

Curriculum Vitae

Nikolaos Samaras

School Address

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Short Bio Sketch.

Nikolaos Samaras received his Diploma in Applied Informatics from the University of Macedonia, Thessaloniki, Greece in 1996 and his Ph.D. in Applied Informatics from the same University in 2001. Between 1998 and 2000, he served on the faculty of the Technological Institute of Western Macedonia, as a Lecturer. In 2003, he moved to the University of Macedonia, Department of Applied Informatics.

Professor Samaras' current research interests are at the interface between computer science and operations research, with applications in a variety of engineering and scientific systems:

- Linear/Non Linear optimization: theory, algorithms, and software.
- Network optimization: theory, algorithms, and software.
- Scientific computing: HPC, and GPU-programming.

His research work has resulted in: (a) the development of a new algorithmic family for solving linear and network optimization problems; (b) the efficient implementation of the revised simplex algorithm using GPU; and (c) novel algorithms and software for operations research.

Position	Professor of Algorithmic Operations Research at the Department of Applied Informatics, University of Macedonia, Thessaloniki, Greece
Education	<p>University of Macedonia, Greece PhD degree in Applied Informatics, May 1996 - June 2001, Grade: "Excellent". PhD Thesis: Computational improvements and efficient implementation of two path pivoting algorithms" Thesis supervisor: Professor Konstantinos Paparrizos)</p> <p>University of Macedonia, Greece Diploma in Applied Informatics (4 year course), September 1991 – January 1996, GPA: 8.02/10.0 Rank: 3nd. Diploma Thesis: Marketing Decision Support Systems: Development of New Products. Grade: 10.0/10.0</p> <p>1st High school, Kozani, Greece Graduated Cum Laude, June 1990.</p>

	Entered after successful Panhellenic Examinations in the Department of Applied Informatics, University of Macedonia. Rank: 7 th .
Honors & Awards	<p>October 2016: Senior Member, Association for Computing Machinery (ACM), http://awards.acm.org/award_winners/samaras_9996455.cfm</p> <p>July 2016: Annual Excellence in Research Journal Awards, by IGI Global for the paper entitled "An interactive spatial decision support system enabling co-located collaboration using tangible user interfaces for the multiple capacitated facility location problem" co-authored by Ploskas, N., Athanasiadis, I., and Papathanasiou, J.</p> <p>December 2012: Honorable mention (Academic and Research Excellence in Higher Education) from the Ministry of Education, Research and Religious Affairs for participating in the distinguished research project entitled "citation analysis".</p> <p>June 2017: Honorable mention from the Hellenic Operational Research Society (EEEE), for organizing the 18th National Conference, Hellenic Operational Research Society, 15–17 June, Kozani, Greece.</p> <p>December 2005: ASIS&T/ISIS-Thomson Citation Analysis Research Grant, for the research project entitled "cc-IFF: A Cascading Citations Impact Factor Framework". This project will test a new type of citation metric - cascading citations Impact Factor - in a scientific literature database. This highly innovative and mathematically sophisticated research initiative will attempt to solve difficult challenges in citation analysis and may yield important real-world applications.</p>
Research Projects	<p>07/2016-10/2016: Key Researcher in project funded by the Veltio Greece LTD, entitled "Modeling Operations Research Problems".</p> <p>02/2011-02/2013: Key Researcher in project funded by the European Commission and National Funds of Greece and Bulgaria, entitled "Cross-Border Vertical Axes of Entrepreneurship in Support of Youth and Women".</p> <p>05/2010-12/2011: Scientific Coordinator of Basic Research Project funded by the Research Committee of the University of Macedonia, entitled "An improved hybrid usage scenario of ECN and RED for more efficient utilization of backbone Internet router resources".</p> <p>05/2008-12/2009: Scientific Coordinator of Basic Research Project funded by the Research Committee of the University of Macedonia, entitled "A new parallel exterior point simplex type algorithm for the linear programming problem".</p> <p>10/2007-12/2007: Key Researcher in project funded by the European Commission, Sixth framework programme, entitled: "Research infrastructures communication network development".</p> <p>11/2006-12/2008: Key Researcher in project funded by the Central Macedonia Region, entitled "Smart Taxi Fleet Management".</p>

