

Γεωδαιτική παρακολούθηση ευρύτερης περιοχής Σαντορίνης - Πρόσφατα αποτελέσματα R20250215

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Εθνικό Μετσόβιο Πολυτεχνείο



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Διαδικτυακή παρουσίαση
Κυριακή 16 Φλεβάρη
2025



Ανάλυση δεδομένων GNSS στο ΚΔΔ

Ανάλυση δεδομένων GNSS

- Bernese v5.2 / v5.4 ([Dach et al., 2015](#))
- PRIDE-PPPAR ([Geng et al., 2019](#))
- GipsyX ([Bertiger et al., 2020](#))

Ανάλυση χρονοσειρών

- Hector v2.1 ([Bos et al., 2012](#))
- Python/C++ routines

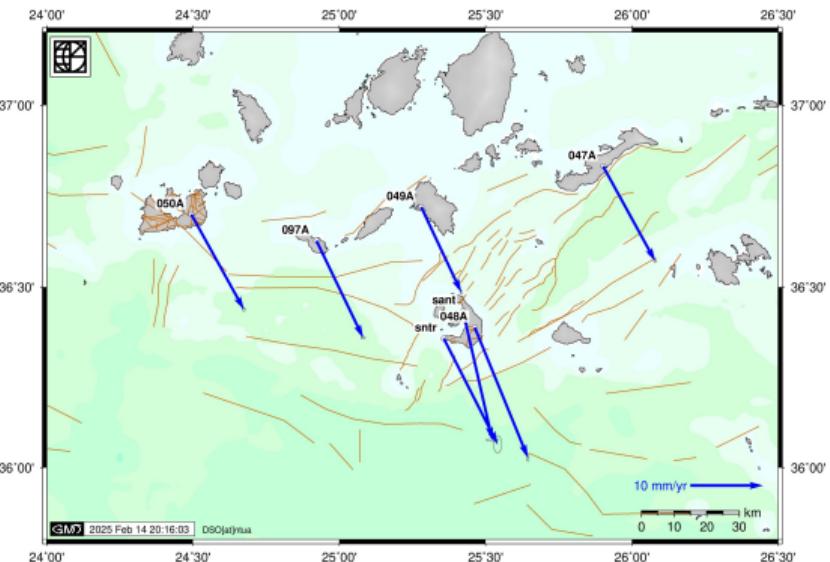
Συχνότητα ανάλυσης

- Ημερήσιες λύσεις
 - Rapid solution - 1 day after
 - Final solution - 12 days after
- Ανάλυση υψηλών συχνοτήτων ($> 1\text{ Hz}$)
 - Δεδομένα HEPOS - 1Hz

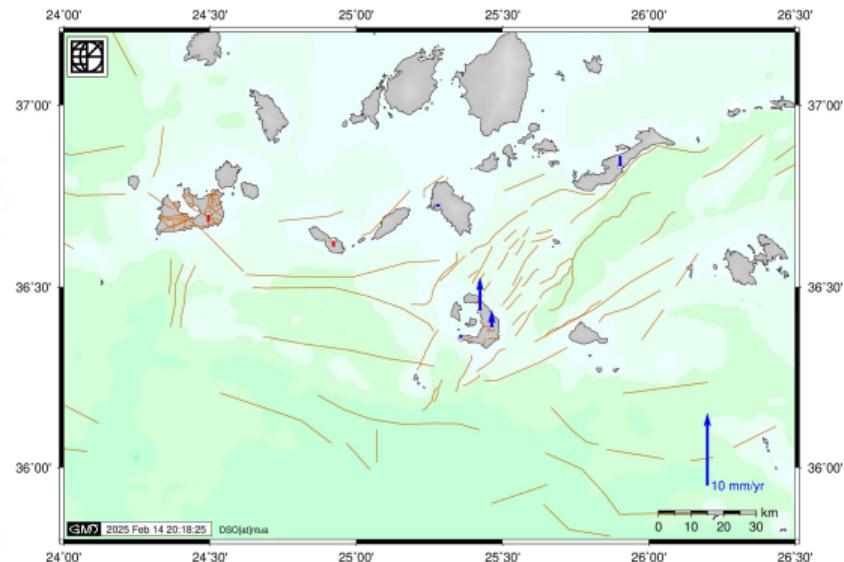


Διαθέσιμοι σταθμοί

Horizontal Velocities 2012.3-2024.5 [IGS20]



