

Poulicos Prastacos

Researcher Emeritus
Regional Analysis/Spatial Analysis Division
Institute of Applied and Computational Mathematics
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Education

- Ph.D. Transportation Systems, Civil Engineering, University of Illinois at Urbana-Champaign, 1981.
- M.S. Construction Management, Civil Engineering, University of Illinois at Urbana-Champaign, 1976.
- B.S., Civil Engineering, Columbia University, 1975.

Professional Interests

- Urban analysis,
- Geographical information systems applications in transportation, environment, regional planning, water resources management and cultural heritage management,
- Land use, transportation, regional economic models,
- Databases with statistical information,
- Web GIS and applications on the internet.

Professional Experience

- Researcher Emeritus, Institute of Applied and Computational Mathematics (IACM), Foundation for Research and Technology-Hellas (FORTH), Heraklion, Greece since 2020.
- Director of Research, Institute of Applied and Computational Mathematics (IACM), Foundation for Research and Technology-Hellas (FORTH), Heraklion, Greece, 1990-2020.

Head of the Regional Analysis Division that concentrates on the development of information tools and quantitative methodologies for urban and regional planning. Areas of research include: urban analysis, decision support tools, GIS applications, statistical information systems.

Leading investigator for FORTH/IACM in the following R&D projects funded by the EU:

- *EPIRROH*: A GIS based system for detecting water leaks in water distribution systems (2017-19),
- *SUME*: Sustainable urban metabolism for Europe (2009-11),
- *LIAISON*: Location based services for the enhancement of working environment (2004-06),
- *GIPSYNOISE*: An efficient GIS tool oriented to meeting the objectives of the European Directive on the Assessment and Management of Environmental Noise (2003-05),
- *EMPHIS*: Euro-Mediterranean public health information systems (2002-05),
- *WADI*: Water supply watershed planning and management: An Integrated Approach (2001-04),
- *ANFAS*: Data fusion for flood analysis and decision support, Scientific coordinator of the project (2000-03),
- *VIRGIL*: Verifying and consolidating rural access to services and transport (1998-2000),
- *THETIS*: Data management and data visualisation systems for supporting Coastal Zone management for the Mediterranean Sea (1998-2000),
- *ESIMEAU*: Information technologies for water resources management and modelling in semi-arid areas (1997-99),
- *TEMISIA*: Territorial multimedia information system on industrial areas (1997-99),
- *FOREST FIRE*: Improvement of the efficiency of the prevention and suppression system in Greece (1995-98),
- *MAGIS*: Map supported area information service based on GIS (1993-96),
- *MESSARA*: An integrated monitoring and modeling study of desertification and climatic change impacts in the Messara Valley of Crete (1994-96),
- *CASIP*: An automated system for information processing in budget research (1990-92),

Leading investigator for FORTH/IACM/RAD in the following R&D projects /studies funded by Greek government organizations (GSRT, Region of Crete and others):

- *METOPO*: Analysis of the population characteristics of Crete at the times of the Ottoman occupation / Development of a database with historical maps of Candia (2018-21),
- *PERAN*: Analysis of urban areas of Europe (2018-20),
- *POLITEIA II*: Documentation of cultural heritages sites using 3D techniques (2018-19),
- *PEFYKA*: Analysis of the socioeconomic characteristics of the Attiki region (2014-15),
- *POLITEIA*: Documentation of cultural heritage sites using the INSPIRE Directive (2014-15),
- *OSDDT-MED*: Development of urban growth models for five areas in Crete (2013),
- *COASTAL ATLAS*: Development of a GIS based system for coastal zone management (2006-08),
- *I4CRETE*: Development of a system for tracking vehicles and estimating traffic conditions based on information obtained from moving vehicles (2006-08),
- *OASA*: Support to OASA (Athens Urban Transport Organization) on issues related to GIS (2003-4),
- *ATHINA-II*: Development of a web based system for disseminating information from the 1981 and the 1991 Census of Population (1997-98),
- *HEALTH MAP*: Development of decision support system for managing resources in health districts (2001-02), and a web site with information on health resources,
- *PANDORA*: Development of a GIS based web site with demographic information (2000-01),
- *LABOR MARKET*: Analysis of the labor markets of Crete (1999),
- *POLH*: Development of a geographic information system for the city of Heraklion and application for waste management collection (1996-99),
- *AQUABANK*: Information systems for analyzing aquaculture data (1992-94),
- *XENIOS*: Development of on-line information systems for tourism in Crete (1991-93, 1996),
- *HFAISTOS*: Development of on-line information systems for the SMEs in Crete (1990-92),
- *ATHINA-I*: Development of an information system for the 1981 Census of Population (1988-90).

- Scientific director, Infocharta Ltd. 1993-2010 and InfoTraffic SA., Athens, Greece, 2006-10.

Startup companies involved with the development of:

- Digital street maps for Greece,
- Web based city portals for disseminating traffic information (www.driveme.gr, www.infotraffic.gr sites not operational currently) (collaboration with FORTH),
- Automated vehicle location systems (collaboration with FORTH, Palmera Ltd.),
- Automated taxi dispatch system (Pythia) (collaboration with Palmera Ltd., Cytech Ltd.).
- "RadioAkroasi" system for estimating radio listening habits in the city of Heraklion
- Information system for tabulating external trade data of the Hellenic statistical office.

