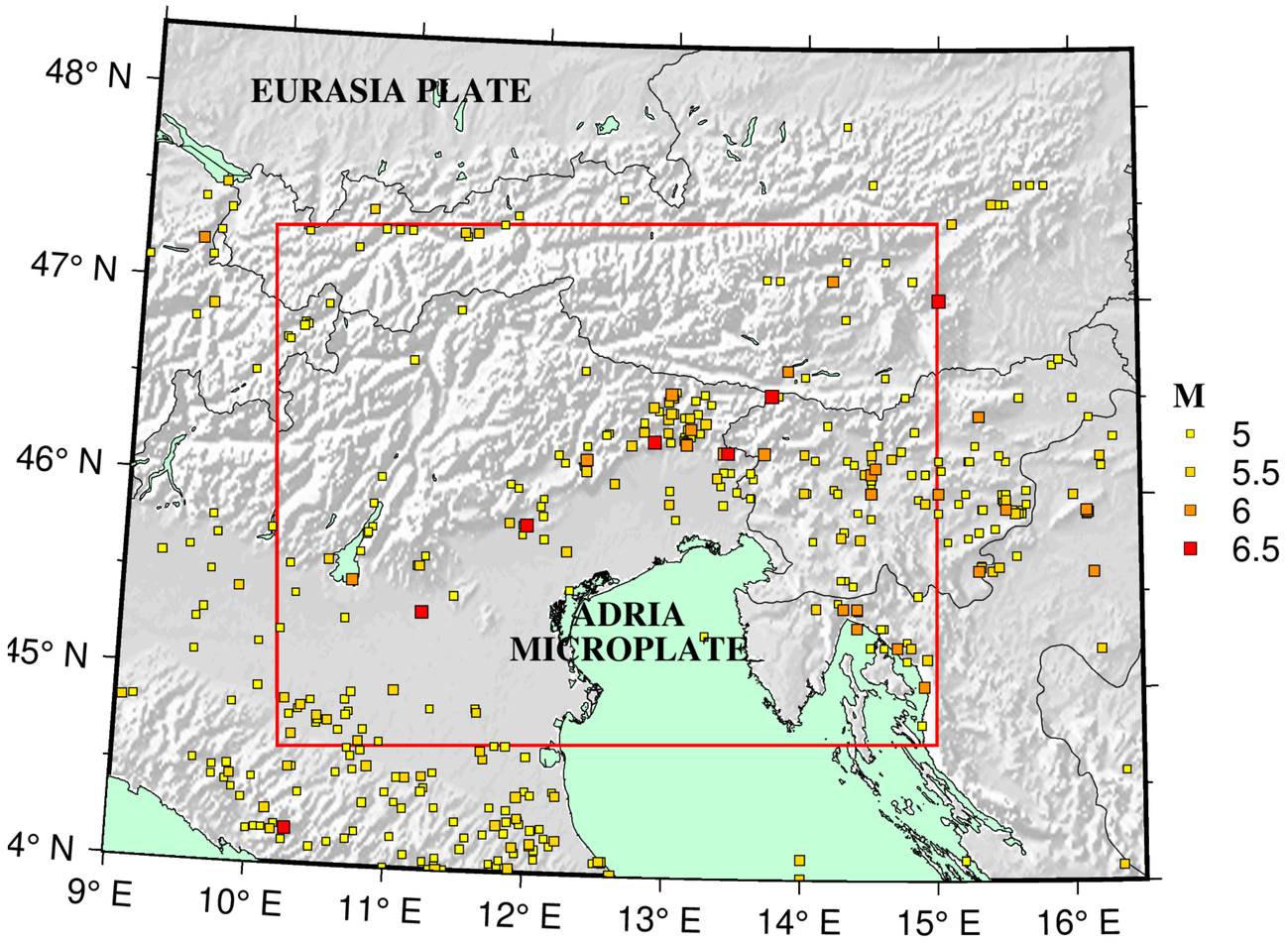

Earthquakes with MW≥5 from CPTI04

Northern edge of Adria microplate

