Curriculum Vitae

Yiannis Mourtos
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Vice-Chair, Department of Management Science & Technology
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SUMMARY

Yiannis Mourtos is conducting both theoretical and applied work with a primary focus on Mathematical Programming and Combinatorial Optimization. In terms of polyhedral analysis, he has worked on multi-index assignment, stable matchings, matroid parity and max-cut. In terms of computing, he is mainly interested in Integer Programming, Constraint Programming, as well as their integration.

His interests in more applied fields are interdisciplinary and include applications of optimization in manufacturing and transport, along with decision support and the design of related information systems. He is particularly focused on energy-aware information systems and how these encompass the use of elaborate modelling and computing methods to optimize relevant sustainability metrics.

He has a broad and diverse publication record, serving also as an ad-hoc reviewer for several well-known journals. He has coordinated several EU-wide research projects. His theoretical research has created and respectively benefits from a wide network of collaborations with researchers from both international and Greek universities. His applied research has been based on research projects funded mainly by the European Commission and a corresponding network of established European research institutes and major private companies.

For over 10 years he is the Scientific Coordinator of the ADOPT: Algorithms and Discrete Optimization group, of the ELTRUN Laboratory (https://eltrun.org/). The ELTRUN-ADOPT team currently consists of more than 15 researchers, 5 of whom are PhD candidates, while former postdoctoral researchers are now faculty members or have set up knowledge-intensive start-ups. Given his research and innovation activity, Dr. Mourtos serves as the Director of the ELTRUN lab since 2021. For the last five years. he serves as the Deputy Director of the MSc in Management Science & Technology and a member of the Doctoral Studies Committee, while he has also coordinated the Employment and Career Unit of AUEB (2020-2023). He currently serves as a Vice-Chair of the Department.

EDUCATION

1999-2003	:	PhD in Operational Research, Operational Research Department, London School of Economics and Political Science
1998-1999	:	MSc (Distinction) in Operational Research, Operational Research Department, London School of Economics and Political Science
1993-1998	:	Diploma in Computer Engineering and Informatics, Department of Computer Engineering and Informatics, University of Patras
Scholarships	:	2000-2003, State Scholarships Foundation (scholarship)

1998-2000, Bodossaki Foundation (scholarship)

1998-1999, Engineering and Physical Sciences Research Council (fees grant)

1993, 1995, State Scholarships Foundation (award),

1994-1998, Maria & George Athansiadi – Nova Foundation (scholarship)

EMPLOYMENT RECORD

September 2022 -	:	Professor, Department of Management Science & Technology, Athens University of Economics & Business
October 2017 - September 2022	:	Associate Professor, Department of Management Science & Technology, Athens University of Economics & Business
August 2012 - October2017	:	Assistant Professor, Department of Management Science & Technology, Athens University of Economics & Business
May 2008 - August 2012	:	Lecturer, Department of Management Science & Technology, Athens University of Economics & Business
March 2005 - May 2008	:	Lecturer, Department of Economics, University of Patras
October 2007-	:	Course Instructor, Hellenic Open University
March 2004 - March 2005	:	Adjunct Lecturer, Department of Management Science & Technology, Athens University of Economics & Business
October 1999 - March 2003	:	Teaching Assistant, Department of Operational Research, London School of Economics and Political Science

TEACHING RECORD

Athens University of Economics & Business	:	Mathematical Programming (2008-), Combinatorial Optimisation (2008-), Stochastic Models in Operations Research (2008-2013) Stochastic Modelling and Simulation (2013-2015, 50%), Introduction to Information and Communication Technologies (2009-2012, 30%) Decision Making Methods in the Public Sector (2013-, postgraduate) Combinatorial Optimisation (2016-, postgraduate)
University of Patras	:	Introduction to Information Systems, Principles of Databases
London School of Economics and Political Science	:	Operational Research for Management, Mathematical Programming, Workshop in Computer Simulation (postgraduate), Computer Help in Basic Mathematical Programming (postgraduate)
Hellenic Open University	:	Discrete Mathematics and Mathematical Logic

Textbook: Discrete Optimisation, Athens University of Economics and Business Publishing Services, 2009 (in Greek, co-authored with Honorary Prof. Panagiotis Miliotis)

RESEARCH RECORD

Funded Research (Major Grants as PI)