- Visiting Lecturer, Athens University of Economics and Business (AUEB), 2002-08

Teaching a graduate course on "Telematics in Transportation".

- Consultant, Itanos Technologies SA. Heraklion, Greece, 1994-95.

Project manager in the following projects"

- "*Xenios: Database of hotels in Crete*", funded by the Regional Agency of Crete, 1993-95.
- "*PLHROFORIA: Development of a client server system for accessing statistical databases*", funded by ELSTAT, 1994-95,

- Consultant, Urban MicroSystems (UMS), Oakland, USA, 1988-2001.

Participated in consulting projects that UMS undertook. UMS was a consulting company specializing in the development of GIS based information systems. Responsible for the following projects:

- Development of GIS systems for various cities and organizations in the San Francisco Bay Area for scheduling tree irrigation, crime analysis and air emissions tracking, 1988-91,
- Update of the POLIS land use models for ABAG, 1993-94,
- Updates of the Contra Costa County Congestion Management Program, 1994-2001.

- Consulting Associate Professor, Civil Engineering Dept., Stanford University, USA, 1987-89.

Teaching courses on "Transportation Planning and Policy."

- Senior Regional Planner, Association of Bay Area Governments (ABAG), Oakland, USA, 1980-90. ABAG (<https://abag.ca.gov/>) is the regional planning agency in the San Francisco metropolitan area in California. Member of the “Analysis” group that was responsible for developing economic, housing and land use projections for the area; responsible for the development of various urban/land use models and information systems. Leading investigator in the following projects:
 - Development and updates of the CEFS employment forecasting models for the nine counties of the San Francisco Bay Area, 1982-89,
 - Design, implementation and updates of the POLIS land use-transportation models for the Bay Area to produce population and employment projections at the sub regional level, 1983-89,
 - Social Area Analysis (development of socio-economic profiles at the census tract level) for the counties of the Bay Region, 1984-85,
 - Development of the demographic information (age structure) at the census tract level, 1986-87,
 - Analysis of retail trade patterns in the Bay area and development of forecasting models, 1988-90.
 - Development of CeDAR, a census information system for microcomputers, 1985-86,
 - Application of GIS techniques for geocoding the addresses of Bay Area companies, 1987-89.
- Research Assistant, Departments of Civil Engineering and Urban Planning, University of Illinois, Champaign-Urbana, USA, 1978-80. Performed research on the:
 - Relationship between regional growth and provision of transportation infrastructure,
 - Design of transportation energy accounts for the city of Chicago.
- Research Associate, Argonne National Laboratory, Chicago, USA, 1978-79. Member of a research team that developed a prototype land use - transportation model to evaluate the impact of energy conservation policies on urban growth.
- Research Associate/Consultant, Construction Engineering Research Laboratory, Army Corps of Engineers, Champaign, USA, 1976-78. Member of a research group to develop an information system for automatic estimation of the cost of various public works; assisted in the design of a management information system for monitoring “change orders” in the contracts awarded by the Corps.

Publications – Referred Journals/Chapters in books

Lagarias, A., Prastacos, P., Dimelli, D., Delgado-Jiménez A, 2025. Integrating Spatial Analysis and Regional Science to Guide Urban Planning (Editorial for Special Issue), *Land*, 14 (2037)

Gkadolou, E., Prastacos, P., 2021. Historical cartographic information for cultural heritage applications in a semantic framework, *Cartographica*, 56 (4), 255-266.

Lagarias, A., Prastacos, P. 2021. Fractal dimension of European Cities: A comparison of the patterns of built-up areas in the urban core and the periurban ring, *Cybergeo: European Journal of Geography*, 987.

Gkadolou, E., Prastacos, P., Loupas, T., 2020. Documentation of cultural heritage monuments with CityGML: an application for ancient theatres. *AGILE: GIScience Series*, 1.

Doxa, A., Prastacos, P., 2020. Using Rao's quadratic entropy to define environmental heterogeneity priority areas in the European Mediterranean biome. *Biological Conservation*, 241, 108366.

Lagarias, A., Prastacos, P., 2020. Comparing the urban form of South European cities using fractal dimensions. *Environment and Planning B: Urban Analytics and City Science*, 47(7), 1149-1166.

Lagarias, A., Prastacos, P., 2019. Analysis of the urban form using spatial metrics: Land use patterns and housing characteristics in the region of Attica, *Aeichoros*, 29, 100-146 (in Greek).

Lagarias, A., Prastacos, P., 2018. Using spatial metrics to assess urban sprawl in Nicosia. In Patsavos, N., Pisourios, I. (Eds) *The Cypriot city paradigm, urbanity issues in planning and design*, Cyprus Architects Association, Cyprus, 97-118.