Seismically most active area of the Alps

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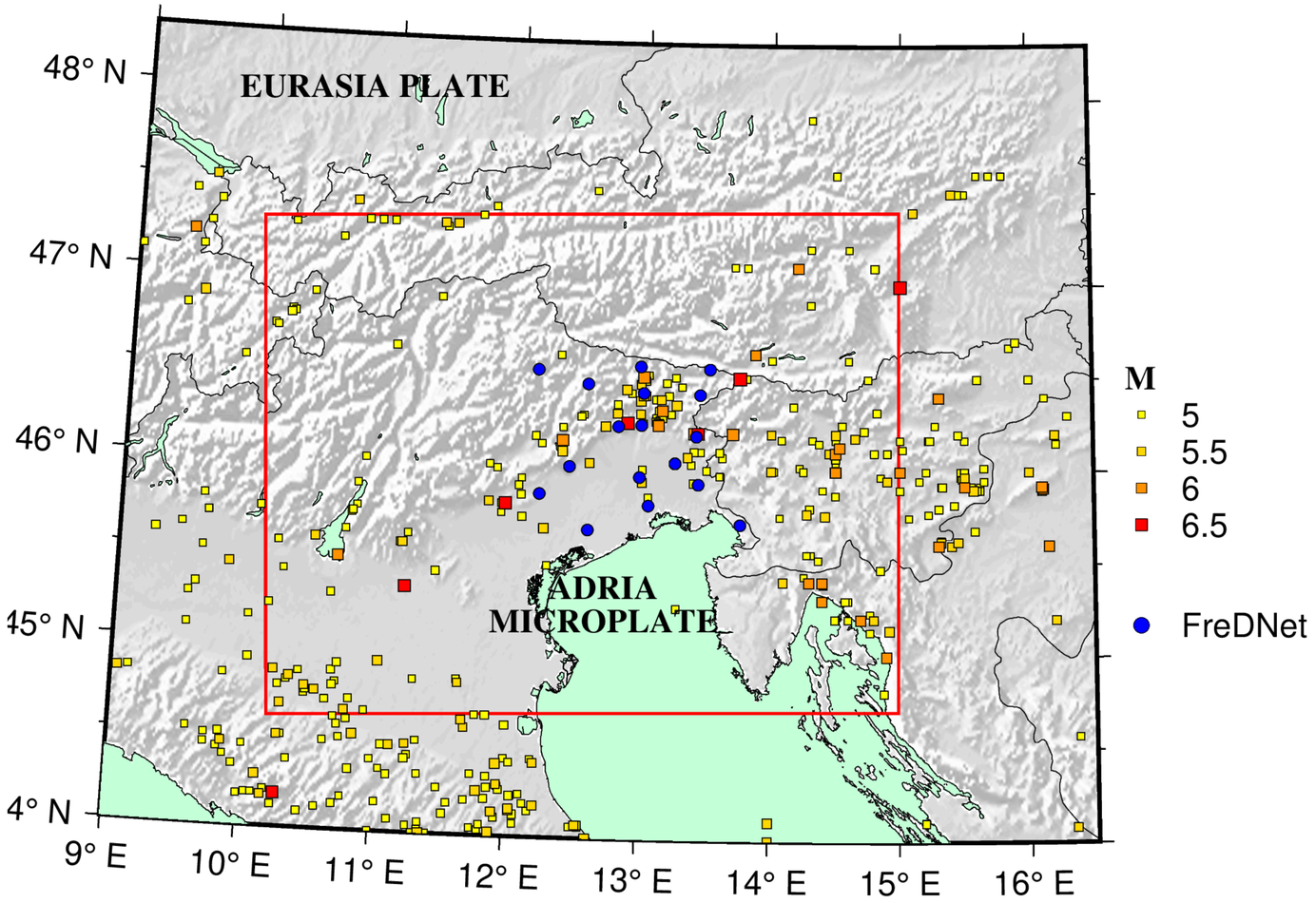