Technical Coordinator for Tec4MaaSEs and DISRUPT, Scientific Coordinator for Plooto

- **Act2Flex**: Flexible, Sustainable and Digitally-Enabled Solutions for Industrial Process Transformation (grant no. 101294465), 2026-2030 https://cordis.europa.eu/project/id/101294465
- **Tec4MaaSEs**: Technologies for Manufacturing as a Service Ecosystems. HORIZON-CL4-2023-TWIN-TRANSITION-01-07 (grant no. 101138517), 2024-2027 https://www.tec4maases.eu
- **GREEN-LOG**: Cooperative and Interconnected Green delivery solutions towards an era of optimized zero emission last-mile Logistics. HORIZON-CL5-2021-D6-01, (grant no. 101069892), 2023-2026, https://greenlog-project.eu
- **MODAPTO**: Modular Manufacturing and Distributed Control via Interoperable Digital Twins. HORIZON-CL4-2022-TWIN-TRANSITION-01 (grant no. 101091996), 2023-2026, https://modapto.eu/
- **Plooto: Product Passport Through Twinning of Circular Value Chains. HORIZON-CL4-2022-RESILIENCE-01 (grant no. 101092008), 2023-2026, https://www.plooto-project.eu/**
- **AquaSPICE**: Advancing Sustainability of Process Industries through Digital and Circular Water Use Innovations, CE-SPIRE-07-2020, (grant no. 958396), 2020-2024, https://aquaspice.eu
- **FACTLOG**: Energy-aware Factory Analytics, H2020-DT-SPIRE-2019-06 (grant no. 869951), 2019-2023, https://www.factlog.eu/
- **COGLO**: COGnitive Logistics Operations through secure, dynamic and ad-hoc collaborative networks, H2020-MG-5.2-2018 (grant no. 769141), 2018-2021, http://www.cog-lo.eu/
- **DISRUPT**: Decentralised architectures for optimised operations via virtualised processes and manufacturing ecosystem collaboration, H2020-FOF-2016-11 (grant no. 723541), 2016-2019, http://www.disrupt-project.eu/
- **TT**: Transforming Transport, H2020 (grant no. 731932), 2016-2019, https://transformingtransport.eu/
- **ARTISAN**: Energy-aware enterprise systems for low-carbon intelligent operations, FP7-ICT-2011-7, Collaborative project (grant no 287993), 2011-2014, https://cordis.europa.eu/project/id/287993
- **From Graph Theory to Matroids**: Algorithms and Applications, 2011-2015, "Thales" research grant, Greek Ministry of Education.
- **EERNV**-Energy Efficiency of Road Networks and Vehicles: Measurement, Pricing, Regional and Environmental Effects, 2011-2015, "Thales" research grant, Greek Ministry of Education
- **Algorithmic and structural aspects of stable matching problems**, 2013-2015, Slovak-Greece Research and Development Cooperation, Greek Secretariat of Research and Technology.

Journals

[1] I Avgerinos, I Mourtos, S Vatikiotis, G Zois, One Benders cut to rule all schedules in the neighbourhood, *European Journal of Operational Research*, in press.

[2] A Hill, D Hom, S Peuker, I Mourtos Social classroom seating assignment problems, *Networks,* in press, https://doi.org/10.1002/net.22252.

[3] GA Kasapidis, DC Paraskevopoulos, I Mourtos, PP Repoussis (2025), A unified solution framework for flexible job shop scheduling problems with multiple resource constraints, *European Journal of Operational Research* 320 (3), 479-495.

[4] I Avgerinos, I Mourtos, S Vatikiotis, G Zois (2024) Weighted tardiness minimisation for unrelated machines with sequence-dependent and resource-constrained setups, *International Journal of Production Research*, 62:1-2, 359-379.

[5] K. Kaparis, A. N. Letchford, I. Mourtos (2023) On cut polytopes and graph minors, *Discrete Optimization*, Volume 50, 100807,

[6] I Avgerinos, I Mourtos, S Vatikiotis, G Zois (2023) Scheduling unrelated machines with job splitting, setup resources and sequence dependency, *International Journal of Production Research*, 61:16, 5502-5524.

[7] I. Mourtos, M. Samaris (2022) Stable allocations and partially ordered sets, *Discrete Optimization* 46, 100731.

