

Εργαστήριο



Spatial Analysis, Geographical Information Systems and Remote Sensing

Ερευνητική ομάδα Χωρικής Ανάλυσης, Συστημάτων Γεωγραφικών Πληροφοριών και Τηλεπισκόπησης



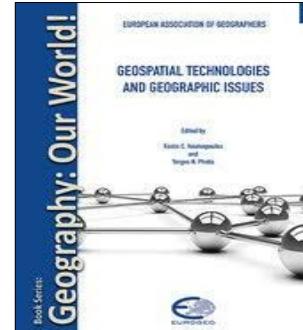
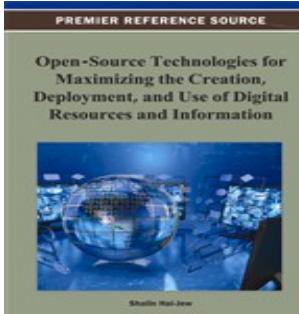
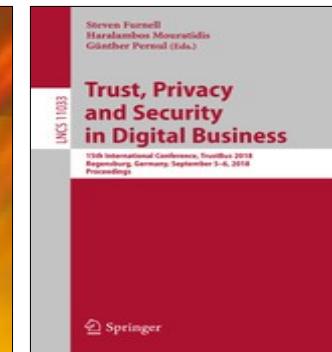
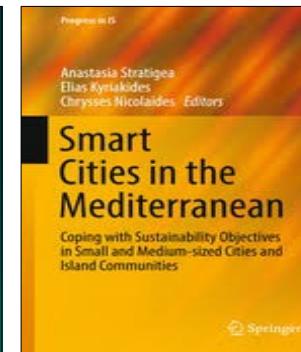
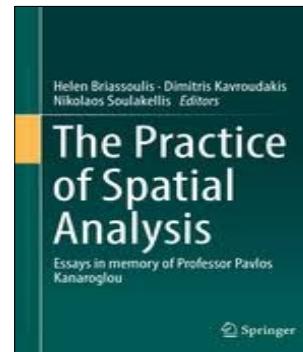
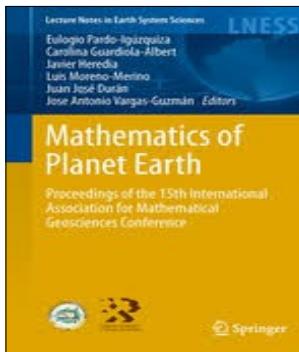
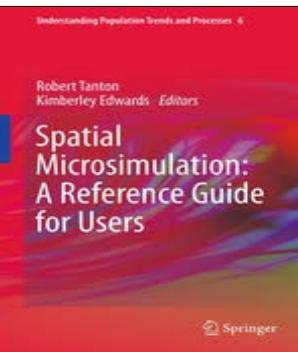
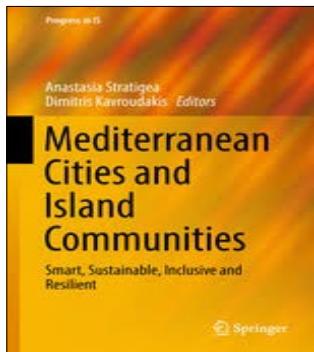
Δρ. Δημήτρης Καβρουδάκης

Επίκουρος Καθηγητής Γεωγραφικής Ανάλυσης

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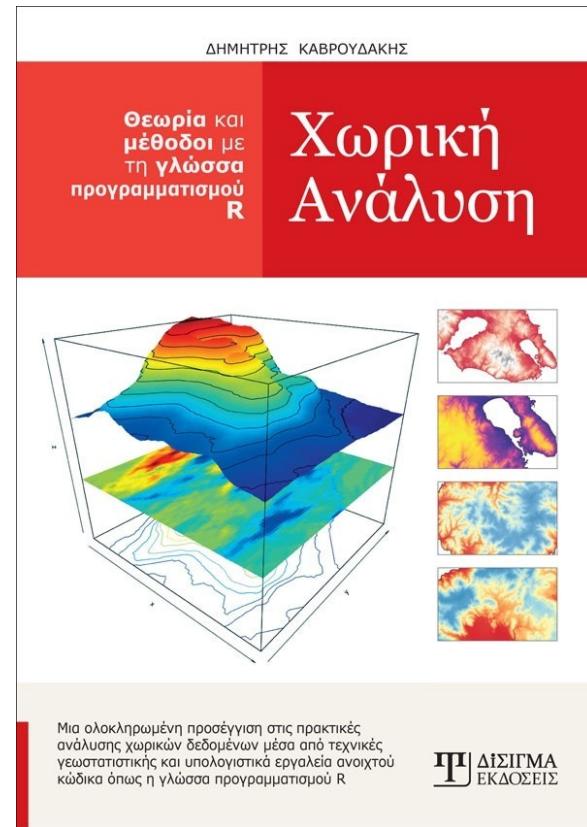
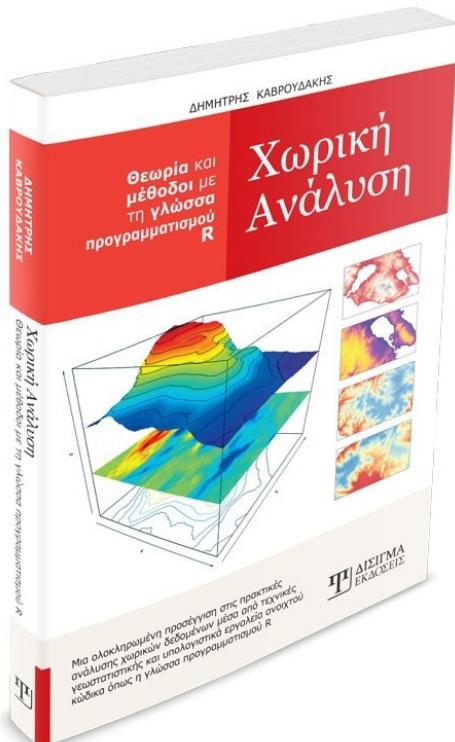
Πανεπιστήμιο Αιγαίου
Τμήμα Γεωγραφίας

- Επίκουρος Καθηγητής, Γεωγραφικής Ανάλυσης
- Πανεπιστήμιο Αιγαίου, Τμήμα Γεωγραφίας
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- Τμήμα Γεωγραφίας: <http://geography.aegean.gr>