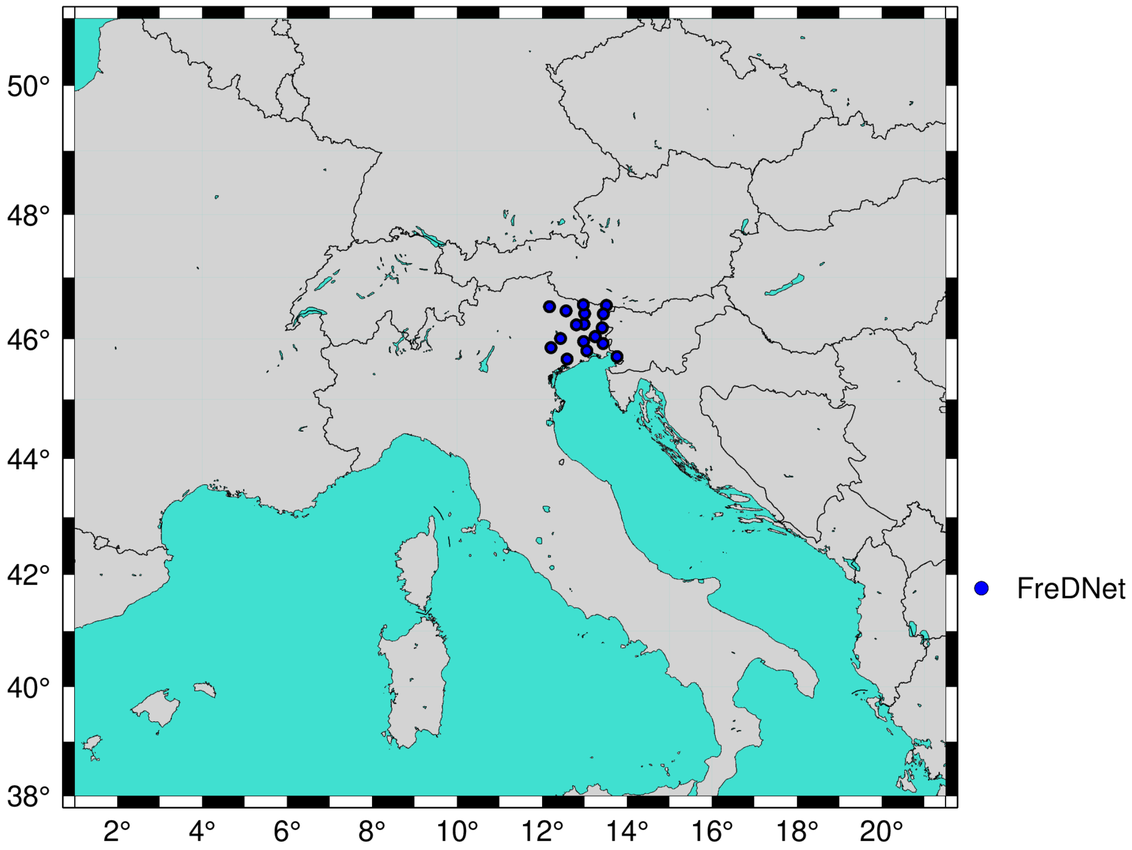
GNSS permanent station of FReDNet

Northern edge of Adria microplate

Seismically most active area of the Alps

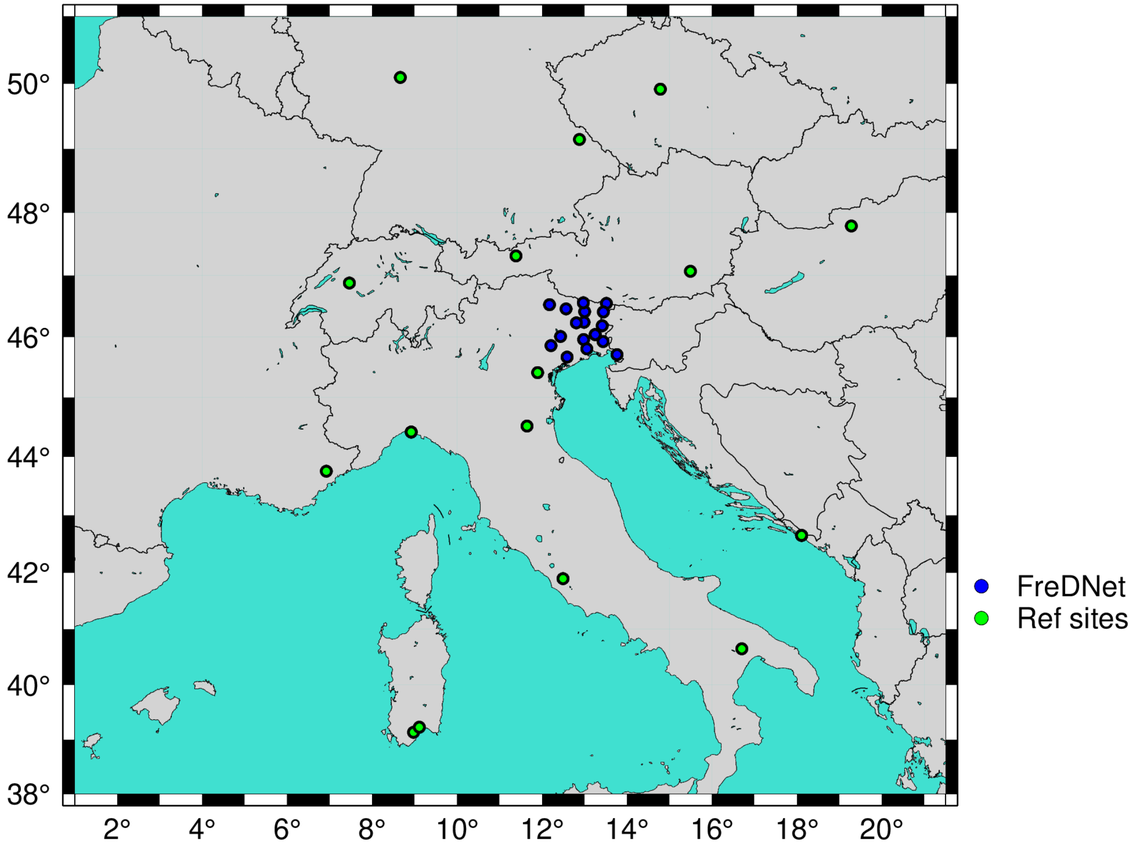
FReDNet

GNSS processing



