

Curriculum Vitae Frits C.R. Spieksma (January 2025)

1 Personal

Name: Frederik Cornelis Rafaël Spieksma.

Nationality: Dutch.

Day of birth: May 30, 1964.

Working Address: Department of Mathematics and Computer Science, Eindhoven University of Technology (TU/e), PO Box 513, 5600 MB, Eindhoven, the Netherlands.

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2 Education

1976-1982: Municipal Gymnasium, Leiden.

1982-1987: Econometrics, at the University of Groningen; graduation date: December 18, 1987.

1988-1992: PhD student at Maastricht University; date of PhD defense: February 21, 1992.

3 Career

Nov. 1, 1985 - Sept. 1, 1987: Student Assistant, supervised by dr. L. Schoonbeek, Department of Mathematical Economics, University of Groningen.

Febr. 1, 1988 - March 1, 1992: PhD student, supervised by prof.dr.ir.drs. O.J. Vrieze (UM).

March 1, 1992 - July 1, 1992: Visiting Scholar, hosted by Prof.dr. M. Queyranne, University of British Columbia, Vancouver, Canada.

July 1, 1992 - July 1, 1995: Assistant Professor, Department of Mathematics, Maastricht University.

July 1, 1995 - October 1, 2001: Associate Professor, Department of Mathematics, Maastricht University.

October 1, 2001 - October 1, 2005: Professor, ORSTAT, Faculty of Economics and Business, KU Leuven.

October 1, 2005 - January 1, 2018: Ordinary Professor, ORSTAT, Faculty of Economics and Business, KU Leuven.

January 1, 2018 - October 1, 2019: Guest Professor, ORSTAT, Faculty of Economics and Business, KU Leuven.

January 1, 2018 - current: Full Professor, Combinatorial Optimization Group, Department of Mathematics and Computer Science, TU/e.

4 Teaching

4.1 Regular Courses taught at TU/e

Optimization (2MMD10), for students Industrial and Applied Mathematics (IAM), first master year (2018-present; approximate number of students: 70).

Non-Linear Optimization (2DME20), for students Electrical Engineering (EE), first master year (2018-present; approximate number of students: 50).

Decision Theory (0LSUC0), for students of TU/e (a former USE course), 2nd bachelor year (2018-present; approximate number of students: 60).

Calculus B (2WBB0), for bachelor students of TU/e, senior tutor (2018-2020).

4.2 Regular Courses taught at KU Leuven

Applied Optimization, for students Handelsingenieur, first master year (2011-2017; approximate number of students: 20).

Kwantitatieve Beleidsmethoden (Optimaliseren), for students Toegepast Economische Wetenschappen, third bachelor year (2010-2017; approximate number of students: 250; in Dutch).

Toepassingen van Operationeel Onderzoek, for students Handelsingenieur, first master year (2002-2017; approximate number of students: 200; in Dutch).

Lineair Optimaliseren, for students Handelsingenieur, second bachelor year (2001-2016; approximate number of students: 250; in Dutch).

Optimization: special topics, Doctoral course (approximate number of students: 25; 2003-present).

A list of past courses is available upon request.

5 Supervision of PhD students

5.1 In progress

Hans de Ferrante (sep 2020 - , TU/e and EuroTransplant; daily supervision by Bart Smeulders)

Arpan Sadhukhan (oct 2020 - , TU/e; joint supervision with Mark de Berg)

Andres Lopez Martinez (jun 2021 - , TU/e; joint supervision with Mark de Berg)

Antonina Khramova (nov 2021 - , TU/e; daily supervision by Aida Abiad)

Sten Wessel (oct 2022 - , TU/e; joint supervision with Christopher Hojny)

5.2 As Promotor

Dylan Hyatt-Denesik (may 2020 - july 2024, TU/e); thesis: Approximation Algorithms for Connectivity Augmentation and Flexible Graph Connectivity (defense date: July 10, 2024)

Sjanne Zeijlemaker (sep 2020 - sep 2024, TU/e; thesis: An Optimization Approach to Algebraic Graph Theory (defense date: June 18, 2024)

Jasper van Doornmalen (jul 2020 - jul 2024, TU/e); thesis: Propagation Algorithms for Handling Symmetries of Mathematical Programs (defense date: June 5, 2024)

Danny Blom (sep 2019 - dec 2023, TU/e); thesis: Multi-Level Optimization Problems for Kidney Exchange (defense date: Dec 15, 2023)

Céline Swennenhuis (jan 2019 - 2022, TU/e); thesis: Fine-Grained Parameterized Complexity of Scheduling and Sequencing Problems (defense date: Dec 2, 2022; currently employed at PostNL)

Roel Lambers (sep 2018 - 2022, TU/e); thesis: Fairness and Flexibility in Sport Scheduling (defense date: Nov 11, 2022; currently employed at Amsterdam University of Applied Sciences)

Annette Ficker (2014-2018, KU Leuven); thesis: Combinatorial optimization problems with conflicts or vectors (defense date: June 13, 2018; currently employed at PostNL)

Bart Vangerven (2013-2017, KU Leuven); thesis: Combinatorial auctions: theory, practice, and experiments (defense date: December 18, 2017; after a post-doc at Wuppertal University, employed at OM Partners)

Túlio Toffolo (2013-2017, KU Leuven); thesis: Decomposition-based algorithms for optimization problems (defense date: November 10, 2017; currently employed at KU Leuven)

Ward Passchyn (2012-2016, KU Leuven); thesis: Scheduling Locks on Inland Waterways (defense date: June 27, 2016; currently employed at OM Partners)

Bart Smeulders (2011-2015, KU Leuven); thesis: Testing theories of choice behavior (defense date: March 27, 2015; after a post-doc at ULg, employed at TU/e)

Wim Vancroonenburg (2011-2015, KU Leuven); thesis: Operational decision support models and algorithms for hospital admission planning and scheduling (defense date: January 9, 2015; currently employed at KU Leuven)

Joris Kinable (2011-2014, KU Leuven); thesis: Decomposition Approaches for Optimization Problems (defense date: December 5, 2014; after employment at TU/e, employed by Amazon)