Peer reviewed journal papers

- Kalaitzis, P., Kavroudakis, D., Soulakellis, N. (2018), The use of spatial analysis approaches for smart decision making of subterranean water, International Journal of Applied Geospatial Research (IJAGR), Volume 10, Issue 4, Article 4
- Kizos T., Zafirelli S., Spilanis I., Kavroudakis D. (2022). A policy tool for island transport cost inequality: Exploration of the application of the “Transport Equivalent Threshold” on Greek islands. Island Studies Journal
- Batsaris, M., Kavroudakis, D., Soulakellis, N., Kontos, T. (2019), Location-Allocation Modeling for Emergency Evacuation Planning in a Smart City Context The Case of Earthquake in Mytilini, Lesvos, Greece, International Journal of Applied Geospatial Research (IJAGR), Volume 10, Issue 4, Article 3, p.28-43
- Vasilakos C., Kavroudakis D., Georganta A. (2020), Machine Learning Classification Ensemble of Multitemporal Sentinel-2 Images: The Case of a Mixed Mediterranean Ecosystem, Remote Sensing, Special Issue: “Artificial Neural Networks and Evolutionary Computation in Remote Sensing”, Volume 12, Issue 12
- Peppa, M., Vasilakos, C., Kavroudakis, D. (2020), Eutrophication Monitoring for Lake Pamvotis, Greece, Using Sentinel-2 Data, ISPRS International Journal of Geo-Information (IJGI), Volume 9, Issue 3, pages: 143
- Batsaris M., Kavroudakis D., Hatjiparaskevas E., Agourogiannis P. (2021), Spatial Decision Support System for Efficient School Location-Allocation, European Journal of Geography, Volume 12, Issue 4



- Kavroudakis, D., Penteridou, Z.M (2017), Geographical Analysis of Emergency Evacuations in the Aegean Sea: Towards the Utilization of Big Data Analytics, Smart Cities in the Mediterranean Coping with Sustainability Objectives in Small and Medium-sized Cities and Island Communities, Springer Edited Volume, New York, Edited by A. Stratigea, C. Nicolaides and E. Kyriakides
- Kavroudakis, D., Skalidi, F., Tsakou, D. (2017), Spatial Micro Level Analysis of building structures in Samos island, Smart Cities in the Mediterranean Coping with Sustainability Objectives in Small and Medium-sized Cities and Island Communities, Springer Edited Volume, New York, Edited by A. Stratigea, C. Nicolaides and E. Kyriakides





Politics

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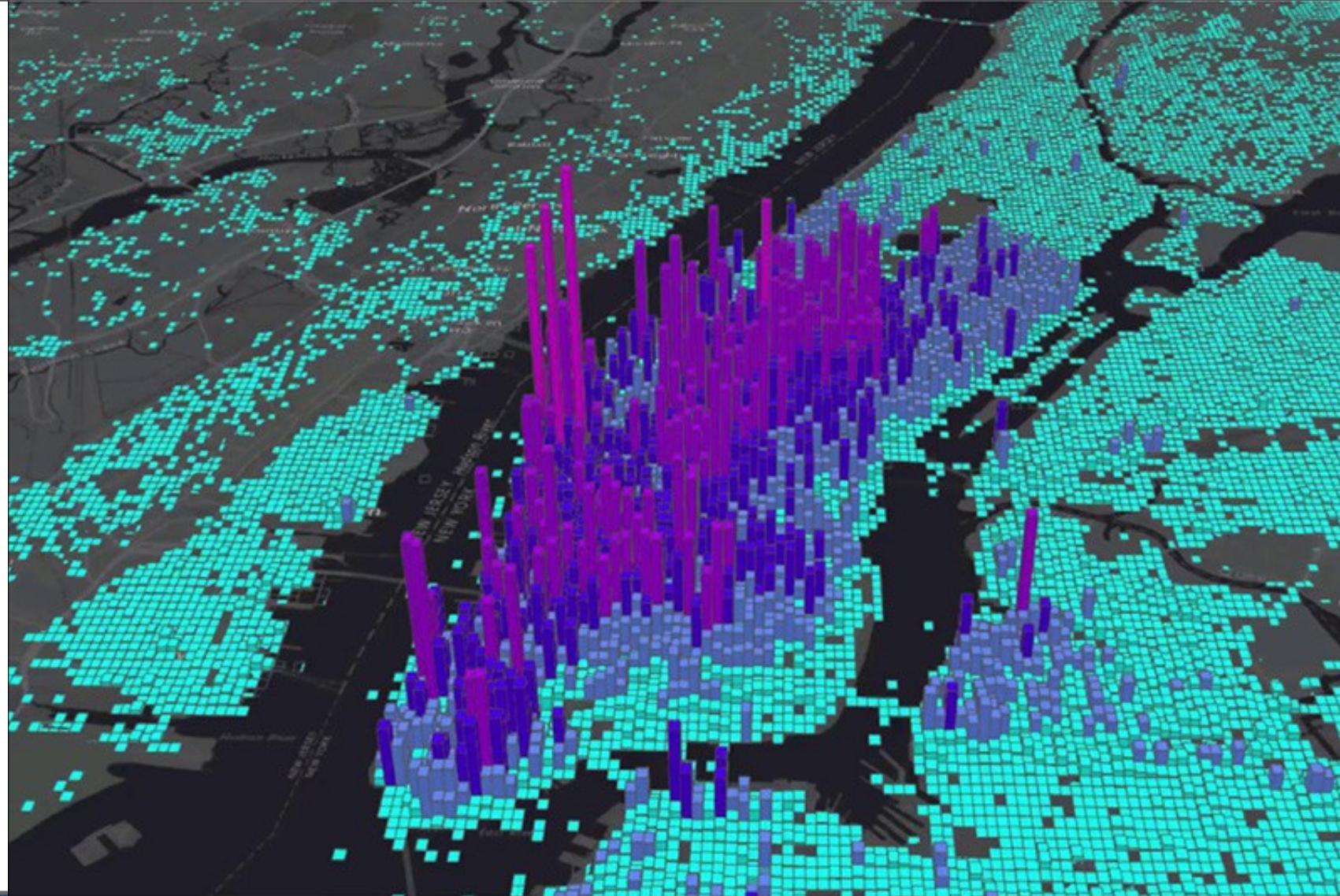
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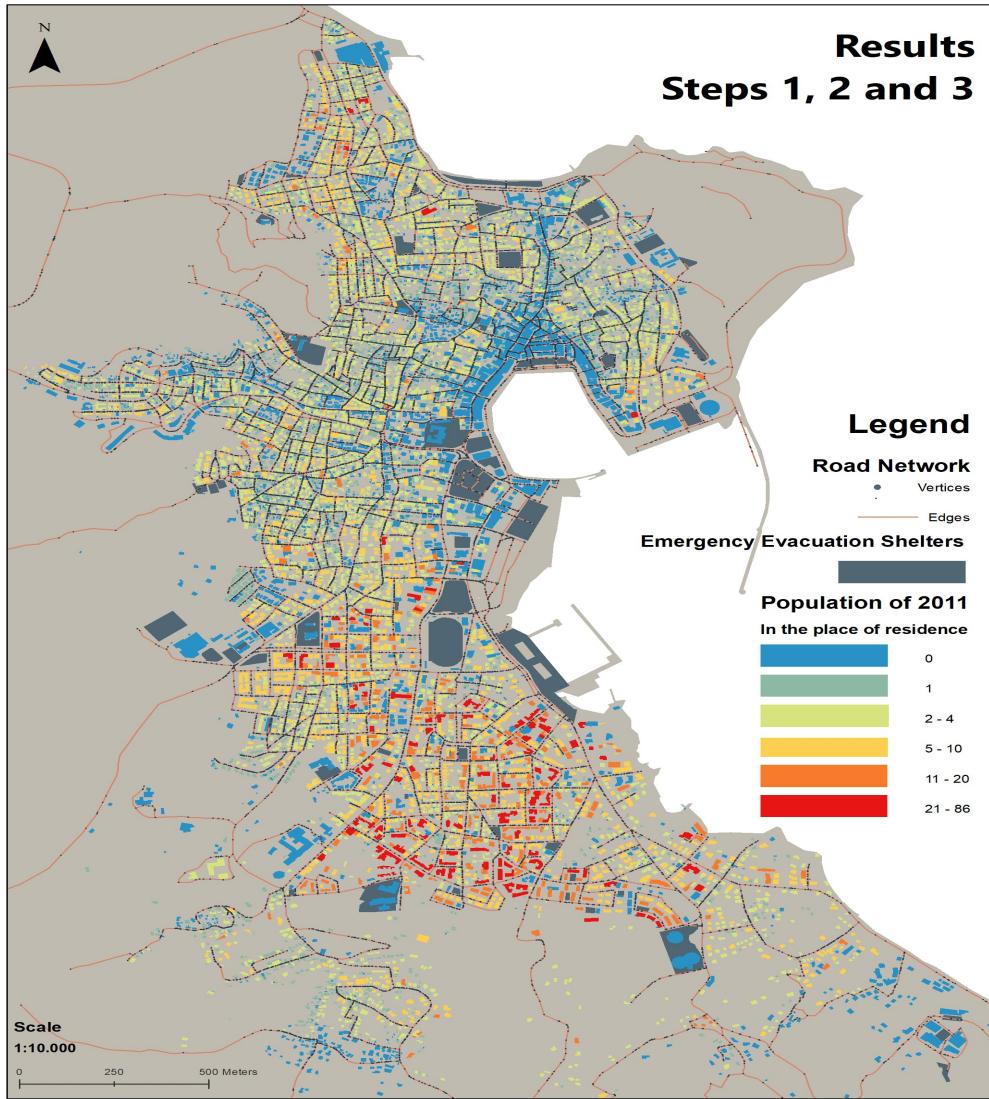