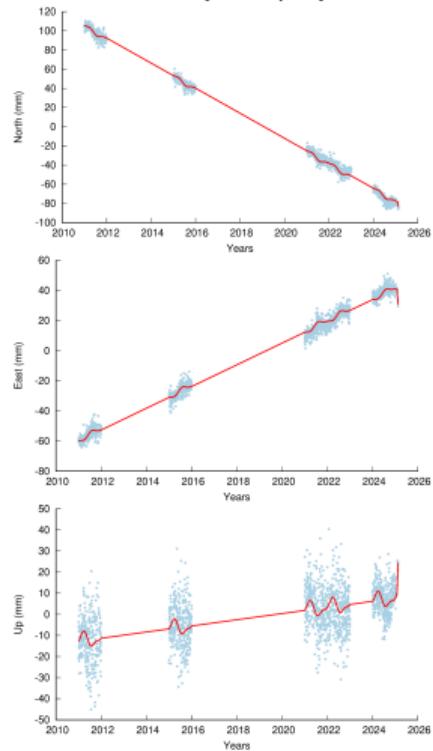
Vertical Velocities 2012.3-2024.5 [IGS20]



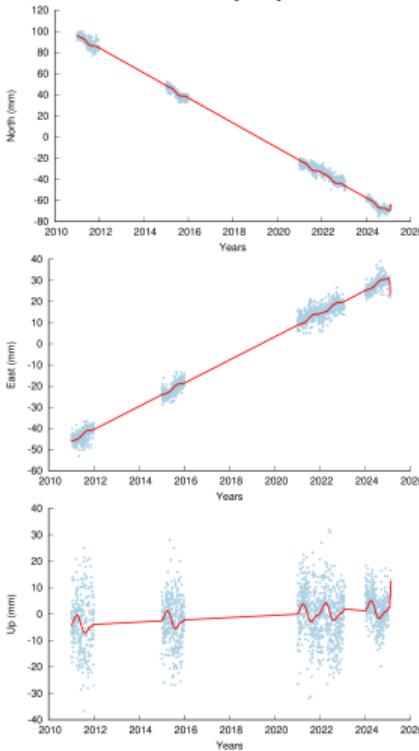
- * Δημιουργία χαρτών: Generic Mapping Tools ([Wessel et al., 2019](#))
- * Υπόβαθρο: ETOPO1 ([Amante et al., 2009](#))
- * Βάση ρηγμάτων: NOAfaults v6.0 ([Ganas, 2024](#))

Ανάλυση χρονοσειρών

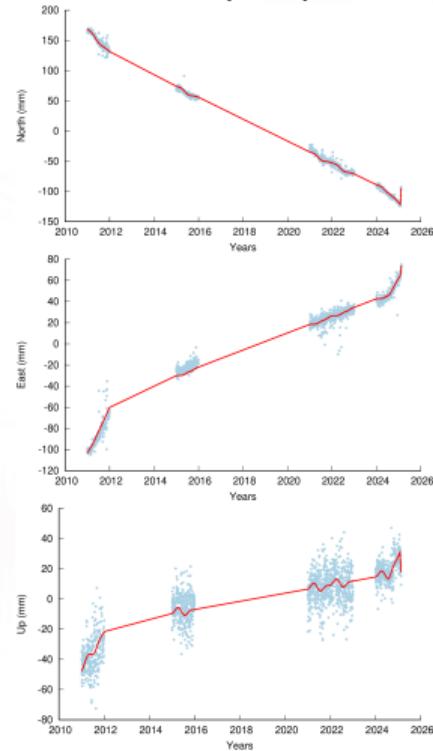
047A (Αμοργός)



