

Curriculum vitae

CHRISTOF DEFRYN

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Personalia

Address	Hoogbunderlaan 23, 2550 Kontich, Belgium
Contact	c.defryn@maastrichtuniversity.nl christof.defryn@gmail.com +32 491 089 446
Web	christofdefryn.com linkedin.com/in/christofdefryn researchgate.net/profile/Christof_Defryn
Orcid	0000-0002-5803-5412

Research Interests and specialities

- **Collaborative logistics.** The development of decision support tools for joint logistics optimization in a multi-partner setting. This involves the construction of shared vehicle routes, the design of optimal coalition configurations and the inclusion of fair cost (or profit) allocation mechanisms.
- **Synchromodality and the Physical Internet.** Study the working of integrated logistics networks with respect to synchromodal planning (algorithmic design), pricing and gain sharing.
- **Warehouse operations.** Combinatorial optimization for logistical planning in highly structured environments and improved order picking efficiency through anticipatory picking and demand prediction.

Keywords: vehicle routing problem; horizontal collaboration; collaborative logistics; (meta)heuristic algorithms; multi-objective optimization; order picking; warehouse operations planning; physical internet.

Professional experience

Since Feb/2019	Guest professor <i>Engineering Management Department</i> <i>University of Antwerp, Belgium</i>
Since Oct/2017	Assistant professor Operations Research <i>Department of Quantitative Economics</i> <i>School of Business and Economics, Maastricht University, The Netherlands</i>
Jun/2017-Aug/2017	Visiting researcher <i>University of Maryland, US</i> Joint work (with Bruce Golden, Edward Wasil and Debdatta Sinha Roy) on the close-enough vehicle routing problem. More specifically, we focused on the integration of data analytics, statistics and vehicle routing to address the uncertainty in the meter reading for utility companies using RFID technology.

Education

Oct/2012-Sep/2017	PhD Researcher in Applied Economics <i>University of Antwerp, Belgium</i> “MODELS FOR OPERATIONAL OPTIMISATION IN A HORIZONTAL LOGISTIC COOPERATION. GAIN SHARING, INCENTIVES AND MULTI-LEVEL OBJECTIVES.” The main goal of my PhD was to develop solution methods and algorithms for solving collaborative vehicle routing problems. I looked at facilitating the decision-making in a horizontal logistic cooperation, where multiple partners aim at jointly organizing and optimizing their logistical activities. Besides the construction of optimal shared routes, I studied the optimal coalition configuration, the inclusion of a fair cost allocation approach and developed optimisation models in which individual partner interests could be integrated in the logistic optimisation problem. <i>Supervisor: Prof. dr. Kenneth Sørensen</i>
Sep/2010-Sep/2012	Msc in Business Engineering <i>University of Antwerp, Belgium</i> Production management & Research methodology Thesis on “Profit estimation in a horizontal logistic cooperation”
Sep/2007-Jun/2010	Bsc in Business Engineering <i>University of Antwerp, Belgium</i>

Additional courses / trainings

2020	Training working in international teams <i>Trainer: Nava Hinrichs-Passuto</i> <i>Institution: Maastricht University</i>
2019	Supervision of PhD students <i>3-day Training provided by ElroyCOM</i>
2013	VRP2013 // Spring school on the Vehicle Routing Problem <i>Teachers: Prof. D. Vigo, Prof. C. Prins, Prof. D. Feillet, Prof. M. Gendreau & Prof. V. Pillac</i> <i>Institution: Institute of Applied Mathematics (IMA), Université Catholique de l'Ouest, Angers, France</i> Advanced optimisation techniques <i>Teacher: Prof. dr. K. Sørensen</i> <i>Institution: University of Antwerp, Belgium</i>
2012	Combinatorial optimisation and local search techniques <i>Teacher: Prof. dr. J. Beliën</i> <i>Institution: KU Leuven, Belgium</i>

