

# Curriculum Vitae Frits C.R. Spieksma (January 2024)

## 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.

**e-mail:** f.c.r.spieksma@tue.nl

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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 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

Jasper van Doornmalen (jul 2020 - , TU/e; daily supervision by Christopher Hojny)

Sjanne Zeijlemaker (sep 2020 - , TU/e; daily supervision by Aida Abiad)

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

- 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 micro-economics (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 Bureau voor de 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:

Marie Baratto (ULg, promotor Yves Crama)

Miao Li (Rijks Universiteit Gent, Dries Goossens)

#### 2024 (76)

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

#### 2023 (75)

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 (71)

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 (69):

Julian Golak (Maastricht University, promotor Alexander Grigoriev, co-promotor Christof Defryn (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 (64):

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 (58):**

- 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 (50)**

- 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.
- Grigorios 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 (44)**

- 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 (42)**

- Guillaume Duviellé (Université de Montpellier, promotor R. Giroudeau); thesis: Approximation, Complexité Paramétrée et Stratégie de Résolution de Problèmes d'Affectation Multidimensionnelle.

**2015 (41)**

- Marco Castro (Antwerp University, promotor K. Sorensen, January); thesis: Models and Algorithms for travelling salesperson problems with hotel selection.
- Abdelrahman Aly (Université Catholique de Louvain, promotor Mathieu Van Vyve); thesis: Network flow problems with secure multiparty computation.

**2014 (39)**

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

**2013 (38)**

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 Schokkaert (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 (33)**

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

#### **2010 (29)**

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

#### **2009 (28)**

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 (26)**

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 (24)**

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

#### **2001-2006 (23)**

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

Joep 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 (17)**

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 (10)

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

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

Nicolas Glady (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 2018
Number of citations	5078	2024
h-index	39	26
i10-index	89	52

Table 1: Statistics

### 6.2 Journal Publications

- 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,  
to appear in BMC Medical Research Methodology.
- 124** *Stable Approximation Algorithms for the Dynamic Broadcast Range-Assignment Problem*,  
de Berg, M., A. Sadhukhan, and F.C.R. Spieksma  
to appear in the SIAM Journal on Discrete Mathematics.
- 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** *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.
- 120** *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.
- 119** *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.
- 118** *How to schedule the Volleyball Nations League*,  
Lambers, R., L. Rothuizen, and F.C.R. Spieksma,  
Journal of Sports Analytics **9**, 157-169, 2023.
- 117** *The Flexibility of Home Away Pattern Sets*,  
Lambers, R., D. Goossens, and F.C.R. Spieksma,  
Journal of Scheduling **26**, 413-423, 2023.
- 116** *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.
- 115** *Minimizing travel time and latency in car-sharing problems*,  
Luo, K. and F.C.R. Spieksma,  
Algorithms **15**, 30, 2022.
- 114** *Identifying optimal strategies in Kidney Exchange games is  $\Sigma_2^P$ -complete*,  
Smeulders, B., D. Blom, and F.C.R. Spieksma,  
accepted by Mathematical Programming.
- 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. Dworzak, 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. Baltessová, I. Boletis, C. Bolotinha, G. Bond, G. Böhmig, L. Burnapp, K. Cechlárová, 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. Mourtos, 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. Demuyne, 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*, Goossens, D., S. Polyakovskiy, F.C.R. Spieksma, and G.J. Woeginger Algorithmica **74**, 559-573, 2016.
- 84 *Winning in straight sets helps in Grand Slam tennis*, Goossens, D., J. Kempeneers, R.H. Koning, F.C.R. Spieksma Performance Analysis in Sports **15**, 1007-1021, 2015.
- 83 *Complexity results for the Weak Axiom of Revealed Preference for collective consumption models*, Smeulders, B., L. Cherchye, B. de Rock, F.C.R. Spieksma, and F. Talla Nobibon Journal of Mathematical Economics **58**, 82-91, 2015.
- 82 *Valid inequalities for a time-indexed formulation*, Berghman, L. and F.C.R. Spieksma Operations Research Letters **43**, 268-272, 2015.
- 81 *Transitive preferences in multi-member households*, Smeulders, B., L. Cherchye, B. de Rock, F.C.R. Spieksma, and F. Talla Nobibon Economic Theory Bulletin **3**, 243-254, 2015.
- 80 *A Note on Testing Axioms of Revealed Preference*, Talla Nobibon, F., B. Smeulders, and F.C.R. Spieksma Journal of Optimization Theory and Applications **166**, 1063-1070, 2015.
- 79 *Multi-Dimensional Vector Assignment Problems*, Dokka, T., Y. Crama, and F.C.R. Spieksma Discrete Optimization **14**, 111-125, 2014.
- 78 *The red-blue transportation problem*, Vancroonenburg, W., F. Della Croce, D. Goossens, and F.C.R. Spieksma, European Journal of Operational Research **237**, 814-823, 2014.
- 77 *Schoolbus Routing - a column generation approach*, Kinable, J., F.C.R. Spieksma, and G. Vanden Berghe, International Transactions on Operations Research **21**, 453-478, 2014.
- 76 *The generalized lock scheduling problem: an exact approach*, Verstichel, J., G. Vanden Berghe, P. De Causmaecker, and F.C.R. Spieksma, Transportation Research Part E **65**, 16-34, 2014.
- 75 *Combinatorial auction design for a real-estate market*, Goossens, D., S. Onderstal, J. Pijnacker, and F.C.R. Spieksma, Interfaces **44**, 351-363, 2014.
- 74 *Goodness of fit measures for revealed preference tests: complexity results and algorithms*, Smeulders, B., L. Cherchye, B. de Rock, and F.C.R. Spieksma, ACM Transactions on Economics and Computation **2**, 3:1 - 3:16, 2014.
- 73 *Exact and heuristic methods for placing ships in locks*, Verstichel, J., P. De Causmaecker, F.C.R. Spieksma, and G. Vanden Berghe, European Journal of Operational Research **235**, 387-398, 2014.