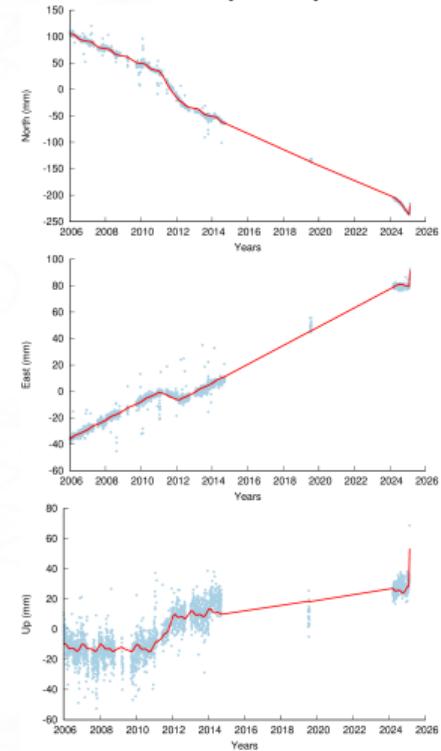
049A (Ίος)



048A (Θήρα)

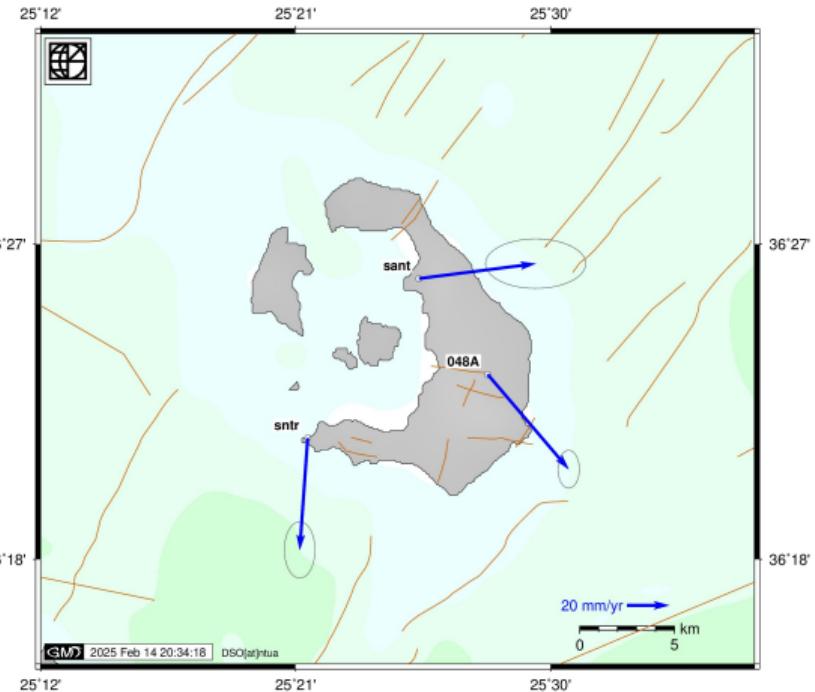


SNTR (Φάρος)