- Καταμερισμός πληθυσμού σε χώρους καταφυγής

- Φυσικές καταστροφές
- Επιμερισμός πόρων
- Αποδοτικότερη χρήση



Αποτελέσματα



Emergency Evacuation Shelters

- 64 Shelters
- 162.628 m^2
- 81.314 persons/ 2m^2

Population In The Place of Residence

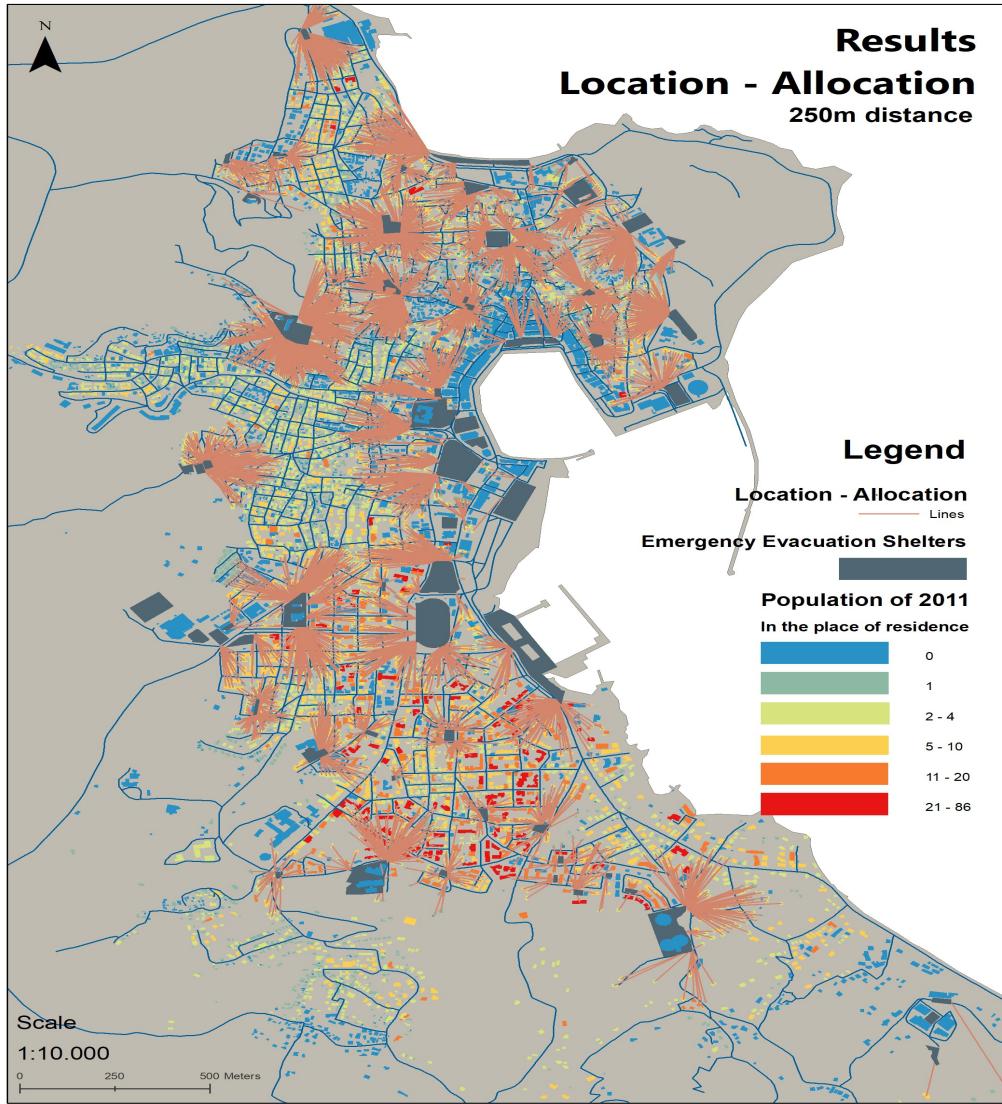
- 12.048 buildings
- 8.206 populated
- 27.871 residents