- Prastacos, P., Lagarias, A., Chrysoulakis, N., 2017. Using the Urban Atlas dataset for estimating spatial metrics; methodology and application in urban areas of Greece. *Cybergeog: European Journal of Geography*, no 815.
- Prastacos, P., Gkadolou, E., 2015. Adding a geographical component in cultural heritage databases. In Sarris, A., (Ed.), *Best Practices of GeoInformatic Technologies for the Mapping of Archaeolandscape*, Archaeopress Archaeology.
- Triantakoustantis, D., Prastacos, P., Tsoukala, A., 2014. Analysing urban sprawl in Rethymno, Greece. *Journal of the Indian Society of Remote Sensing*, 42 (3), 601-610.
- Pistolla, G., Tsilimparis, M., Prastacos, P., Sifaki-Pistolla, D., Philalithis, A., Pallikaris, I., 2013. Ophthalmological disorders in rural areas of Crete: A geospatial analysis. *Rural and Remote Health*, 13, (1), 2020.
- Pistolla, G., Prastacos, P., Tzanakis, N., Philalithis A., 2012. Clustering of mortality rates in Greece's prefectures, *Scientific Research and Essays*, (7) 45, 3860-3876.
- Mantelas, L., Prastacos, P., Hatzichristos, T., Koutsopoulos, K., 2012. A linguistic approach to model urban growth, *International Journal of Agricultural and Environmental Information Systems*, 3(2), 35-53.
- Mantelas, L., Prastacos, P., Hatzichristos, T., Koutsopoulos, K., 2012. Using fuzzy cellular automata to access and simulate urban growth. *GeoJournal*, (77) 1, 13-28.
- Mantelas, L., Prastacos, P., Mollay, U., 2011. Sustainable urban growth for Athens. In Zlatanova S., Ledoux H., Fendel E., Rumor M. (Eds) *Urban and Regional Data Management; UDMS Annual 2011* 193-200, Taylor and Francis Group, London, UK.
- Mantelas L.A., Hatzichristos T., Prastacos P. 2010. A Fuzzy Cellular Automata Modeling Approach – Accessing Urban Growth Dynamics in Linguistic Terms. In: Taniar D., Gervasi O., Murgante B., Pardede E., Apduhan B.O. (Eds), *Computational Science and Its Applications – ICCSA 2010*. ICCSA 2010. Lecture Notes in Computer Science, 6016. Springer, Berlin, Heidelberg.
- Pistolla, G., Prastacos, P., Vassilaki, M., Philalithis, A., 2010. Spatial – mathematic methods for analysis of indicators of mortality. *International Journal of Advanced Engineering Sciences and Technologies*, (1) 2, 135-146.
- Kamarianakis, Y., Gao, H., Prastacos, P., 2010. Characterizing regimes in daily cycles of urban traffic using smooth-transition regressions. *Transportation Research C: Emerging Technologies*, 18, 821-840.
- Tomai, E., Herlin, I., Berroir J.-P., Prastacos, P., 2009. Ontology-based documentation of land degradation assessment from satellite images. *International Journal of Remote Sensing* 30 (13), 3315-3330.
- Stefanakis, E., Prastacos, P., 2008. Development of an open source based spatial data infrastructure. *Applied GIS Journal*, 4 (4), 1-26.
- Chrysoulakis, N., Herlin, I., Prastacos, P., Yahia, H., Grazzini, J., Cartalis, C., 2007. An improved algorithm for the detection of plumes caused by natural or technological hazards using AVHRR imagery. *Remote Sensing of Environment*, 108, 393-406.
- Salah, A. B., Kamarianakis, Y., Chlif, S., Alaya, N., Prastacos, P. 2007. Zoonotic cutaneous leishmaniasis in central Tunisia: spatio-temporal dynamics. *International Journal of Epidemiology*, 36 (5), 991-1000.
- Yahia, H., Turiel, A., Chrysoulakis, N., Grazzini, J., Prastacos, P., Herlin, I., 2008. Application of the multifractal microcanonical formalism to the detection of fire plumes in NOAA-AVHRR data. *International Journal of Remote Sensing*, 29 (14), 4189-4205.
- Prastacos, P., Kamarianakis, Y., 2007. Statistical models for urban traveler information and traffic management systems. *ERCIM NEWS*, 68, 32-33.
- Tomai E., Prastacos P., Kavouras M., 2007. A Framework for Intensional and Extensional Integration of Geographic Ontologies. *Transactions in GIS*, 11 (6), 873-887.