- 72 *Optimal solutions for a dock assignment problem with trailer transportation*,  
Berghman, L., Leus, R., and F.C.R. Spieksma,  
Annals of Operations Research **213**, 3-25, 2014.
- 71 *The money pump as a measure of revealed preference violations: a comment*,  
Smeulders, B., L. Cherchye, B. de Rock, and F.C.R. Spieksma,  
Journal of Political Economy **121**, 1248-1258, 2013.
- 70 *Balancing profits and costs on trees*,  
Coene, S., C. Filippi, F.C.R. Spieksma, and E. Stevanato,  
Networks **61**, 200-211, 2013.
- 69 *The three-dimensional matching problem in Kalmanson matrices*,  
Polyakovskiy, S., F.C.R. Spieksma, and G.J. Woeginger,  
Journal of Combinatorial Optimization **26**, 1-9, 2013.
- 68 *A metaheuristic for the school bus routing problem with bus stop selection*,  
Schittekat, P., J. Kinable, K. Sörensen, M. Sevaux, F.C.R. Spieksma and J. Springael,  
European Journal of Operational Research **229**, 518-528, 2013.
- 67 *Heuristics for the traveling repairman problem with profits*,  
Devilde, T., D. Cattrysse, S. Coene, F.C.R. Spieksma, and P. Vansteenwegen,  
Computers and Operations Research **40**, 1700-1707, 2013.
- 66 *The accessibility arc upgrading problem*,  
Maya Duque, P., S. Coene, P. Goos, K. Sörensen, and F.C.R. Spieksma,  
European Journal of Operational Research **224**, 458-465, 2013.
- 65 *Between a rock and a hard place: the two-to-one assignment problem*,  
Goossens, D., S. Polyakovskiy, F.C.R. Spieksma, and G.J. Woeginger,  
Mathematical Methods of Operations Research **76**, 223-237, 2012.
- 64 *Approximating the multi-level bottleneck assignment problem*,  
Dokka T., A. Kouvela, and F.C.R. Spieksma,  
Operations Research Letters **40**, 282-286, 2012.
- 63 *On the computational complexity of peer-to-peer satellite refueling strategies*,  
Coene, S., A. Dutta, F.C.R. Spieksma, and P. Tsiotras,  
INFOR **50**, 88-94, 2012.
- 62 *The interval ordering problem*,  
Dürr, C., M. Queyranne, F.C.R. Spieksma, F. Talla Nobibon, and G.J. Woeginger,  
Discrete Applied Mathematics **160**, 1094-1103, 2012.
- 61 *Computer-assisted proofs of performance ratios for the Differencing Method*,  
Michiels, W., E. Aarts, J. Korst, J. van Leeuwen, and F.C.R. Spieksma,  
Discrete Optimization **9**, 1-16, 2012.
- 60 *Soccer schedules in Europe: an overview*,  
Goossens, D. and F.C.R. Spieksma,  
Journal of Scheduling **15**, 641-651, 2012.
- 59 *Coloring graphs using two colors while avoiding monochromatic cycles*,  
Talla Nobibon, F., C. Hurkens, R. Leus, and F.C.R. Spieksma,  
INFORMS Journal on Computing **24**, 485-499, 2012.
- 58 *The carryover effect does not influence football results*,  
Goossens, D. and F.C.R. Spieksma,  
Journal of Sports Economics **13**, 288-305, 2012.
- 57 *Comparing league formats with respect to match importance in Belgian football*,  
Beliën, J., D.R. Goossens, and F.C.R. Spieksma,  
Annals of Operations Research **194**, 223-240, 2012.
- 56 *Breaks, cuts, and patterns*,  
Goossens, D. and F.C.R. Spieksma,  
Operations Research Letters **39**, 428-432, 2011.
- 55 *Charlemagne's Challenge: the periodic latency problem*,  
Coene, S., F.C.R. Spieksma, and G.J. Woeginger,  
Operations Research **59**, 674-683, 2011.
- 54 *Optimization models for targeted offers in direct marketing: Exact and heuristic algorithms*,  
Talla Nobibon, F., R. Leus, and F.C.R. Spieksma,  
European Journal of Operational Research **210**, 670-683, 2011.
- 53 *Heuristics for deciding collectively rational consumption behavior*,  
Talla Nobibon, F., L. Cherchye, B. De Rock, J. Sabbe, and F.C.R. Spieksma,  
Computational Economics **38**, 173-204, 2011.

