CURRICULUM VITAE

TIAKAS ELEFTHERIOS, MSc, PhD



Department: *Accounting and Information Systems – International Hellenic University (IHU)*

Position: *Assistant Professor*

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Academic Degrees

Undergraduate level

- B.Sc. Diploma in Mathematics, Department of Mathematics, AUTH.
- B.Sc. Diploma in Computer Science, Department of Informatics, AUTH.

Postgraduate level

- M.Sc. Diploma in Computer Science with focus on Information Systems (CSIS), Department of Informatics, AUTH.
- Ph.D. Diploma, Department of Informatics, AUTH.

Current Position

Academic staff, Department of Accounting and Information Systems, IHU.

Courses Taught

- "Databases", Undergraduate course, Department of Accounting and Information Systems, IHU.
- "Introduction to Information Systems", Undergraduate course, Department of Accounting and Information Systems, IHU.
- "Analysis and Design of Information Systems", Undergraduate course, Department of Accounting and Information Systems, IHU.
- "Programming", Undergraduate course, Department of Accounting and Information Systems, IHU.
- "Databases and Information Systems", Postgraduate course, Department of Accounting and Information Systems, IHU.

Former Positions / Professional Experience

- Laboratory Teaching Staff, Department of Informatics, AUTH **(2017-2022)**
- Teacher of Mathematics of Secondary Education **(2004-2017)**
- Educator of Teachers of Secondary Education **(2007-2009)**
- Freelancer (Teacher of Mathematics-Informatics in Private Education, Developer and Programmer) **(1993-2004)**

Academic Experience

Undergraduate level:

- **(2022-2026) Assistant Professor** at the Department of Accounting and Information Systems of the School of Economics and Management of the International Hellenic University (IHU). Module: Databases.
- **(2017-2022) Laboratory Teaching Staff** at the Department of Informatics of the School of Sciences of the Aristotle University of Thessaloniki (AUTH).
- **(2011-2017) Teaching**, **Scientific** and **Laboratory Assistant** at the Department of Informatics of the School of Sciences, AUTH.

Postgraduate Level:

- **(2023-2026) Teaching** and **Scientific Assistant** in the Postgraduate Studies Program "Financial Management, Accounting and Information Systems" of the Department of Accounting and Information Systems of the School of Economics and Management, IHU. Supervisor of 7 postgraduate theses.
- **(2021-2026) Teaching** and **Scientific Assistant** in the Postgraduate Studies Program "Data and Web Science" of the Department of Informatics of the School of Sciences, AUTH. Supervisor of 3 postgraduate theses.
- **(2022-2024) Teaching** and **Scientific Assistant** in the Interdisciplinary Postgraduate Studies Program "Management and Information Systems" of the Department of Informatics of the School of Sciences, AUTH. Supervisor of 3 postgraduate theses.
- **(2017-2022) Teaching** and **Scientific Assistant** in the Interdisciplinary Postgraduate Studies Program "Informatics and Management" of the Department of Informatics of the School of Sciences, AUTH. Supervisor of 2 postgraduate theses.
- **(2015-2020) Teaching** and **Scientific Assistant** in the Postgraduate Studies Program "Information and Communication Technologies" of the Department of Informatics of the School of Sciences, AUTH. Supervisor of 3 postgraduate theses.

Doctoral Level:

- **(2022-2026)** Member of the Tripartite Committees of 4 PhD Candidates of the Department of Accounting and Information Systems of the School of Economics and Management, IHU.

Academic Teaching Experience

Teaching in Undergraduate Studies Programs

Teaching experience in the **Department of Accounting and Information Systems** of the School of Economics and Management, IHU, for the following courses:

- **(2022-2026) "Databases"**, 3rd semester
- **(2022-2026) "Introduction to Information Systems"**, 2nd semester
- **(2022-2026) "Analysis and Design of Information Systems"**, 4th semester
- **(2025-2026) "Programming"**, 5th semester
- **(2023-2024) "Business Intelligence"**, 5th semester
- **(2023-2024) "Data Mining in Accounting"**, 6th semester

Teaching experience in the **Department of Informatics** of the School of Sciences, AUTH, for the following courses:

- **(2013-2022) "Databases"**, 5th semester
- **(2016-2022) "Data Structures"**, 2nd semester
- **(2017-2022) "Algorithms"**, 4th semester
- **(2017-2022) "Discrete Mathematics"**, 1st semester
- **(2017-2020) "Operating Systems"**, 5th semester
- **(2016-2017) "Basic Programming Principles"**, 1st semester

Teaching in Postgraduate Studies Programs

Teaching experience in the **Department of Accounting and Information Systems** of the School of Economics and Management, IHU, for the following courses:

- **(2023-2026) "Databases and Information Systems"**, Postgraduate Studies Program "Financial Management, Accounting and Information Systems"

Teaching experience in the **Department of Informatics** of the School of Sciences, AUTH, for the following courses:

- **(2018-2025) "Advanced Topics in Databases"**, Postgraduate Studies Program "Data and Web Science"
- **(2018-2024) "Databases"**, Interdisciplinary Postgraduate Studies Program "Management and Information Systems"
- **(2016-2018) "Databases and Data mining"**, Interdisciplinary Postgraduate Studies Program "Informatics and Management"
- **(2016-2018) "Spatial and Multimedia Databases"**, Postgraduate Studies Program "Information and Communication Technologies"
- **(2014-2015) "Advanced Data Indexing"**, Postgraduate Studies Program "Information and Communication Technologies"

Administrative Activities – Administrative Work

- **2023-2026**: Administrator of the Website of the Department, ACCIS, IHU.
- **2023-2025**: Academic Erasmus Coordinator, ACCIS, IHU.
- **2023-2026**: Administrator of the Moodle platform, ACCIS, IHU.
- **2023-2026**: Administrator of the rooms for the Zoom platform, ACCIS, IHU.
- **2022-2026**: Member of the Internal Evaluation Team, ACCIS, IHU.
- **2022-2026**: Member of the Coordinating Committee of the Postgraduate Studies Program "Financial Management, Accounting and Information Systems", ACCIS, IHU.
- **2022-2026**: Member of the Fast-track entry or Graduate Admission Examinations, ACCIS, IHU.
- **2022-2026**: Member of the Evaluation Committee for Candidates for the Acquisition of Academic Teaching Experience for Young Scientists with PhDs.
- **2022-2025**: Member of the Tripartite Appeals Committee for the applications of postgraduate candidates, ACCIS, IHU.
- **2024-2025**: Member of the Committee for Evaluating Internship Appeals, of the Department of Accounting and Information Systems (ACCIS), IHU.
- **2022-2026**: Supervisor of Internships, ACCIS, IHU.
- **2022-2026**: Academic Advisor for information, advice and support during the studies of Undergraduate and Postgraduate Students, ACCIS, IHU.
- **2023-2024**: Member of the Evaluation Committee for Candidates for Appointed Teachers, ACCIS, IHU.
- **2023-2024**: Member of the Committee for the Acceptance of Services Procurement, School of Economics and Management, IHU.
- **2022-2024**: Principal Investigator in Research Projects Proposals of the Hellenic Foundation for Research and Innovation.
- **2022-2023**: Member of the Evaluation Committee for the selection of PhD Candidates, ACCIS, IHU.
- **2017-2022**: Regular – Deputy Member in various Project Evaluation and Appeals Committees (Account for Research Funds, AUTH).

Academic Research

My research work has been published in international journals, international conference proceedings, and book chapters, and has received more than **875** citations from other scientific publications (google scholar, h-index:13, i10-index:16).

Postgraduate and Undergraduate Theses Supervision

I have supervised a total of **18** theses in the postgraduate programs, and **21** theses in the undergraduate programs that I participated in (Department of Informatics – AUTH, Department of Accounting and Information Systems – IHU). Currently, I am the supervisor of 2 additional theses in the postgraduate program, as well as 3 additional theses in the undergraduate program of the Department of Accounting and Information Systems, IHU.