[8] P Eirinakis, I Mourtos, E Zampou (2022) Random Serial Dictatorship for horizontal collaboration in logistics, *Omega* 111, 102662.

[9] I. Avgerinos, I. Mourtos, G. Zois: Multi-type facility location in printing and parcel delivery services, *Annals of Operations Research* 309, 365–393 (2022)

[10] A. Letchford, K. Kaparis, I. Mourtos: Generalised 2-Circulant Inequalities for the Max-Cut Problem, *Operations Research Letters* 50, 122-128 (2022),

[11] E. Zampou, I. Mourtos, K. Pramatari, S. Seidel (2022) A Design Theory For Energy and Carbon Management Systems in the Supply Chain, Journal of the Association for Information Systems, 23(1), 329-371.

[12] P Xepapadeas, I Mourtos (2022) Refugee allocation mechanisms: theory and applications for the European Union*, Operational Research* 22 (4), 4557-4584.

[13] Y Faenza, I Mourtos, M Samaris, J Sethuraman (2021), (Un)stable matchings with blocking costs *Operations Research Letters 49*, 655-662.

[14] P Eirinakis, G Kasapidis, I Mourtos, P Repoussis, E Zampou (2021), Situation-aware manufacturing systems, *Journal of Manufacturing Systems* 58, 365-383.

[15] K. Kaparis, A.N. Letchford, I. Mourtos (2020), On matroid parity and matching polytopes, *Discrete Applied Mathematics* 284, 322-331.

[16] P. Eirinakis, D. Magos, I. Mourtos (2020), The diameter of the stable marriage polytope: Bounding from below, *Discrete Mathematics* 343 (5), 111804.

[17] P. Eirinakis, D. Magos, I. Mourtos (2018), The stable b-matching polytope revisited, *Discrete Applied Mathematics* 250, 186-201.

[18] J. Díaz, I. Giotis, L. Kirousis, I. Mourtos, M. Serna (2017), The social cost of congestion games by imposing variable delays, *ICT Express* 3 (4), 155-159.

[19] D. Magos, I. Mourtos (2016), Submodularity and its application to some global constraints, *Annals of Mathematics and Artificial Intelligence*, 79 (4), 267-289.

[20] S. Plitsos, P. Repoussis, I. Mourtos, C. Tarantilis (2016), Energy-aware decision support for production scheduling, *Decision Support Systems*, 93, 88-97.

[21] I. Mourtos (2016), Cardinality constraints and systems of restricted representatives, *Journal of Combinatorial Optimization* 31, 1061-1089.

[22] G. Appa, R. Euler, A. Kouvela, D. Magos and I. Mourtos (2016): On the completability of orthogonal Latin rectangles, *Discrete Mathematics* 339, 1771-1794.

[23] K. Cechlarova, P. *Eirinakis*, T. Fleiner, D. Magos, D. Manlove, I. Mourtos, B. Rastegari (2016), Pareto Optimal Matchings in Many-to-Many Markets with Ties, *Theory of Computing Systems* 59, 700-721.

[24] T. Dokka, I. Mourtos, F.C.R. Spieksma (2016): On the complexity of separation: the 3-index assignment problem, *Mathematical Programming Computation,* 9 (1), 39-59.

[25] P. Eirinakis, D. Magos, I. Mourtos, and P. Miliotis (2014): Polyhedral aspects of stable marriage, *Mathematics of Operations Research* 39, 656–671.

[26] K. Cechlarova, P. Eirinakis, T. Fleiner, D. Magos, I. Mourtos, E. Potpinkova (2014): Pareto optimality in many-to-many matching problems, *Discrete Optimization* 14, 160-169.

[27] P. Eirinakis, D. Magos, I. Mourtos (2014), From One Stable Marriage to the Next: How Long Is the Way?, *SIAM Journal on Discrete Mathematics* 28, 1971-1979.

[28] P. Eirinakis, D. Magos, I. Mourtos (2014): Blockers and antiblockers of stable matchings, *Theoretical Computer Science* 524, 126-133.

[29] E. Zampou, S. Plitsos, A. Karagiannaki, I. Mourtos (2014): Towards a framework for energy-aware information systems in manufacturing, *Computers in Industry* 65, 419-433.