- Kamarianakis, Y., Kanas, A., Prastacos, P., 2005. Modeling traffic volatility dynamics in an urban network. *Transportation Research Record Journal of the Transportation Research Board*, 1923, 18-27.
- Kamarianakis, Y., Prastacos, P., 2005. Space time modeling of traffic flow. *Computers & Geosciences* 31, 119-133.
- Farsari, Y., Prastacos, P., 2004. GIS applications in the planning and management of tourism. In Lew, A., Hall, M., Williams, A. (Eds.) *A Companion to Tourism*, 596-607, Blackwell, UK.
- Chrysoulakis, N., Prastacos, P., Cartalis, C., 2004. Development of a decision support tool for tool risk management with the combined use of remote sensing and GIS. In Hilty, L.M., Seifert, E., Treibert, M.R., (Eds.) *Information Systems for Sustainability*. Idea Group Publishing, 342-353.
- Prastacos, P., Castaings, W., Courtois, N., Hluchy, L., Houdry, P., Tran, V., 2004. ANFAS: A decision support system for flood risk assessment. In Prastacos P., Cortes U., de Leon, J.L.D. and M. Murillo (Eds) *e-Environment: Progress and Challenges*, Instituto Politecnico Nacional, Mexico.
- Prastacos, P., Cortes U., de Leon, J.L.D., Murillo, M., (Eds), 2004. *e-Environment: Progress and Challenges*, Instituto Politecnico Nacional, Mexico.
- Farsari, Y., Prastacos, P., 2003. Towards a framework for establishing policy goals for sustainable tourism in Mediterranean Popular destinations. In Beriatos, E., Brebbia, C.A., Coccossis, H., Kungolos, A. (Eds.) *Sustainable Planning and Development*, WIT Press, UK, 441-451.
- Kamarianakis, Y., Prastacos, P., 2003. Forecasting traffic flow conditions in an urban network: Comparison of multivariate and univariate approaches. *Transportation Research Record-Journal of the Transportation Research Board*, No. 1857, 74-84.
- Kamarianakis, Y., Prastacos, P., 2002. Classification of the municipalities of Greece according to their socio-economic characteristics. In Kotzamanis, B., Pappas, V. (Eds) *Spatial Dimensions of Demographic Events*, 187-208, (in Greek).
- Farsari, Y., Prastacos, P., Manioudakis, N., 2002. Demographic and social characteristics of the labor market in the Greek regions. In Kotzamanis, B., Pappas, V. (Eds) *Spatial Dimensions of Demographic Events*, 497-521, (in Greek).
- Prastacos, P., 2001. Architectures for distributed information systems for water resources management. *Systems Analysis Modelling and Simulation*, 41 (1), 123-148.
- Farsari, Y., Prastacos, P., 2001. Sustainable tourism indicators for Mediterranean established destinations. *Tourism Today*, 1 (1), 103-121.
- Farsari, Y., Prastacos, P., 2001. Indicators as a tool for sustainable tourism development: Pilot application in the Municipality of Hersonissos. *Touristiki Agora* (in Greek)
- Kotzinos, D., Prastacos, P., 2001. GAEA, Java-based applet for performing GIS on the web. *Systems Analysis Modelling and Simulation*, 41 (4), 593-606.
- Dabaghi, F., Ouazar, D., Prastacos, P., 2001. ESIMEAU, Integrated information system for modeling and management of water resources: concepts and architecture. *Systems Analysis Modelling and Simulation* 41 (4), 669-688.
- Prastacos, P., 2000. Putting GIS on the web: Internet solutions of GIS-providers in comparison. *Geo-Information-Systems*, 13 (1), 13-16.
- Prastacos, P., Diamandakis, M., 2000. Applying GIS technology in operational urban models in Fotheringham, A.S., Wegener, M., (Eds) *Spatial Models and GIS; New Potential and New Models*, 223-234, Taylor and Francis.
- Montanari, R., Kluzer, S., Prastacos, P., 1998. TEMISIA: An on-line tool to explore industrial location opportunities across Europe. *Geo Information-Systems*, 11 (3), 7-12.
- Prastacos, P., 1992. Integrating GIS technology in urban transportation planning and modeling. *Transportation Research Record*, 1305, 123-130.

- Saris, W., Prastacos, P., Marti-Recober, M., 1993. *CASIP, A complete automated system for information processing in family budget research*. NIMMO, Amsterdam, The Netherlands.
- Brady, R., Yang, C., Prastacos, P., Hootkins, S., Perry, P., 1990. *Projections '90: Forecasts for the San Francisco Bay Area*. Association of Bay Area Governments, Oakland, USA.
- Prastacos, P., Karjalainen, P., 1990. Intelligent information systems for accessing planning databases; the San Francisco experience. In Scholten, H., Stillwell, J. (Eds), *Geographical Information Systems and Urban and Regional Planning*, Kluwer Academic Press, Amsterdam.
- Prastacos, P., Karjalainen, P., 1989. An Information System for Analyzing Census Data on Microcomputers, *Ekistics*, 262-266.
- Prastacos, P., Romanos, M., 1987. A multiregional optimization model for allocating transportation investments. *Transportation Research B*, vol. 21B, (2), 133-148.
- Prastacos, P., 1986. An Integrated Land Use - Transportation Model for the San Francisco Region: 1. Design and Mathematical Structure. *Environment and Planning A*, 18 (3), 307-322.
- Prastacos, P., 1986. An Integrated Land Use - Transportation Model for the San Francisco Region: 2. Empirical Estimation. *Environment and Planning A*, 18 (4), 511-528.
- Prastacos, P. 1985. Urban development models for the San Francisco Region; from PLUM to POLIS. *Transportation Research Record Journal of the Transportation Research Board*, 1046, 37-44.
- Prastacos, P., Brady, R., 1985. Industrial and spatial interdependency in modeling: an employment forecasting model for the counties in the San Francisco Bay Region. *The Annals of Regional Science*, 19 (2), 17-28.
- Prastacos, P., 1985. Using Census Data in Microcomputers, in M. Abkowitz (editor), *Microcomputer Applications within the Urban Transportation Environment*, American Society of Civil Engineers.
- Romanos, M., Hatmaker, M., Prastacos P., 1981. Transportation energy conservation and metropolitan growth. *Transportation Research A*, 15 (3), 215-222.
- Romanos, M., Prastacos, P., Hatmaker, M., 1981. Transportation energy effects on urban growth: results of simulations. *Transportation Research Record Journal of the Transportation Research Board*, 764, 60-69.