Participation in Research Projects and Programs

- **2023-2026**: Scientific and Teaching Assistant in project (ID: 21046): Postgraduate Studies Program "Financial Management, Accounting and Information Systems", Special Account for Research Funds, IHU.
- **2022-2026**: Scientific and Teaching Assistant in project (ID: 97306): Postgraduate Studies Program "Data and Web Science", Special Account for Research Funds, AUTH.
- **2022-2024**: Scientific and Teaching Assistant in project (ID: 97424): Interdisciplinary Postgraduate Studies Program "Management and Information Systems", Special Account for Research Funds, AUTH.
- **2022**: Scientific Assistant and Researcher in case studies and architecture design in the research project (ID: 71963): "Intelligent Maintenance Platform for production equipment in the factory of the future based on a combination of advanced prediction and fault detection models", Special Account for Research Funds, AUTH.
- **2017-2020**: Scientific and Teaching Assistant in project (ID.: 91875): Interdisciplinary Postgraduate Studies Program "Informatics and Management", Special Account for Research Funds, AUTH.
- **2016-2020**: Scientific and Teaching Assistant in project (ID: 91877): Postgraduate Studies Program "Information and Communication Technologies", Special Account for Research Funds, AUTH.
- **2019**: Scientific Assistant and Researcher in the design of anomaly detection techniques, adapted for processes in an Industry 4.0 environment, using graph processing algorithms, in the research project (ID: 96827): "Anomaly detection in Industry 4.0", Special Account for Research Funds, AUTH.

- **2015**: Scientific and Teaching Assistant in project (ID: 21455): "Services to connect undergraduate and graduate students with the market", Special Account for Research Funds, AUTH.

- **2015**: Scientific Assistant, Researcher and Reviewer in the selection of papers from the workshops of the conference: 15th International Conference on Web Information System Engineering (WISE 2014), for their publication in a volume of post-processing papers by Springer, in the project (ID: 90410): "15th International Conference on Web Information System Engineering (WISE 2014)", Special Account for Research Funds, AUTH.

- **2014**: Scientific Assistant, Researcher and Reviewer in the selection of papers from the conference proceedings: 26th International Conference on Advanced Information Systems Engineering (CAISE 2014), for their publication in special issues of the scientific journal Requirements Engineering by Springer, in the project (ID: 89663): "26th International Conference on Advanced Information Systems Engineering (CAISE 2014)", Special Account for Research Funds, AUTH.

- **2013-2014**: Scientific Assistant, Researcher and Reviewer in the selection of papers from the conference proceedings: 14th International Conference of Engineering Applications of Neural Networks (EANN), for their publication in special issues of the scientific journals: Information Sciences and Neurocomputing by Elsevier, in the project (ID: 89503): "14th International Conference of Engineering Applications of Neural Networks (EANN)", Special Account for Research Funds, AUTH.

- **2012**: Researcher in the research project 3DLife-EMC2 in the area of Media Computing & Communication and in cooperation with Information Technologies Institute (ITI).

- **2011-2012**: Scientific Assistant and Researcher in the research project for the promotion of the exchange and scientific cooperation between Greece and Germany: IKYDA (IKY-DAAD) in module: "Recommender Systems in Web2.0".

- **2009-2013**: Scientific Assistant, Researcher and Workgroup Member in the four-year European Research Project: FPS COST Action FP0804, Forest Management Decision Support Systems (FORSYS 2009-2013).

- **2003-2004**: Scientific Assistant, Researcher, Web application and database developer in the research project: "Enhancing Computer Studies at the Department of Applied Informatics, University of Macedonia of Economic and Social Sciences".

- **2003**: Scientific Assistant, Researcher, Programmer in the design and implementation of a forest management model simulator, in the research project: "ITM", funded by the European Union in collaboration with the Forest Research Institute of Thessaloniki and the University of Vienna (BOKU).

Books - Monographs

1. Apostolos N. Papadopoulos, **Eleftherios Tiakas**, Theodoros Tzouramanis, Nikolaos Georgiadis, Yannis Manolopoulos. "Skylines and Other Dominance-Based Queries", Synthesis Lectures on Data Management, Morgan & Claypool Publishers, 158 pages, November 2020.

Publications in peer-reviewed International Journals

1. Sofia Vei, **Eleftherios Tiakas**, Athena Vakali. "KFS-TUNE: Kernel-based Feature Selection for efficiency and accuracy tuning in Time Series Classification", Knowledge-Based Systems, vol. 349, article 116523, https://doi.org/10.1016/j.knosys.2026.116523, September, 2026.