	<p>11/2006-12/2008: Key Researcher in project funded by the Central Macedonia Region, entitled "Business data management from heterogonous data resources".</p> <p>10/2006-10/2008: Key Researcher in project funded by the European Commission, FP6 Marie Curie Chairs (EXC), entitled "Optimization Models and Algorithms for Informatics Problems in Biology, Chemistry and Medicine".</p> <p>09/2006-7/2008: Scientific Coordinator of Basic Research Project funded by the Research Committee of the University of Macedonia, entitled "cc-IFF: A Cascading Citations Impact Factor Framework".</p> <p>10/2005-12/2009: Main Researcher in PENED program (Programme for the Support of Researchers for training young researchers - funded by the Greek General Secretariat for Research and Technology), entitled "Emissions' reduction of a coal-fired power plant via reduction of consumption through simulation and optimization of its mathematical model".</p> <p>10/2005-10/2007: Scientific Coordinator of Basic Research Project funded by the Research Committee of the University of Macedonia, entitled "On the cycling problem for simplex exterior type algorithms for the minimum cost network flow problem".</p> <p>07/2004-04/2006: Main Researcher in project funded by the Western Macedonia Region, entitled "Virtual Technopolis".</p>
<p>Teaching Experience</p>	<p><i>Undergraduate Courses:</i> Department of Applied Informatics, University of Macedonia Algorithms Combinatorial Optimization Introduction to Computer Science Introduction to Scientific Computing Linear and Network Programming Linear Optimization Algorithms Network Optimization Operations Research Simulation Techniques</p> <p>Department of Informatics, Hellenic Open University Introduction to Computer Science</p> <p><i>Postgraduate Courses:</i> Department of Applied Informatics, University of Macedonia Computational Optimization Knowledge Recovery – Data Mining Machine Learning & Natural Language Processing Modeling and Decision Making Optimization Scientific Computing Special Topics on Algorithms</p>

	Department of Mathematics, Aristotle University of Thessaloniki Algorithms and Complexity
Professional Experience	<p>12/2016 – : Professor, Univ. of Macedonia 04/2016 – : Director of the Computational Methodologies & Operations Research (CMOR) Laboratory, Dept. of Applied Informatics, Univ. of Macedonia. 12/2012 –12/2016: Associate Professor, Univ. of Macedonia 10/2007–12/2012: Assistant Professor, Univ. of Macedonia 04/2003–10/2007: Lecturer, Univ. of Macedonia 2008–: Member of the teaching staff of the Hellenic Open University</p>
Professional Activities	<p>Conference co-chair of the 16th International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR 2019), 04–07 June 2019, Mediterranean Palace hotel, Thessaloniki, Greece.</p> <p>Member of the Editorial Board, Journal: <i>Operational Research: An International Journal</i>, Springer-Verlag</p> <p>Member of the Scientific and Technical Committee, of the World Academy of Science, Engineering and Technology (WASET).</p> <p>Reviewer</p> <ul style="list-style-type: none"> American Journal of Operations Research Annals of Operations Research Applied Mathematics and Computation Axioms Computational Optimization and Applications Computer Applications in Engineering Education Computers and Operations Research Concurrency and Computation: Practice and Experience European Journal of Operational Research Future Generation Computer Systems International Journal of Applied Management Science International Journal of Computer Mathematics International Journal of Decision Support System Technology International Journal of High Performance Computing and Networking Future Generation Computer Systems Journal of Artificial Intelligence Research Journal of Computational Analysis and Applications Journal of Computational Science Journal of the Operational Research Society Journal of Parallel and Distributed Computing Mathematical Problems in Engineering Mathematical Programming Computation Operations Research Letters Operational Research Optimization Optimization Methods and Software RAIRO Operations Research Transportation Research Part E: Logistics and Transportation Yugoslav Journal of Operations Research