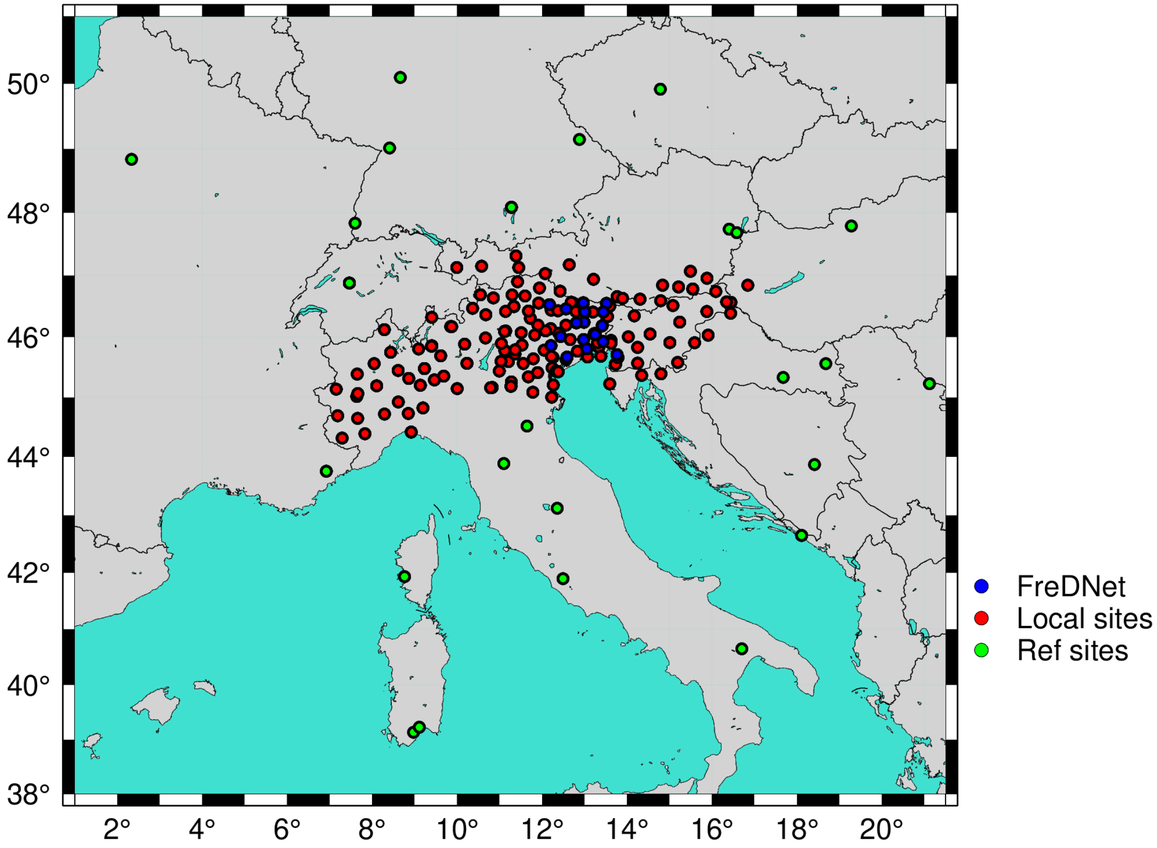
FReDNet

GNSS processing



FReDNet + reference sites (IGS/EUREF)

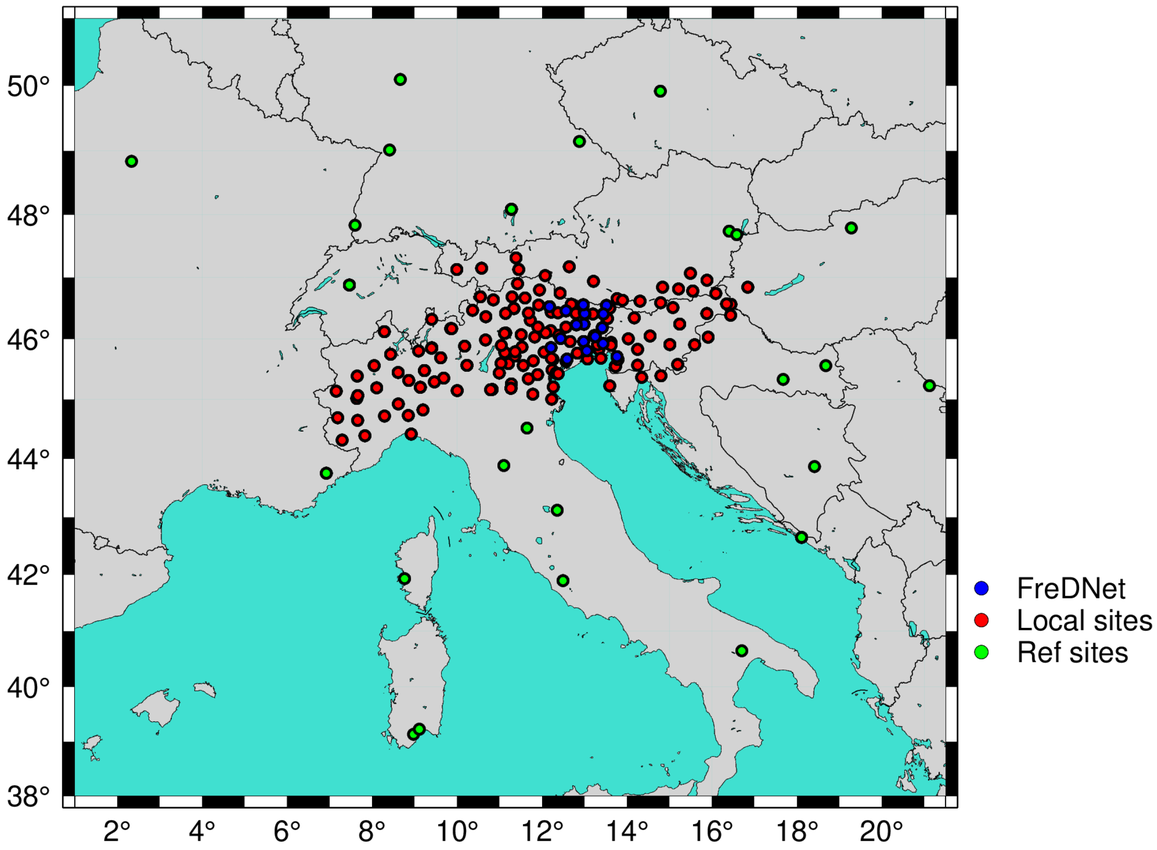
GNSS processing



FReDNet + reference sites (IGS/EUREF)