Publications – Referred Conference Proceedings

- Prastacos, P., Diamandakis, M., Kosmadakis, M., Dafermos, I, Kamarianakis, Y., Pantazis, Y. 2019. An information system for the detection of water leaks in municipal water networks. In *Geospatial Technologies for Local and Regional Development, Proceedings 22nd AGILE Conference on Geographic Information Science*, Limassol, Cyprus, June 2019.
- Prastacos, P., Lagarias, A., 2018. Urban form and transportation infrastructure in European cities. In Nathanail, E., Karakikes, I., (Eds.) *Data Analytics: Paving the Way to Sustainable Urban Mobility, Proceedings of 4th Conference on Sustainable Urban Mobility (CSUM2018)*, Springer, Advances in Intelligent Systems and Computing 879, 79-88.
- Prastacos, P., Lagarias, A., 2016. An analysis of the form of urban areas in Europe using spatial metrics, *Proceedings 19th AGILE Conference on Geographic Information Science*, Helsinki University, Helsinki, Finland, June 2016.
- Prastacos, P., Lagarias, A., 2016. Sprawl in European urban areas. In Themistocleous, K., Hadjimitsis, D., Michaelides, S., Papadavid, G. (Eds) *Fourth International Conference of Remote Sensing and Geoinformation of the Environment (RSCy2016)*, Proc. of SPIE Vol. 9688, 968816.
- Gkadolou, E., Prastacos, P., 2016. Documentation of cultural heritage sites using the INSPIRE Directive. In Themistocleous, K., Hadjimitsis, D., Michaelides, S., Papadavid, G. (Eds) *Fourth International Conference of Remote Sensing and Geoinformation of the Environment (RSCy2016)*, Proc. of SPIE Vol. 9688, 968811.

- Lagarias, A., Prastacos, P., 2014. Applying a CA-based model to explore land-use policy scenarios to contain sprawl in Thessaloniki, Greece, *Proceedings 17th AGILE Conference on Geographic Information Science*, Castellón, June 2014.
- Prastacos, P., Chrysoulakis, N., Kogxylakis G., 2012. Urban Atlas and spatial metrics for the Greek cities. *Proceedings 15th AGILE meetings*, Avignon, France, April 2012.
- Prastacos, P., Chrysoulakis, N., Kogxylakis, G., 2011. Urban Atlas, land use modelling and spatial metric techniques. *Proceedings 51st Congress of the European Regional Science International*, Barcelona, Spain.
- Mantelas, L., Prastacos, P., 2011. Measuring the Performance of Urban Models, *Proceedings 14th AGILE meetings*, Utrecht, The Netherlands.
- Mantelas, E., Hatzichristos, T, Prastacos, P., 2008. Modelling Urban Growth Using Fuzzy Cellular Automata, *Proceedings 11th Agile Conference*, Girona, Spain, May, 2008.
- Stefanakis, E., Prastacos, P., 2008. Development of a Coastal SDI Using GeoFOSS. *Proceedings 11th AGILE Conference*, Girona, Catalonia, Spain, May 2008.
- Mandelas, E., Hatzichristos, T, Prastacos, P., 2007. A Fuzzy Cellular Automata Based Shell for Modeling Urban Growth – A Pilot Application in Mesogia Area. *Proceedings 10th Agile Conference*, Aalborg, Denmark, May 2007.
- Konstantoulas, I., Prastacos P., 2007. A map matching algorithm for car navigation systems with GPS Input. *Proceedings of the 10th Agile Conference*, Aalborg, Denmark, May 2007.
- Kamarianakis, Y., Prastacos, P., Ben Salah, A, Schlif S. Ben Alaya, N., 2007. Risk maps for Leishmaniasis in Central Tunisia. *Proceedings 10th Agile Conference*, Aalborg, Denmark. May 2007.
- Stefanakis, E., Prastacos, P., 2007. Semantic-based spatial information infrastructures: Integrating data and services into a single collection. *Proceedings 23rd International Cartographic Conference*, Moscow, Russia, August 2007.
- Tomai, E., Michael, S., Prastacos, P., 2006. An ontology-based web-portal for tourism. 2nd International Workshop on Web Portal-based Solutions for Tourism and other business areas, Münster, Germany, September 20, 2006.
- Tomai, E., Prastacos, P., 2006. A framework for intensional and extensional integration of geographic ontologies. *Proceedings 9th Agile Conference*, Visegrad, Hungary, May 2008.
- Bloquet, S., Faiget, L., Aujard, C., Vallet, J., Prastacos, P., Vincent, B., Champelovier, P., 2005. Gipsynoise: A GIS tool adapted to the European Directive on Assessment and Management of Environmental Noise 2002/49/CE- Demonstrative Tool. *Proceedings International Congress and Exposition on Noise Control Engineering*, Rio de Janeiro, Brazil.
- Tomai, E., Spanaki, M., Prastacos, P., Kavouras, M. 2005. Ontology assisted decision making – A case study in trip planning for tourism. In: Meersman R., Tari, Z., Herrero, P. (Eds) *On the Move to Meaningful Internet Systems 2005: OTM 2005 Workshops. OTM 2005*. Lecture Notes in Computer Science, vol 3762. Springer, Berlin, Heidelberg.
- Kamarianakis, Y., Prastacos, P., 2005. Spatial time-series modeling: A review of the proposed methodologies, In Toppen, F., Painho, M., (Eds) *Proceedings 8th AGILE Conference on Geographic Information Science*, Universidade Nova de Lisboa, Lisboa, Portugal, 167-176.
- Chrysoulakis, N., Kamarianakis, Y, Farsari, Y., Diamandakis, M., Prastacos, P., 2004. GIS-based estimation of urban growth models and definition of sustainable urban indicators with the use of satellite and socio-economic data. *Proceedings of 3rd Pan-Hellenic Conference of GIS applications HellasGIS*, Athens, Greece, (in Greek).
- Toppen, F., Prastacos, P., (Eds), 2004. *Proceedings 7th AGILE Conference on Geographic Information Science*, University of Crete Press, Heraklion, Greece.