RESEARCH

A. Publications

Publications under preparation

- Marieke Vonk, Christof Defryn. “The impact and dynamics of (intertemporal) vessel collaboration on inland waterway navigation and fuel emissions”
Status: writing mostly done, experiments to be finalized
- Rajabighamchi Farzaneh, Defryn Christof, Van Hoesel Stan. “Improved formulation for the order picking in structured networks”
Status: writing
- Rajabighamchi Farzaneh, Defryn Christof, Van Hoesel Stan. “A periodic multicommodity multi depot network design problem with time window, uncertain demand and heterogeneous fleet”
Status: writing
- Tran Son, Jorge Almeida Rui, Defryn Christof. “Anticipatory order picking”
Status: Finalizing paper for submission
- Ilgin Efe Şenyuva, Tim Oosterwijk, Christof Defryn. “Parcel routing in the physical internet”
- Christof Defryn, Kenneth Sørensen. “OR challenges in the physical internet”
Status: writing

Publications under revision

- Hacardiaux Thomas, Defryn Christof, Verdonck Lotte, Tancrez Jean-Sébastien. “Partner selection accounting for product characteristics in horizontal collaboration”
- Sinha Roy Debdatta, Defryn Christof, Golden Bruce, Wasil Edward. “Data-Driven Optimization and Statistical Modeling to Improve Meter Reading for Utility Companies”

Journal publications

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| | Julian Golak, Christof Defryn, and Alexander Grigoriev. “Optimizing Fuel Consumption on Inland Waterway Networks”. In: <i>Omega</i> (accepted with minor comments)
<i>[Impact factor (2020): 7.084, GSBE journal classification: A]</i> |
| 2021 | Thomas Hacardiaux, Christof Defryn, Jean-Sébastien Tancrez, and Lotte Verdonck. “Balancing partner preferences for logistics costs and carbon footprint in a horizontal cooperation”. In: <i>OR Spectrum</i> (2021)
<i>[Impact factor (2020): 1.652, GSBE journal classification: B+]</i> |
| | Julian Arthur Pawel Golak, Christof Defryn, Veerle Timmermans, and Grigoriev Alexander. “Inland waterway efficiency through skipper collaboration and joint speed optimization”. In: <i>European Journal of Operational Research</i> 292.1 (2021), pp. 276–285
<i>[Impact factor (2019): 4.213, GSBE journal classification: A]</i> |
| 2019 | Christof Defryn, Kenneth Sørensen, and Wout Dullaert. “Integrating partner objectives in horizontal logistics optimisation models”. In: <i>Omega</i> 82 (2019), pp. 1–12
<i>[Impact factor (2016): 4.029, GSBE journal classification: A]</i> |

- 2018** | Christof Defryn and Kenneth Sörensen. “Multi-objective optimisation models for the travelling salesman problem with horizontal cooperation”. In: *European Journal of Operational Research* 267.3 (2018), pp. 891–903
[Impact factor (2016): 3.297, GSBE journal classification: A]
- 2017** | Christof Defryn and Kenneth Sörensen. “A fast two-level variable neighborhood search heuristic for the clustered vehicle routing problem”. In: *Computers & Operations Research* 83 (2017), pp. 78–94
[Impact factor (2016): 2.600, GSBE journal classification: B+]
- 2016** | Christof Defryn, Kenneth Sörensen, and Trijntje Cornelissens. “The selective vehicle routing problem in a collaborative environment”. In: *European Journal of Operational Research* 250.2 (2016), pp. 400–411
[Impact factor (2016): 3.297, GSBE journal classification: A]