Road Network

- 20.777 Vertices
- 20.860 Edges

Scenario 1

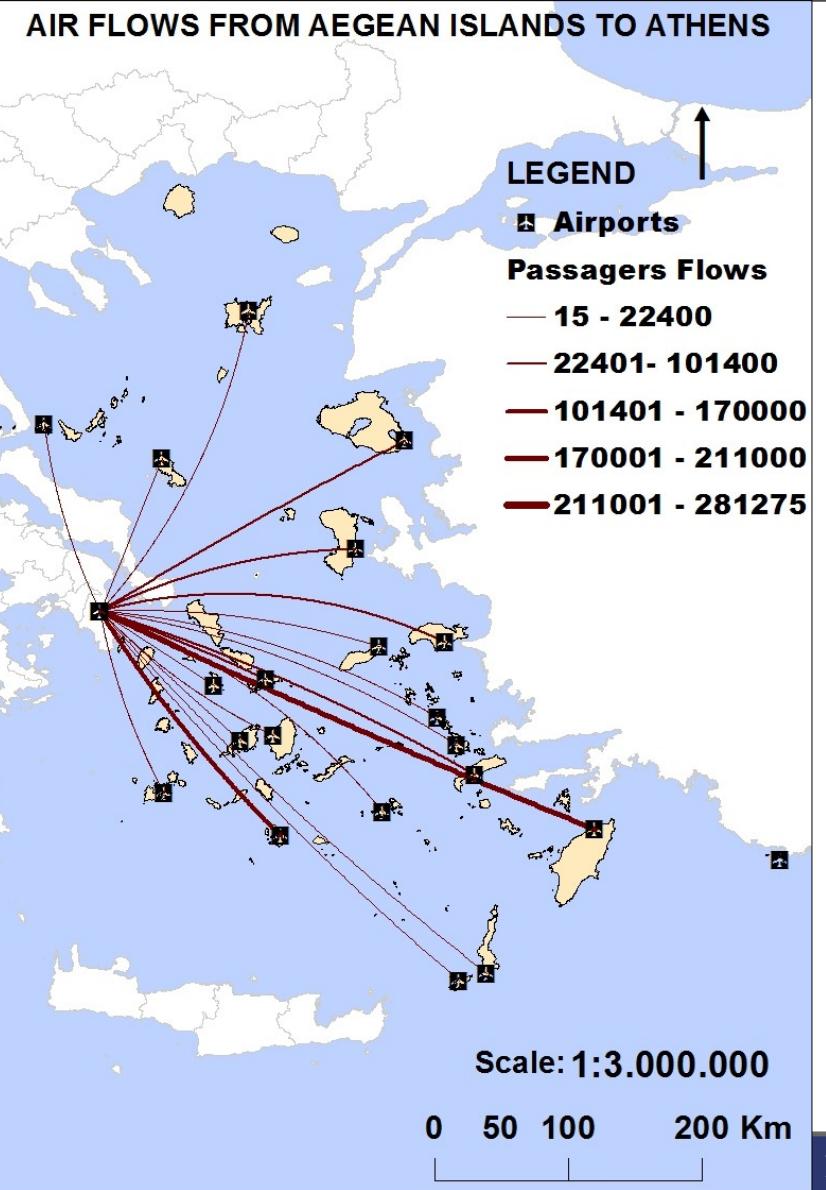
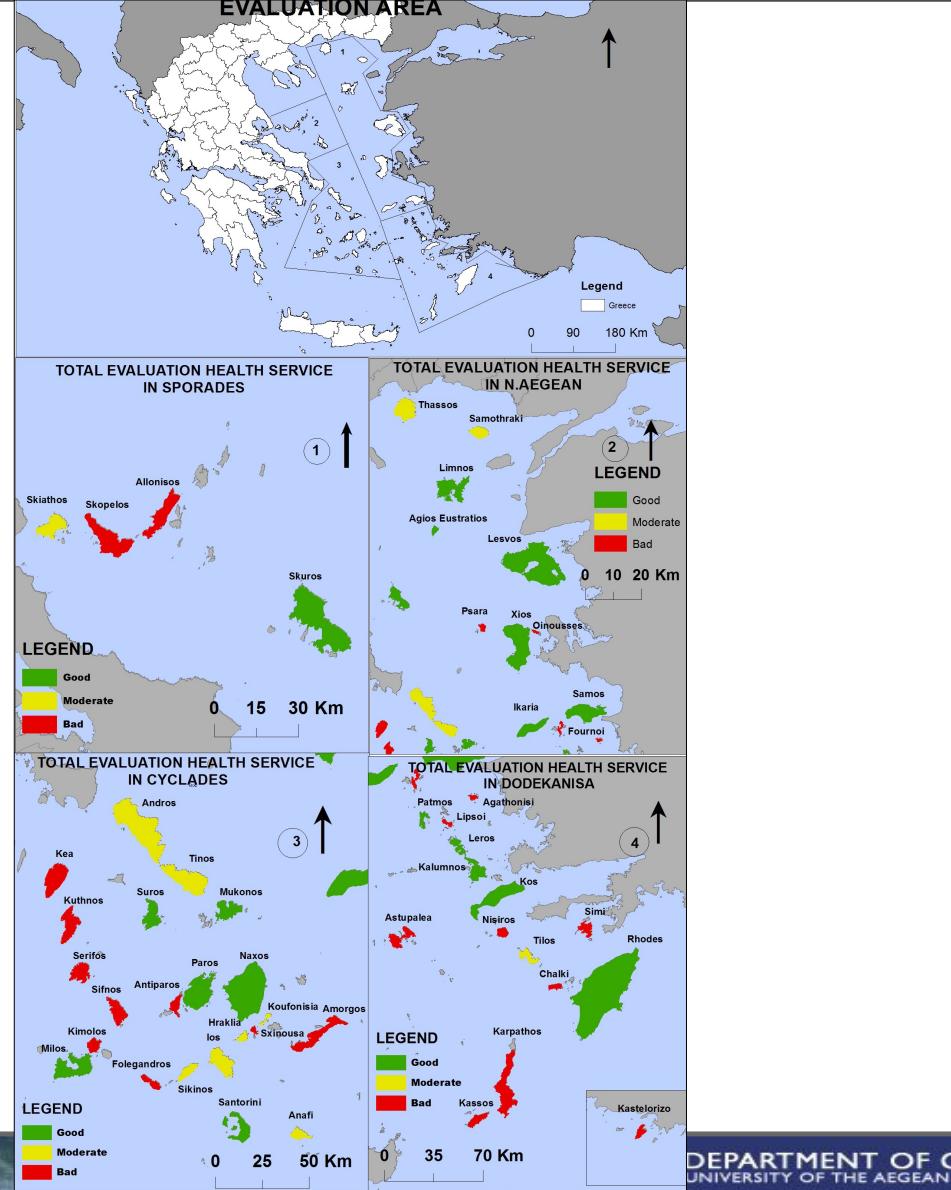
- 4.903 lines
- 16.857 residents within 250m distance
- 6 unsuitable shelters
- 3 shelters with just 1-6 evacuees