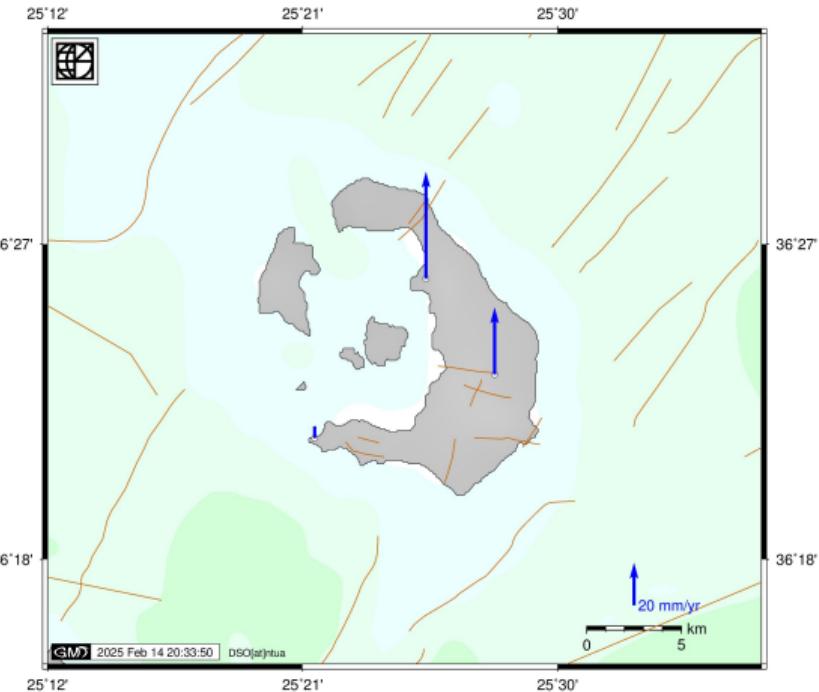


Μετακινήσεις 2024.6 - 2025.1

Horizontal Velocities 2024.6-2025.1 [IGS20]

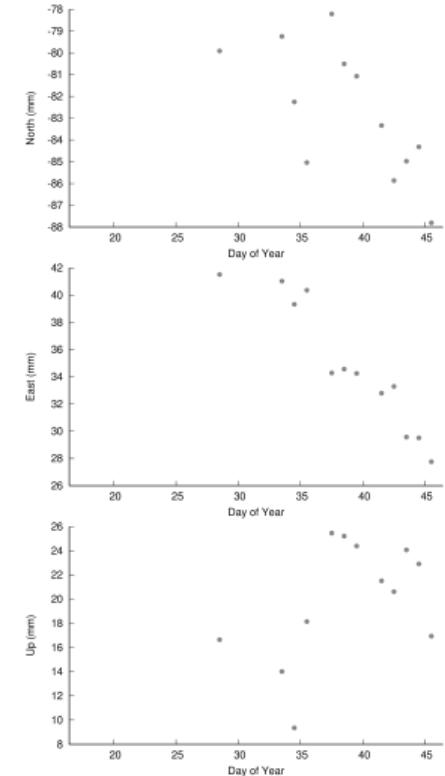


Vertical Velocities 2024.6-2025.1 [IGS20]