Trivikram Dokka (2009-2013, KU Leuven); thesis: Algorithms for Multi-index Assignment Problems (defense date: September 13, 2013; currently employed at Lancaster University)

Fabrice Talla Nobibon (2006-2010, KU Leuven); thesis: Algorithms for selection and graph-coloring problems with applications in marketing and microeconomics (defense date: September 24, 2010; currently employed at Amazon)

Sofie Coene (2005-2009, KU Leuven); thesis: Routing problems with profits and periodicity (defense date: May 26, 2009; currently employed as teacher at a high school)

Dries Goossens (2002-2006, KU Leuven); thesis: Exact Methods for Combinatorial Auctions (defense date: December 20, 2006; currently employed at Ghent University)

Linda S. Moonen (2001-2005, KU Leuven); thesis: Algorithms for some Graph-Theoretic Optimization Problems (defense date: September 2005; currently employed at Centraal Buro voor Statistiek)

Sofia Kovaleva (1999-2003, Maastricht University); thesis: Approximation of geometric set packing and hitting set problems (defense date: September 24, 2003; currently employed at Energy Essentials)

5.3 As Co-promotor

Kris Coolen (2009-2014, KU Leuven); thesis: Models and algorithms for search and sequencing problems.

Lotte Berghman (2007-2012, KU Leuven); thesis: Machine scheduling models for warehousing docking operations.

Jeroen H.G.C. Rutten (1994-1998, Maastricht University); thesis: Polyhedral clustering.

5.4 As member of the examination committee (since 2001) anticipated:

Karel Devriesere (Rijks Universiteit Gent, Dries Goossens)

2024 (83)

Leonidas Theochauros (TU/e, promotor Mark de Berg, co-promotor Morteza Monemizadeh (Oct 23)); thesis: Algorithms and Separator Theorems for Geometric Graphs in Environments with Obstacles.

Shivesh Roy (TU/e, first promotor Bart Jansen, second promotor Mark de Berg (Sept 19)); thesis: Paramerized algorithms for augmented graph problems.

Krisztina Szilágyi (Utrecht University, promotor Hans Bodlaender, daily supervisor Jesper Nederlof (Sept 18)); thesis: Parametrized complexity of restricted variabts of some classical problems.

Miao Li (Rijks Universiteit Gent, promotor Dries Goossens (June 10)); thesis: Multi-league sports scheduling: design, mathematical models and algorithms.

Marie Baratto (Université de Liège, promotor Yves Crama (Mar 8)); thesis: Optimization models and methods for kidney transplantation programs.

Giulia Ferrandi (TU/e, promotor Michiel Hochstenbach (Jan 29)); thesis: Rayleigh Quotients in Gradient Methods and Linear Dimensionality Reduction.

2023 (77)

Natasja Sluijk (TU/e, promotor Tom van Woensel, co-promotor Joris Kinable (Nov 23)); thesis: From Chaos to Control: effective approaches for addressing demand uncertainty in vehicle routing.

Lasse Wulf (TU Graz, promotor Bettina Klinz); thesis: On Generalizations of Some Classical Combinatorial Optimization Problems: Multi-Stage Robustness, Higher-Order Cost Functions, and Nonpreemption.

Jari de Kroon (TU/e, promotoren Bart Jansen en Mark de Berg (July 4)); thesis: Parameterized Graph Modification Beyond the Natural Parameter.

Jordi Vermeulen (Utrecht University, promotor Marc van Kreveld (Jan 9)); thesis: Geometric similarity measures and their applications.

2022 (73)

Jelle Adan (TU/e, promotor Geert-Jan van Houtum, co-promotor Alp Akcay (Sept 23)); thesis: Operational Decision Making in Semiconductor Manufacturing.

Huib Donkers (TU/e, promotor Mark de Berg, co-promotor Bart Jansen (Sept 14)); thesis: Parameterized Algorithms for Finding Large Sparse Subgraphs.

2021 (71):

Julian Golak (Maastricht University, promotor Alexander Grigoriev, co-promotor Christof Defryns (Nov 16)); thesis: Velocity optimization on waterways.

Kay Peeters (TU/e, promotor Ivo Adan, co-promotores H. Nijmeijer, T. Martagan (Mar 30)); thesis: Production planning and control of poultry processing plants.

Kay Bogerd (TU/e, promotor Remco van der Hofstad, co-promotor Rui Castro (Feb 17)); thesis: Detecting planted structures in random graphs.

Afonso Sampaio (TU/e, promotor Tom Van Woensel (Jan 27)); thesis: Innovative Business-to-Consumer Last-Mile Solutions: Models and Algorithms.

T R Lalita (Indian Statistical Institute (Hyderabad), promotor G S R Murthy); thesis: Mathematical Formulations for Complex Resource Scheduling Problems.

2020 (66):

Xiajie Yi (RU Gent, promotor Dries Gooossens (Nov 24)); thesis: Dealing with uncertainty in round robin sports scheduling.

David Van Bulck (RU Gent, promotor Dries Gooossens (Sept 3)); thesis: Sports timetabling: theoretical results and new insights in algorithm performance.

Jules Wulms (TU/e, promotor Kevin Verbeek (August 25)); thesis: Stability of Geometric Algorithms.

Viktória Vadon (TU/e, promotor Remco van der Hofstad (June 16)); thesis: Local and global structure of networks with communities).

San Pham (KU Leuven, promotor Patrick De Causmaecker (March 11)); thesis: Formal, exact and metaheuristic methods for combinatorial optimization.

Bart Post (TU/e, promotor Ton Koonen (Feb 26)); thesis: Load-driven self-organization of Radio-over-Fibre enabled dense networks.

2019 (60):

Guopeng Song (KU Leuven, promotor Roel Leus, co-promotor Jeroen Beliën (Dec 2)); thesis: New models and algorithms for resource loading and parallel machine scheduling.

Salim Rostami (KU Leuven, promotor Roel Leus, co-promotor Stefan Creemers (Sept 26)); thesis: New models and methods for sequencing and project scheduling.

