

VELOCITY FIELD ESTIMATED FROM HEPOS PERMANENT GNSS NETWORK IN GREECE, PRELIMINARY RESULTS.



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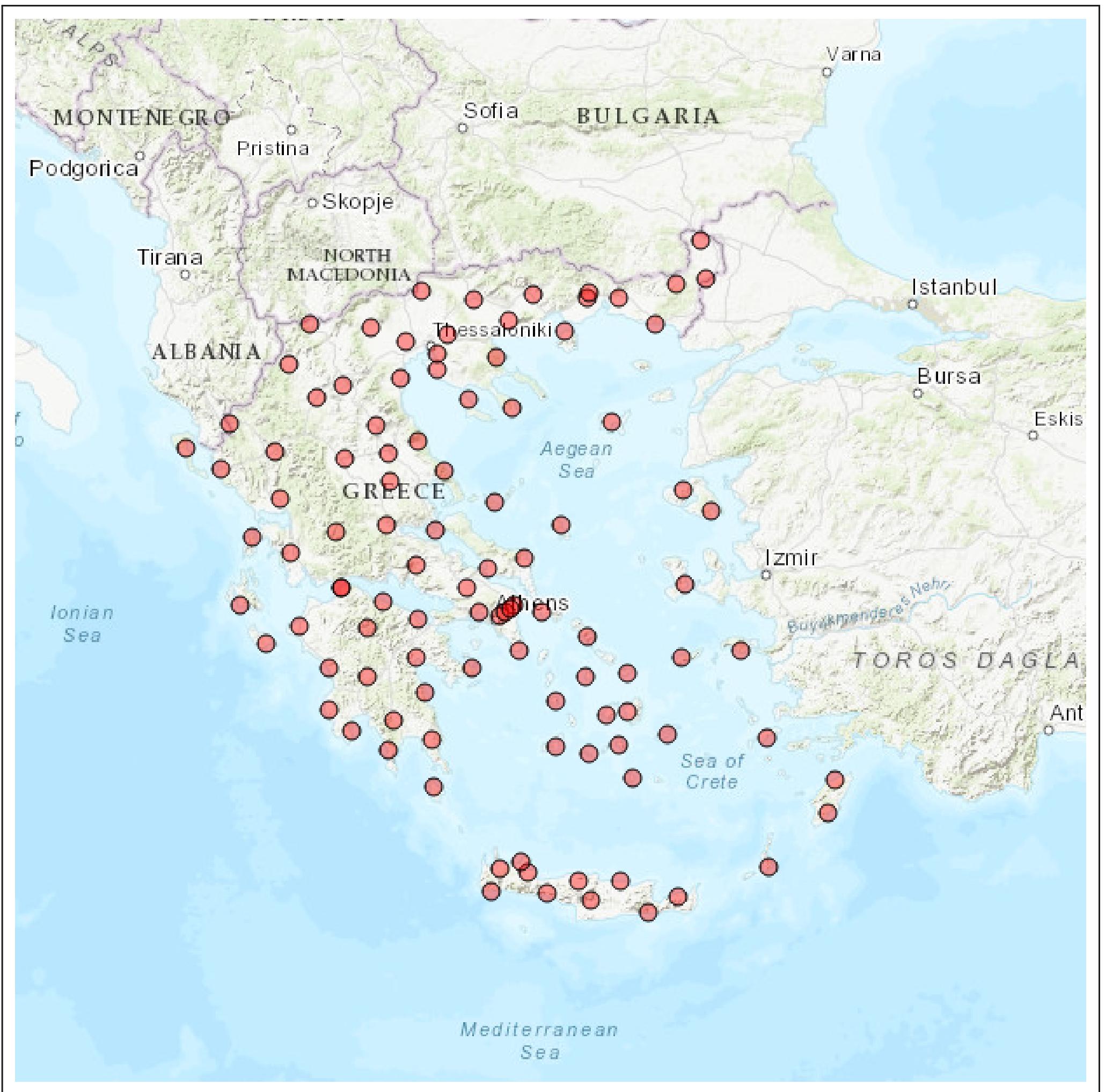
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INTRODUCTION