- 52 *On the complexity of testing the Collective Axiom of Revealed Preference*,  
Talla Nobibon, F. and F.C.R. Spieksma,  
Mathematical Social Sciences **20**, 123-136, 2010.
- 51 *Round robin tournaments and three index assignments*,  
Briskorn, D., A. Drexl, and F.C.R. Spieksma,  
4OR **8**, 365-374, 2010.
- 50 *The approximability of three-dimensional assignment problems with bottleneck objective*,  
Goossens, D., S. Polyakovskiy, F.C.R. Spieksma, and G.J. Woeginger,  
Optimization Letters **4**, 7-16, 2010.
- 49 *On a periodic vehicle routing problem*,  
Coene, S., A. Arnout, and F.C.R. Spieksma,  
Journal of the Operational Research Society **61**, 1719-1728, 2010.
- 48 *Algorithms for recognizing economic properties in matrix bid combinatorial auctions*,  
Goossens, D.R., R. Müller, and F.C.R. Spieksma,  
INFORMS Journal on Computing **22**, 339-352, 2010.
- 47 *Connectivity measures for Internet Topologies on the Level of Autonomous Systems*,  
Erlebach, T., L. Moonen, F.C.R. Spieksma, and D. Vukadinovic,  
Operations Research **57**, 1006-1025, 2009.
- 46 *Scheduling the Belgian soccer league*,  
Goossens, D.R. and F.C.R. Spieksma,  
Interfaces **39**, 109-118, 2009.
- 45 *Exact algorithms for the matrix bid auction*,  
Goossens, D.R. and F.C.R. Spieksma,  
Computers and Operations Research **36**, 1090-1109, 2009.
- 44 *The transportation problem with exclusionary side constraints*,  
Goossens, D. and F.C.R. Spieksma,  
4OR **7**, 51-60, 2009.
- 43 *Counting and enumerating aggregate classifiers*,  
Adem, J., Y. Crama, W. Gochet, and F.C.R. Spieksma,  
Discrete Applied Mathematics **156**, 2459-2468, 2008.
- 42 *Profit-based latency problems on the line*,  
Coene, S. and F.C.R. Spieksma,  
Operations Research Letters **36**, 333-337, 2008.
- 41 *Partitioning a weighted partial order*,  
Moonen, L.S. and F.C.R. Spieksma,  
Journal of Combinatorial Optimization **15**, 342-356, 2008.
- 40 *A note on a motion control problem for a placement machine*,  
Coene, S., N. Hop, J. van de Klundert, and F.C.R. Spieksma,  
OR Spectrum **30**, 535-549, 2008.
- 39 *Interval Scheduling: A Survey*,  
Kolen, A.W.J., J.K. Lenstra, C. Papadimitriou, and F.C.R. Spieksma,  
Naval Research Logistics **54**, 530-543, 2007.
- 38 *Pricing bridges to cross a river*,  
Bouhtou, M., A. Grigoriev, S. van Hoesel, A.F. van der Kraaij, F.C.R. Spieksma,  
Naval Research Logistics **54**, 411-420, 2007.
- 37 *Disconnecting graphs by removing vertices: a polyhedral approach*,  
Oosten, M., J.H.G.C. Rutten, and F.C.R. Spieksma,  
Statistica Neerlandica **61**, 35-60, 2007.
- 36 *The tool switching problem revisited*,  
Crama, Y., L.S. Moonen, F.C.R. Spieksma, and E. Talloen,  
European Journal of Operational Research **182**, 952-957, 2007.
- 35 *Exact algorithms for procurement problems under a total quantity discount structure*,  
Goossens, D.R., A.J.T. Maas, F.C.R. Spieksma, and J.J. van de Klundert,  
European Journal of Operational Research **178**, 603-626, 2007.
- 34 *Approximation algorithms for rectangle stabbing and interval stabbing problems*,  
Kovaleva, S. and F.C.R. Spieksma,  
SIAM Journal on Discrete Mathematics **20**, 748-768, 2006.
- 33 *Exact algorithms for a loading problem with bounded clique width*,  
Moonen, L.S. and F.C.R. Spieksma,  
INFORMS Journal on Computing **18**, 455-465, 2006.