Research monographs, chapters

- 2019** | Christof Defryn, Julian Golak, Alexander Grigoriev, and Veerle Timmermans. “Inland Waterway Efficiency Through Skipper Collaboration and Joint Speed Optimization”. In: *Mathematical Optimization Theory and Operations Research*. Ed. by Michael Khachay, Yury Kochetov, and Panos Pardalos. Springer, 2019, pp. 202–217
- 2017** | Christof Defryn. “Models for operational optimisation in a horizontal logistic cooperation: gain sharing, incentives and multi-level objectives”. PhD thesis. University of Antwerp, 2017
- 2016** | Christof Defryn, Christine Vanovermeire, and Kenneth Sörensen. “Gain Sharing in Horizontal Logistic Co-operation: A Case Study in the Fresh Fruit and Vegetables Sector”. In: *Sustainable Logistics and Supply Chains*. Ed. by Meng Lu and Joost De Bock. Contributions to Management Science. Springer International Publishing, 2016, pp. 75–89

Research papers

- 2020** | Thomas Hacardiaux, Christof Defryn, Jean-Sébastien Tancrez, and Lotte Verdonck. *Balancing partner preferences for logistics costs and carbon footprint in a horizontal cooperation*. Tech. rep. Maastricht University, 2020
- 2019** | Debdatta Sinha Roy, Christof Defryn, Bruce Golden, and Edward Wasil. *Data-Driven Optimization and Statistical Modeling to Improve Meter Reading for Utility Companies*. Tech. rep. Maastricht University, 2019
- 2015** | Christof Defryn, Kenneth Sörensen, and Trijntje Cornelissens. *The selective vehicle routing problem in a collaborative environment*. Tech. rep. University of Antwerp, 2015
- 2015** | Christof Defryn and Kenneth Sörensen. *A two-level Variable Neighbourhood Search for the Euclidean Clustered Vehicle Routing Problem*. Tech. rep. University of Antwerp, 2015
- 2014** | Christof Defryn and Kenneth Sörensen. *Gain sharing in horizontal logistic collaboration – a case study in the fresh fruit and vegetables sector*. Tech. rep. University of Antwerp, 2014

B. Research dissemination

Contributions to National and International Conferences

Notice: The author mentioned first was the presenter.

13-15/12/2021	Son Tran, Rui Jorge de Almeida, and Christof Defryn. “Anticipatory order picking”. In: <i>TSL workshop on “E-Commerce in an Emerging World”</i> . Virtual conference, 2021
24-27/10/2021	Christof Defryn. “Decentralized and Intertemporal Logistics Collaboration”. In: <i>INFORMS annual meeting</i> . Anaheim, US (hybrid conference), 2021
24-27/10/2021	Jasper Paesen, Lotte Verdonck, An Caris, and Christof Defryn. “Synchronomodal Pricing Strategies From A Network Flow Perspective”. In: <i>INFORMS annual meeting</i> . Anaheim, US (hybrid conference), 2021
11-14/07/2021	Farzaneh Rajabighamchi, Stan Van Hoesel, and Christof Defryn. “An Exact Model for the order picker routing problem in warehouses”. In: <i>EURO2021: 31th European Conference on Operational Research</i> . Athens, Greece (Hybrid conference), 2021
11-14/07/2021	Jasper Paesen et al. “Synchronomodal pricing strategies from a network flow perspective”. In: <i>EURO2021: 31th European Conference on Operational Research</i> . Athens, Greece (Hybrid conference), 2021
11-14/07/2021	Son Tran, Christof Defryn, and Rui Jorge Almeida. “Anticipatory order picking”. In: <i>EURO2021: 31th European Conference on Operational Research</i> . Athens, Greece (Hybrid conference), 2021
07-13/11/2020	Christof Defryn and Marieke Vonk. “The impact and dynamics of (intertemporal) vessel collaboration on inland waterway navigation and fuel emission”. In: <i>INFORMS Annual meeting</i> . Virtual conference, 2020
15-18/07/2019	Julian Golak, Veerle Timmermans, Alexander Grigoriev, and Christof Defryn. “Inland waterway efficiency through skipper collaboration and joint speed optimization”. In: <i>7th INFORMS Transportation Science and Logistics Society Workshop</i> . Vienna, Austria, 2019
15-18/07/2019	Thomas Hacardiaux, Christof Defryn, and Tancrez Jean-Sébastien. “Multi-objective optimization framework for the integration of individual partner interests in a collaborative location-inventory model”. In: <i>7th INFORMS Transportation Science and Logistics Society Workshop</i> . Vienna, Austria, 2019
08-12/07/2019	Alexander Grigoriev, Julian Golak, Veerle Timmermans, and Christof Defryn. “Inland waterway efficiency through skipper collaboration and joint speed optimization”. In: <i>MOTOR2019: Mathematical optimization theory and operations research</i> . Ekaterinburg, Russia, 2019
23-26/06/2019	Christof Defryn, Son Tran, and Rui Jorge Almeida. “Warehouse optimization through anticipatory order picking”. In: <i>EURO2019: 30th European Conference on Operational Research</i> . Dublin, Ireland, 2019
03-07/06/2019	Julian Golak, Veerle Timmermans, Alexander Grigoriev, and Christof Defryn. “Inland waterway efficiency through skipper collaboration and joint speed optimization”. In: <i>MAPSP 2019: 14th Workshop on Models and Algorithms for Planning and Scheduling Problems</i> . Renesse, Netherlands, 2019
07-08/02/2019	Christof Defryn. “A selective vehicle routing formulation for the order picking problem”. In: <i>ORBEL33: 33rd Annual Conference of the Belgian Operations Research Society</i> . Hasselt, Belgium, 2019

