Morteza DAVARI

Associate Professor

Academy: Digitalization

Research center: SKEMA Centre for Analytics and Management Science

Campus: Lille

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Research interests

Operations Research, Combinatorial Optimization, Stochastic Programming, Sport Planning, Scheduling, Project Planning, Data Driven Optimization, Data Mining

Teaching interests

Combinatorial Optimization, Data Driven Optimization, Data Mining, Project Planning, Scheduling, Sport Planning, Stochastic Programming

Education

2017	Ph.D. in Business Economics, KU Leuven, Belgium
2012	MSc in Advanced Business Studies, KU Leuven, Belgium
2011	BSc in Industrial Engineering, Ferdowsi University of Mashhad, Iran

Experience

Full-time academic positions

Since 2024	Associate Professor, SKEMA Business School, France
Since 2020	Assistant Professor in Operations Research, SKEMA Business School, France
Since 2020	Visiting Faculty, KU Leuven, Belgium

Other academic affiliations and appointments

2017 - 2020	Postdoctoral Researcher at KU Leuven, KU Leuven, Belgium

Publications

Peer-reviewed journal articles

GHORBANZADEH, M., DAVARI, M. and RANJBAR, M. (2024). Energy-aware flow shop scheduling with uncertain renewable energy. *Computers & Operations Research*, 170(106741).

BRUSSET, X., DAVARI, M., KINRA, A. and LA TORRE, D. (2023). Modelling ripple effect propagation and global supply chain workforce productivity impacts in pandemic disruptions. *International Journal of Production Research*, 61(8), pp. 2493-2512.

LI, M., DAVARI, M. and GOOSSENS, D. (2023). Multi-league sports scheduling with different leagues sizes. *European Journal of Operational Research*, 307(1), pp. 313-327.

YANG, F., DAVARI, M., WEI, W., HERMANS, B. and LEUS, R. (2022). Scheduling a single batch machine family with non-identical job sizes and incompatible job families. *European Journal of Operational Research*, 303(2), pp. 602-615.

PEYMANKAR, M., DAVARI, M. and RANJBAR, M. (2021). Maximizing the expected net present value in a project with uncertain cash flows. *European Journal of Operational Research*, 294(2), pp. 442-452.

BRISKORN, D., DAVARI, M. and MATUSCHKE, J. (2021). Single-machine scheduling with an external resource. *European Journal of Operational Research*, 293(2), pp. 457-468.

DAVARI, M., RANJBAR, M., DE CAUSMAECKER, P. and LEUS, R. (2020). Minimizing makespan on a single machine with release dates and inventory constraints. *European Journal of Operational Research*, 286(1), pp. 115-128.

DAVARI, M., GOOSSENS, D., BELIEN, J., LAMBERS, R. and SPIEKSMA, F.C.R. (2020). The multi-league sports scheduling problem, or how to schedule thousands of matches. *Operations Research Letters*, 48(2), pp. 180-187.

DAVARI, M. and DEMEULEMEESTER, E. (2019). A novel branch-and-bound algorithm for the chance-constrained resource-constrained project scheduling problem. *International Journal of Production Research*, 57(4), pp. 1265-1282.

DAVARI, M. and DEMEULEMEESTER, E. (2019). Important classes of reactions for the proactive and reactive resource-constrained project scheduling problem. *Annals of Operations Research*, 274, pp. 187-210.

DAVARI, M. and DEMEULEMEESTER, E. (2019). The proactive and reactive resource-constrained project scheduling problem. *Journal of Scheduling*, 22, pp. 211-237.

DAVARI, M., DEMEULEMEESTER, E., LEUS, R. and TALLA NOBIBON, F. (2016). Exact algorithms for a single-machine scheduling problem with time windows and precedence constraints. *Journal of Scheduling*, 19, pp. 309-334.

ABASIAN, F., RANJBAR, M., SALARI, M., DAVARI, M. and KHATAMI, M. (2014). Minimizing the total weighted late work in scheduling of identical parallel processors with communication delays. *Applied Mathematical Modelling*, 38(15-16), pp. 3975-3986.

RANJBAR, M. and DAVARI, M. (2013). An exact method for scheduling of the alternative technologies in R&D projects. *Computers & Operations Research*, 40(1), pp. 395-405.

RANJBAR, M., DAVARI, M. and LEUS, R. (2012). Two branch-and-bound algorithms for the robust parallel machine scheduling problem. *Computers & Operations Research*, 39(7), pp. 1652-1660.

Book chapters

BRUSSET, X., DAVARI, M., KINRA, A. and LA TORRE, D. (2021). Modelling COVID-19 Ripple Effect and Global Supply Chain Productivity Impacts Using a Reaction-Diffusion Time-Space SIS Model. In: Alexandre Dolgui, Alain Bernard, David Lemoine, Gregor von Cieminski, David Romero eds. *Advances in Production Management Systems. Artificial Intelligence for Sustainable and Resilient Production Systems*. 1st ed. Nantes: Springer, pp. 3-12.