- Chrysoulakis, N., Diamandakis, M., Prastacos, P., 2004. GIS based estimation and mapping of local level daily irradiation on inclined surfaces. In Toppen, F., Prastacos, P. (Eds) *Proceedings 7th AGILE Conference on Geographic Information Science*, University of Crete Press, Heraklion, Greece, 587-597.
- Prastacos, P., Prinnet V., 2004. ANFAS: A decision support system for simulating river floods. In Toppen, F., Prastacos, P. (Eds) *Proceedings 7th AGILE Conference on Geographic Information Science*, University of Crete Press, Heraklion, Greece, 63-72.
- Blecic, I., Cecchini, A., Prastacos, P., Trunfio, G., Verigos, E., 2004. Modelling urban dynamics with cellular automata: A model of the city of Heraklion. In Toppen, F., Prastacos, P. (Eds) *Proceedings 7th AGILE Conference on Geographic Information Science*, University of Crete Press, Heraklion, Greece, 313-323.
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- Kotzinos, D., Prastacos P., 2004. Web –based GIS for a real-time traffic information fusion and presentation over the internet. In Toppen, F., Prastacos, P. (Eds) *Proceedings 7th AGILE Conference on Geographic Information Science*, University of Crete Press, Heraklion, Greece, 819-824.
- Farsari, Y., Prastacos, P., Butler, R., 2003. Policy and implementation issues of sustainable tourism in the Mediterranean. CD-ROM *Proceedings of the 2nd International Scientific Conference on Sustainable Tourism Development and the Environment*, University of the Aegean, Chios Island.
- Chrysoulakis, N., Diamandakis, M., Prastacos, P., 2003. GIS Integration of ASTER stereo imagery for the support of Watershed Management. In Lekkas, T.D. (ed), *Proceedings 8th International Conference on Environmental Science and Technology*, 111 – 118.
- Prastacos, P., Prinnet, V., Houdry, P., 2002. ANFAS, A decision support system for river floods. *Proceedings 2nd Hellenic Conference of GIS applications Hellasgis Athens* (in Greek).
- Vazouras, C., Kogxylakis, G., Prastacos, P., 2002. Health Map: A GIS system for monitoring public health and decision making. *Proceedings 2nd Hellenic Conference of GIS applications HellasGIS, Athens*, (in Greek).
- Spanaki, M., Kotzinos, D., Prastacos, P., Tsoulos, L., 2002. Use of GML for applications of GIS on the web. *Proceedings 2nd Hellenic Conference of GIS applications, HellasGIS, Athens* (in Greek).
- Pappas, V., Kotzamanis, B., Prastacos, P., Tsatsaris, A., Sidiropoulos, G., 2002. Digital web atlas of Greece. *Proceedings 2nd Hellenic Conference of GIS applications HellasGIS, Athens* (in Greek).
- Kamarianakis, Y., Prastacos, P., 2002. Development of traffic flow models using space time models. *Proceedings 2nd Hellenic Conference of GIS applications HellasGIS, Athens* (in Greek).
- Chrysoulakis N., Prastacos P., 2002. Development of a decision support system for technological risk management with the combined use of remote sensing and GIS. In: Pillmann, W. Tochtermann, K. (Eds), *Proceedings 16th International Conference: Informatics for Environmental Protection - Environmental Communication in the Information Society*, Vienna University of Technology, (2), 214-217.
- Diamandakis, M., Prastacos, P., 2002. Flood-View: A library of GIS procedures for visualizing flood model results, In: Pillmann, W. and Tochtermann, K. (Eds), *Proceedings 16th International Conference: Informatics for Environmental Protection - Environmental Communication in the Information Society*, Vienna University of Technology, (1), 611-618.
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Prastacos, P., Kilimiris, A., Diamandakis M., 1999. Integrated geographical information systems for water resources. *Proceedings of Petra 99 Euro-Med Workshop, IT Applied to Natural Resources Management*, Petra, Jordan, 327-336.

Diamandakis, M., Prastacos P., 1999. Design of a decision support system for waste collection in the city of Heraklion. *Proceedings of First Hellenic Conference of GIS applications HellasGIS*, Athens, Greece (in Greek).

Prastacos, P., Kogxylakis, G., 1999. System “Phaethon” for the analysis of forest fires in Greece from 1983 to 1992. *Proceedings First Hellenic Conference of GIS applications HellasGIS*, Athens, Greece (in Greek).