Έξυπνες Διαδρομές

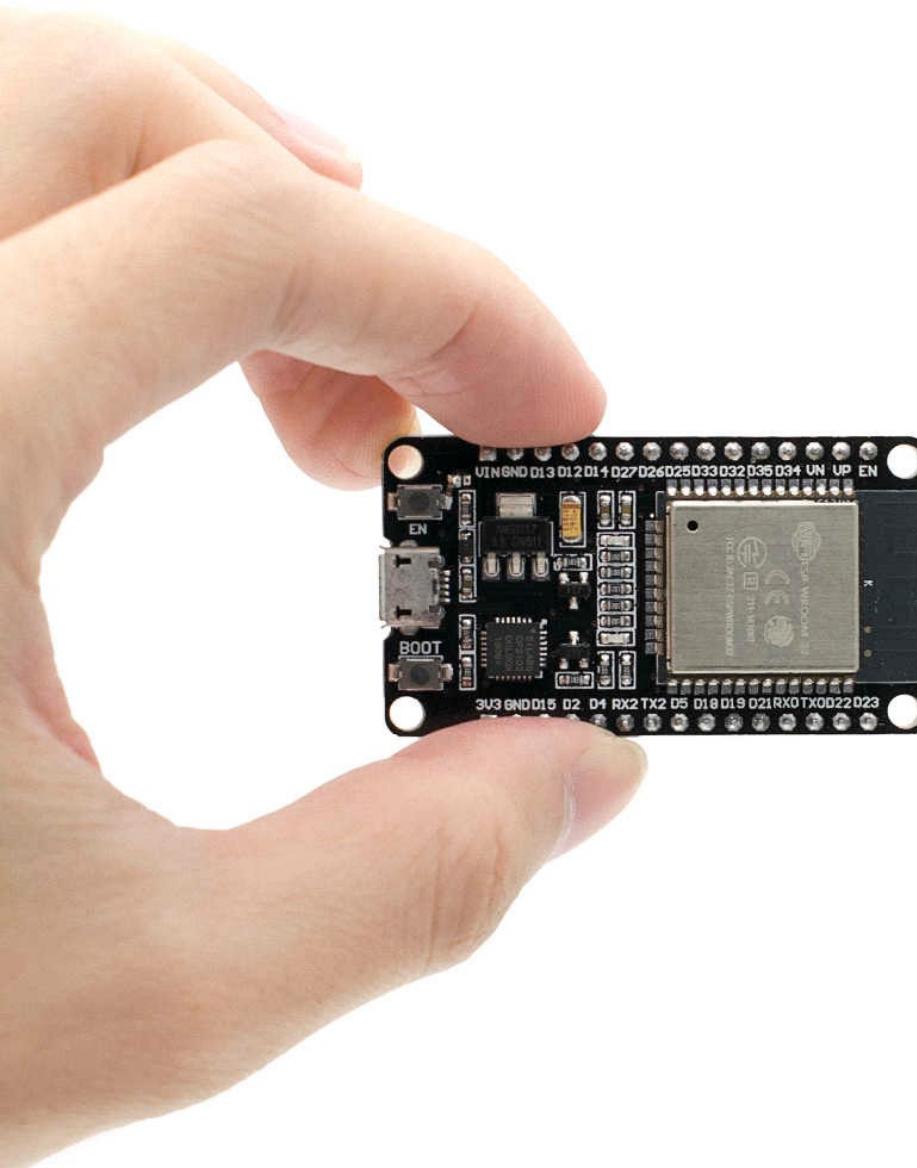
- 1) Εύρεση του Κλασικού Μαραθωνίου σε οποιαδήποτε περιοχή
 - Διαδρομή μήκους 50χμ
 - ίδια τοπογραφικά χαρακτηριστικά
- 2) Εύρεση διαδρομών οι οποίες μπορούν να διασχίζουν σημεία ενδιαφέροντος
 - Οικονομικά, τουριστικά, πολιτιστικά

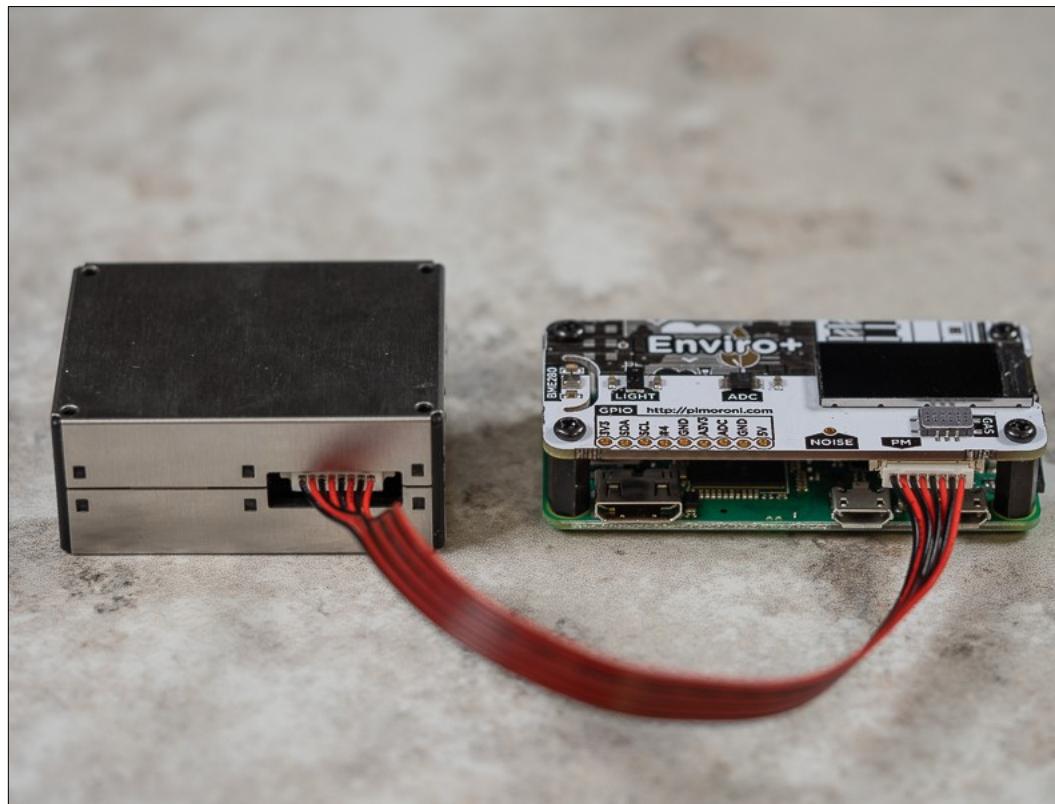
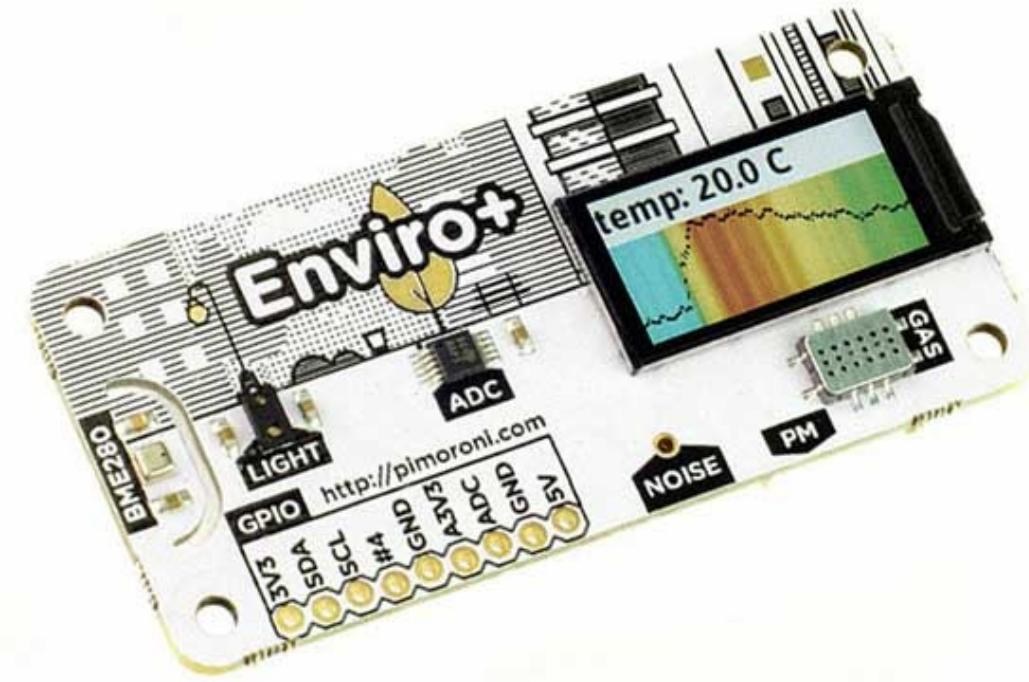