- 06-08/01/2019** Debdatta Sinha Roy, Christof Defryn, Bruce Golden, and Edward Wasil. “Data-Driven Optimization and Statistical Modeling to Improve Meter Reading for Utility Companies.” In: *ICS2019: INFORMS Computing Society Conference*. Knoxville, Tennessee, US, 2019
- 04-07/11/2018** Debdatta Sinha Roy, Christof Defryn, Bruce Golden, and Edward Wasil. “Data-Driven Optimization and Statistical Modeling to Improve Meter Reading for Utility Companies.” In: *INFORMS2018: INFORMS Annual meeting*. Phoenix, Arizona, US, 2018
- 01-02/02/2018** Christof Defryn, Debdatta Sinha Roy, and Bruce Golden. “Addressing Uncertainty in Meter Reading for Utility Companies using RFID Technology: Simulation Experiments.” In: *ORBEL32: 32st Annual Conference of the Belgian Operations Research Society*. Liège, Belgium, 2018
- 02-03/02/2017** Christof Defryn, Kenneth Sörensen, and Wout Dullaert. “Horizontal logistic cooperations. Integration of individual partner objectives in multi-partner logistic optimisation models.” In: *ORBEL31: 31st Annual Conference of the Belgian Operations Research Society*. Brussels, Belgium, 2017
- 06-08/06/2016** Christof Defryn and Kenneth Sörensen. “Horizontal co-operation in a clustered distribution environment. Exchanging zones for increased efficiency”. In: *VEROLOG2016: Annual workshop of the EURO working group on Vehicle Routing and Logistics optimization*. Nantes, France, 2016
- 28-29/01/2016** Christof Defryn and Kenneth Sörensen. “Horizontal co-operation in a clustered distribution environment. Exchanging zones for increased efficiency”. In: *ORBEL30: 30th Annual Conference of the Belgian Operations Research Society*. Louvain-La-Neuve, Belgium, 2016
- 12-15/07/2015** Christof Defryn and Kenneth Sörensen. “A multi-objective collaborative approach for the Travelling Salesman Problem with Time Windows”. In: *EURO2015: European Conference on Operational Research*. Glasgow, UK, 2015
- 08-10/06/2015** Christof Defryn and Kenneth Sörensen. “A multi-objective collaborative approach for the Vehicle Routing Problem with Time Windows”. In: *VeRoLoG2015: EURO Working Group on Vehicle Routing and Logistics Optimization*. Vienna, Austria, 2015
- 08-10/12/2014** Christof Defryn, Kenneth Sörensen, and Trijntje Cornelissens. “The Selective Vehicle Routing Problem in a collaborative environment”. In: *ALIO-EURO conference*. Montevideo, Uruguay, 2014
- 13-18/07/2014** Christof Defryn and Kenneth Sörensen. “The clustered vehicle routing problem: a two-level variable neighbourhood search”. In: *EURO/IFORS conference*. Barcelona, Spain, 2014
- 24-25/03/2014** Christof Defryn and Kenneth Sörensen. “The clustered vehicle routing problem: a variable neighbourhood metaheuristic”. In: *15th EU/ME workshop*. Istanbul, Turkey, 2014
- 30-31/01/2014** Christof Defryn and Kenneth Sörensen. “The collaborative selective vehicle routing problem: vehicle routing in a collaborative environment”. In: *ORBEL28: 28th Annual Conference of the Belgian Operations Research Society*. Mons, Belgium, 2014
- 20-24/05/2013** Christof Defryn and Kenneth Sörensen. “The collaborative team orienteering problem (poster)”. In: *VRP2013: European spring school on vehicle routing*. Angers, France, 2013
- 07-08/02/2013** Christof Defryn, Christine Vanovermeire, and Kenneth Sörensen. “The effect of customer characteristics on coalition gains in collaborative vehicle routing”. In: *ORBEL27: 27th Annual Conference of the Belgian Operations Research Society*. Kortrijk, Belgium, 2013