+ other local permanent sites

GNSS processing



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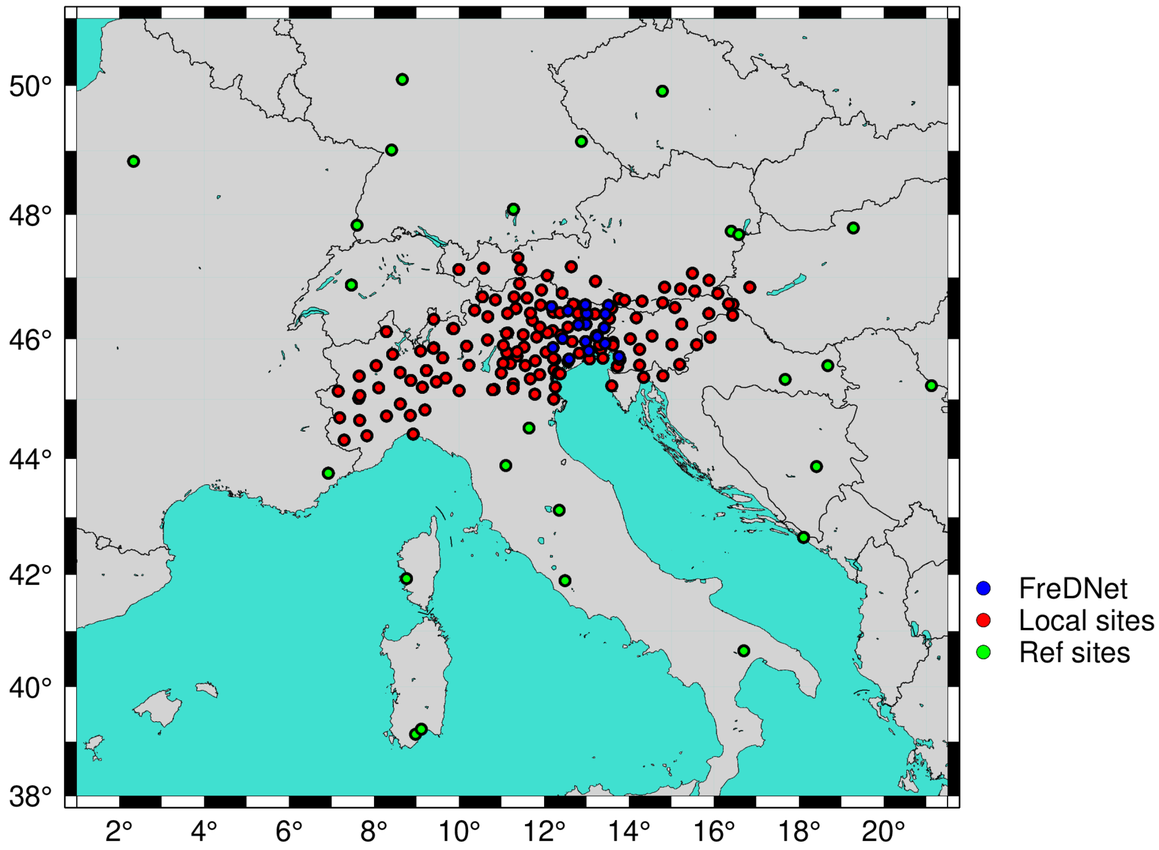
+ other local permanent sites

2020 -> revision of the processing procedure:

GNSS processing



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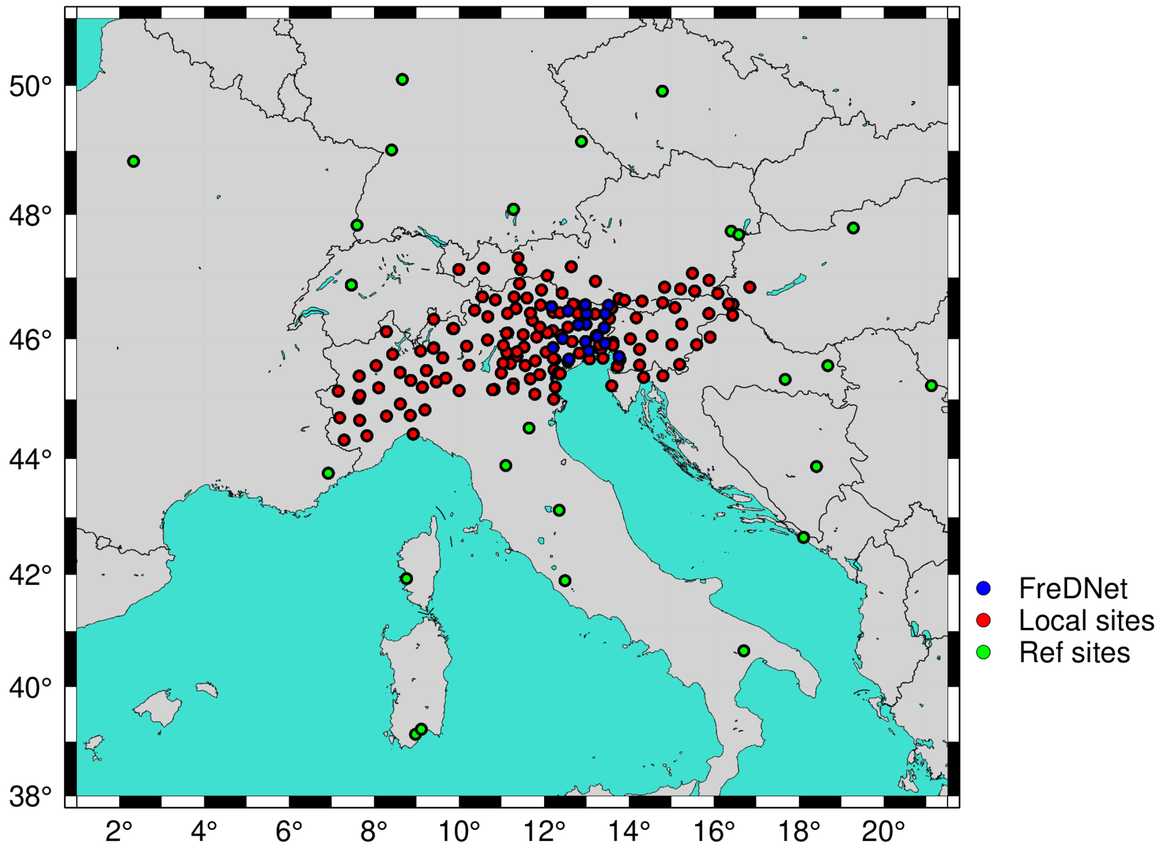
2020 -> revision of the processing procedure:

- Daily processing on small local server

GNSS processing



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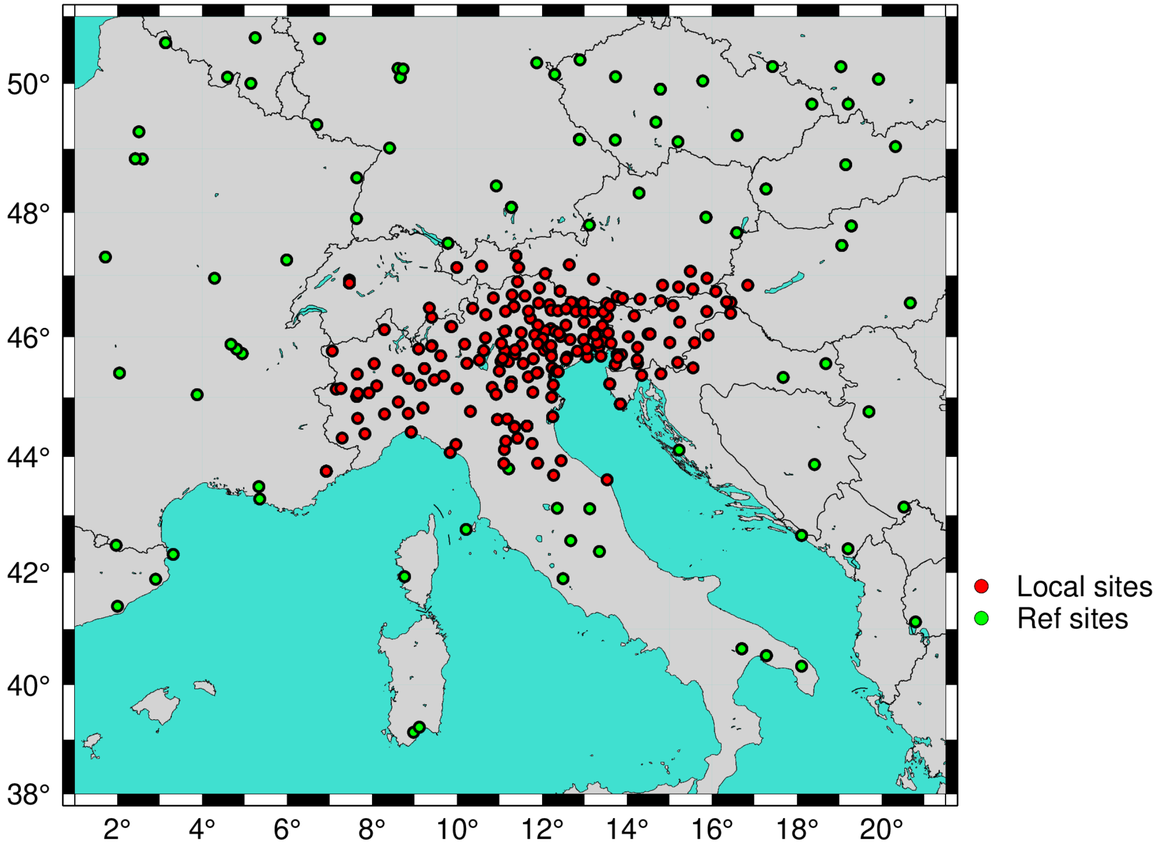
GNSS processing



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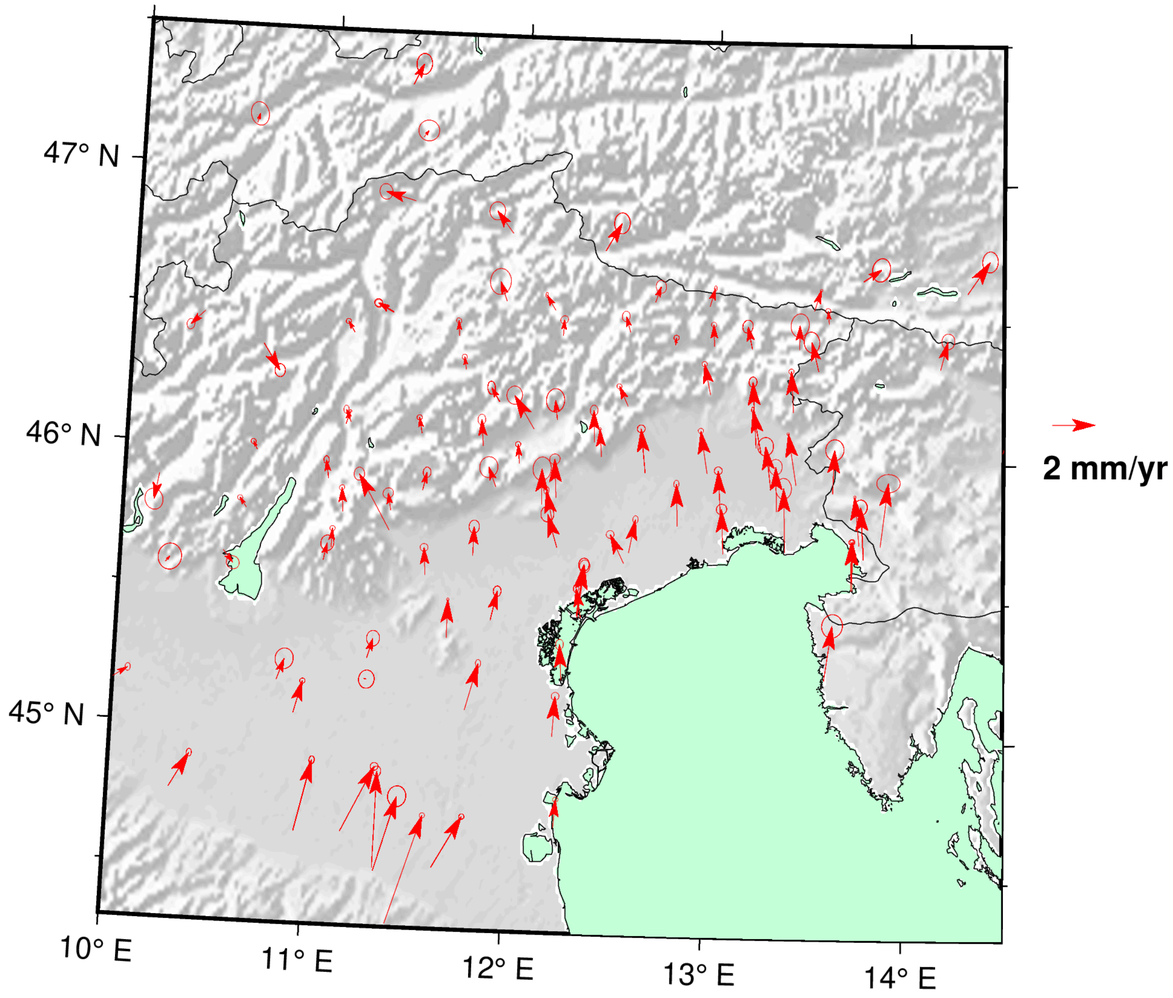
Preliminary horizontal velocity field