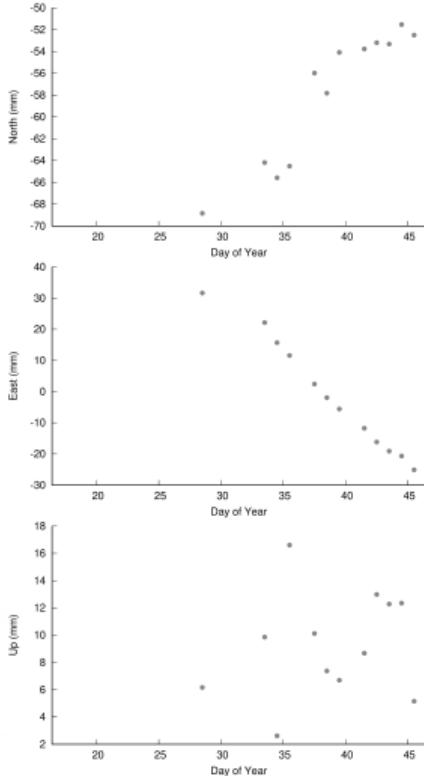


Ανάλυση χρονοσειρών

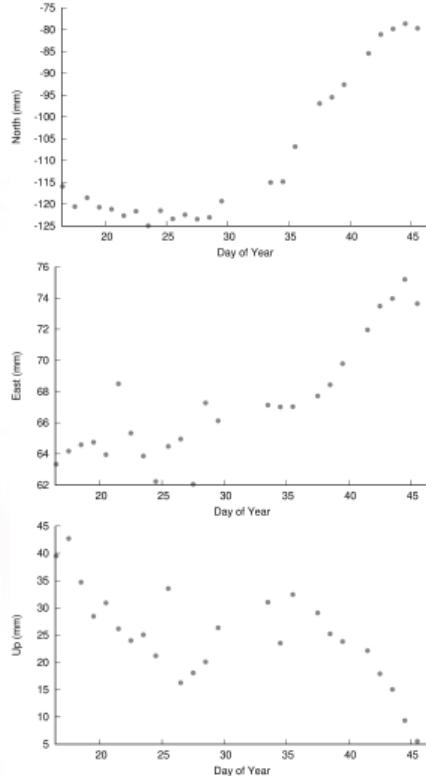
047A (Αμοργός)



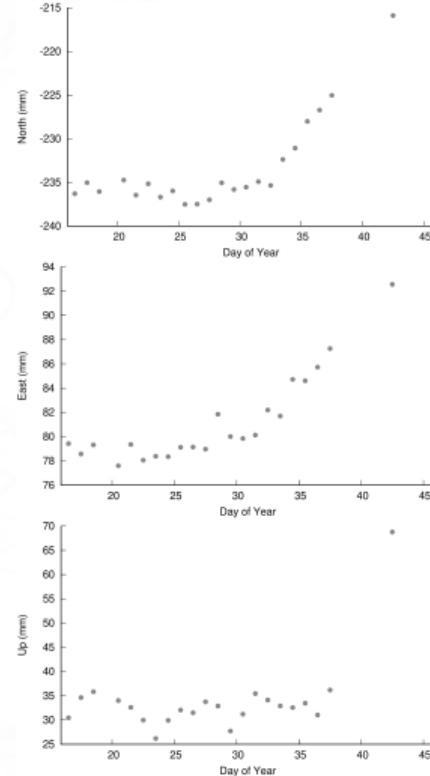
049A ('Ιος)



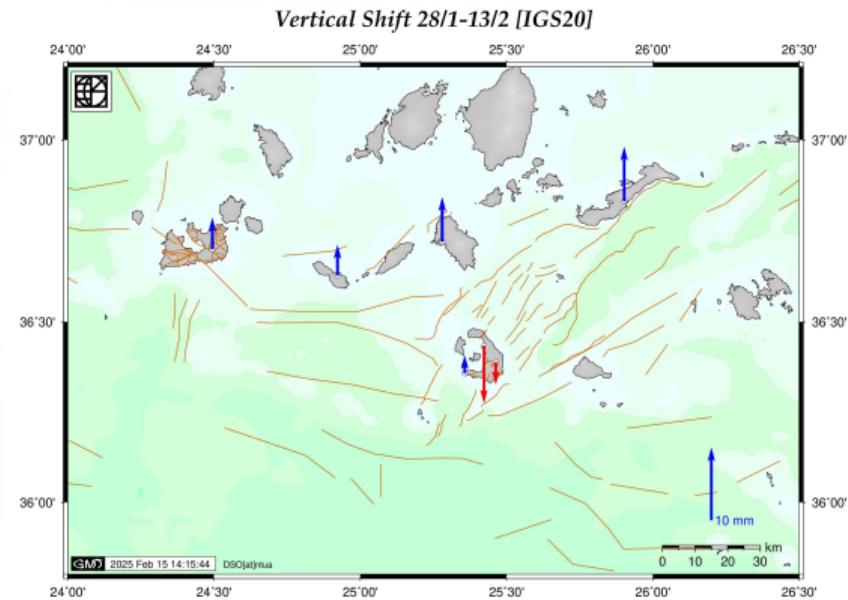
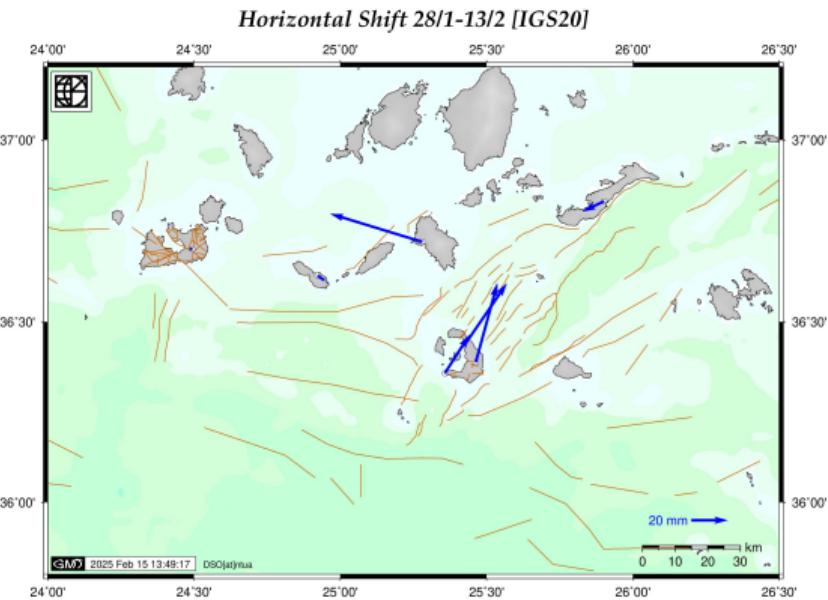
048A (Θήρα)