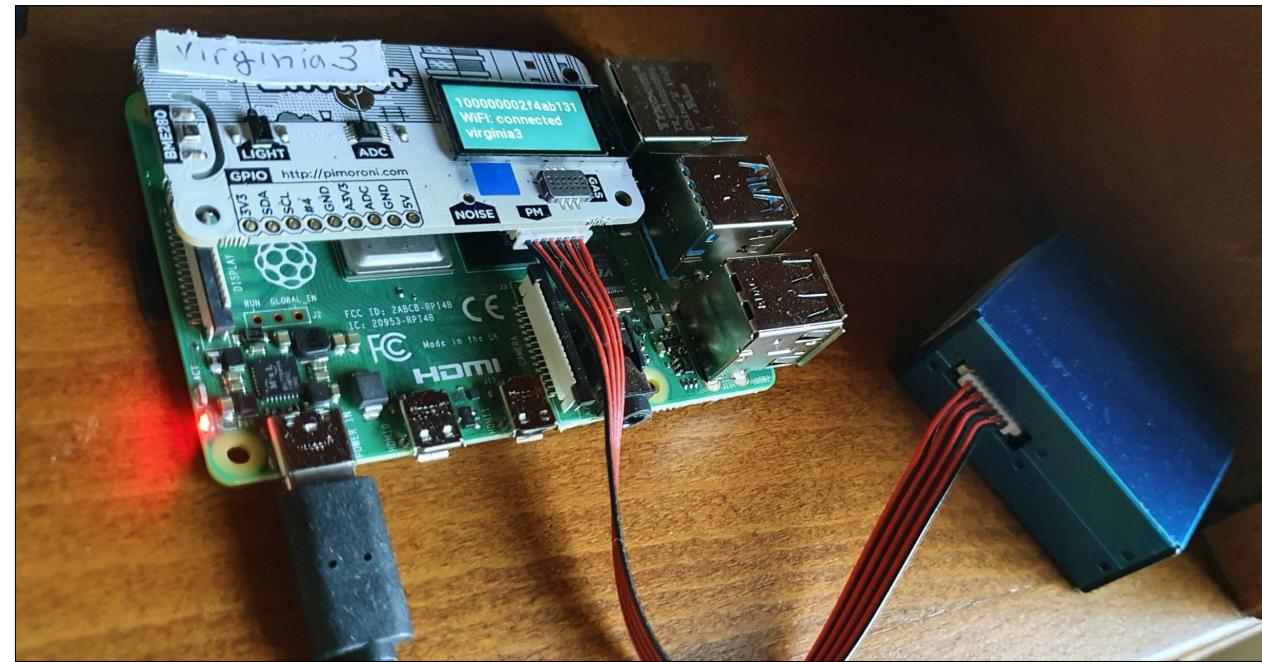
IOT











Dashboard

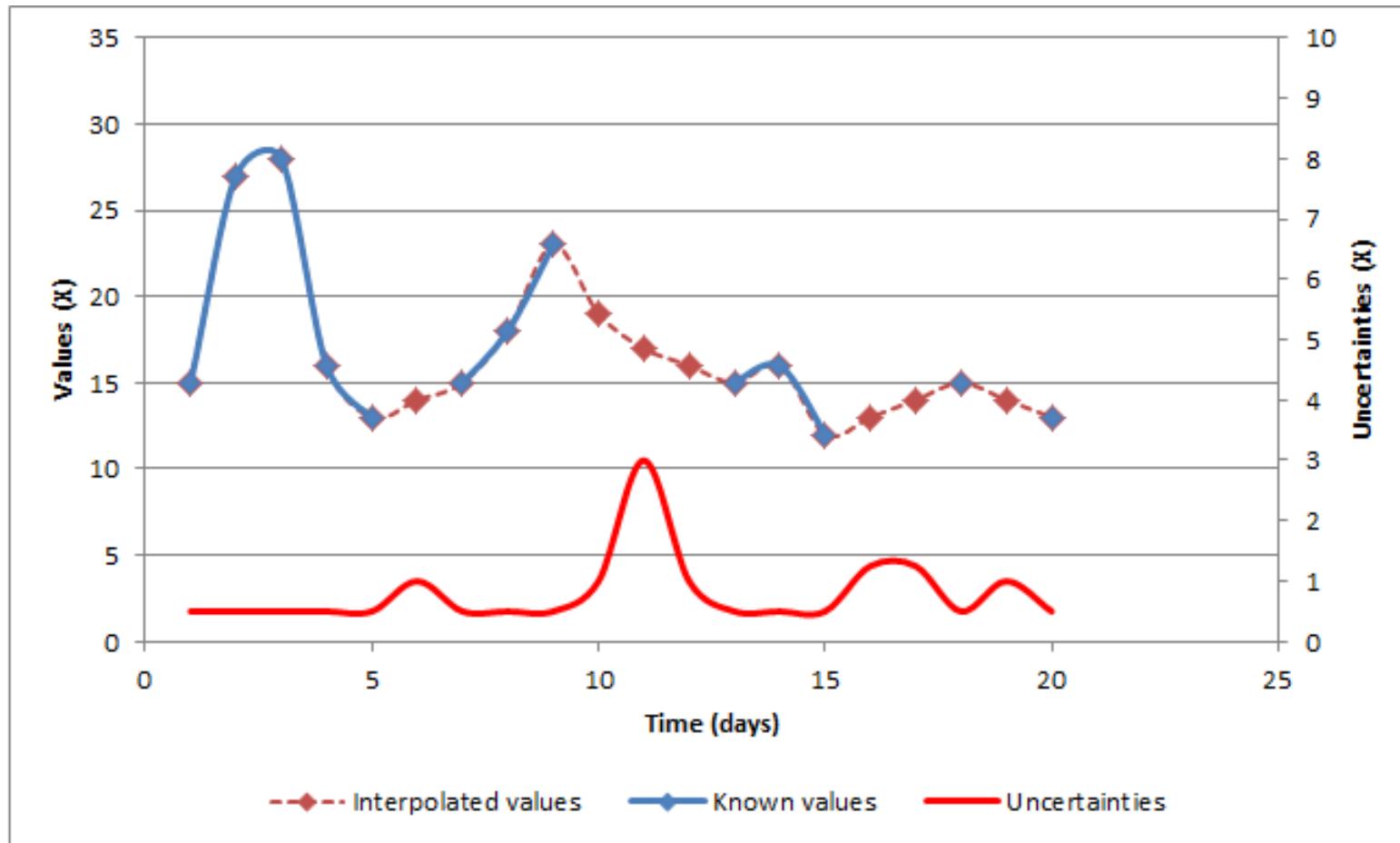


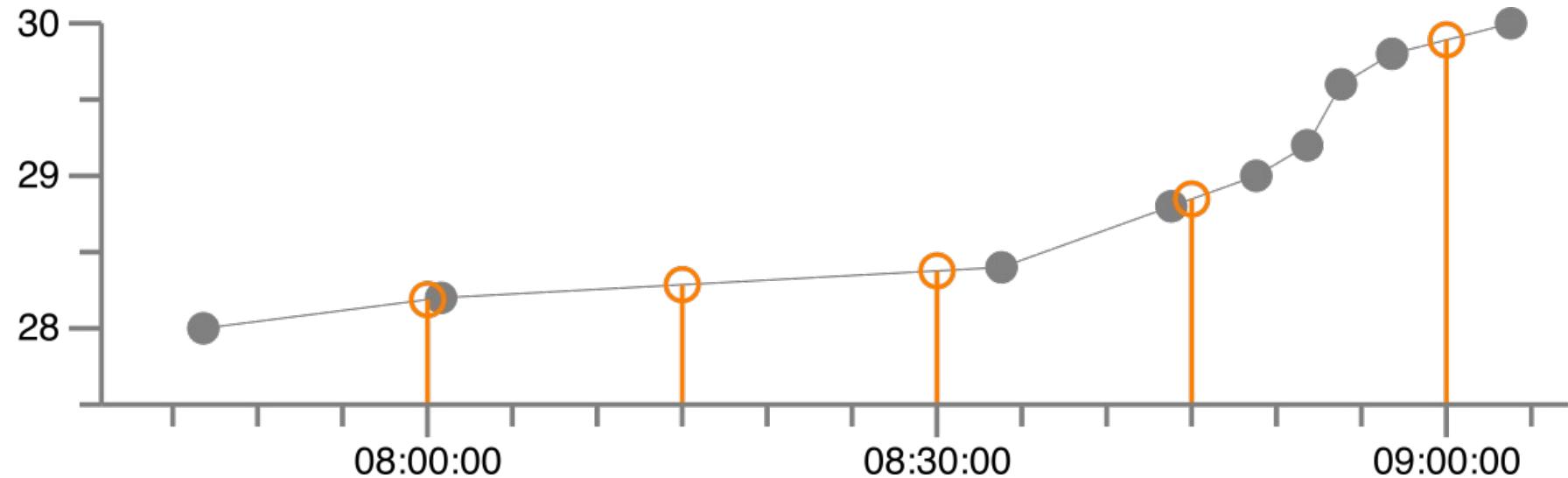


- Στην **ανάλυση δεδομένων**, παρουσιάζονται οι ακόλουθες προκλήσεις για έρευνα:
 - Χρονική Παρεμβολή τιμών
 - Χωρική Παρεμβολή τιμών
 - Ακραίες τιμές
 - Εποχικότητα