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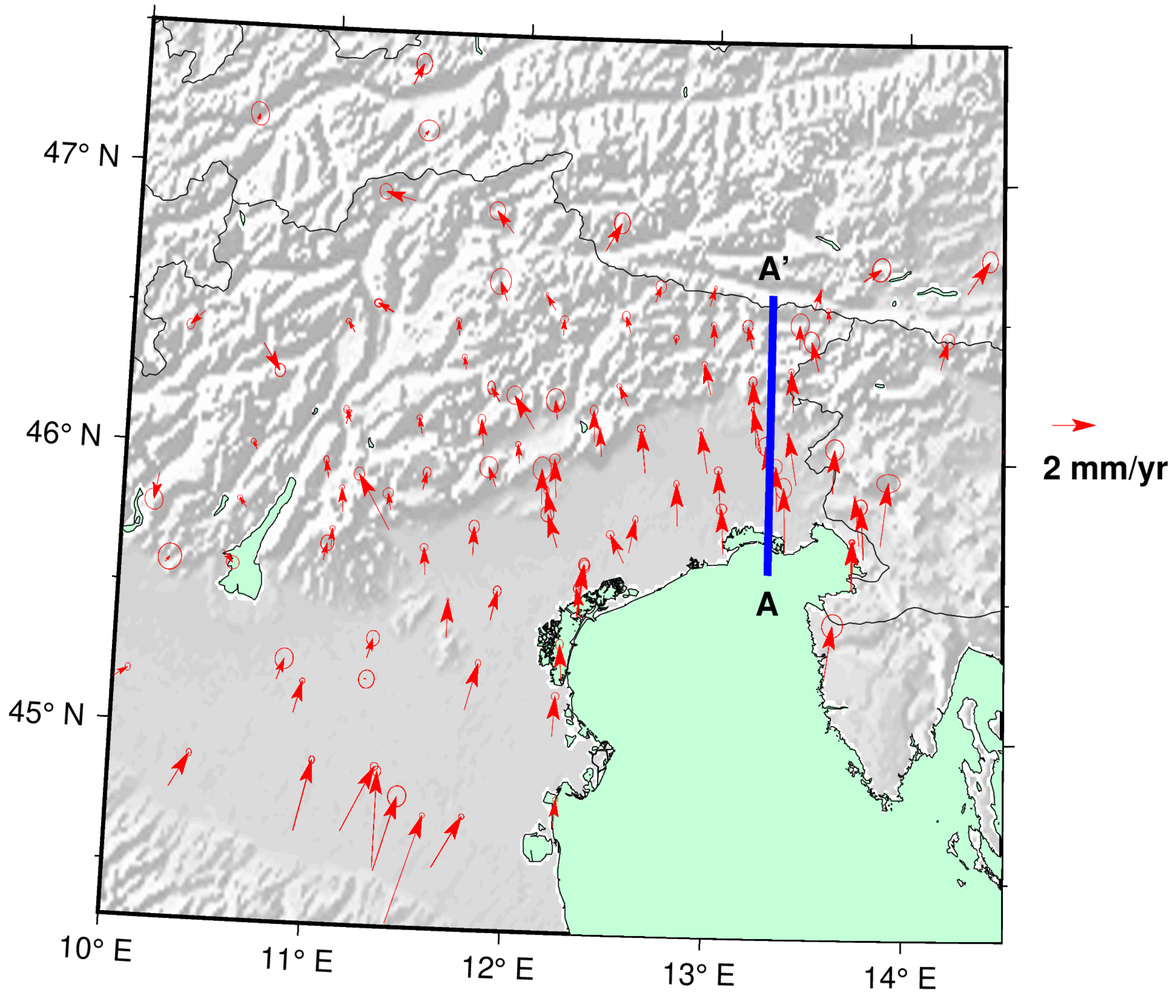