Stefan Lendl (TU Graz, promotor Bettina Klinz (Aug 19)); thesis: Generalizations of Classic Combinatorial Optimization Problems on Graphs and Matroidal Structures: Algorithms and Complexity.

Joost de Kruijff (TU/e, promotor Ton de Kok (July 5)); thesis: High-Tech Low-Volume Production Planning.

Sándor Kisfaludi-Bak (TU/e, promotor Mark de Berg (June 27)); thesis: ETH-tight Algorithms for Geometric Network Problems.

Hendrik Vermuyten (KU Leuven, promotor Jeroen Beliën (May 14); thesis: Design of integrated scheduling and simulation models to optimise people flows and maximise safety.

Teun Janssen (TU Delft, promotor K. Aardal (March 21); thesis: Optimization in the Photolithography Bay.

Alessandro Garavaglia (TU/e, promotor R. van der Hofstad (Jan 29); thesis: Preferential attachment models for dynamic networks.

2018 (52)

Mehran Mehr (TU/e, promotor M. de Berg (Dec 5); thesis: Faster Algorithms for Geometric Clustering and Competitive Facility-Location Problems.

Shaswat Garg (TU/e, promotor N. Bansal (Oct 10); thesis: Algorithms for Combinatorial Discrepancy.

Marek Elias (TU/e, promotor N. Bansal (Sept 17)); thesis: Algorithms for some metrical service systems.

Grigoris Koumoutsis (TU/e, promotor N. Bansal (Sept 6); thesis: Algorithms for k-Server Problems.

Daniel Kowalczyk (KU Leuven, promotor R. Leus (June 6)); thesis: Scheduling with Conflicts.

José Núñez Ares (KU Leuven, promotor P. Goos (March 22); thesis: trend-robust and minimally aliased response surface designs by means of integer linear programming.

2017 (46)

Sofie Burggraeve (KU Leuven, promotor P. Vansteenwegen); thesis: Passenger robust timetables for dense railway networks.

Pieter Jan Kerstens (KU Leuven, promotor L. Cherchye); thesis: Beyond black box modeling in production: methodological advances in nonparametric methods.

2016 (44)

Guillerme Duvielle (Université de Montpellier, promotor R. Girodeau); thesis: Approximation, Complexité Paramétrée et Stratégie de Résolution de Problèmes d’Affectation Multidimensionnelle.

2015 (43)

Marco Castro (Antwerp University, promotor K. Sorensen, January); thesis: Models and Algorithms for travelling salesperson problems with hotel selection.

Abdelrahaman Aly (Université Catholique de Louvain, promotor Mathieu Van Vyve); thesis: Network flow problems with secure multiparty computation.

2014 (41)

Derya Sever (Technical University of Eindhoven, Promotor T. de Kok); thesis: Routing in Stochastic Networks.

2013 (40)

Jannes Verstichel (KU Leuven; promotor P. De Causmaecker and G. Vanden Berghe); thesis: The Lock Scheduling Problem.

Mahdi Noorizadegan (Warwick University (my role: External Examiner); promotor B. Chen); thesis: On Vehicle Routing with Uncertain Demands.

Xian Qiu (University of Twente; promotor M. Uetz); thesis: Fractional Programming in Cooperative Games

Jeroen Schokkert (KU Leuven, October; promotor J. Swinnen); thesis: Economic aspects of sports and migration

Bertus Talsma (University of Groningen; promotores Sierksma and Teunter); thesis: Performance analysis in elite sports

2012 (35)

Sebastián Marbán (Maastricht University; promotor S. van Hoesel); thesis: Pricing and Scheduling under Uncertainty

Pablo Andres Maya Duque (University of Antwerp); thesis: Optimisation models and algorithms for non-profit logistics and disaster management problems

Bert Marchal (Maastricht University; promotor S. Van Hoesel); thesis: Treewidth. Structural properties and algorithmic insights

Christian Eggerton (Technical University of Eindhoven; promotor G. Woeginger); thesis: Reachability Problems in Scheduling and Planning.

2010 (31)

Patrick Schittekat (University of Antwerp); thesis: Metaheuristics for planning in logistics: from theory to industrial applications

2009 (30)

Joyce van Loon (Maastricht University); thesis: Algorithmic Pricing

Brecht Cardoen (KU Leuven); thesis: Operating room planning and scheduling: solving a surgical case sequencing problem

2008 (28)

Xinhui Wang (Twente University); thesis: Exact Algorithms for the Steiner Tree Problem

Verus Pronk (Technical University of Eindhoven); thesis: Resource management in cable access networks

2007 (26)

Reinder Lok (Maastricht University); thesis: Auction Mechanisms in Supply Chain Optimization

2001-2006 (25)

Tobias Brüggeman (2006, Twente University); thesis: Efficiency of local search

Joe Aerts (2002, Technical University of Eindhoven); thesis: Random redundant storage for video on demand

Jan-Willem Goossens (2004, Maastricht University); thesis: Models and algorithms for railway line planning problems

Jan Adem (2004, KU Leuven); thesis: Supervised classification

Wil Michiels (2004, Technical University of Eindhoven (cum laude)); thesis: Performance ratios for differencing methods

Alexander Grigoriev (2003, Maastricht University); thesis: High multiplicity scheduling problems

5.4.1 1993-2001 (19)

Adrie Koster (1999, UM); thesis: Frequency assignment - models and algorithms

Koen de Bontridder (2001, TUE); thesis: Integrating purchase and production planning: using local search in supply chain optimization

Robert van de Leensel (1999, UM); thesis: Models and algorithms for telecommunication network design

Maarten Oosten (1996, UM); thesis: A polyhedral approach to grouping problems

Joris van de Klundert (1996, UM); thesis: Scheduling problems in automated manufacturing

Ron van der Wal (1995, UM); thesis: Trees and objects

Jeroen Kuipers (1994, UM); thesis: Combinatorial methods in cooperative game theory

5.4.2 As chair of the promotion committee (12)

Michele Campobasso (2024, TU/e, promotor Sandro Etalle (Mar 7)); thesis: Understanding and Characterizing the Cybercriminal Ecosystem Enabling Attack Innovation at Scale

Sachin Bhardwaj (2024, TU/e, promotor Johan Lukkien (Feb 27)); thesis: Semantic Interoperability in Smart Spaces

Caterine Rizzo (2023, TU/e, promotor Alessandro di Buccianico (June 9)); thesis: Statistical monitoring procedures for high-purity manufacturing processes

Filip Deblaere (2010, KUL); thesis: Resource-constrained project scheduling under uncertainty

Nicolas Gladys (2008, KUL); thesis: Customer Profitability Modeling

Lien Lamey (2008, KUL); thesis: The private-label nightmare: can national brands ever wake up?