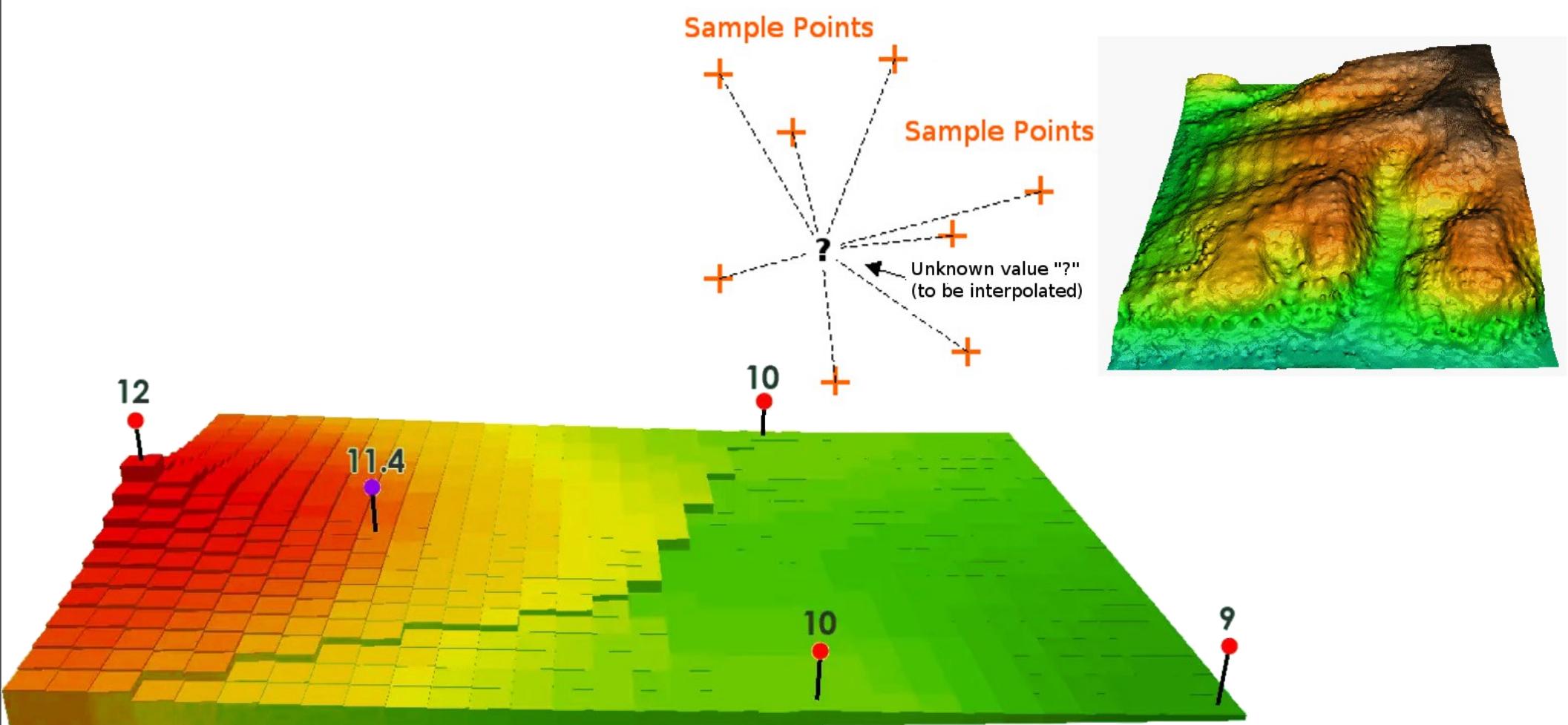


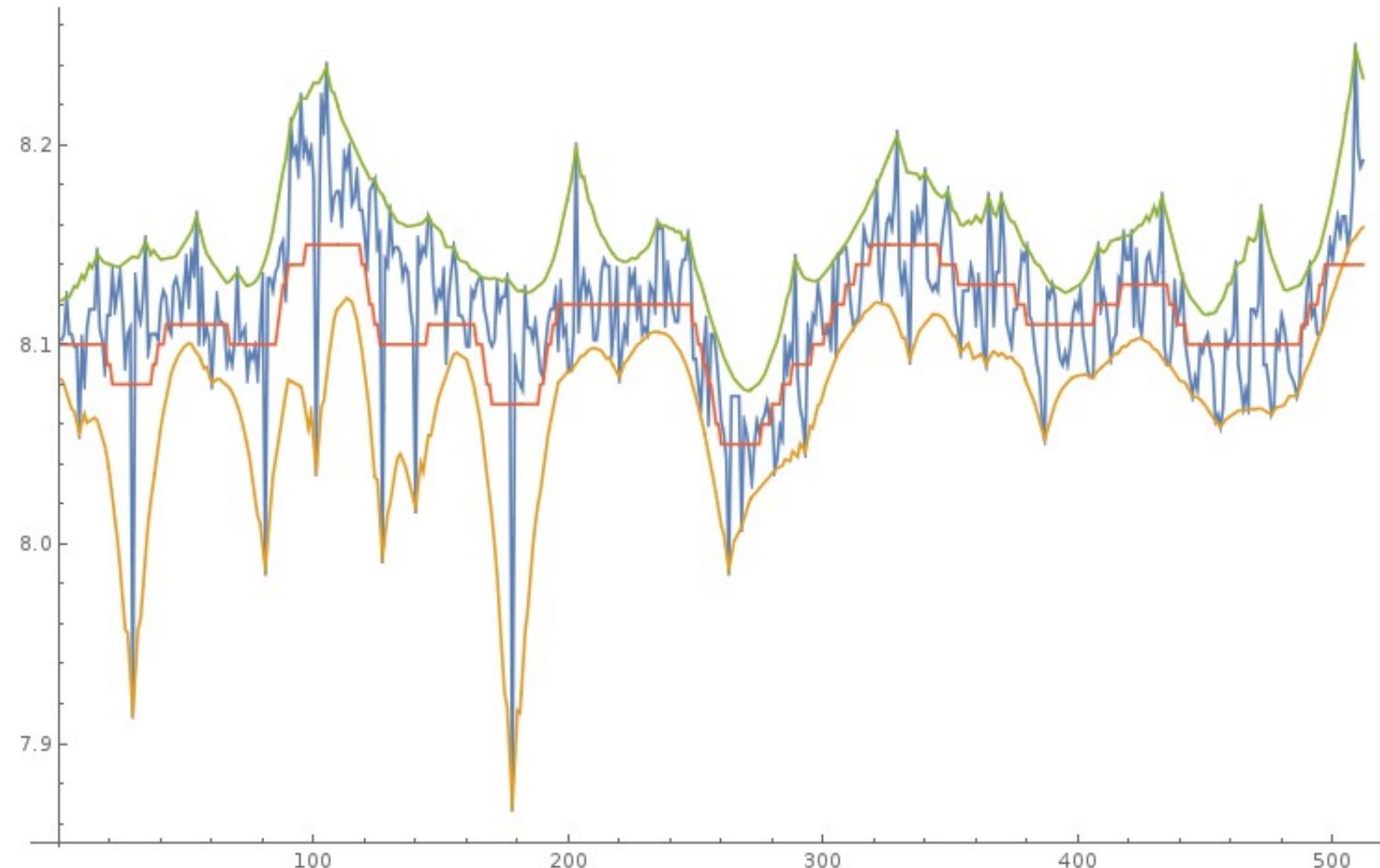
Χρονική Παρεμβολή τιμών