	<p>Member of Program and Scientific Committee (partial list – last 10 years)</p> <p>13th International Conference on Interactive Mobile Communication, Technologies and Learning (IMCL2019). 7th International Conference on Variable Neighborhood Search (ICVNS 2019). 8th International Symposium & 30th National Conference on Operational Research. 13th Learning and Intelligent Optimization Conference (LION 13). 6th International Conference on Variable Neighborhood Search (ICVNS 2018). 7th International Symposium & 29th National Conference on Operational Research. BALCOR, 13th Balkan Conference on Operational Research – “OR in Balkans – Recent Advances”. 11th International Conference on Interactive Mobile Communication, Technologies and Learning (IMCL2017). 6th International Symposium & 28th National Conference on Operational Research. 5th International Symposium & 27th National Conference on Operational Research. 4th International Symposium & 26th National Conference on Operational Research. BALCOR, 12th Balkan Conference on Operational Research, (BALCOR 2015). 3rd International Symposium & 25th National Conference on Operational Research. Joint International Conference of the INFORMS GDN Section and the EURO Working Group on DSS (INFORMS GDN & EWG-DSS 2014). Euro Working Group Workshops, EWG-DSS 2013. 2nd International Symposium & 24th National Conference on Operational Research. 23rd International Joint Conference on Artificial Intelligence (IJCAI 2013). BALCOR/SYMOPIS Joint International Meeting, 11th Balkan Conference on Operational Research. EURO Working Group on Decision Support Systems Workshop (EWG-DSS 2013). 8th Artificial Intelligence Applications and Innovations (AIAI) Conference. 16th IEEE Symposium on Computers and Communications (ISCC 2011). 10th Balkan Conference on Operational Research, (BALCOR 2011).</p>
<p>Scientific Membership</p>	<ul style="list-style-type: none"> - ACM (Association for Computing Machinery) - Senior Member - ACM SIG Affiliation: SIGACT (Special Interest Group on Algorithms and Computation Theory) - EURO Working Group on Decision Support Systems (EWG-DSS) - European Chapter on Combinatorial Optimization (ECCO) - Hellenic Artificial Intelligence Society (EETN) - Hellenic Operational Research Society (HELORS) - The Continuous Optimization Working Group of EURO (EUROPT)

Publications

(Google Scholar profile,

<https://scholar.google.gr/citations?user=H9NT4WUAAAAJ&hl=en&oi=ao>)

Books

1. Samaras, N., Tsiplidis, K. (2019). "*The book of Python. Writing code*", Kritiki Publications, Athens. ISBN: 978-960-5863-12-8 – (In Greek)
2. Ploskas N., Samaras N. (2017). "*Linear Programming Using MATLAB®*", Series: Springer Optimization and Its Applications, vol 127. Springer, Cham. ISBN: 978-3-319-65917-6
3. Ploskas, N., Samaras, N. (2016). "*GPU Programming in MATLAB*", Morgan Kaufmann Publishers, Elsevier Inc., San Diego, U.S.A. ISBN: 978-0128051320
4. Paparrizos, K., Samaras, N., Sifaleras, A. (2009). "*Network Optimization*", ZYGOS Publications, Thessaloniki. ISBN: 978-960-8065-68-0 – (In Greek)
5. Stephanides, G., Samaras, N. (1999). "*Computational Methods with MATLAB*", ZYGOS Publications, Thessaloniki. ISBN: 960-8065-05-4 – (In Greek)

Edited Books

1. Bronson, R., Naadimuthu, G. (2010). "*Operations Research*", 2nd edition, McGraw-Hill. Editing of Greek edition: Kleidarithmos Publications, Athens, 2010. ISBN: 978-960-461-314-4 – (In Greek)
2. Roiger, J. R., Geatz, W. M. (2008). "*Data Mining: A Tutorial Based Primer*", Addison Wesley. Editing of Greek edition: Kleidarithmos Publications, Athens, 2008. ISBN: 978-960-461-206-2 – (In Greek)