- 32 *Modeling and solving the periodic maintenance problem*,  
Grigoriev, A., J.J. van de Klundert, and F.C.R. Spieksma,  
European Journal of Operational Research **172**, 783-797, 2006.
- 31 *The no-wait flow-shop paradox*,  
Spieksma, F.C.R. and G.J. Woeginger,  
Operations Research Letters **33**, 603-608, 2005.
- 30 *Selecting telecommunication carriers to obtain volume discounts*,  
Klundert, J. van de, J. Kuipers, F.C.R. Spieksma, and M. Winkels,  
Interfaces **35**, 124-132, 2005.
- 29 *Local search heuristics for multi-index assignment problems with decomposable costs*,  
Bandelt, H.-J., A. Maas, and F.C.R. Spieksma,  
Journal of the Operational Research Society **55**, 694-704, 2004.
- 28 *Interval selection: applications, algorithms, and lower bounds*,  
Erlebach, T. and F.C.R. Spieksma,  
Journal of Algorithms **46**, 27-53, 2003.
- 27 *Random redundant storage in disk arrays: complexity of retrieval problems*,  
Aerts, J., J. Korst, F. Spieksma, W. Verhaegh, and G. Woeginger,  
IEEE Transactions on Computers **52**, 1210-1214, 2003.
- 26 *Over versnijden, volgorde's, en veiligen: combinatorisch optimaliseren in de praktijk*,  
F.C.R. Spieksma,  
Tijdschrift voor Economie en Management **48**, 97-118, 2003.
- 25 *An LP-based algorithm for the data association problem in multi-target tracking*,  
Storms, P.P.A. and F.C.R. Spieksma,  
Computers and Operations Research **30**, 1067-1085, 2003.
- 24 *A branch-and-price algorithm for a hierarchical crew scheduling problem*,  
Faneyte, D.B.C., F.C.R. Spieksma, and G.J. Woeginger,  
Naval Research Logistics **49**, 743-759, 2002.
- 23 *Primal-dual approximation algorithms for a packing-covering pair of problems*,  
Kovaleva, S. and F.C.R. Spieksma,  
RAIRO-Recherche Opérationnelle **36**, 53-72, 2002.
- 22 *Production planning problems in printed circuit board assembly*,  
Crama, Y., J.J. van de Klundert, and F.C.R. Spieksma,  
Discrete Applied Mathematics **123**, 339-361, 2002.
- 21 *The clique partitioning problem: facets and patching facets*,  
Oosten, M., J.H.G.C. Rutten, and F.C.R. Spieksma,  
Networks **38**, 209-226, 2001.
- 20 *A polynomial algorithm for multiprocessor scheduling with two job lengths*,  
McCormick, S.T., S.R. Smallwood, and F.C.R. Spieksma,  
Mathematics of Operations Research **26**, 31-49, 2001.
- 19 *Solving a bi-criterion cutting stock problem with open-ended demand: a case-study*,  
Kolen, A.W.J. and F.C.R. Spieksma,  
Journal of the Operational Research Society **51**, 1238-1247, 2000.
- 18 *The feeder rack assignment problem in PCB assembly: a case study*,  
Klomp, C., J.J. van de Klundert, F.C.R. Spieksma, and S. Voogt,  
the International Journal of Production Economics **64**, 399-407, 2000.
- 17 *On the approximability of an interval scheduling problem*,  
Spieksma, F.C.R.,  
Journal of Scheduling **2**, 215-227, 1999.
- 16 *Lifting theorems and facet characterization for a class of clique partitioning inequalities*,  
Bandelt, H.-J., M. Oosten, J.H.G.C. Rutten, and F.C.R. Spieksma,  
Operations Research Letters **24**, 235-243, 1999.
- 15 *A general class of greedily solvable linear programs*,  
Queyranne, M., F.C.R. Spieksma, and F. Tardella,  
Mathematics of Operations Research **23**, 892-908, 1998.
- 14 *Approximation algorithms for multi-index transportation problems with decomposable costs*,  
Queyranne, M. and F.C.R. Spieksma,  
Discrete Applied Mathematics **76**, 239-254, 1997.
- 13 *The assembly of printed circuit boards: a case with multiple machines and multiple board types*,  
Crama, Y., O.E. Flippo, J.J. van de Klundert, and F.C.R. Spieksma,  
European Journal of Operational Research **98**, 457-472, 1997.