Karen Crabbé (2008, KUL); thesis: Essays on corporate tax competition in Europe

David Martens (2008, KUL); thesis: Building acceptable classification models for financial engineering applications

Kobe Millet (2007, KUL); thesis: Prenatal Testosterone, Personality, and Economic Behavior

Stijn Van De Vonder (2006, KUL); thesis: Proactive-reactive procedures for robust project scheduling

Kelly Geyskens (2006, KUL); thesis: The ironic effects of food temptations on self-control performance

Jeroen Belien (2006, KUL); thesis: Exact and heuristics methodologies for patient scheduling: problems, formulations, algorithms

6 Research

6.1 Statistics

	Google Scholar	Since 2020
Number of citations	5826	1994
h-index	40	25
i10-index	97	55

Table 1: Statistics

6.2 Journal Publications

- 127 *Sex disparity in liver allocation within Eurotransplant*,
de Ferrante, H.C., M. van Rosmalen, B.M.L. Smeulders, S. Vogelaar, and F.C.R. Spieksma,
American Journal of Transplantation **25**, 139-149, 2025.
- 126 *Learning by doing: The Industrial and Applied Mathematics program at Eindhoven University of Technology*,
di Bucchianico, A., F.C.R. Spieksma, and M. Vlasiou,
to appear in INFORMS Journal on Applied Analytics.
- 125 *Revising Model for End-stage Liver Disease from calendar-time cross-sections with correction for selection bias*,
de Ferrante, H.C., M. van Rosmalen, B.M.L. Smeulders, S. Vogelaar, F.C.R. Spieksma,
BMC Medical Research Methodology **24**, 51, 2024.
- 124 *Stable Approximation Algorithms for the Dynamic Broadcast Range-Assignment Problem*,
de Berg, M., A. Sadhukhan, and F.C.R. Spieksma
SIAM Journal on Discrete Mathematics **38**, 790-827, 2024.
- 123 *Rejection-Proof Mechanisms for Multi-Agent Kidney Exchange*,
Blom, D., B. Smeulders, F.C.R. Spieksma
Games and Economic Behavior **143**, 25-50, 2024.
- 122 *How to Design a Stable Serial Knockout Competition*,
Lambers, R., R. Pendavingh, and F.C.R. Spieksma
to appear in Mathematics of Operations Research.
- 121 *Identifying optimal strategies in Kidney Exchange games is Σ_2^p -complete*,
Smeulders, B., D. Blom, and F.C.R. Spieksma,
Mathematical Programming **203**, 347-368, 2024.
- 120 *Orthogonal schedules in single round robin tournaments*,
Lambers, R., J. Briët, V. Patel, F.C.R. Spieksma, and M.A. Yıldız
Operations Research Letters **51**, 528-532, 2023.
- 119 *Immunized patients have reduced access to transplantation in the Eurotransplant Kidney Allocation System*,
de Ferrante, H.C., B.M.L. Smeulders, I. Tieken, S. Heidt, G.W. Haasnoot, F.H.J. Claas, S. Vogelaar, and F.C.R. Spieksma,
Transplantation **107**, 2247-2254, 2023.
- 118 *Integer Programming Models for Round Robin Tournaments*,
van Doornmalen, J., C. Hojny, R. Lambers, and F.C.R. Spieksma,
European Journal of Operational Research **310**, 24-33, 2023.
- 117 *How to schedule the Volleyball Nations League*,
Lambers, R., L. Rothuizen, and F.C.R. Spieksma,
Journal of Sports Analytics **9**, 157-169, 2023.
- 116 *The Flexibility of Home Away Pattern Sets*,
Lambers, R., D. Goossens, and F.C.R. Spieksma,
Journal of Scheduling **26**, 413-423, 2023.
- 115 *A project scheduling problem with periodically aggregated resource-constraints*,
Morin, P.-A., C. Artigues, A. Hait, T. Kis, F.C.R. Spieksma,
Computers and Operations Research **141**, article number 105688, 2022.
- 114 *Minimizing travel time and latency in car-sharing problems*,
Luo, K. and F.C.R. Spieksma,
Algorithms **15**, 30, 2022.

