

GEORGE LIBEROPOULOS

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SCIENTIFIC INTERESTS

Operations Research, Applied Probability, Automatic Control applied to Production, Inventory, and Service System Operations, Supply Chain Management, and Electricity Markets.

EDUCATION

- Ph.D., Manufacturing Engineering, Boston University, USA, 1993.
- M.Eng., Mechanical Engineering, Cornell University, USA, 1986.
- B.S., Mechanical Engineering, Cornell University, USA, 1985.

ACADEMIC POSITIONS

- Professor, Department of Mechanical Engineering, UTH, Greece, 2008-present.
- Associate Professor, Department of Mechanical Engineering, UTH, Greece, 2003-2008.
- Assistant Professor, Department of Mechanical Engineering, UTH, Greece, 1996-2003.
- Visiting Researcher, Laboratoire de Méthodologie et Architecture des Systèmes Informatiques, CNRS-Université Pierre et Marie Curie (Paris 6) (currently, Laboratoire d'Informatique de Paris 6 (LIP6), CNRS-Université Sorbonne), France, 1994-1996.
- Lecturer, Department of Manufacturing Engineering (currently, Department of Mechanical Engineering), Boston University, USA, 1993.

ADMINISTRATIVE POSITIONS

Department of Mechanical Engineering, UTH

- Director of the Production Management Laboratory, 1998-present.
- Vice Chairman of the Department and Director of the Doctorate Studies Program and the MSc Program “State-of-the-Art Design and Analysis Methods in Industry,” 2005-2007.
- Chairman of the Department, 2007-2009.
- Director of the MSc Program “Supply Chain Management and Logistics,” 2018-2022.

UTH

- Vice President of the University Research Committee, 2005-2008.

Outside UTH

- Member of the Regulatory Authority for Railways, Greece, 2011-2017.

PUBLICATIONS

Book Chapters

1. Karaesmen F, Liberopoulos G, Dallery Y (2003) [Production/inventory control with advance demand information](#). Shanthikumar JG, Yao DD, Zijm WHM, eds. *Stochastic Modeling and Optimization of Manufacturing Systems and Supply Chains*, International Series in Operations Research and Management Science, Vol. 63, Kluwer, Boston, MA, Ch. 10, 243-270.
2. Liberopoulos G, Tsikis I (2003) [Unified modeling framework of multi-stage production-inventory control policies with lot-sizing and advance demand information](#). Shanthikumar JG, Yao DD, Zijm WHM, eds. *Stochastic Modeling and Optimization of Manufacturing Systems and*

Supply Chains. International Series in Operations Research and Management Science, Vol. 63, Kluwer, Boston, MA, Ch. 11, 271-297.

3. Koukoumialos S, Liberopoulos G (2005) [An analytical method for the performance evaluation of echelon kanban control systems](#). Liberopoulos G, Papadopoulos CT, Tan B, Smith JM, Gershwin SB, eds. *Stochastic Modeling of Manufacturing Systems: Advances in Design, Performance Evaluation and Control Issues* (expanded reprint of *OR Spectrum* 27(2-3) 2005), Springer, Berlin, Ch. 9, 193-222.
4. Liberopoulos G (2013) [Production release control: Paced, WIP-based, or demand-driven? Revisiting the push/pull and make-to-order/make-to-stock distinctions](#). Smith JM, Tan B, eds. *Handbook of Stochastic Models and Analysis of Manufacturing System Operations*. International Series in Operations Research and Management Science, Vol. 192, Springer, New York, NY, Ch. 7, 211-247.

Articles in Scientific Journals

1. Caramanis M, Liberopoulos G (1992) [Perturbation analysis for the design of flexible manufacturing system flow controllers](#). *Operations Research* 40(6):1107-1125.
2. Liberopoulos G, Caramanis M (1994) [Production control of manufacturing systems with production rate dependent failure rates](#). *IEEE Transactions on Automatic Control* 39(4):889-895.
3. Liberopoulos G, Caramanis M (1994) [Infinitesimal perturbation analysis for second derivative estimation and design of manufacturing flow controllers](#). *Journal of Optimization Theory and Applications* 81(2):297-327.
4. Liberopoulos G, Hu J-Q (1995) [On the ordering of optimal hedging points in a class of manufacturing flow control models](#). *IEEE Transactions on Automatic Control* 40(2):282-286.
5. Liberopoulos G, Caramanis M (1995) [Dynamics and design of a class of parameterized manufacturing flow controllers](#). *IEEE Transactions on Automatic Control* 40(6):1018-1028.
6. Liberopoulos G, Caramanis M (1997) [Numerical investigation of optimal policies for production flow control and set-up scheduling: Lessons from two-part-type, failure-prone FMSs](#). *International Journal of Production Research* 35(8):2109-2133.
7. Liberopoulos G, Dallery Y (2000) [A unified framework for pull control mechanisms in multi-stage manufacturing systems](#). *Annals of Operations Research* 93(1-4):325-355.
8. Dallery Y, Liberopoulos G (2000) [Extended kanban control system: combining kanban and base stock](#). *IIE Transactions* 32(4):369-386.
9. Chaouiya C, Liberopoulos G, Dallery Y (2000) [The extended kanban system for production coordination of assembly systems](#). *IIE Transactions* 32(10):999-1012.
10. Liberopoulos G, Tsarouhas P (2002) [Systems analysis speeds up Chipita's food-processing line](#). *Interfaces* 32(3):62-76.
11. Liberopoulos G, Dallery Y (2002) [Base stock versus WIP cap in single-stage make-to-stock production-inventory systems](#). *IIE Transactions* 34(7):627-636.
12. Liberopoulos G (2002) [Production capacity modeling of alternative, nonidentical, flexible machines](#). *International Journal of Flexible Manufacturing Systems* 14(4):345-359.
13. Liberopoulos G, Dallery Y (2003) [Comparative modelling of multi-stage production-inventory control policies with lot sizing](#). *International Journal of Production Research* 41(6):1273-1298.
14. Karaesmen F, Liberopoulos G, Dallery Y (2004) [The value of advance demand information in production/inventory systems](#). *Annals of Operations Research* 126(1-4):135-157.