Book Chapters

1. Paparrizos, K., Samaras, N., Tsiplidis, K. (2001). "Pivoting algorithms for (LP) generating two paths", Pardalos, M.P., Floudas, A.C. (Eds), *Encyclopedia of Optimization*, Kluwer Academic Publishers, Vol. 4, pp. 302–306.
2. Paparrizos, K., Samaras, N., Zissopoulos, D. (2001). "Klee-Minty examples for (LP)", Pardalos, M.P., Floudas, A.C. (Eds), *Encyclopedia of Optimization*, Kluwer Academic Publishers, Vol. 3, pp. 193–199.
3. Achatz, H., Paparrizos, K., Samaras, N., Tsiplidis, K. (2002). "A forest exterior point algorithm for assignment problems", Pardalos, M.P., Migdalas, A., Buckard, R. (Eds), *Combinatorial and Global Optimization*, Word Scientific Publishing Co., pp. 1–10.
4. Fouliras, P., Samaras, N. (2008). "A generic framework for bluetooth promoted multimedia on demand (BlueProMod)", Gutierrez, J. (Ed.), *Selected Readings on Telecommunications and Networking*, IGI Global, pp. 142–155.
5. Paparrizos, K., Samaras, N., Tsiplidis, K. (2008). "Pivoting algorithms for (LP) generating two paths", Pardalos, M.P., Floudas, A.C. (Eds), *Encyclopedia of Optimization*, 2nd edition, Springer, pp. 2965–2969.
6. Paparrizos, K., Samaras, N., Zissopoulos, D. (2008). "Klee-Minty examples for (LP)", Pardalos, M.P., Floudas, A.C. (Eds), *Encyclopedia of Optimization*, 2nd edition, Springer, pp. 1891–1897.
7. Ploskas, N., Samaras, N., Margaritis, K. (2013). "A parallel implementation of the revised simplex algorithm using OpenMP: some preliminary results", A. Migdalas et al. (Eds) *Optimization Theory, Decision Making, and Operations Research Applications*, Series Title: *Springer Proceedings in Mathematics & Statistics 31*, Springer New York, pp. 163–175.
8. Ploskas, N., Samaras, N., Papathanasiou, J. (2013). "A web-based decision support system using basis update on simplex type algorithms", T. Hernandez, et al. (Eds), *Decision Support Systems II - Recent Developments Applied to DSS Network*

Environments, Lecture Notes in Business Information Processing (LNBIP 164), Springer New York, pp. 102–114.

9. Papathanasiou, J., Ploskas, N., Samaras, N. (2014). "A web-based decision support system for the multiple capacitated facility location problem", F. Dargam, et al. (Eds), *Decision Support Systems III - Impact of Decision Support Systems for Global Environments*, Lecture Notes in Business Information Processing (LNBIP 184), Springer New York, pp. 34–44.
10. Ploskas, N., Athanasiadis, I., Papathanasiou, J., Samaras, N. (2015). "A collaborative spatial decision support system for the capacitated vehicle routing problem on a tabletop display", I. Linden et al. (Eds), *Decision Support Systems IV - Information and Knowledge Management in Decision Processes*, Lecture Notes in Business Information Processing (LNBIP 221), Springer New York, pp. 26–36.
11. Ploskas, N., Athanasiadis, I., Papathanasiou, J., Samaras, N. (2015). "A Tangible Collaborative Decision Support System for Various Variants of the Vehicle Routing Problem", B. Delibasic et al. (Eds), *Decision Support Systems V – Big Data Analytics for Decision Making*, Lecture Notes in Business Information Processing (LNBIP 216), Springer New York, pp. 73–84.
12. Petraki, D., Samaras, N. (2016). "Component Matrices of a Square Matrix and their properties", *Mathematical Analysis, Approximation Theory and their Applications*, Th. Rassias, & V. Gupta (Eds), Springer Optimization and its Applications, Vol. 111, pp. 559–572.
13. Tsaples, G., Papathanasiou, J., Georgiou, A., Samaras, N. (2019). "Assessing multidimensional sustainability of European countries with a novel two-stage DEA", P.S.A. Freitas et al. (Eds), *Decision Support Systems IX – Main Developments and Future Trends*, Lecture Notes in Business Information Processing (LNBIP 348), Springer New York, pp. 111–122.