- 113** *Parliament Seating Assignment Problems*,
 Vangerven, B., D. Briskorn, D. Goossens, and F.C.R. Spieksma,
European Journal of Operational Research **296**, 914-926, 2022.
- 112** *Filling a theatre in times of the COVID-19 pandemic*,
 Blom, D., R. Pendavingh, and F.C.R. Spieksma,
INFORMS Journal on Applied Analytics **52**, 473-484, 2022.
- 111** *Recourse in Kidney Exchange Programs*,
 Smeulders, B., V. Bartier, Y. Crama, and F.C.R. Spieksma,
INFORMS Journal on Computing **34**, 1191-1205, 2022.
- 110** *A mathematical analysis of fairness in shootouts*,
 Lambers, R. and F.C.R. Spieksma,
IMA Journal of Management Mathematics **32**, 411-424, 2021.
- 109** *A Note on Equitable Hamiltonian Cycles*,
 Ophelders, T., R. Lambers, F.C.R. Spieksma, and T. Vredeveld,
Discrete Applied Mathematics **303**, 127-136, 2021.
- 108** *Solving a time-indexed formulation for an unrelated parallel machine scheduling problem by preprocessing and cutting planes*,
 Berghman, L., F.C.R. Spieksma, and V. T'Kindt,
RAIRO-Operations Research **55**, S1747-S1765, 2021.
- 107** *Using feedback to mitigate coordination and threshold problems in iterative combinatorial auctions*,
 Vangerven, B., D. Goossens, and F.C.R. Spieksma,
Business & Information Systems Engineering **63**, 113-127, 2021.
- 106** *Modelling and optimisation in European Kidney Exchange Programmes*,
 Biró, P., J. van de Klundert, D. Manlove, W. Petterson, T. Andersson, L. Burnapp, P. Chromy, P. Delgado, P. Dworczak, B. Haase, A. Hemke, X. Klimentova, D. Kuypers, A. Nanni-Costa, B. Smeulders, F. Spieksma, M. Valentín, A. Viana,
European Journal of Operational Research **291**, 447-456, 2021.
- 105** *The transportation problem with conflicts*,
 Ficker, A., F.C.R. Spieksma, and G.J. Woeginger,
Annals of Operations Research **298**, 207-227, 2021.
- 104** *The multi-league sports scheduling problem, or how to schedule thousands of matches*,
 Davari, M., D. Goossens, J. Beliën, R. Lambers, and F.C.R. Spieksma,
Operations Research Letters **48**, 180-187, 2020.
- 103** *Online Interval Scheduling on Two Related Machines: the Power of Lookahead*,
 Pinson, N. and F.C.R. Spieksma,
Journal of Combinatorial Optimization **38**, 224-253, 2019.
- 102** *Scheduling a Non-Commercial Indoor Football League: a Tabu Search Based Approach*,
 Van Bulck, D., D. Goossens and F.C.R. Spieksma,
Annals of Operations Research **275**, 715-730, 2019.
- 101** *Building kidney exchange programmes in Europe – An overview of exchange practice and activities*,
 Biró, P., B. Haase-Kromwijk, T. Andersson, E. Ásgeirsson, T. Baltesová, I. Boletis, C. Bolotinha, G. Bond, G. Böhmig, L. Burnapp, K. Čechlárová, P. Di Ciaccio, J. Fronek, K. Hadaya, A. Hemke, C. Jacquelinet, R. Johnson, R. Kieszek, D. Kuypers, R. Leishman, M.-A. Macher, D. Manlove, G. Menoudakou, M. Salonen, B. Smeulders, V. Sparacino, F. Spieksma, M. de la Oliva Valentín Muñoz, N. Wilson, J. van de Klundert,
Transplantation **103**, 1514-1522, 2019.
- 100** *No-wait scheduling for Locks*,
 Passchyn, W., D. Briskorn and F.C.R. Spieksma,
INFORMS Journal on Computing **31**, 413-428, 2019.
- 99** *Scheduling parallel batching machines in a sequence*,
 Passchyn, W. and F.C.R. Spieksma,
Journal of Scheduling **22**, 3535-357, 2019.
- 98** *Revealed preference theory: an algorithmic outlook*,
 Smeulders, B., Y. Crama, and F.C.R. Spieksma,
European Journal of Operational Research **272**, 803-815, 2019.
- 97** *The sport teams grouping problem*,
 Toffolo, T., J. Christiaens, F.C.R. Spieksma, and G. Vanden Berghe,
Annals of Operations Research **275**, 223-243, 2019.
- 96** *Testing Probabilistic Models of Choice using Column Generation*,
 Smeulders, B., C. Davis-Stober, M. Regenwetter, and F.C.R. Spieksma,
Computers and Operations Research **95**, 32-43, 2018.

- 95** *Conference scheduling – a personalized approach,*
 Vangerven, B., A. Ficker, D. Goossens, W. Passchyn, F.C.R. Spieksma, and G. Woeginger,
OMEGA **172**, 38-47, 2018.
- 94** *Robust Balanced Optimization,*
 Ficker, A., F.C.R. Spieksma and G.J. Woeginger,
EURO Journal on Computational Optimization **6**, 239-266, 2018.
- 93** *Round-robin tournaments generated by the Circle Method have maximum carry-over,*
 Lambrechts, E., A. Ficker, D. Goossens, and F.C.R. Spieksma,
Mathematical Programming **172**, 277-302, 2018.
- 92** *Exact algorithms for the Equitable Traveling Salesman Problem,*
 Kinable, J., B. Smeulders, E. Delcour, and F.C.R. Spieksma,
European Journal of Operational Research **261**, 475-485, 2017.
- 91** *Winner Determination in Geometrical Combinatorial Auctions,*
 Vangerven, B., D. Goossens and F.C.R. Spieksma,
European Journal of Operational Research **258**, 254-263, 2017.
- 90** *Fast separation for the three-index assignment problem,*
 Dokka, T., Y. Mouratos, and F.C.R. Spieksma,
Mathematical Programming Computation **9**, 39-59, 2017.
- 89** *Revealed preference tests of collectively rational consumption behavior: formulations and algorithms,*
 Talla Nobibon, F., L. Cherchye, Y. Crama, B. De Rock, T. Demuynck, and F.C.R. Spieksma,
Operations Research **64**, 1197-1216, 2016.
- 88** *The lockmaster's problem,*
 Passchyn, W., D. Briskorn, S. Coene, J. Hurink, F.C.R. Spieksma, and G. Vanden Berghe,
European Journal of Operational Research **251**, 432-441, 2016.
- 87** *Mathematical programming models for lock scheduling with an emission objective,*
 Passchyn, W., D. Briskorn, and F.C.R. Spieksma,
European Journal of Operational Research **248**, 802-814, 2016.
- 86** *Facets of the axial three-index assignment polytope,*
 Dokka, T. and F.C.R. Spieksma,
Discrete Applied Mathematics **201**, 86-104, 2016.
- 85** *The focus of attention problem,*
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Sofia Kovaleva and Frits C. R. Spieksma, in: Proceedings of the 12th Annual European Symposium on Algorithms (ESA), LNCS **3221**, edited by S. Albers and T. Radzik, 426–435 (2004).
- Approximation of Rectangle Stabbing and Interval Stabbing Problems,*
Joep Aerts and Jan H. M. Korst and Frits C. R. Spieksma, in: Proceedings of the 5th Italian Conference on Algorithms and Complexity (CIAC), LNCS **2653**, edited by R. Petrechi, G. Persiano, R. Silvestri, 178–188 (2003).
- Approximation of a Geometric Set Covering Problem,*
Sofia Kovaleva and Frits C. R. Spieksma, in: Proceedings of the 12th International Symposium on Algorithms and Computation (ISAAC), LNCS **2223**, edited by P. Eades and T. Takaoka, 493–501 (2001).
- Simple Algorithms for a Weighted Interval Selection Problem,*
Thomas Erlebach and Frits C. R. Spieksma, in: Proceedings of the 11th International Symposium on Algorithms and Computation (ISAAC), LNCS **1969**, edited by D.T. Lee and S. Teng, 228–240 (2000).
- Approximating an Interval Scheduling Problem,*
Frits C. R. Spieksma, in: Proceedings of the 1st International Workshop on Approximation Algorithms for Combinatorial Optimization (APPROX), LNCS **1444**, edited by K. Jansen and D. Hochbaum, 169–180 (1999).
- Polynomial Algorithms for Multiprocessor Scheduling with a Small Number of Job Lengths,*
S. Thomas McCormick and Scott R. Smallwood and Frits C. R. Spieksma, in: Proceedings of the Eighth Annual ACM-SIAM Symposium on Discrete Algorithms (SODA), SIAM, edited by M. Saks, 509–517 (1997).
- Scheduling Jobs of Equal Length: Complexity, Facets and Computational Results,*
Yves Crama and Frits C. R. Spieksma, in: Proceedings of the 4th IPCO Conference, LNCS **920**, edited by E. Bals and J. Clausen, 277–291 (1995).
- A general class of greedily solvable linear programs,*
Maurice Queyranne and Frits C. R. Spieksma and Fabio Tardella, in: Proceedings of the 3rd IPCO Conference, edited by Giovanni Rinaldi and Laurence A. Wolsey, 385–399 (1993).