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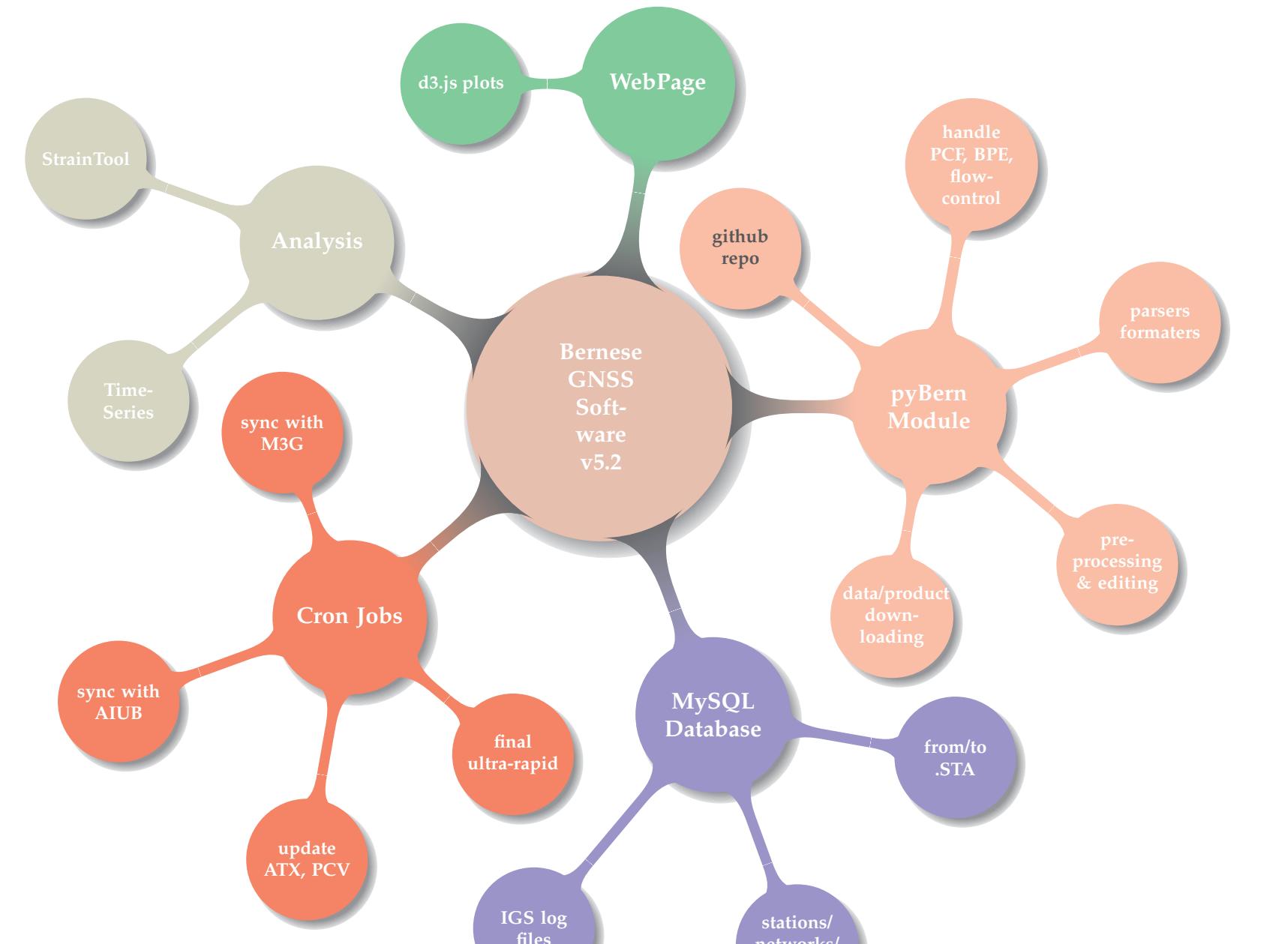
HEPOS NETWORK