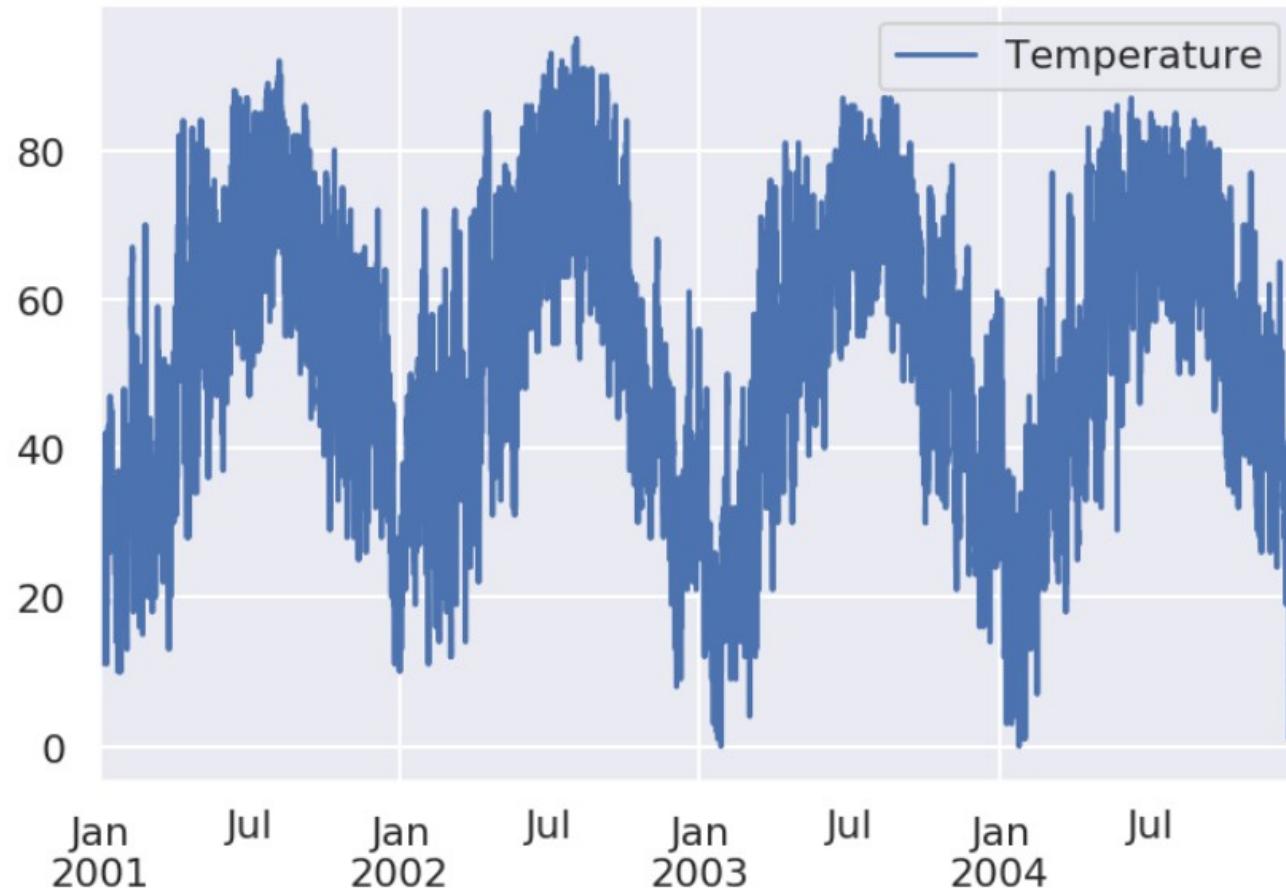




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