Journal Papers

1. Paparrizos, K., Stephanides, G., Samaras, N. (2001). "Improved criteria for identifying optimal basic and nonbasic variables in LP", *Journal of Computational Analysis and Applications*, Vol. 3(1), pp. 75–82.
2. Paparrizos, K., Samaras, N., Stephanides, G. (2003). "An efficient simplex type algorithm for sparse and dense linear programs", *European Journal of Operational Research*, Vol. 148(2), pp. 323–334.
3. Paparrizos, K., Samaras, N., Stephanides, G. (2003). "A new efficient primal dual simplex algorithm", *Computers and Operations Research*, Vol. 30(9), pp. 1383–1399.
4. Papamantou, Ch., Paparrizos, K., Samaras, N. (2004). "Computational experience with exterior point algorithms for the transportation problem", *Applied Mathematics and Computation*, Vol. 158, pp. 459–475.
5. Andreou, D., Paparrizos, K., Samaras, N., Sifaleras, A. (2005). "Application of a new network-enabled solver for the assignment problem in computer-aided education", *Journal of Computer Science*, Vol. 1(1), pp. 19–23.
6. Papamantou, Ch., Paparrizos, K., Samaras, N. (2005). "A parametric visualization software for the assignment problem", *Yugoslav Journal of Operations Research*, Vol. 15(1), pp. 147–158.
7. Samaras, N., Stergiou, K. (2005). "Binary encodings of non-binary constraint satisfaction problems: Algorithms and experimental results", *Journal of Artificial Intelligence Research*, Vol. 24, pp. 641–684.
8. Karagiannis, P., Markelis, I., Paparrizos, K., Samaras, N., Sifaleras, A. (2006). "E-learning technologies: employing matlab web server to facilitate the education of mathematical programming", *International Journal of Mathematical Education in Science and Technology*, Vol. 37(7), pp. 765–782.