DATA ANALYSIS

The core tool/software is Bernese GNSS Software v5.2. Integration with

- MySQL database,
- Python module (product/data downloading, pre-processing, driving cron jobs, etc)
- Time-series analysis (integrated in routine processing on regular intervals)
- Strain Rates via StrainTool (on user demand)



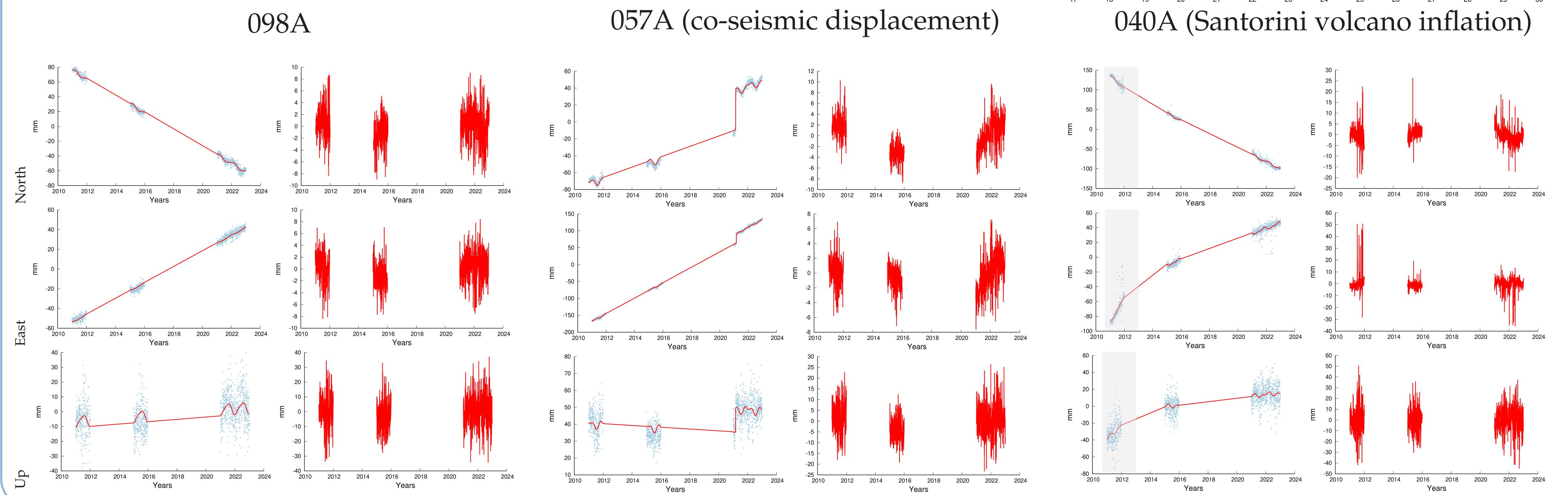
Processing is consistent with EUREF standards (Guidelines for Analysis Centres).

- SINEX with required info/blocks,
- Reference frame IGB14,
- IERS Conventions 2010,
- IGS/CODE products,
- ocean loading corrections (FES2004),
- 3° elevation cut-off angle; elevation dependent weighting,
- GMF and/or VMF1; Chen-Herring gradient parameter,
- amiguities fixed (length-dependent algorithm),
- use GLONASS obs (when available)
- use ATX files (epn_14.atx) - individual calibrations