2. Nikolaos Georgiadis, **Eleftherios Tiakas**, Apostolos N. Papadopoulos. "DomiCom: Discovery of Top-k Dominant Communities in Networks with Node Attributes", Computer Science and Information Systems, vol. 23, no.1, pp.75-112, https://doi.org/10.2298/CSIS240430073G, January 2026.

3. Evrikleia Chatzipetrou, Glykeria-Maria Papanikolaou, **Eleftherios Tiakas**, Georgia Boskou. "Environmental Management Accounting for Sustainable Development in Greece", Corporate Social Responsibility and Environmental Management, vol. 32, no.6, pp.7987-8010, https://doi.org/10.1002/csr.70116, August 2025.

4. Nikolaos Pliakis, **Eleftherios Tiakas**, Yannis Manolopoulos. "Indexing and progressive top-k similarity retrieval of trajectories", World Wide Web, vol. 24, pp. 51-83, January 2021.

5. Nikolaos Georgiadis, **Eleftherios Tiakas**, Yannis Manolopoulos, Apostolos N. Papadopoulos. "Skyline-based dissimilarity of images", Journal of Intelligent Information Systems, vol. 53, no. 3, pp. 509-545, December 2019.

6. Dimitris Zianis, Gavriil Spyroglou, **Eleftherios Tiakas**, Kalliopi Radoglou. "Bayesian and classical models to predict aboveground tree biomass allometry", Forest Science Journal, vol. 62, no. 3, pp. 247-259, June 2016.

7. **Eleftherios Tiakas**, George Valkanas, Apostolos N. Papadopoulos, Yannis Manolopoulos, Dimitrios Gunopulos. "Processing Top-k Dominating Queries in Metric Spaces", Transactions on Database Systems (ACM), vol. 40, no. 4, pp. 1-38, January 2016.

8. Zaigham Faraz Siddiqui, **Eleftherios Tiakas**, Panagiotis Symeonidis, Myra Spiliopoulou, Yannis Manolopoulos. "Learning Relational User Profiles and Recommending Items as Their Preferences Change", International Journal on Artificial Intelligence Tools (World Scientific Publishing Company), vol. 24, no. 2, 31 pages, April 2015.

9. Nantia Iakovidou, **Eleftherios Tiakas**, Konstantinos Tsichlas, Yannis Manolopoulos. "Going over the three dimensional protein structure similarity problem", Artificial Intelligence Review (Springer), vol. 42, no. 3, pp. 445-459, October 2014.

10. Panagiotis Symeonidis, **Eleftherios Tiakas**. "Transitive node similarity: predicting and recommending links in signed social networks", World Wide Web Journal (Springer), vol. 17, no. 4, pp. 743-776, July 2014.

11. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Yannis Manolopoulos. "On Estimating the Maximum Domination Value and the Skyline Cardinality of Multi-Dimensional Data Sets", International Journal of Knowledge-Based Organizations (IGI Global), vol. 3, no. 4, pp. 61-83, October 2013.

12. **Eleftherios Tiakas**, Dimitrios Rafailidis, Anastasios Dimou, Petros Daras. "MSIDX: Multi-Sort Indexing for Efficient Content-Based Image Search and Retrieval", Transactions on Multimedia (IEEE), vol. 15, no. 6, pp. 1415-1430, October 2013.

13. Panagiotis Symeonidis, **Eleftherios Tiakas**, Yannis Manolopoulos. "A unified framework for link and rating prediction in multi-modal social networks", International Journal of Social Network Mining (Inderscience), vol. 1, no. 3/4, pp. 225-253, January 2013.

14. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Yannis Manolopoulos. "Progressive processing of subspace dominating queries", The VLDB Journal (Springer), vol. 20, no. 6, pp. 921-948, December 2011.

15. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Alexandros Nanopoulos, Yannis Manolopoulos. "Node and edge selectivity estimation for range queries in spatial networks", Information Systems (Elsevier), vol. 34, no. 3, pp. 328-352, May 2009.

16. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Alexandros Nanopoulos, Yannis Manolopoulos, Dragan Stojanovic, Slobodanka Djordjevic-Kajan. "Searching for similar trajectories in spatial networks", Journal of System and Software (Elsevier), vol. 82, no. 5, pp. 772-788, May 2009.

17. **Eleftherios Tiakas**, Stefanos Ougiaroglou, Petros Nicopolitidis. "Efficient algorithms for constructing broadcast disks programs in asymmetric communication environments", Telecommunication Systems (Springer), vol. 41, no. 3, pp. 185-209, May 2009.