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Prastacos, P., Diamandakis, M., Kilimiris, A., 1992. Decision support systems for environmental planning. *Proceedings 2nd Arc/Info Users Meeting*, Athens, Greece (in Greek).

Prastacos, P., Paraschis, J., 1991. A GIS based decision support system for transportation logistics. *Proceedings, 2nd European Conference on Geographical Information Systems*, Brussels, Belgium, 904-911.

Saris, W., Prastacos, P., Marti-Recober, M., 1992. CASIP, A complete automated system for information processing in family budget research, in *Proceedings: New Techniques and Technologies for Statistics*, EUROSTAT, Bonn, Germany.

Prastacos, P., 1989. Potential Applications of expert system techniques in statistics. In *Proceedings: Seminar on the development of statistical expert systems*, EUROSTAT, Luxemburg.

Karjalainen, P., Prastacos, P., 1988. Integrating database management systems with mapping packages, *Proceedings of the 1988 California Mapping Conference*, San Jose, USA, 37-41.

Publications – Reports, Monographs (research not published in scientific journals)

Prastacos, P., Dandali, E., 2021. *Analysis of the population data of Crete at the time of the Ottoman occupation*, Report prepared for the KRHPIS-METOPO project, IACM, FORTH, Greece (in Greek).

Lagarias, A., Prastacos, P., 2016. *Estimation of spatial metrics for the European cities*, unpublished working paper, IACM, FORTH, Heraklion, Greece (in Greek).

Prastacos, P., Lagarias, A., 2015. *Socioeconomic profiles of the population of the Attica region using 2001 Census data*, Unpublished working paper, IACM, FORTH, Heraklion, Greece (in Greek).

Prastacos, P., Courtois, N., Arnal, C., Lambert, S., Houdry, P., Nougier, V., Diamandakis, M., Hluchy, L., Viet, T., Le Dimet, FX., Castaigns, W., Mazauric, C., Petrovic, P., Yang, C., Dang S., Prinnet V., Zhang, X. 2003. *Final Report of the ANFAS project*, IST-11676, IACM, FORTH, Heraklion, Greece.

Prastacos, P., Farsari, Y., Manioudakis, N., Vazouras, C., 1999. *Analysis of the labor markets of Crete*. Report prepared for the Regional Government of Crete, IACM, FORTH, Heraklion, Greece (in Greek).

Prastacos, P., Caindec, E., 1995. *Update of the POLIS land use-transportation model*. Working Paper. Association of Bay Area Governments, Oakland, USA.

Prastacos, P., Diamandakis, M., 1995. *MAGIS, A map supported area information system for real estate based on GIS*. Final Report MAGIS project, IMPACT II GIS, IACM, FORTH, Heraklion, Greece.

- Prastacos, P., Diamandakis, M., Loulakis, N., Kotzinos, D., 1994. *Aquabank, Information System for Accessing Information for the Greek Aquaculture*. Final report for the STRIDE project, IACM, FORTH, Heraklion, Greece (in Greek).
- Prastacos, P., Diamandakis, M., 1993. *MiDaS, Microdata Database System for Family Budget Research*. Working Paper, IACM, FORTH, Heraklion, Greece.
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- Boyce, D., Romanos, M., Janson, B., Prastacos, P., Ferris M., 1981. *Urban transportation energy accounts: Procedures and case study of the Chicago region*, UMTA, U.S. Department of Transportation, IL-11-0027. Washington D.C., USA.
- Prastacos, P., 1981. *Allocation of transportation investments and regional growth; a multilevel optimization framework*, Ph.D. dissertation Department of Civil Engineering, University of Illinois.

Presentations at Conferences

- 2019 - 22nd Agile Conference, Limassol, Cyprus
- Changing cities IV, Chania, Greece
- FORTH bi-annual meeting, Patras, Greece
- 2018 - Urban Mobility conference 2018, Skiathos, Greece
- 2017 - Cities and regions in a changing Europe: challenges and prospects, Athens, Greece
- 2016 - 19th Agile Conference, Helsinki, Finland
- 24th National Arc/Info User's Meeting, Athens, Greece
- 4th International Conference of Remote Sensing, Paphos, Cyprus
- 2015 - 4th National Conference on Regional and Urban Planning, Volos, Greece
- 2014 - 61st Annual North American Meeting of the RSAI, Washington, D.C., USA
- 17th Agile Conference, Castellon, Spain
- 2012 - University of Thessaly, Volos, Greece
- 3rd National Conference on Regional and Urban Planning, Volos, Greece
- 15th Agile Conference, Avignon, France
- 2011 - 14th Agile Conference, Utrecht, the Netherlands
- 28th Urban Data Management Symposium, Delft, the Netherlands
- 14th Agile Conference, Utrecht, the Netherlands
- 51st Congress of the European Regional Science International, Barcelona, Spain
- Greek-German Workshop on Innovation in the context of cooperation with Western Balkan Countries, CERTH, Thessaloniki, Greece
- TEI Serron, Serres, Greece
- 2008 - 11th Agile Conference, Girona, Spain
- Fifth bi-annual Conference of HellasGIs, Athens, Greece
- 2007 - 10th Agile Conference, Aalborg, Denmark
- Education and GIS in Greece, Harokopio U., Athens, Greece
- 2006 - 9th Agile Conference, Budapest, Hungary
- Fourth bi-annual Conference of HellasGIs, Athens, Greece
- Transportation Research Board, Washington D.C., USA (attendance)
- 2005 - Transportation Research Board, Washington D.C., USA (attendance)
- 8th Agile Conference, Lisbon, Portugal
- Internoise Conference, Rio de Janeiro, Brazil
- 2004 - Transportation Research Board, Washington D.C., USA (attendance)
- Third bi-annual Conference of HellasGIs, Athens, Greece
- 7th Agile Conference, Heraklion, Greece
- EU-LAT workshop on e-Environment, San Jose, Costa Rica