Invited seminars

26/01/2019	Christof Defryn. <i>Supermarket Math</i> . 25th Mathematical modelling competition, Maastricht. Jan. 2019
10/01/2019	Christof Defryn. <i>Uncertainty in logistics: Probabilistic meter reading and anticipatory order picking</i> . Vrije Universiteit Amsterdam. Jan. 2019
17/01/2018	Christof Defryn. <i>An introduction to cost allocation: Rule of thumb vs. cooperative game theory</i> . Jan. 2018
19/02/2014	Christof Defryn. <i>The cost allocation game in practice – What can Shapley do for me?</i> Jan. 2014

C. Funding received so far

2020	YERUN Research Mobility Award (1,000€) Competitive award for PhD students, Postdocs and early career researchers to cover expenses related to a research visit at a YERUN University
2019	Special Research Fund 2019, Doctoral grant in the framework of UHasselt – Maastricht University cooperation (~ 110,000€) from Bijzonder Onderzoeksfonds (BOF)
2018	Small scale research grant (4,000€) from Graduate School of Business and Economics, Maastricht University (GSBE) (grant no. G.18.5213)
2017	Travel grant for study abroad (6,200€) from Research Foundation - Flanders (FWO) (grant no. V429117N)
2015	PhD fellowship – renewal (~ 90,000€) from Research Foundation - Flanders (FWO) (grant no. 11Q1616N)
2013	PhD fellowship (~ 90,000€) from Research Foundation - Flanders (FWO) Success rate (2013) = 23% (grant no. 11G4813N)

D. Research recognition

Since 2018	Maastricht University, Graduate School of Business and Economics (GSBE) Fellowship
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TEACHING

A. Teaching qualification

I am holder of the **University Teaching Qualification (UTQ)**. The UTQ is a proof of didactic competence as teacher in higher education and is recognized by all Dutch Universities. The UTQ programme consists of self-assessment, competence development (equivalent to 40 hours of training) and assessment, in the form of a personal teaching portfolio.

B. Teaching education

2021	Quality assurance in education *
2020	Master thesis supervision *
2019	Educational service design *
	Cognitive and motivational effects on learning behaviour *
	Administration and procedures of assessment *
	Different assessment types *
	Development of assessment: Open ended questions/papers *
2018	General principles of assessment *
	Group dynamics in international classrooms *
2017	PBL Tutor training

* *Workshop as part of the University Teaching Qualification program.*

C. Teaching experience

School of Business and Economics, Maastricht University, The Netherlands

Notice: The educational system at MUSBE is focused on problem-based learning (PBL). As opposed to other, 'traditional' educational approaches, PBL is an enquiry-guided learning method characterised by active learning in small groups where solving interesting real-life problems is central to the learning process.