SNTR (Φάρος)



Μετακινήσεις 2025 28/1 - 15/2



Λειτουργία σταθμών

SNTR 12653M001



WNRY 12687M001



NOMI



Campaign



- Διάθεση δεδομένων: http://dionysos.survey.ntua.gr/dsoportal/_datacenter/httpdata.html
- Ο σταθμός NOMI είναι σε συνεργασία με το Πανεπιστήμιο Πατρών και την άδεια του EarthScope.

Διάθεση δεδομένων/αποτελεσμάτων

NATIONAL TECHNICAL UNIVERSITY OF ATHENS
DIONYSOS SATELLITE OBSERVATORY -- GNSS AREA

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HOME > PROJECTS > EVENT SITES > **Santorini Volcano**

Overview

Santorini is located in the central part of the Hellenic Volcanic Arc (South Aegean Sea) and is well known for the Late Bronze Age "Minoan" eruption that might have been responsible for the decline of the great Minoan civilization on the island of Crete. Santorini has evolved over at least 650,000 years.

Collaborating Networks

- DSO-NTUA
- COMET
- Geodynamic Institute, National Observatory of Athens
- Ktitmatologio SA
- University of Patra

Number of Stations

Total number of continuous stations: 8

Data and Results

Select for more information:

1. Introduction
2. History
3. Data Access
4. Data Analysis
5. Results
6. Documentation

Ευχαριστούμε για την προσοχή σας!

References |

- Amante, C. and B. W. Eakins (2009). *ETOPO1 1 Arc-Minute Global Relief Model: Procedures, Data Sources and Analysis*. Tech. rep. NOAA Technical Memorandum NESDIS NGDC-24. National Geophysical Data Center, NOAA. doi: [10.7289/V5C8276M](https://doi.org/10.7289/V5C8276M). URL: <https://doi.org/10.7289/V5C8276M> (cit. on p. 3).
- Bertiger, W. et al. (2020). "GipsyX/RTGx, a new tool set for space geodetic operations and research". In: *Advances in Space Research* 66.3, pp. 469–489. doi: [10.1016/j.asr.2020.04.015](https://doi.org/10.1016/j.asr.2020.04.015). URL: <https://doi.org/10.1016/j.asr.2020.04.015> (cit. on p. 2).
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- Wessel, P., J. F. Luis, L. Uieda, R. Scharroo, F. Wobbe, W. H. F. Smith, and D. Tian (2019). "The Generic Mapping Tools Version 6". In: *Geochemistry, Geophysics, Geosystems* 20.11, pp. 5556–5564. doi: [10.1029/2019GC008515](https://doi.org/10.1029/2019GC008515). eprint: <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/2019GC008515>. URL: <https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2019GC008515> (cit. on p. 3).