6.4 Books

Assignment and scheduling algorithms in automated manufacturing, Ph. D. thesis of Maastricht University (1992), ISBN 90-9004828-6.

Production planning in automated manufacturing, with Y. Crama and A.G. Oerlemans, Lecture Notes in Economics and Mathematical Systems **414** (1994), Springer Verlag, Heidelberg, Germany, ISBN 3-540-58082-4.

Production planning in automated manufacturing, with Y. Crama and A.G. Oerlemans, Second, revised and enlarged edition (1996), Springer Verlag, Heidelberg, Germany, ISBN 3-540-61359-5.

More than 800 copies sold.

Lineair Optimaliseren, with M. Vandebroek and L. Verbruggen (2006), Acco, ISBN 90 334 6353 9.

Lineair Optimaliseren, Acco, ISBN 978 90 334 7295 4 (2008).

Practical Combinatorial Optimization, Drukkerij Snep, ISBN 978 90 386 4995 5 (2020). Also appeared as:

Spieksma, F.C.R. (2020), *Practical Combinatorial Optimization*, Inaugural Lecture, Nieuw Archief voor Wiskunde 5/21, 114-122.

6.5 Editorship

Currently, Associate Editor or member of Editorial Board of:

- Journal of Quantitative Analysis in Sports (2013-present),
- 4OR (2015-present).

Past:

- Operations Research Letters (2008-2024),
- INFORMS Transactions on Education (2016-2022),
- OMEGA (2015-2018),
- Computers and Operations Research (1994-2014),
- Naval Research Logistics (2002-2004),
- IIE Transactions on Operations Engineering (2007-present),
- International Journal of Management Science and Engineering Management, MSEM (2009-2012),
- International Journal of Mathematics and Mathematical Sciences, IJMMS (2009-2012).

Prize:

- Receipt of the Certificate of Excellence for “outstanding contributions” to IIE Transactions (2002).

Member of the program committee of:

- ISCO 2024

- LAGOS 2021
- ISAAC 2019
- Operations Research in Brussels, the annual international conference of the German Operations Research Society (OR2018)
- Workshop on Approximation and Online Algorithms (WAOA2017)
- European Symposium on Algorithms ESA2017 (Track B)
- MathSportInternational 2017
- Matheuristics 2016 - Sixth International Workshop on Model-based Meta-heuristics
- 14th International Symposium on Experimental Algorithms (SEA2015).
- 12th workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP2015).
- Second Workshop on Approximation, Parameterized and EXact algorithms (APEX2013).
- 13th bi-annual Symposium on Algorithms and Data Structures (WADS2013)
- 10th workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP2011).
- 10th Workshop on Algorithmic Approaches for Transportation Modelling, Optimization, and Systems (ATMOS 2010)
- The Sixth International Conference on Algorithmic Aspects in Information and Management (AAIM 2010)
- Models and Algorithms for Planning and Scheduling Problems (MAPSP2005).
- Workshop on Approximation and Online Algorithms (WAOA2005).

Editor of special issue:

- Spieksma, F.C.R., Uetz, M. (2024), In Memoriam Gerhard Woeginger, Special issue OR Letters.
- Crama, Y., D. Goossens, R. Leus, M. Schyns, F.C.R. Spieksma (2017), Special issue: Twelfth Workshop on Models and Algorithms for Planning and Scheduling Problems (MAPSP 2015), Journal of Scheduling **20**, 543.
- Goossens, D. and F.C.R. Spieksma (2014), Introduction to the MathSport papers, Journal of Quantitative Analysis in Sports **10**, 89.