Publications in peer-reviewed International Conferences

1. **Eleftherios Tiakas**, "The Subspace-Consensus Dominating Skyline Query", Proceedings of the 11th International Conference on Web Intelligence, Machine Intelligence and Semantics (WIMS), Thessaloniki, Greece, October 2026.

2. **Eleftherios Tiakas**, Evrikleia Chatzipetrou, Georgia Boskou, Efstathios Kirkos, "Applications of skyline and top-k dominating queries on economic, sustainability, environmental and other data", Proceedings of the 19th International Conference on Enterprise Systems, Accounting, Logistics and Management (ICESALM), Rhodes Island, Greece, July 2025.

3. Evrikleia Chatzipetrou, Efstathios Kirkos, **Eleftherios Tiakas**, Georgia Boskou, "Cost of Quality in the Organic Food Sector: The Case of Greece", Proceedings of the 19th International Conference on Enterprise Systems, Accounting, Logistics and Management (ICESALM), Rhodes Island, Greece, July 2025.

4. Glykeria-Maria Papanikolaou, Evrikleia Chatzipetrou, **Eleftherios Tiakas**, Georgia Boskou, "Sustainability Reporting Standards: The Case of Greek Listed Companies", Proceedings of the 2024 International Conference on Applied Economics (ICOAE), pp. 309-323, Belgrade, Serbia, July 2024.

5. Kostandina Theodhori, Georgia Boskou, Evrikleia Chatzipetrou, **Eleftherios Tiakas**, Efstathios Kirkos, "Important Characteristics of Internal Audit and Their Implementation and Strategies to Prevent Fraud in the Bank Sector according to Employee's Opinions: Case Study of Piraeus Bank", Proceedings of the 2024 International Conference on Applied Economics (ICOAE), pp. 605-622, Belgrade, Serbia, July 2024.

6. **Eleftherios Tiakas**, Georgia Boskou, Evrikleia Chatzipetrou, Efstathios Kirkos, "Addressing Missing Economic and Financial Data: Methods, Best Practices and Challenges", Proceedings of the 18th International Conference on Enterprise Systems, Accounting, Logistics and Management (ICESALM), pp. 23-34, Santorini, Greece, June 2024.

7. Glykeria-Maria Papanikolaou, Evrikleia Chatzipetrou, **Eleftherios Tiakas**, Georgia Boskou, "Sustainability Reporting Standards: Evidence from the Athens Stock Exchange", Proceedings of the 18th International Conference on Enterprise Systems, Accounting, Logistics and Management (ICESALM), pp. 100-113, Santorini, Greece, June 2024.

8. Georgia Boskou, Evrikleia Chatzipetrou, **Eleftherios Tiakas**, Efstathios Kirkos, Charalambos Spathis, "Using a LLM to Detect Management Fraud", Proceedings of the 18th International Conference on Enterprise Systems, Accounting, Logistics and Management (ICESALM), Santorini, Greece, June 2024.

9. **Eleftherios Tiakas**, "Applying Top-k Dominating Queries for ranking in systems with economic data", Proceedings of the 17th International Conference on Enterprise Systems, Accounting, Logistics and Management (ICESALM), pp. 34-42, Corfu, Greece, June 2023.

10. Ioannis Kolymvanos, Georgia Boskou, **Eleftherios Tiakas**, "The determinants factors of Audit Quality: A recent literature review", Proceedings of the 17th International Conference on Enterprise Systems, Accounting, Logistics and Management (ICESALM), pp.193-220, Corfu, Greece, June 2023.

11. Theodoros Tzouramanis, **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Yannis Manolopoulos. "The Range Skyline Query", Proceedings of the 27th International Conference on Information and Knowledge Management (ACM / CIKM), pp. 47-56, Torino, Italy, October 2018.

12. Nikolaos Georgiadis, **Eleftherios Tiakas**, Yannis Manolopoulos. "Detecting Intrinsic Dissimilarities in Large Image Databases through Skylines", Proceedings of the 9th International Conference on Management of Digital EcoSystems (ACM / MEDES), pp.194-201, Bangkok, Thailand, November 2017, [Best Paper Award].