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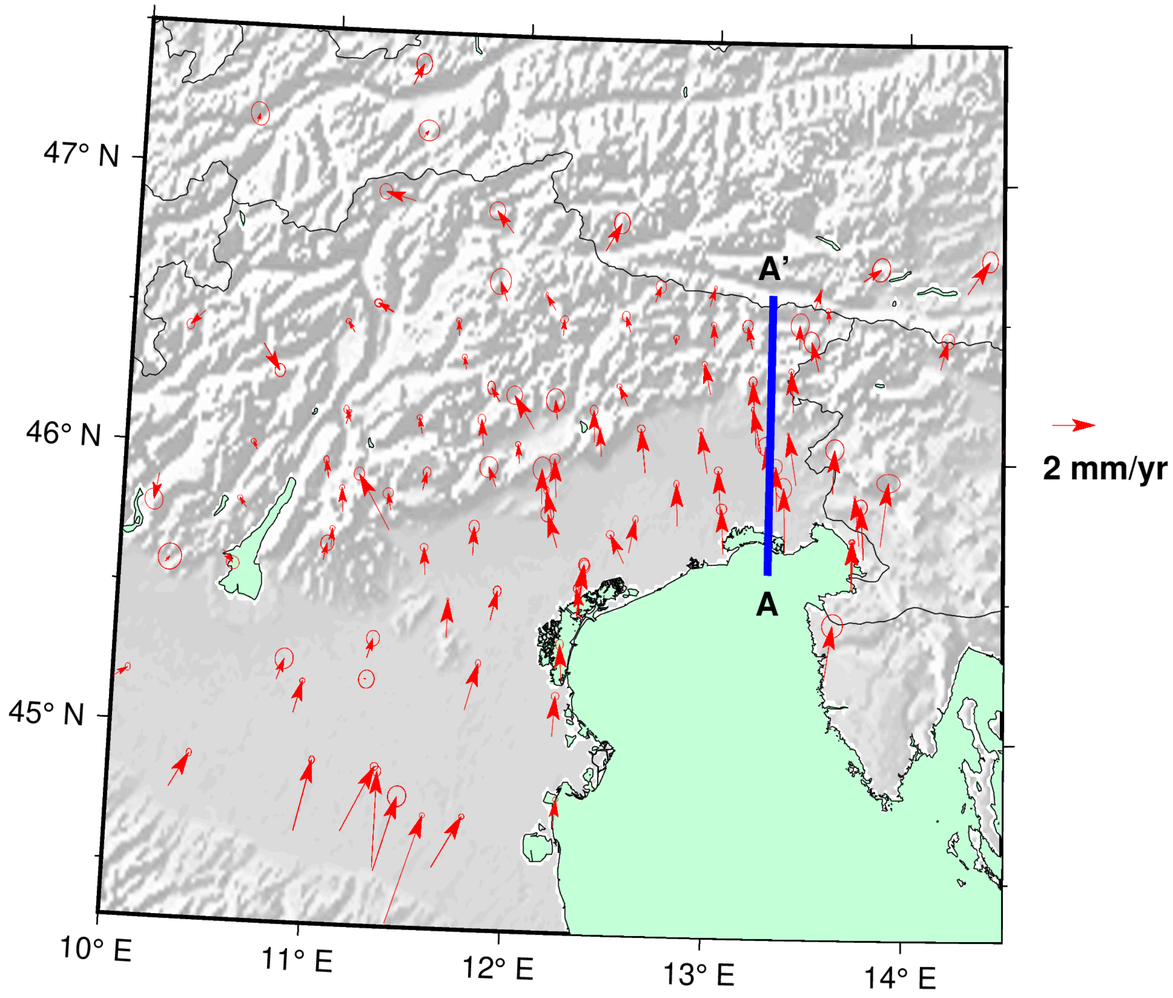

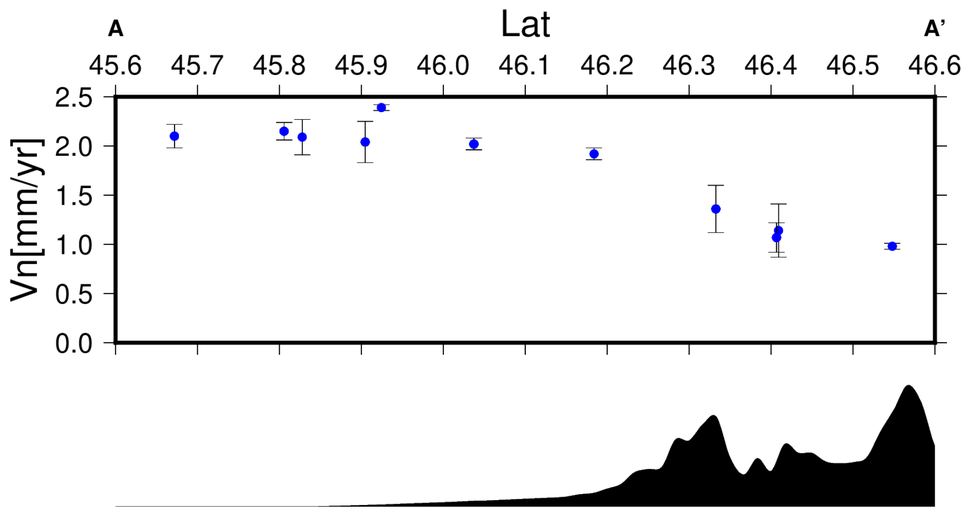

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Conclusions

Revision of processing procedure

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Consistent time series for 2002-2021 time span

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Revision of processing procedure

Consistent time series for 2002-2021 time span

Preliminary results confirm the decrease in the velocity module from the Friuli plain toward the Alps

Acknowledgments

This research was supported by OGS and CINECA under HPC-TRES program award number 2020-11. We acknowledge the CINECA award under the ISCRA initiative, for the availability of high performance computing resources and support (IscraC IsC83_GPSIT and IscraC IsC83_GPSIT2).

We thank OGS staff for their support with the maintenance of the FReDNet GNSS network. FReDNet is managed by OGS with support of the Friuli Venezia Giulia Regional Civil Protection. We are grateful to all public and private institutions that made the continuous GPS data used in this work available.

We thank the GAMIT/GLOBK team at MIT for their continuous support. All figures have been made using the GMT software.