

Joren Gijsbrechts
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Research interests

Joren Gijsbrechts is an assistant professor in Operations Management. He graduated as a Bachelor and Master in Business Engineering at the University of Antwerp in Belgium. Prior to obtaining his doctoral degree from KU Leuven in Belgium, he attained business experience in the Supply Chain and Operations division of Procter and Gamble in Sweden. His research centers around data-driven decision making in Operations Management with a strong focus on the recent developments in Machine Learning and Prescriptive Analytics. His models have assisted companies to improve their inventory and transportation management. In addition to research, he is providing guest lectures and company workshops on the recent developments within Supply Chain Analytics.

Employment

Department of Operations, Innovation and Data Sciences

Ramon Llull University
1 Sept 2023 → present

Esade Business School

Ramon Llull University
1 Sept 2023 → present

Esade

Ramon Llull University
1 Sept 2023 → present

Operations Manager

Procter and Gamble
United States

Research outputs

Optimal robust inventory management with volume flexibility: Matching capacity and demand with the lookahead peak-shaving policy

Gijsbrechts, J., Imdahl, C., Boute, R. N. & Van Mieghem, J. A., Nov 2023, In: Production and Operations Management. 32, 11, p. 3357-3373 17 p.

Reward shaping to improve the performance of deep reinforcement learning in perishable inventory management

De Moor, B. J., Gijsbrechts, J. & Boute, R. N., 1 Sept 2022, In: European Journal of Operational Research. 301, 2, p. 535-545 11 p.

Can Deep Reinforcement Learning Improve Inventory Management? Performance on Lost Sales, Dual-Sourcing, and Multi-Echelon Problems

Gijsbrechts, J., Boute, R. N., Van Mieghem, J. A. & Zhang, D. J., Jun 2022, In: M&som-manufacturing & Service Operations Management. 24, 3, p. 1349-1368 20 p.

Volume flexibility at responsive suppliers in reshoring decisions: Analysis of a dual sourcing inventory model

Gijsbrechts, J., Boute, R. N., Disney, S. M. & Van Mieghem, J. A., May 2022, (E-pub ahead of print) In: Production and Operations Management. 20 p.

Deep reinforcement learning for inventory control: A roadmap

Boute, R. N., Gijsbrechts, J., van Jaarsveld, W. & Vanvuchelen, N., 16 Apr 2022, In: European Journal of Operational Research. 298, 2, p. 401-412 12 p.

Dual Sourcing and Smoothing Under Nonstationary Demand Time Series: Reshoring with SpeedFactories
Boute, R. N., Disney, S. M., Gijsbrechts, J. & Van Mieghem, J. A., Feb 2022, In: *Management Science*. 68, 2, p. 1039-1057 19 p.

Digital Lean Operations: Smart Automation and Artificial Intelligence in Financial Services
Boute, R. N., Gijsbrechts, J. & Van Mieghem, J. A., 2022, *Springer Series in Supply Chain Management*. Springer Nature, p. 175-188 14 p. (Springer Series in Supply Chain Management; vol. 11).

Synchromodal transportation planning using travel time information
Yee, H., Gijsbrechts, J. & Boute, R., Feb 2021, In: *Computers in Industry*. 125, 103367.

Use of Proximal Policy Optimization for the Joint Replenishment Problem
Vanvuchelen, N., Gijsbrechts, J. & Boute, R., Aug 2020, In: *Computers in Industry*. 119, 103239.

Synchromodality in the Physical Internet – dual sourcing and real-time switching between transport modes
Lemmens, N., Gijsbrechts, J. & Boute, R., 1 Dec 2019, In: *European Transport Research Review*. 11, 1, 19.