9. Lazaridis, V., Paparrizos, K., Samaras, N., Sifaleras, K. (2007). "Visual LinProg: A web-based educational software for Linear Programming", *Computer Applications in Engineering Education*, Vol. 15(1), pp. 1–14.
10. Andreou, D., Paparrizos, K., Samaras, N., Sifaleras, A. (2007). "Visualization software of the network exterior primal simplex algorithm for the minimum cost network flow problem", *Operational Research. An International Journal*, Vol. 7(3), pp. 449–463.
11. Fouliras, P., Samaras, N. (2008). "A generic framework for bluetooth promoted multimedia on demand (BlueProMoD)", *Journal of Information Technology Research*, Vol. 1(1), pp. 1–13.
12. Papamanthou, Ch., Paparrizos, K., Samaras, N., Stergiou, K. (2008). "Worst case examples of an exterior point algorithm for the assignment problem", *Discrete Optimization*, Vol. 5(3), pp. 605–614.
13. Paparrizos, K., Samaras, N., Sifaleras, A. (2009). "An exterior simplex type algorithm for the minimum cost network flow problem", *Computers and Operations Research*, Vol. 36(4), pp. 1176–1190.
14. Samaras, N., Sifaleras, A., Triantafyllidis, Ch. (2009). "A primal-dual exterior point algorithm for linear programming problems", *Yugoslav Journal of Operations Research*, Vol. 19(1), pp. 123–132.
15. Tzolakis, G., Papanikolaou, P., Kolokotronis, D., Samaras, N., Tomboulides, A., Tournlidakis, A. (2010). "Emissions' reduction of a coal-fired power plant via reduction of consumption through simulation and optimization of its mathematical model", *Operational Research. An International Journal*, Vol. 10(1), pp. 71–89.
16. Harhalakis, S., Samaras, N., Vitsas, V. (2010). "Reconsidering the usage of stand-alone packets for congestion indication", *Electronics Letters*, Vol. 46(11), pp. 765–766.
17. Papamanthou, Ch., Paparrizos, K., Samaras, N., Sifaleras, A. (2010). "On the initialization methods of an exterior point algorithm for the assignment problem", *International Journal of Computer Mathematics*, Vol. 87(8), pp. 1831–1846.
18. Glavelis, Th., Ploskas, N., Samaras, N. (2010). "A computational evaluation of some free mathematical software for scientific computing", *Journal of Computational Science*, Vol. 1(3), pp. 150–158.
19. Fragkiadaki, E., Evangelidis, G., Samaras, N., Dervos, D. (2011). "f-value: measuring an article's scientific impact", *Scientometrics*, Vol. 86(3), pp. 671–686.
20. Karagiannis, P., Vouros, G., Stergiou, K., Samaras, N. (2012). "Overlay networks for task allocation and coordination in large-scale networks of cooperative agents", *Journal of the International Foundation for Autonomous Agents and Multi-Agent Systems*, Vol. 24(1), pp. 26–68.
21. Tzolakis, G., Papanikolaou, P., Kolokotronis, D., Samaras, N., Tournlidakis, A., Tomboulides, A. (2012). "Simulation of a coal-fired power plant using mathematical programming algorithms in order to optimize its efficiency", *Applied Thermal Engineering*, Vol. 48, pp. 256–267.
22. Samaras, N. (2012). "Commercial and open source software for mathematical programming", *Journal of Computational Optimization in Economics and Finance*, Vol. 4(1), pp. 31–44.
23. Lazaridis, V., Samaras, N., Sifaleras, A. (2013). "An empirical study on factors affecting the educational usefulness of algorithm visualization", *Computer Applications in Engineering Education*, Vol. 21(3), pp. 410–420.
24. Samaras, N. (2013). "Basis update methods in the revised simplex method", *International Journal of Engineering and Management*, Vol. 5(1), pp. 15–22.
25. Ploskas, N., Samaras, N. (2013). "A computational comparison of basis updating schemes for the simplex algorithm on a CPU-GPU system", *American Journal of Operations Research*, Vol. 3, pp. 497–505.