6.6 Grants (over 30.000 euro)

- EuroTransplant grant “Algorithm Toolbox”(around 250.000 euro, 4yrs PhD student, joint with B. Smeulders, oct 2020 - oct 2024)
- EuroTech Grant for Kelin Luo (2yrs post-doc, oct 15 2019 - oct 2021)
- Principal Investigator since Jan 1, 2019 in the NETWORKS Gravitation Program funded by NWO (NETWORKS-024.002.003)
- EuroTech Grant for Daniel Kowalczyk (2yrs post-doc, sept 2018 - sept 2020)

- KU Leuven grant C2 Dynamic Combinatorial Optimization (around 500.000 euro, joint with G. Vanden Berghe and P. De Causmaecker)
- KU Leuven CELSA grant (around 90.000 euro, joint with T. Jordan (Eotvos University))
- FWO Grant G.0729.13 on Practical Combinatorial Auctions (around 200.000 euro for four years starting in 2014 - Funding for PhD Bart Vangerven)
- IUAP Grant: COMEX (around 500.000 euro for four years starting in 2013, together with P. De Causmaecker - Funding for PhD Ward Passchyn)
- FWO Grant G.0447.10 on Computational Economics (around 200.000 euro for four years starting in 2011 - Funding for PhD Bart Smeulders)
- OT Grant (OT/07/015): Methods for multidimensional assignment problems (160.000 euro for four years starting in 2008 - Funding for PhD Trivikram Dokka)
- FWO Grant G.0541.06: client oriented vehicle routing (jointly with University of Antwerp, 400.000 euro for four years starting in 2007 - Funding for PhD Sofie Coene)
- FWO Grant G.0114.03: models and methods for combinatorial auctions (200.000 euro for four years starting in 2004 - Funding for PhD Dries Goossens).
- Participation in the European Project called APPOL II (“APProximation and OnLine algorithms”): Contract no.:IST-2001-32007.
- Participation in the European Project called APPOL I (“APProximation and OnLine algorithms”): Contract no.:IST-1999-14084.

6.7 Management Tasks

- Co-organizer of Dagstuhl Workshop on Scheduling 2025.
- President-Elect of EURO (2024 - present)
- Member of the NWO VIDI committee 2024
- Member of the jury for the Brouwer medal (2023).
- Domain Chair of the domain Mathematics within the department, since Oct 1, 2021.
- IFC member (2021 - present).
- Vice-President at large of IFORS (2021 - 2023).
- Member of the “Werkgroep Vakkenstructuur Wiskunde” (2021-2022).
- Member of the Beta Research School (2021 - present)
- Member of the Advisory Committee of PrOFS (= Prevention of Fraud in Sports, 2021 - present)
- Vice chairman cluster SPOR (Statistics, Probability, Operations Research) (Jan 1, 2020 - Jan 1, 2022)
- Member of the NWO VIDI committee 2020.

- Principal Investigator of NETWORKS (Jan 1, 2019 - current), and chair of its Education Committee
- Member of the board of the mathematics cluster DIAMANT (April 1, 2018 - present); chairman from Jan 1, 2020 till July 1, 2023)
- Member of the Management Committee of COST Action 15210 (2016 - 2019), entitled: “European Network for Collaboration on Kidney Exchange Programmes”
- Member of the Scientific Board of the PhD program Analytics in Economics and Management (Brescia) (2017 - present)
- President of the Belgian Society of Operations Research, ORBEL (2014-2017; see www.orbel.be)
- Founder of the EURO Working Group “OR in Sports”, chairman from 2015 - 2019, member of the board from 2015 - present; see www.orinsports.com.
- Member of the Steering Committee of the bi-annual conference Models and Algorithms for Planning and Scheduling Problems (MAPSP)
- Director of the Leuven School of Business and Economics (2005-2008)
- Program Director of the advanced master programs MABS, MASE, MFE, MIBE (2005-2008)
- Chairman POC advanced masters (2005-2008)
- Chairman Evaluation committee advanced masters (2005-2008)
- Chairman of ORSTAT (2007-2009)
- Member of the board of the Faculty of Business and Economics (2005-2008)
- Member of the board of the Department of Applied Economics (2004-2005)
- Member of the board of the Dutch Society of Operations Research (NGB) (2000-2004)
- Member of the board of the Belgian Society of Operations Research, ORBEL (2003-present)
- Chairman of the Department of Mathematics (1997)
- Member of the board of the Faculty of General Sciences (1994-1999)
- Member of the Dutch Society for Mathematics of Operations Research (LNMB) (1996-present)
- Member of the committee internationalization of the UM (1995-1999)
- Member of the Board of the Center for European Studies (1996-1999)
- Member of the Public Relations committee Knowledge Engineering (1993)
- Member of the Library Committee of the Faculty of General Sciences (1994-present)
- Student-member of the council of the interfaculty econometrics, University of Groningen (1986)

6.8 Organizing activities

- Organization of Benders Day, May 31, 2024.
- Organization of IPCO2022, Eindhoven.
- Organization of FRICO2023, Eindhoven.
- Responsible for the organization of the IFORS Webinars:
 - “Global Sports Analytics”, Nov 19, 2021
 - “OR and the Pandemic”, May 5, 2022
 - “ITOR-Wiley Best Paper Awards”, Sept 29, 2022
 - “OR and Sustainability”, Apr 27, 2023
 - “OR and Development”, Oct 2023
- Organizer of the mini-symposium on Robust Optimization, June 2021, CWI, Amsterdam (online).
- Organizer of YC60, September 11, 2018, Liège.
- Organizer of MAPSP2015, June 2015, La-Roche-en-Ardenne (five days, around a 120 participants).
- Organizer of Math in Sports, June 2013, Leuven (three days, around a 100 participants).
- Organizer of ORBEL2009, February 2009, Leuven (two days, around a 100 participants).
- Organization of the Symposium on Combinatorial Auctions, December 20, 2006 in Leuven.
- Organization of the APPOL II workshop, November 8-9 2002, Leuven (16 speakers, 30 participants).

6.9 Visits and stays

- Sabbatical at London School of Economics (sept 2009 - march 2010).
- Visited Carlo Filippi, Brescia University, February 2008.
- Visiting Professor at University of Perugia, department of mathematics, summer school, august 2007.
- Visited Alessandro Agnetis, in Siena, april 2005.
- Visited Gerhard Woeginger, in Graz, June 1995.

7 Presentations

Invited speaker at the following meetings.