VELOCITY FIELD ESTIMATION

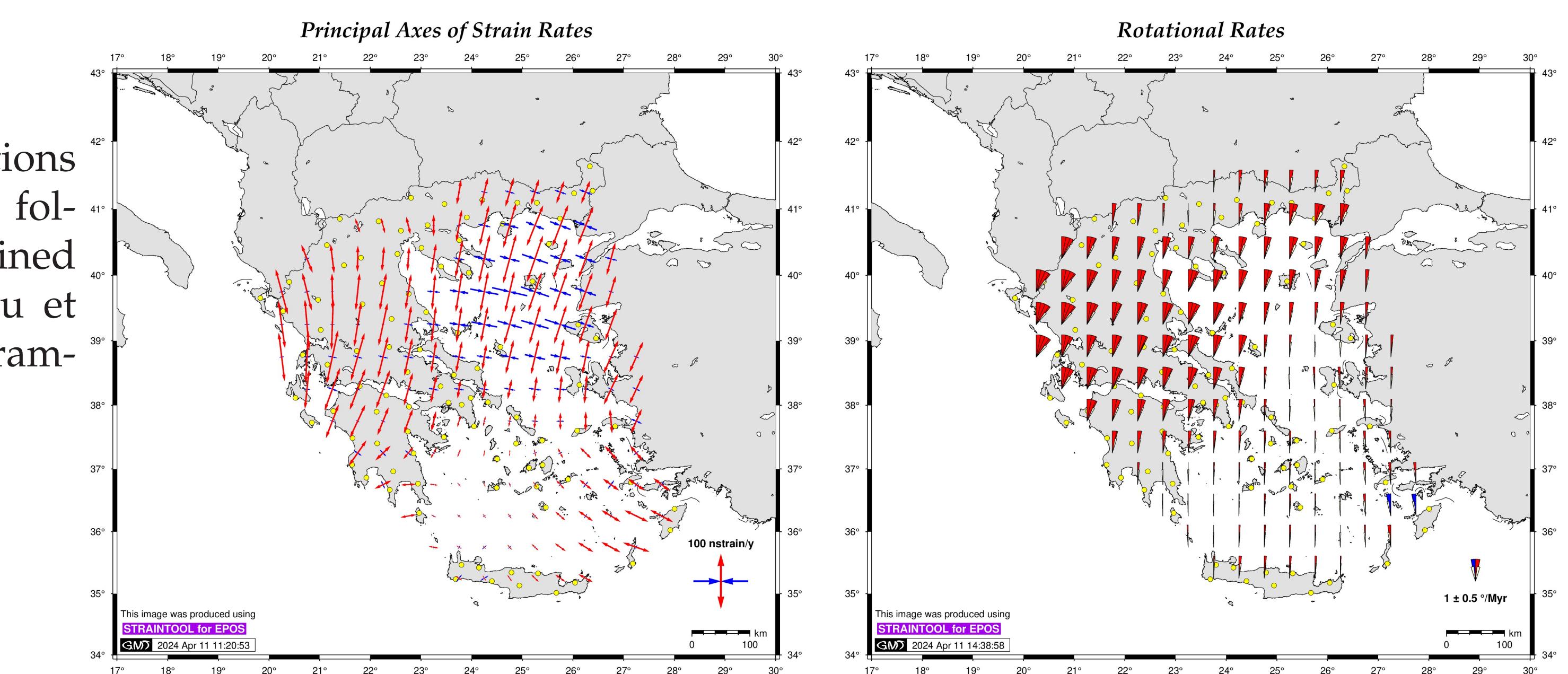
The daily position estimates of the stations are automatically logged into suitable files, from which position time series are generated. Time series analysis use to estimate coordinates (within a specified Reference Frame IGB14), tectonic velocities, harmonic signals, co-seismic displacements and velocity changes. The analysis was conducted using the Free Software/Open Source Software Hector (Bos, 2013), with requisite adjustments made as necessary.



STRAIN AND ROTATIONAL RATES

Strain and rotational rates from 98 stations of HEPOS Network presented in the following maps. We present results obtained using StrainTool Software (Anastasiou et al., 2021) and the following input parameters:

grid-size	ltype	Wt
0.5°x0.5°	gaussian	24



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FUTURE RESEARCH

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