26. Glavelis, Th., Samaras, N. (2013). "An experimental investigation of a primal–dual exterior point simplex algorithm", *Optimization: A Journal of Mathematical Programming and Operations Research*, Vol. 62(8), pp. 1143–1152.
27. Ploskas, N., Samaras, N. (2014). "Pivoting rules for the revised simplex algorithm", *Yugoslav Journal of Operations Research*, Vol. 24(3), pp. 321–332.
28. Ploskas, N., Samaras, N. (2014). "GPU accelerated pivoting rules for the simplex algorithm", *Journal of Systems and Software*, Vol. 96, pp. 1–9.
29. Ploskas, N., Samaras, N., Papathanasiou, J. (2014). "A decision support system for solving linear programming problems", *International Journal of Decision Support System Technology*, Vol. 6(2), pp. 46–62.
30. Triantafyllidis, Ch., Samaras, N. (2015). "Three nearly scaling invariant versions of an exterior point algorithm for linear programming", *Optimization: A Journal of Mathematical Programming and Operations Research*, Vol. 64(10), pp. 2163–2181.
31. Paparrizos, K., Samaras, N., Sifaleras, A. (2015). "Exterior point simplex-type algorithms for linear and network optimization problems", *Annals of Operations Research*, Vol. 229(1), pp. 607–633.
32. Ploskas, N., Athanasiadis, I., Papathanasiou, J., Samaras, N. (2015). "An interactive spatial decision support system enabling co-located collaboration using tangible user interfaces for the multiple capacitated facility location problem", *International Journal of Decision Support System Technology*, Vol. 7(2), pp. 15–28.
33. Ploskas, N., Samaras, N. (2015) "A computational comparison of scaling techniques for linear optimization problems on a graphical processing unit", *International Journal of Computer Mathematics*, Vol. 92(2), pp. 319–336.
34. Ploskas, N., Samaras, N. (2015). "Efficient GPU-based implementations of simplex type algorithms", *Applied Mathematics and Computation*, Vol. 250, pp. 552–570.
35. Glavelis, Th., Ploskas, N., Samaras, N. (2018). "Improving a primal–dual simplex-type algorithm using interior point methods", *Optimization: A Journal of Mathematical Programming and Operations Research*, Vol. 67(12), pp. 2259–2274.
36. Voulgaropoulou, S., Samaras, N., Sifaleras, A. (2019). "Computational complexity of the Exterior Point Simplex Algorithm", *Operational Research. An International Journal*, Vol. 19, pp. 297–316.
37. Petraki, D., Samaras, N. (2019). "Matrix sequences", *Journal of Interdisciplinary Mathematics*, Vol. 22(3), pp. 377–385.
38. Petraki, D., Samaras, N. (2019). "Solving the n th degree polynomial matrix equation", *Journal of Interdisciplinary Mathematics*, Vol. 24(5), pp. 1079–1092.
39. Kalatzantonakis, P., Sifaleras, A., Samaras, N. (2020). "Cooperative versus non-cooperative parallel variable neighborhood search strategies: a case study on the capacitated vehicle routing problem", *Journal of Global Optimization*, Vol. 78, pp. 327–348.
40. Triantafyllidis, C., Samaras, N. (2020). "A new non-monotonic infeasible simplex-type algorithm for Linear Programming", *PeerJ Computer Science*, Vol. 6(e265), <https://doi.org/10.7717/peerj-cs.265>
41. Kalatzantonakis, P., Sifaleras, A., Samaras, N. (2021). "Slot Machine RTP Optimization Using Variable Neighborhood Search", *Mathematical Problems in Engineering*, Vol. 2021, Article ID 8784065.
42. Ploskas, N., Sahinidis, N., Samaras, N. (2021). "A triangulation and fill-reducing initialization procedure for the simplex algorithm", *Mathematical Programming Computation*, Vol. 13(3), pp. 491–508.
43. Voulgaropoulou, S., Samaras, N., Ploskas, N. (2022). "Predicting the Execution Time of the Primal and Dual Simplex Algorithms Using Artificial Neural Networks", *Mathematics*, Vol. 10(7):1038. <https://doi.org/10.3390/math10071038>

Conference Papers (selected papers – partial list)