13. Alexander Tzanakas, **Eleftherios Tiakas**, Yannis Manolopoulos. "Skyline Algorithms on Streams of Multidimensional Data", Proceedings of the 20th East-European Conference on Advances in Databases and Information Systems (Springer / ADBIS), pp. 63-71, Prague, Czech Republic, August 2016.

14. **Eleftherios Tiakas**, Dimitrios Rafailidis. "Scalable Trajectory Similarity Search Based on Locations in Spatial Networks", Proceedings of the 5th International Conference on Model and Data Engineering (Springer / MEDI), LNCS vol. 9344, pp. 213-224, Rhodes, Greece, September 2015.

15. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Yannis Manolopoulos. "Skyline Queries: an Introduction (invited)", Proceedings of the 6th International Conference on Information, Intelligence, Systems & Applications (IISA), 6 pages, Corfu, Greece, July 2015.

16. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Yannis Manolopoulos. "Top-k Dominating Queries: a Survey (invited)", Proceedings of the 17th International Symposium on Programming and Systems (ISPS), 10 pages, Algiers, Algeria, April 2015.

17. Zaigham Faraz Siddiqui, **Eleftherios Tiakas**, Panagiotis Symeonidis, Myra Spiliopoulou, Yannis Manolopoulos. "xStreams: Recommending Items to Users with Time-evolving Preferences", Proceedings of the 4th International Conference on Web Intelligence, Mining and Semantics (ACM / WIMS), Article 22, 12 pages, Thessaloniki, Greece, June 2014.

18. **Eleftherios Tiakas**, George Valkanas, Apostolos N. Papadopoulos, Yannis Manolopoulos, Dimitrios Gunopulos: "Metric-Based Top-k Dominating Queries", Proceedings of the 17th International Conference on Extending Database Technology (Open Proceedings / EDBT), pp. 415-426, Athens, Greece, March 2014, [Best Paper Award].

19. Nantia Iakovidou, **Eleftherios Tiakas**, Konstantinos Tsichlas: "DISCO: A New Algorithm for Detecting 3D Protein Structure Similarity", Proceedings of the Artificial Intelligence Applications and Innovations Workshops (Springer / AIAI), pp. 622-631, Halkidiki, Greece, September 2012.

20. Panagiotis Symeonidis, **Eleftherios Tiakas**, Yannis Manolopoulos. "Product recommendation and rating prediction based on multi-modal social networks", Proceedings of the 5th ACM Conference on Recommender Systems (ACM / RECSYS), pp. 61-68, Chicago, IL, USA, October 2011.

21. Zaigham Faraz Siddiqui, Myra Spiliopoulou, Panagiotis Symeonidis, **Eleftherios Tiakas**. "A Data Generator for Multi-Stream Data", Proceedings of the 2nd International Workshop on Mining Ubiquitous and Social Environments (Springer / MUSE), pp. 63-70, Athens, Greece, September 2011.

22. Panagiotis Symeonidis, **Eleftherios Tiakas**, Yannis Manolopoulos. "Transitive node similarity for link prediction in social networks with positive and negative links", Proceedings of the 4th ACM Conference on Recommender Systems (ACM / RECSYS), pp. 183-190, Barcelona, Spain, September 2010.

23. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Yannis Manolopoulos. "Estimation of the Maximum Domination Value in Multi-dimensional Data Sets", Proceedings of the 14th East-European Conference on Advances in Databases and Information Systems (Springer / ADBIS), pp. 505-519, Novi Sad, Serbia, September 2010.

24. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Yannis Manolopoulos. "Graph Node Clustering via Transitive Node Similarity", Proceedings of the 14th Panhellenic Conference on Informatics (IEEE / PCI), pp. 72-77, Tripoli, Greece, September 2010.

25. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Alexandros Nanopoulos, Yannis Manolopoulos. "Selectivity estimation in spatial networks", Proceedings of the 23rd Annual Symposium on Applied Computing (ACM / SAC), pp. 852-856, Fortaleza, Ceara, Brazil, March 2008.

26. **Eletherios Tiakas**, Stefanos Ougiaroglou, Petros Nicopolitidis. "Efficient broadcast disks program construction in asymmetric communication environments", Proceedings of the 10th International Symposium on Modelling, Analysis and Simulation of Wireless and Mobile Systems (ACM / MSWiM), pp. 279-283, Chania, Crete Island, Greece, October 2007.