CURRENT COURSES:

- **Advanced Operations Research** (Master Econometrics and Operations Research)
Roles: course coordinator, design of materials, tutor
- **Operations Management** (Bachelor International Business)
Roles: course coordinator, design of materials, design of exams, lecturer, tutor
- **Operations and Supply Chain Management** (Bachelor Business Engineering)
Roles: course coordinator, design of materials, design of exams, lecturer, tutor
- **Operations Management for Business Analytics** (Bachelor Business Analytics)
Roles: course coordinator, design of materials, design of exams, lecturer, tutor
- **Supply chain operations management** (Master International Business, Supply chain management track)
Roles: course coordinator, design of exams, design of materials, lecturer, tutor

PREVIOUS COURSES:

- **Production planning and management** (University college, Venlo)
Roles: course coordinator, tutor
- **Quantitative Introduction to Business** (Bachelor Econometrics and Operations Research)
Roles: tutor
- **Management of Operations and Product Development** (Bachelor International Business)
Roles: tutor
- **Special topics in Logistics/Operations Management** (Research master, Econometrics and Operations Research)
Roles: course coordinator, design of materials, examination , tutor

Faculty of Business and Economics, University of Antwerp, Belgium

CURRENT COURSES:

- **ICT in supply chain management** (Master Business Engineering, supply chain track)
Roles: course coordinator, design of materials, design of exams, lecturer, tutor
- **Simulatietechnieken** (Master Business Engineering, Supply Chain track)
Roles: course coordinator, design of materials, examination, lecturer

PREVIOUS COURSES:

- **Optimalisatie in de logistiek** (Master Business Engineering, Supply Chain track)
Roles: guest lecturer
- **Advanced supply chain management** (Master Business Engineering, Supply Chain track)
Roles: guest lecturer
- **Projectmanagement** (Master Business Engineering)
Roles: tutor

D. Other

- Guest lecturer during workshops for secondary school students.

LEADERSHIP

A. PhD supervision

Notice: According to the Dutch regulations, only full professors (and since 2017 also associate professors under certain conditions) can be the main supervisor of a PhD candidate. Because of that, I can officially only act as a co-supervisor.

Nov/2021	Julian Golak <i>Title: Velocity optimisation on waterways</i> <i>Institution: SBE, Maastricht University</i> <i>Role: co-supervisor</i>
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CURRENT PHD STUDENTS:

- Jasper Paesen
Project title: Internal and external pricing in a collaborative synchromodal network
Institution: SBE, Maastricht University + UHasselt
Role: co-supervisor
- Son Tran
Project title: Anticipatory warehouse operations
Institution: SBE, Maastricht University
Role: co-supervisor
- Farzaneh Rajabighamchi
Project title: Applications in routing and logistics
Institution: SBE, Maastricht University
Role: co-supervisor

B. PhD committee / jury membership

2021	Thomas Hacardiaux <i>Title: Benefits of horizontal cooperation in supply chains</i> <i>Institution: Université Catholique de Louvain. Louvain School of Management</i> <i>Role: External jury member</i>
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C. Research assistant supervision

09/2019-05/2020	Marieke Vonk <i>Title: Inland waterway optimization through skipper collaboration</i> <i>Institution: SBE, Maastricht University</i>
09/2018-05/2019	Son Tran. <i>Title: Anticipatory order picking</i> <i>Institution: SBE, Maastricht University</i>