[30] D. Magos, I. Mourtos (2013): A characterisation of odd-hole inequalities related to Latin squares, *Optimization* 62, 1169-1201.
[31] P. Eirinakis, D. Magos, I. Mourtos, and P. Miliotis (2013): Finding a minimum regret stable b-matching, *Optimization* 62, 1007-1018.
[32] D. Magos, I. Mourtos and G. Appa (2012): A polyhedral approach to the alldifferent system *Mathematical Programming* 132, 209-260.
[33] P. Eirinakis, D. Magos, I. Mourtos, and P. Miliotis (2012): Finding all stable pairs and solutions to the (many-to-many) Stable Matching Problem, *INFORMS Journal on Computing* 24, 245-259.
[34] K. Kounetas, I. Mourtos and K. Tsekouras (2012): Is energy intensity important for the productivity growth of EET adopters? *Energy Economics* 34, 930-941.
[35] Alexandra Kontolaimou, Konstantinos Kounetas, Ioannis Mourtos, Kostas Tsekouras (2012): Technology Gaps in European Banking: put the blame on inputs or outputs?, *Economic Modelling* 29, 1798-1808.
[36] D. Magos, I. Mourtos (2011): On the facial structure of the AllDifferent system, *SIAM Journal on Discrete Mathematics* 25, 130-158.
[37] D. Magos and I. Mourtos (2009): Clique facets of the axial and planar assignment polytopes. *Discrete Optimization* 6, 394-413.
[38] K. Kounetas, I. Mourtos and K. Tsekouras (2009): Efficiency decompositions for heterogeneous technologies, *European Journal of Operational Research* 199, 209-218.
[39] D. Magos, I. Mourtos and L. Pitsoulis (2009): Persistency and matroid intersection, *Computational Management Science* 6, 435-445.
[40] D. Magos and I. Mourtos (2008): The wheels of the OLS polytope: Facets and separation, *Discrete Mathematics* 308, 3634-3651.
[41] G. Appa, D. Magos and I. Mourtos (2006): Searching for Mutually Orthogonal Latin Squares via Integer and Constraint Programming, *European Journal of Operational Research* 173, 519-530.
[42] G. Appa, D. Magos and I. Mourtos (2006): A new class of facets for the Latin square polytope, *Discrete Applied Mathematics* 154, 900-911.
[43] G. Appa, D. Magos and I. Mourtos (2006): On multi-index assignment polytopes, *Linear Algebra and its Applications* 416, 224–241.
[44] G. Appa, D. Magos, I. Mourtos and J.C.M. Janssen (2006): On the Orthogonal Latin Squares polytope, *Discrete Mathematics* 306, 171-187.
[45] G. Appa, D. Magos and I. Mourtos (2005): On the system of two all_different predicates, *Information Processing Letters* 94, 99-105.
[46] G. Appa, D. Magos and I. Mourtos (2005): Wheels of the OLS polytope, *Journal of Combinatorial Optimization* 10, 365-389.
[47] K. Antonis, J. Garofalakis, I. Mourtos and P. Spirakis (2004): A Hierarchical Adaptive Distributed Algorithm for Load Balancing. *Journal of Parallel and Distributed Computing* 64, 151-162.
[48] G. Appa, D. Magos and I. Mourtos (2004): A Branch & Cut algorithm for the planar four-index assignment problem*, Journal of the Operational Research Society* 55, 298-307.
[49] G. Appa, D. Magos and I. Mourtos (2004): An LP-based proof for the non-existence of a pair of Orthogonal Latin Squares of order 6, *Operations Research Letters* 32, 336-344.

Conferences (full text)

[50] P Eirinakis, B Iung, I Mourtos, S Plitsos, L Stojanovic, G Triantafyllou, A Voisin (2024) Modular manufacturing and distributed control via interoperable digital twins, *IFAC-PapersOnLine* 58 (19) 337-342.
[51] S Vatikiotis, I Mpourdakos, D Papathanasiou, I Mourtos (2024) Makespan Minimisation in Hybrid Flexible Flowshops with Buffers and Machine-Dependent Transportation Times, *IFIP International Conference on Advances in Production Management Systems*, 258-273, Springer.