27. **Eleftherios Tiakas**, Apostolos N. Papadopoulos, Alexandros Nanopoulos, Yannis Manolopoulos, Dragan Stojanovic, Slobodanka Djordjevic-Kajan. "Trajectory Similarity Search in Spatial Networks", Proceedings of the 10th International Database Engineering & Applications Symposium (IEEE / IDEAS), pp. 185-192, Delhi, India, December 2006.

Publications of Chapters in peer-reviewed International Books

1. Gavriil Spyroglou, **Eleftherios Tiakas**, Gregor Chatziphilippidis, Vasiliki Kazana. "The design and use of forest decision support systems in Greece", Computer-based tools for supporting forest management. The experience and the expertise world-wide (Epsilon Open Archive), pp. 152-167, 2014.

2. Theodoros Semertzidis, Dimitrios Rafailidis, **Eleftherios Tiakas**, Michael G. Strintzis, Petros Daras. "Multimedia Indexing, Search and Retrieval in Large Databases of Social Networks", Social Media Retrieval, Computer Communications and Networks series (Springer), pp. 43-63, 2012.

Technical Reports

1. Nikolaos Georgiadis, **Eleftherios Tiakas**, Apostolos N. Papadopoulos. "Community Search in Attributed Networks using Dominance Relationships and Random Walks", arXiv, Available at: https://doi.org/10.48550/arXiv.2510.22850, 2025.

2. Efstathios Kirkos, Georgia Boskou, Evrikleia Chatzipetrou, **Eleftherios Tiakas**, Charalampos Spathis, "Exploring the Boundaries of Financial Statement Fraud Detection with Large Language Models", SSRN, Available at: https://ssrn.com/abstract=4842962, 2024.

3. Alexander Tzanakas, **Eleftherios Tiakas**, Yannis Manolopoulos. "Revisited skyline query algorithms on streams of multidimensional data", Technical Report, Aristotle University of Thessaloniki, 2016.

Editing of Academic Books

1. Member of the scientific editorial and translation editorial team of the book: "Modern systems analysis and design", Pearson, 10th ed., by Valacich, Joseph S., and George, Joey F., (2024), Tziolas Publications, 2025.

PC Member of Scientific Committees of Academic Conferences and Reviewer

1. **SAC-2027**: 42nd ACM/SIGAPP Symposium on Applied Computing.
2. **CCCI-2027**: 2027 International Conference on Communications, Computing, Cybersecurity and Informatics.
3. **CITS-2027**: 2027 International Conference on Computer, Information and Telecommunication Systems.
4. **WISE-2026**: 27th International Conference on Web Information Systems Engineering.
5. **BCI-2026**: 12th Balkan Conference in Informatics.
6. **CCCI-2026**: 2026 International Conference on Communications, Computing, Cybersecurity and Informatics.
7. **CITS-2026**: 2026 International Conference on Computer, Information and Telecommunication Systems.
8. **BCI-2025**: 11th Balkan Conference in Informatics.
9. **CCCI-2025**: 2025 International Conference on Communications, Computing, Cybersecurity and Informatics.
10. **CITS-2025**: 2025 International Conference on Computer, Information and Telecommunication Systems.
11. **BCI-2024**: 10th Balkan Conference in Informatics.
12. **CCCI-2024**: 2024 International Conference on Communications, Computing, Cybersecurity and Informatics.
13. **CITS-2024**: 2024 International Conference on Computer, Information and Telecommunication Systems.
14. **SAC-2024**: 39th ACM/SIGAPP Symposium on Applied Computing.
15. **DSAA-2023**: 10th IEEE International Conference on Data Science and Advance Analytics.
16. **SAC-2023**: 38th ACM/SIGAPP Symposium on Applied Computing.
17. **CCCI-2023**: 2023 International Conference on Communications, Computing, Cybersecurity and Informatics.
18. **CITS-2023**: 2023 International Conference on Computer, Information and Telecommunication Systems.
19. **ECML-PKDD-2022**: 2022 European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases.
20. **SAC-2022**: 37th ACM/SIGAPP Symposium on Applied Computing.
21. **CCCI-2022**: 2022 International Conference on Communications, Computing, Cybersecurity and Informatics.
22. **CITS-2022**: 2022 International Conference on Computer, Information and Telecommunication Systems.
23. **CCCI-2021**: 2021 International Conference on Communications, Computing, Cybersecurity and Informatics.
24. **CITS-2021**: 2021 International Conference on Computer, Information and Telecommunication Systems.
25. **WIMS-2020**: 10th International Conference on Web Intelligence, Mining and Semantics.