1. Lazaridis, V., Samaras, N., Zissopoulos, D. (2003). "Visualization and teaching simplex algorithm", ICALT03, in Proc. 3rd IEEE International Conference on Advanced Learning Technologies, 09–11 July, Athens, Greece, pp. 270–271.
2. Dosios, K., Paparrizos, K., Samaras, N., Sifaleras, A. (2003). "An efficient modification of the primal-dual two paths simplex algorithm", in Proc. International Conference on Computational Methods in Sciences and Engineering (ICCMSE 2003), 12–16 September, Kastoria, Greece, pp. 144–147.
3. Karagiannis, P., Paparrizos, K., Samaras, N., Sifaleras, A. (2004). "Employing mobile agents to secure local networks", in Proc. (electronic form) 1st International Conference on Information & Communication Technologies: From Theory to Applications (ICTTA 2004), IEEE (France), 19–23 April, Damascus, Syria.
4. Karagiannis, P., Samaras, N., Stergiou, K. (2004). "Arc consistency in the dual encoding of non-binary CSPs", in Proc. First International Workshop on Constraint Propagation and Implementation, 27 September – 1 October, Toronto, Canada, pp. 77–92.
5. Karagiannis, P., Paparrizos, K., Samaras, N., Sifaleras, A. (2005). "A new simplex type algorithm for the minimum cost network flow problem", in Proc. 7th Balkan Conference on Operational Research (BALCOR 2005), 25–28 May, Constanta, Romania, pp. 133–139.
6. Dervos, A. D., Samaras, N., Evangelidis, G., Hyvärinen, Y., Asmanidis, Y. (2006). "The Universal Author Identifier System (UAI_Sys)", In Proc. First International Scientific Conference, e RA-1, 16–17 September, Tripoli, Greece, pp. 330–337.
7. Dervos, A. D., Samaras, N., Evangelidis, G., Folias, T. (2006). "A new framework for the citation indexing paradigm", In Proc. 69th ASIS&T Annual Meeting (ASIS&T'06), 3–8 November, Austin, Texas, U.S.A., Vol. 43(1), pp. 1–16.
8. Hristu-Varsakelis, D., Shao, C., Samaras, N. (2007). "Local pursuit as a bio-inspired computational optimal control tool", In Proc. European Control Conference (ECC'07), 2–5 July, Kos, Greece, pp. 4576–4583.
9. Samaras, N., Sifaleras, A., Triantafyllidis, Ch. (2007). "A primal-dual exterior point algorithm for linear programming problems", In Proc. 8th Balkan Conference on Operational Research (BALCOR 2007), 14–17 September, Belgrade-Zlatibor, Serbia, pp. 75–83.
10. Folias, T., Dervos, D., Evangelidis, Y., Samaras, N. (2007). "Cascading citation indexing in action", In Proc. Second International Scientific Conference, e RA-2, 15–16 September, Athens, Greece, pp. 290–299.
11. Harhalakis, S., Samaras, N., Fragkiadaki, E. (2007). "An extended evaluation of a collection of TCP congestion control algorithms", In Proc. (electronic form) 8th Hellenic European Research on Computer Mathematics and its Applications Conference (HERCMA'07), 20–22 September, Athens, Greece.
12. Harhalakis, S., Samaras, N., Fragkiadaki, E. (2007). "An improved method for experimental evaluations of TCP congestion control algorithms", In Proc. (electronic form) 8th Hellenic European Research on Computer Mathematics and its Applications Conference (HERCMA'07), 20–22 September, Athens, Greece.
13. Tzolakis, G., Kolokotronis, D., Samaras, N., Tournlidakis, A., Tomboulides, A. (2008). "Emissions' reduction of a coal-fired power plant via reduction of consumption through simulation and optimisation of its mathematical model", Energy Science Center – Smart Energy Strategies, Meeting the Climate Change Challenge, 08–10 September, ETH Zurich, Switzerland, pp. 131–133.
14. Ploskas, N., Samaras, N., Sifaleras, A. (2009). "A parallel implementation of an exterior point algorithm for linear programming problems", In Proc. (electronic form) 9th Balkan

- Conference on Operational Research (BALCOR 2009), 02–06 September, Constanta, Romania.
15. Hadjikyriacou, E., Samaras, N., Margaritis, K. (2009). "An experimental evaluation of a parallel genetic algorithm using MPI", In IEEE Proc. 13th Panhellenic Conference in Informatics (PCI'09), 10–12 September, Corfu, Greece, pp. 75–79.
 16. Fragkiadaki, E., Evangelidis, G., Samaras, N., Dervos, D. (2009). "Cascading citations indexing framework algorithm implementation and testing", In IEEE Proc. 13th Panhellenic Conference in Informatics (PCI'09), 10–12 September, Corfu, Greece, pp. 70–74.
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2. Samaras, N., Sifaleras, A. (2012). "Exterior point simplex-type algorithms for linear and network programming", 21st International Symposium on Mathematical Programming (ISMP 2012), 19–24 August, Berlin, Germany, Book of Abstracts, p. 107.
3. Ploskas, N., Samaras, N., Papathanasiou, J. (2013). "A decision support system for solving linear programming problems", In Proc. of the EURO Mini-Conference on Collaborative Decision Systems in Economics, Complex Societal & Environmental Applications, 17–19 October, Graz, Austria, Book of Abstracts, p. 4.
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