[52] T Farmakis, A Koukopoulos, G Zois, I Mourtos, S Lounis, K Kalaboukas (2024) Developing a Circular and Resilient Information System: A Design Science Approach, Times, *IFIP International Conference on Advances in Production Management Systems*, 64-79, Springer.

[53] Avgerinos, I Mourtos, S Vatikiotis, G Zois (2022) Exact methods for tardiness objectives in production scheduling, *IFAC-PapersOnLine* 55 (10), 2487-2492,

[54] Avgerinos I., Mourtos I., Zois G. (2021) Logic-Based Benders Decomposition for an Inter-modal Transportation Problem. In: Stuckey P.J. (eds) Integration of Constraint Programming, Artificial Intelligence, and Operations Research. CPAIOR 2021. *Lecture Notes in Computer Science* 12735. Springer, Cham. https://doi.org/10.1007/978-3-030-78230-6_20

[55] Mourtos I., Vatikiotis S., Zois G. (2021) Scheduling Jobs on Unrelated Machines with Job Splitting and Setup Resource Constraints for Weaving in Textile Manufacturing. In: Dolgui A., Bernard A., Lemoine D., von Cieminski G., Romero D. (eds) Advances in Production Management Systems. Artificial Intelligence for Sustainable and Resilient Production Systems. APMS 2021. *IFIP Advances in Information and Communication Technology*. Springer, Cham. https://doi.org/10.1007/978-3-030-85874-2_45

[56] Eirinakis, P., Kalaboukas K., Lounis, S., Mourtos I, Rozanec J.M., Stojanovic N., Zois G. (2020): Enhancing Cognition for Digital Twins, IEEE International Conference on Engineering, Technology and Innovation, ICE/ITMC 2020 June 2020, No. 9198492. https://ieeexplore.ieee.org/document/9198492

[57] G. Zois, A. Michaloliakos, K. Psounis, V. Vassalos and I. Mourtos (2016): Non-asymptotic performance bounds for downlink MU-MIMO scheduling, 12th Annual Conference on Wireless On-demand Network Systems and Services (WONS), 162-169.

[58] K. Cechlarova, P. *Eirinakis*, T. Fleiner, D. Magos, D. Manlove, I. Mourtos, B. Rastegari (2015), Pareto Optimal Matchings in Many-to-Many Markets with Ties, in M. Hoefer (Ed.) *SAGT* 2015, *Lecture Notes in Computer Science* 9347*,* Springer-Verlag, Berlin-Heidelberg (in press).

[59] E. Zampou, K. Pramatari, I. Mourtos (2015), Design of Environmental Performance Monitoring Systems in the Supply Chain, *ECIS 2015 Completed Research Papers*, Paper 212 (http://aisel.aisnet.org/ecis2015_cr/212).

[60] I. Mourtos (2013): Tight LP-relaxations of overlapping global cardinality constraints, in C.Gomes, M.Sellman (Eds.), CPAIOR 2013, *Lecture Notes in Computer Science* 7874*,* 362-369, Springer-Verlag, Berlin-Heidelberg

[61] T. Dokka, I. Mourtos, F. Spieksma: Fast Separation Algorithms for Three-Index Assignment problems, in A.R. Mahjoub et al. (Eds.): ISCO 2012, *Lecture Notes in Computer Science* 7422, 189–200, 2012, Springer-Verlag, Berlin-Heidelberg.

[62] P. Eirinakis, D. Magos, I. Mourtos, Ioannis, P. Miliotis, Hyperarc Consistency for the Stable Admissions Problem, *Proceedings of the 19th IEEE International Conference on Tools with Artificial Intelligence*, 2007 (ICTAI 2007) 1, 239-242.

[63] D. Magos, I. Mourtos and L. Pitsoulis: Consistency of the matching predicate. *Lecture Notes in Artificial* Intelligence **3955**, 555–558, Springer-Verlag (2006).

[64] G. Appa, D. Magos and I. Mourtos: LP relaxations of multiple all_different predicates. In J.C. Regin, M. Rueher (eds.): *Lecture Notes in Computer Science* 3011, 364-369 Springer-Verlag (2004).

[65] G. Appa, I. Mourtos and D. Magos: Integrating Constraint and Integer Programming for the Orthogonal Latin Squares Problem. *Lecture Notes in Computer Science* 2470, 15-31 (2002).