D. Master thesis supervision

- 2021** Anton de la Fuente Suarez Pumariega
Title: Decentralized decision power and information sharing in horizontal logistics collaboration
Institution: SBE, Maastricht University
- Anupama Sekar
Title: Decentralized and Intertemporal Mechanism for Horizontal Logistics Collaborations
Institution: SBE, Maastricht University
- Bart Doensen
Title:
Institution: SBE, Maastricht University
- Chen Yu Chen
Title: Bi-objective reusable packaging containers network design in food industry
Institution: SBE, Maastricht University
- Max Jauch
Title: Identify Shipment Consolidation Opportunities in the Less-Than-Truckload Sector
Institution: SBE, Maastricht University - Thesis Internship Program with UPS
- Pedro Correia Duarte
Title: Hybrid Cycling Timetabling under Periodic Demand Variation
Institution: SBE, Maastricht University
- Riccardo Castiglioni
Title: Synchromodal Operational Scheduling. Finding the impact of planning flexibility on transportation costs.
Institution: SBE, Maastricht University
- 2020** Alexander McGirr
Title: Properties of Realistic Collaborative Minimum Cost Flow Problems
Institution: SBE, Maastricht University
- Marieke Vonk
Title: The impact and dynamics of (intertemporal) vessel collaboration on inland waterway navigation and fuel emissions
Institution: SBE, Maastricht University
- Robin Jongen
Title: A Performance Analysis of Forecasting Techniques on Various Datasets, a Quantitative Simulation Analysis
Institution: SBE, Maastricht University
- Xuxi Cao
Title: A Simulation Analysis on the Integration Approach of Mitigation Strategies for Managing a Supply Chain Disruption
Institution: SBE, Maastricht University
- 2019** Emiel Rommelse
Title: Warehouse optimization in various layout warehouses. Developing an order batching and re-slotting tool for DSV Solutions
Institution: SBE, Maastricht University
- Jana Höller-Bongartz
Title: Can blockchain technology improve the traceability in supply chains in the food and pharmaceutical industry?
Institution: SBE, Maastricht University

- Laura Van Vledder
Title: Guaranteeing inventory service levels using ARIMA demand forecasting v.s. the capacitated vehicle routing problem with time deadlines
Institution: SBE, Maastricht University
- Xinxin He
Title: How to make the cold chain more agile? A study in the pharmaceutical industry
Institution: SBE, Maastricht University
- 2018** Jolan De Schutter
Title: Horizontal logistic cooperation and inventory management
Institution: Faculty of applied economics, Antwerp University
- Wouter Spiessens
Title: Partner selection in horizontal logistic cooperation
Institution: Faculty of applied economics, Antwerp University
- 2017** Julie Pollet and Julie Van Den Bogeart
Title: Horizontal collaborations in logistics. Key performance indicators for partner selection in shipper collaborations
Institution: Faculty of applied economics, Antwerp University
- David Verbiest and Jeroen Lambrechts
Title: Solving the feature selection problem using metaheuristics.
Institution: Faculty of applied economics, Antwerp University
- Amitkumar Vaghasiya
Title: Introducing horizontal collaboration and gain sharing concepts to increase efficiency in transport and logistics in Dubai and Abu Dhabi
Institution: Institute of transport and maritime management, Antwerp University

E. Bachelor thesis supervision

- 2020** Anne-Kett Bassing
Title: Synchromodal Pricing. The proposal and comparison of two service-based pricing mechanisms
Institution: SBE, Maastricht University
- Izzy Mehigan
Title: Digital Routing Decisions in the PI. A look at how current protocols in the digital internet could support routing decision in the Physical Internet environment
Institution: SBE, Maastricht University
- 2019** Cynthia Luijkx
Title: Physical Internet & Real-Time Disruptions. Investigating the sensitivity to real-time disruptions of a new logistics paradigm
Institution: SBE, Maastricht University
- Selina Meeks
Title: Anticipatory order batching. Online order batching with expected orders
Institution: SBE, Maastricht University