26. **SOFSEM-2020**: 46th International Conference on Current Trends in Theory and Practice of Computer Science.
27. **IDC-2019**: 13th International Symposium on Intelligent Distributed Computing.
28. **IDEAS-2019**: 23rd International Database Engineering & Applications Symposium.
29. **WIMS-2019**: 9th International Conference on Web Intelligence, Mining and Semantics.
30. **WIMS-2018**: 8th International Conference on Web Intelligence, Mining and Semantics.

Academic Awards

1. **2017: Best Paper Award** during the 9th International Conference on Management of Digital EcoSystems (MEDES), for the recognition of the paper: Nikolaos Georgiadis, Eleftherios Tiakas, Yannis Manolopoulos, "Detecting Intrinsic Dissimilarities in Large Image Databases through Skylines", as excellent.

2. **2014: Best Paper Award** during the 17th International Conference on Extending Database Technology (EDBT), for the recognition of the paper: Eleftherios Tiakas, George Valkanas, Apostolos N. Papadopoulos, Yannis Manolopoulos, Dimitrios Gunopulos, "Metric-Based Top-k Dominating Queries", as excellent.

3. **2012: Award** from Queen Mary University of London for the successful completion of research in the 3DLife-EMC2 program in the field of Media Computing & Communication.

Special Lectures - Invitations

1. **March 2024**: Lecture with title: "Unleashing the Power of Artificial Intelligence: Applications that Change Our Lives", in the Workshop "Recent Developments in Artificial Intelligence – Applications in Modern Business", IHU.

2. **December 2013**: Lecture with title: "Applications in Spatial Networks", in the postgraduate course: "Spatial Databases and GIS" (Fall Semester), Department of Informatics, AUTH.

3. **May 1993**: Research on Lebesque theoretical models and the way to present Peano space-filling curves with computer graphics. Lecture with title: "The space-filling curve of Lebesque", in the Analysis Seminar in the Department of Mathematics, AUTH.

4. **February 1992**: Research on algorithmic processing of theorems and examples from Mathematical Analysis, and implementation of the studied algorithms in computers, e.g. (a) general solution of the polynomial equation of 3rd degree, (b) solution of differential equations of 2nd degree, etc. Lecture for these topics in the Sector of Mathematical Analysis, Department of Mathematics, AUTH.

5. **March 1991**: Research on developing computer graphics applications, which depict and manage several types of mathematical functions (real, parametric, complex, multidimensional, etc.) for educational and research purposes. Lecture for these topics in the Sector of Mathematical Analysis, Department of Mathematics, AUTH.

Participation in Professional - Scientific Organizations

1. **2018**: Member in COST Action IC1406 (cHiPSet) "High-Performance Modeling and Simulation for Big Data Applications.

2. **2009-2013**: Member in EU Cost Action FP0804, Forest Management Decision Support Systems (FORSYS).

3. **2002-2025**: Member of the Hellenic Society for the Protection of Intellectual Property (AEPI – EYED - EDEM).

Additional Professional Experience

- **1993-2004**: Teacher of Mathematics and Informatics in Private Education Institutes and Private Schools.
- **1993-2003**: Computer Programmer/Developer in Logica Computers, Thessaloniki.
- **2000-2004**: Computer Programmer/Developer in TreeSoft Software Company, Alexandroupolis.
- **1998-2002**: Computer Programmer/Developer in Jeronimo Groovy Radio Station, Athens.

Research Interests – Work in Progress

Big Data, Databases, Data Structures, Query Processing Algorithms, Indexing Structures, Spatial and Multidimensional Databases, Spatial Databases, Multimedia Databases, Information Systems, Data Mining, Information Retrieval, Similarity Search, Social Networks, Bioinformatics, Medical research, Algorithm Design and Analysis, Discrete Mathematics, Decision Support Systems, Forest Modelling.