- 2003 - Transportation Research Board, Washington D.C., USA (attendance)
- 50th Annual Regional Science Association International, Philadelphia, USA
- 2002 - Second bi-annual Conference of HellasGIs, Athens, Greece
- Euro-China Co-operation Forum on the Information Society, Beijing, China
- European Regional Science Association, Dortmund, Germany
- Enviro-Info Conference, Vienna, Austria
- 2001 - First workshop on applications of GIS in water resources, Nanjing, China
- HellasGIs workshop on "GIS and the Internet", Athens, Greece
- 2000 - Symposium on Mathematical Methods for Environmental Problems, Hangzhou, China
- Hellenic conference on Operations Research, Athens, Greece
- 1999 - Petra 99 Euro-Med Workshop, IT Applied to Natural Resources Management, Petra, Jordan
- First bi-annual Conference of HellasGIs, Athens, Greece
- 1998 - Transportation Research Board, Washington D.C., USA
- Hellenic Informatics Conference, Athens, USA
- 1997 - Third National Meeting of the Greek Regional Science Association, Athens, Greece
- GISDATA Conference on GIS research at the Millennium, Le Buisson, France
- Data Warehouse Conference, San Jose, USA
- 1996 - Milia '96, Cannes, France
- Geoinformatics Center, Stockholm, Sweden
- 1995 - GISDATA Conference on Applications of GIS techniques on Urban Modeling
Stockholm, Sweden
- Arc/Info User's Meeting, Palm Springs, USA (attendance)
- 1994 - Second National Meeting of the Greek Regional Science Association, Volos, Greece
- Fourth National Arc/Info User's Meeting, Athens, Greece
- KTH Royal Institute of Technology, Stockholm, Sweden
- 1993 - Transportation Research Board, Washington D.C., USA
- First National Meeting of the Greek Regional Science Association, Athens, Greece
- European Arc/Info User's Meeting, Athens, Greece
- Arc/Info User's Meeting, Palm Springs, USA (attendance)
- 1992 - Transportation Research Board, Washington, D.C., USA
- New Techniques and Technologies for Statistics, Bonn, Germany
- GPS/GIS Second International Conference, Newport Beach, USA
- Second Greek Arc/Info User's Meeting, Athens, Greece
- 1991 - Second European GIS Conference, Brussels, Belgium
- 1990 - First European GIS Conference, Amsterdam, the Netherlands
- 3rd URSA-NET Workshop, Patras, Greece
- 1989 - GIS '89 Workshop, Amsterdam, the Netherlands
- 1987 - Transportation Research Board, Washington, D.C., USA
- European Meetings of the Regional Science Association, Athens, Greece
- GIS (Geographical Information Systems) '87, San Francisco, USA
- Seminar on the Development of Statistical Expert Systems, Luxembourg, Luxembourg
- 1986 - Dept. of Spatial Economics, Free University, Amsterdam, The Netherlands
- 1985 - Transportation Research Board, Washington, D.C., USA
- National Conf. on "Microcomputers in Transportation", San Diego, USA
- 1984 - Department of Economics, University of California at Berkeley, Berkeley, USA
- 1983 - Regional Science Association, Chicago, USA
- 1982 - Western Regional Science Association, Santa Barbara, USA
- Stanford University, Department of Civil Engineering, Palo Alto, USA
- 1981 - Transportation Research Board, Washington, D.C., USA
- 1980 - Transportation Research Board, Washington D.C., USA
- Western Regional Science Association, Newport, USA
- 1979 - Western Regional Science Association, San Diego, USA
- Regional Science Association, Los Angeles, USA

Professional Memberships, organization of conferences

Member of the scientific committee of conferences/workshops/

- AGILE (Association of GIS Laboratories in Europe), annual conferences (2004-2026)
- Land Special Issue on “Integrating Spatial Analysis and Regional Science to Guide Urban Planning” Co-editor 2023-2025
- Hellasgi, bi-annual conference (1998-2006)
- Scientific coordinator of EU-LAT, Workshop on e-Environment, San Jose, Costa Rica, 2004
- Scientific coordinator of the AGILE conference in 2004

Member of professional organizations

- AGILE (Association of GIS Laboratories in Europe), elected member of the council 2008-2012
- Transportation Research Board of the Academy of Sciences, Land development committee, appointed member 1985-2005, member emeritus since 2006
- Regional Science Association, USA (1980-2005)
- HellasGIS, president 2003-04, elected member of the board 1998-2002

Member of employee organizations

- SYLER, FORTH’s Researchers association, Elected member of the board 2006-08, 2014-18
- ABAG Employees association, elected president of the board 1982-85.

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