- Wenjun Song
Title: The optimal allocation of π -containers to multiple carriers within a multimodal transport network
Institution: SBE, Maastricht University
- 2018** Giorgia d’Arcano
Title: The potential of learning algorithms in logistics
Institution: SBE, Maastricht University
- Marieke Vonk
Title: Congested warehouses
Institution: SBE, Maastricht University
- 2017** Iselle De Beuckeleer, Laura Comhaire and Louise Versavel
Title: Opportunities for logistics in smart cities
Institution: Faculty of applied economics, Antwerp University
- Aschwin Bauwens, Alexander Jacobs and Toon Keulemans
Title: Opportunities for logistics in smart cities
Institution: Faculty of applied economics, Antwerp University
- 2014** Arno Reynders, Louis Gabriels and Maxime Krug
Title: Recent advances in logistics
Institution: Faculty of applied economics, Antwerp University

SERVICE

A. Institutional responsibilities

2020-2024	Member of Maastricht Young Academy (MYA) <i>Local division of the Young Academy. MYA is a group of early-career scientists from Maastricht University, whose aim is to operate as an independent — and, when necessary critical — platform within the university. The focus of the MYA lies primarily on four thematic pillars: science policy, science communication, interdisciplinary research and internationalisation.</i>
Since 2021	Member of the Assurance Group on Greening UM International Travel
2019-2021	Member of International Classroom Committee (Maastricht University) <i>The committee decides on the admission for new students applying for the ‘International Business’ and ‘Economics and Business Economics’ programme.</i>
2019-2020	Member of the Task Force Sustainable Employability (Maastricht University)
2017	AAP/BAP representative departmental council ENM (University of Antwerp)

B. Contributions to academic publishing

Journal guest editor

Since 2020	<i>Logistics</i> – Special issue on “Collaborative Logistics”
2016-2017	<i>Open Mathematics</i> – Topical issue on metaheuristics: methods and applications.

Ad hoc reviewing for academic journals

- Algorithms
- Applied Soft Computing
- Computers & Industrial Engineering
- Computers & Operations Research
- European Journal of Operational Research
- European Journal of Industrial Engineering
- European Transport Research Review
- Expert Systems With Applications
- International Journal of Electrical and Computer Engineering
- Journal of Business Economics
- Networks
- OMEGA
- Operational Research
- Operations Research and Decisions
- Optimization letters
- OR Spectrum
- RAIRO Operations Research
- Research in Transportation Business & Management
- Resources, conservation & recycling
- Transportation Research: part B
- Transportation Research: part E

Ad hoc reviewing for conferences

- EU/ME2016 // Workshop on Design and Analysis of Metaheuristics
- EWGT // Euro Working Group on Transportation
- MEIE // International Conference on Mechanical, Electric and Industrial Engineering
- ORBEL29 // Annual conference of the Belgian Operational Research Society

C. Organisation of international conferences

17-18/03/2016	EU/ME2016 // Workshop on Design and Analysis of Metaheuristics <i>EWG EU/ME is the European working group on Metaheuristics, uniting over 1400 members from over 80 countries. For this two-day workshop, hosted at the University of Antwerp, I acted as the main organiser and head of the organising committee.</i>
05-06/02/2015	ORBEL29 // Annual conference of the Belgian Operational Research Society <i>The yearly ORBEL conference, unites over 100 researchers in the fields of operational research, statistics, pattern recognition and related disciplines. When hosted by the ANTOR research group at the University of Antwerp, I was an active member of the organising committee.</i>

D. Membership of scientific societies

BETA	Research School for Operations Management and Logistics
GSBE	Research fellow of Graduate School of Business and Economics (Maastricht)
LNMB	Landelijk Netwerk Mathematische Besliskunde
MCM	Mathematics Center Maastricht

E. Service recognition

2020	Outstanding Reviewer Award of OR Spectrum https://doi.org/10.1007/s00291-021-00625-0
2018	Best Reviewer 2018, Certificate from <i>OMEGA The International Journal of Management Science</i>