15. Tsarouhas P, Liberopoulos G (2004) [Determining quality inspection frequency in an automated production line based on field failure data analysis](#). *Operational Research: An International Journal* 4(3):305-315.
16. Liberopoulos G, Tsarouhas P (2005) [Reliability analysis of an automated pizza processing line](#). *Journal of Food Engineering* 69(1):79-96.
17. Liberopoulos G, Koukoumialos S (2005) [Tradeoffs between base stock levels, numbers of kanbans and production lead times in production-inventory systems with advance demand information](#). *International Journal of Production Economics* 96(2):213-232.
18. Koukoumialos S, Liberopoulos G (2005) [An analytical method for the performance evaluation of echelon kanban control systems](#). *OR Spectrum* 27(2-3):339-368.
19. Liberopoulos G, Kozanidis G, Tsarouhas P (2007) [Performance evaluation of an automatic transfer line with WIP scrapping during long failures](#). *Manufacturing & Service Operations Management* 9(1):62-83.
20. Liberopoulos G (2008) [On the tradeoff between optimal order-base-stock levels and demand lead-times](#). *European Journal of Operational Research* 190(1):136-155.
21. Liberopoulos G, Koukoumialos S (2008) [On the effect of variability and uncertainty in advance demand information on the performance of a make-to-stock supplier](#). *MIBES Transactions International Journal* 2(1):95-114.
22. Andrianesis P, Liberopoulos G, Sakellaris K, Vlachos A (2009) [Impacts of reserve and fixed costs on Greece's day-ahead scheduling problem](#). *Euro-Asian Journal of Sustainable Energy Development Policy* 2(2):45-53.
23. Liberopoulos G, Tsikis I, Delikouras S (2010) [Backorder penalty cost coefficient "b": What could it be?](#) *International Journal of Production Economics* 123(1):166-178.
24. Liberopoulos G, Kozanidis G, Hatzikonstantinou O (2010) [Production scheduling of a multi-grade PET resin plant](#). *Computers and Chemical Engineering* 34(3):387-400.
25. Kozanidis G, Liberopoulos G, Pitsilkas C (2010) [Flight and maintenance planning of military aircraft for maximum fleet availability](#). *Military Operations Research* 15(1):53-73.
26. Andrianesis P, Biskas P, Liberopoulos G (2011) [An overview of Greece's wholesale electricity market with emphasis on ancillary services](#). *Electric Power Systems Research* 81(8):1631-1642.
27. Andrianesis P, Liberopoulos G, Kozanidis G, Papalexopoulos AD (2013) [Recovery mechanisms in day-ahead electricity markets with non-convexities – Part I: Design and evaluation methodology](#). *IEEE Transactions on Power Systems* 28(2):960-968.
28. Andrianesis P, Liberopoulos G, Kozanidis G, Papalexopoulos AD (2013) [Recovery mechanisms in day-ahead electricity markets with non-convexities – Part II: Implementation and numerical evaluation](#). *IEEE Transactions on Power Systems* 28(2):969-977.
29. Liberopoulos G, Pandelis DG, Hatzikonstantinou O (2013) [The stochastic economic lot sizing problem for non-stop multi-grade production with sequence-restricted setup changeovers](#). *Annals of Operations Research* 209(1):179-205.
30. Kozanidis G, Kostarelou E, Andrianesis P, Liberopoulos G (2013) [Mixed integer parametric bilevel programming for optimal strategic bidding of energy producers in day-ahead electricity markets with indivisibilities](#). *Optimization* 62(8):1045-1068.
31. Saharidis GKD, G. Kolomvos G, Liberopoulos G (2014) [Modeling and solution approach for the environmental traveling salesman problem](#). *Engineering Letters* 22(2):70-74.
32. Kozanidis G, Gavranis A, Liberopoulos G (2014) [Heuristics for flight and maintenance planning of mission aircraft](#). *Annals of Operations Research* 221(1):211-238.

33. Liberopoulos G, Andrianesis P (2016) [Critical review of pricing schemes in markets with non-convex costs](#). *Operations Research* 64(1):17-31.
34. Liberopoulos G (2018) [Performance evaluation of a production line operated under an echelon buffer policy](#). *IIE Transactions* 50(3):161-177.
35. Liberopoulos G (2020) [Comparison of optimal buffer allocation in flow lines under installation buffer, echelon buffer, and CONWIP policies](#). *Flexible Services and Manufacturing Journal* 32(2): 297-365.
36. Andrianesis P, Biskas P, Liberopoulos G (2021) [Evaluating the cost of emissions in a pool-based electricity market](#). *Applied Energy* 298 (online).
37. Liberopoulos G, Deligiannis M (2022) [Optimal supplier inventory control policies when buyer purchase incidence is driven by past service](#). *European Journal of Operational Research* 300(3): 917-936.
38. Deligiannis M, Liberopoulos G, Benioudakis, M (2023) [Dynamic supplier competition and cooperation for buyer loyalty on service](#). *International Journal of Production Economics* 255 108706 (online)
39. Deligiannis M, Liberopoulos G, (2023) [Dynamic ordering and buyer selection policies when service affects future demand](#). *Omega* 118 102873 (online).