Conference proceedings

BRUSSET, X., DAVARI, M., KINRA, A. and LA TORRE, D. (2021). Modelling COVID-19 Ripple Effect and Global Supply Chain Productivity Impacts Using a Reaction-Diffusion Time-Space SIS Model. pp. 3-12.

DAVARI, M., DEMEULEMEESTER, E., LEUS, R. and TALLA NOBIBON, F. (2013). Exact algorithms for single-machine scheduling with time windows and precedence constraints.

Conference presentations

DAVARI, M. (2020). A dynamic programming-based guess-and-check algorithm to minimize makespan on a single machine with release date and inventory constraint. In: 34th conference of the Belgian Operational Research Society (ORBEL34). Lille.

YANG, F., DAVARI, M. and WEI, W. (2020). Scheduling a single batch processing machine with non-identical job sizes and incompatible job families. In: 34st annual conference of the Belgian Operational Research Society (ORBEL34). Lille.

DAVARI, M., BELIEN, J. and GOOSSENS, D. (2019). Polynomial algorithms for the multi-league sport scheduling problem. In: 33st annual conference of the Belgian Operational Research Society (ORBEL33). Hasselt.

DAVARI, M., PEYMANKAR, M. and RANJBAR, M. (2019). Net present value maximization in project scheduling with an external resource. In: 14th Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP 2019). Renesse.

YANG, F., DAVARI, M. and WEI, W. (2019). Scheduling a single batch processing machine with non-identical job sizes and incompatible job families. In: Multidisciplinary International Scheduling Conference: Theory and Applications (MISTA). Ningbo.

DAVARI, M., RANJBAR, M. and LEUS, R. (2018). Minimizing makespan on a single machine with release date and inventory constraints. In: 32st annual conference of the Belgian Operational Research Society (ORBEL32). Liege.

DAVARI, M., BELIEN, J. and DE CAUSMAECKER, P. (2018). A generic solution method for scheduling with inventory constraints. In: EURO-European Conference on Operational research , Valencia (Spain). Valencia.

DAVARI, M. and DEMEULEMEESTER, E. (2017). The proactive and reactive resource-constrained project scheduling problem: the crucial role of buffer-based reactions. In: 31st annual conference of the Belgian Operational Research Society (ORBEL31). Brussels.

DAVARI, M. and DE CAUSMAECKER, P. (2017). A schedule selection method for the proactive and reactive scheduling problem. In: 21st Conference of the International Federation of Operational Research Societies (IFORS 2017). Quebec City.

DAVARI, M. and DEMEULEMEESTER, E. (2016). The proactive and reactive resource-constrained project scheduling problem. In: 28th EURO-European Conference on Operational research. Poznan.

DAVARI, M. and DEMEULEMEESTER, E. (2015). Proactive-reactive resource-constrained project scheduling: A recovery-robust approach. In: OR2015: Business Analytics and Optimisation Conference. Vienna.

DAVARI, M., LAMAS, P. and DEMEULEMEESTER, E. (2014). A new branch-and-bound algorithm for CC-RCPSP. In: OR2014: Business Analytics and Optimisation Conference. Aachen.

DAVARI, M. and DEMEULEMEESTER, E. (2014). Robust RCPSP: a special focus on reactions. In: INFORMS Annual Meeting. San Francisco.

DAVARI, M., TALLA NOBIBON, F. and LEUS, R. (2013). A single machine scheduling problem with time windows and precedence constraints. In: 26th EURO-INFORMS European Conference on Operational Research. Rome.

DAVARI, M., DEMEULEMEESTER, E. and LEUS, R. (2013). Exact algorithms for single-machine scheduling with time windows and precedence constraints. In: Multidisciplinary International Scheduling Conference: Theory and Applications (MISTA). Gent.

DAVARI, M. and RANJBAR, M. (2012). One-by-one or altogether: the advantages of pursuing alternative innovation activities. In: PMS2012 - International Conference on Project Management and Scheduling. Leuven.

Other research activities

Reviewer for:

4OR: A Quarterly Journal of Operations Research, Flexible Services and Manufacturing Journal, INFORMS Journal on Computing, Omega, Journal of Scheduling, Annals of Operations Research, Decision Sciences, Computers & Operations Research, European Journal of Operational Research, International Transactions in Operational Research, 4OR: A Quarterly Journal of Operations Research, IIE Transactions

Organization of a conference or a seminar

2021	The Sports Timetabling competition

PhD supervision

Since 2023	S. HASEMI, PhD thesis, Thesis co-director
Since 2022	L. GALLOIS, SKEMA Business School, PhD thesis, Thesis director
	Y. CHEN, PhD thesis, Thesis jury member
Since 2018	M. GHORBANZADEH, PhD thesis, Thesis co-director
2021	M. PEYMANKAR, Ferdowsi University of Mashhad, PhD thesis, Thesis co-director

2021 F. YANG, under the supervision of R. LEUS, PhD thesis, Thesis jury member