- Nationale Wiskunde Dagen, Noordwijkerhout, Jan 2020, Jan 2021, Jan 2022.
- 8-th Trainingsweek NETWORKS, mini-course on Practical Combinatorial Optimization, Doorn, May 2019
- DIAMANT symposium, Veldhoven, Apr 2018

- AUEB Sports Analytics Workshop, Athens, Nov 2017
- Graduierten kollege, Osnabrück, Nov 2017
- First Workshop on the Economics of Football, Kazan (Russia), June 2017
- OR2016, the international conference of the German OR Society, Hamburg, Sept 2016
- Workshop on Tractable special cases of hard combinatorial optimization problems, Graz, Dec 2014
- XIV Ecuadorian Meeting of Mathematics and its Applications, Quito, Sept 2014
- Dinalog Winterschool, Breda, Feb 2012
- MAPSP2009, Rolduc, June 2009
- MISTA 2007, Paris, Aug 2007

A list of presentations (> 100) is available upon request.

8 Publicity

- Lambers, R., R. Pendavingh, and F.C.R. Spieksma (2022), *A balanced schedule for the Premier League of Darts exists ... and is not used ...*, The Network Pages.
- As a result of work on the seat allocation for de Tweede Kamer (with Jasper van Doornmalen and Christopher Hojny):
 - *De ideale indeling van de Tweede Kamer: lam of leeuw?*, <https://wetenschap.nu/de-ideale-indeling-van-de-tweede-kamer-lam-of-leeuw/> (May 11, 2021)
 - interview with BNR Nieuwsradio (May 19, 2021)
- As a result of work for the Music Building Eindhoven (with Danny Blom and Rudi Pendavingh):
 - *Podcast Interview “Resoundingly Human”* (Sept 2021)
 - *Een theater gevuld met wiskunde*, <https://wetenschap.nu/muziekgebouw-eindhoven-een-theater-gevuld-met-wiskunde/> (Sept 29, 2020)
 - *Algoritme berekent optimale zaalbezetting op 1,5 meter in Muziekgebouw* op <https://innovationorigins.com/nl/algoritme-berekent-optimale-zaalbezetting-op-15-meter-in-muziekgebouw/> (August 2020)
 - Blom, D., R. Pendavingh, and F.C.R. Spieksma (2020), *Het vullen van theaters in coronatijd*, STAtOR **21**, No. 4, 4-9 (in Dutch)
- As a result of *True Rankings*, by R. Lambers and F.C.R. Spieksma (2020):
 - interview Radio FunX
 - interview Radio Veronica
 - de Telegraaf (May 27, 2020): *Getouwtrek AZ en Ajax om eerste plaats onnodig*

- *Dit is de echte eindstand van de eredivisie* op <https://wetenschap.nu/dit-is-de-echte-eindstand-van-de-eredivisie/> (Apr 29, 2020). Variaties hiervan zijn opgepikt op allerlei sites waaronder: <https://www.nu.nl/wetenschap/6048708/de-echte-eindstand-van-eredivisie-volgens-wiskundigen-van-de-tue.html> en <http://www.soccernews.nl/news/691041/wiskundigen-andere-club-dan-ajax-eredivisiekampioen>
 - *waarom-manchester-united-en-atletico-madrid-wel-naar-de-champions-league-mogen* op <https://wetenschap.nu/waarom-manchester-united-en-atletico-madrid-wel-naar-de-champions-league-mogen/> (May 12, 2020)
 - Lambers, R. and F.C.R. Spieksma (2020), *De echte eindstand*, Euclides **96**, No 3, 8-9.
- Lambers, R., J. Nederlof, and F.C.R. Spieksma (2020), *How the schedule in the TATA Steel Chess Championship forced Carlsen to help Caruana win*, The Network Pages.
- Spieksma, F.C.R. (2019), *Who sits where in the senate?*, The Network Pages.

9 Commercial and Outreach Activities

- Organization: TU/e; Subject: capacity planning, May-Dec 2019, “To build or not to build”; Project members: Cor Hurkens (TU/e), Roel Lambers (TU/e), 20.000 euro.
- Organization: Nederlandse Beugel Bond; Subject: wedstrijdplanning, April-June 2019, ongoing; Project Member: Roel Lambers (TU/e), for free.
- Organization: EuroTransplant; subject: developing a simulation tool for kidney allocation decisions, Jan-Dec 2019; Project member: Bart Smeulders (TU/e), Marie Baratto (ULg), 20.000 euro.
- Organization: Stadgenoot (Amsterdam); Subject: auctions for renting; Output: advice on auction design and implementation 2010-2012; Methodology: Integer Programming; Project member: D. Goossens
- Organization: ProLeague (Brussels); Subject: sport scheduling; Output: Schedule for the seasons starting from 2006-2007, ongoing work; Methodology: Integer Programming and Local Search; Project member: D. Goossens
- Company: Atlascopco, Subject: Assortment problem, Output: Report (2002), Methodology: Integer Programming, Project members: Z. Degraeve (LBS), R. Jans (EUR)
- Company: Comperex, Subject: Crew Scheduling, Output: feasibility study (2003), Methodology: Linear Programming, Project member: E. Demeulemeester
- Company: Libertel, Subject: best cost routing, Output: a tool (2000), Methodology: heuristics, linear programming, UM project members: J. van de Klundert, J. Kuipers, M. Winkels
- Company: EDS, Subject: course “Communicatie en modellering van netwerkoptimalisering”, Output: a certificate, Methodology: teaching, UM project member: J. van de Klundert

- Company: GELVA BV, Subject: Cutting problem, Output: a software tool (1999), Methodology: branch-and-bound, UM project member: prof.dr.ir. A. Kolen
- Company: ENCI Netherlands BV, Subject: Capacity Planning, Output: a software tool called SOLVE ("Simulatie van Orderafhandeling en Logistiek Voor Enci") (1997-1998), Methodology: simulation, UM project members: dr.ir. J. Rutten and dr. J. van de Klundert

10 Miscellaneous

- Ex-holder of the Dutch record in number of hours of consecutive tennis playing.
- Author of "Breekpunt", ISBN 978 90 8666 444 3.