- 12 *A decision support system for locating facilities and routing traffic on a factory site*,  
Derks, J.J.M. and F.C.R. Spijksma,  
Belgian Journal of Operations Research, Statistics, and Computer Science **36**, 173-184, 1996.
- 11 *The component retrieval problem in printed circuit board assembly*,  
Crama, Y., O.E. Flippo, J.J. van de Klundert, and F.C.R. Spijksma,  
the International Journal of Flexible Manufacturing Systems **8**, 287-312, 1996.
- 10 *Scheduling jobs of equal length: complexity, facets and computational results*,  
Crama, Y. and F.C.R. Spijksma,  
Mathematical Programming **72**, 207-227, 1996.
- 9 *Geometric three-dimensional assignment problems*,  
Spijksma, F.C.R. and G.J. Woeginger,  
European Journal of Operational Research **91**, 611-618, 1996.
- 8 *Scheduling with safety distances*,  
Spijksma, F.C.R., G.J. Woeginger, and Z. Yu,  
Annals of Operations Research (Mathematics of Industrial Systems) **57**, 251-264, 1995.
- 7 *The computational complexity of a bin packing game*,  
Spijksma, F.C.R. and G.J. Woeginger,  
Central European Journal for Operations Research and Economics **3**, 39-49, 1994/1995.
- 6 *A branch-and-bound algorithm for the two-dimensional vector packing problem*,  
Spijksma, F.C.R.,  
Computers and Operations Research **21**, 19-25, 1994.
- 5 *Minimizing the number of tool switches on a flexible machine*,  
Crama, Y., A.W.J. Kolen, A.G. Oerlemans, and F.C.R. Spijksma,  
International Journal of Flexible Manufacturing Systems **6**, 33-54, 1994.
- 4 *Approximation algorithms for multidimensional assignment problems with decomposable costs*,  
Bandelt, H.-J., Y. Crama, and F.C.R. Spijksma,  
Discrete Applied Mathematics **49**, 25-50, 1994.
- 3 *Approximation algorithms for three-dimensional assignment problems with triangle inequalities*,  
Crama, Y. and F.C.R. Spijksma,  
European Journal of Operational Research **60**, 273-279, 1992.
- 2 *Throughput rate optimization in the automated assembly of printed circuit boards*,  
Crama, Y., A.W.J. Kolen, A.G. Oerlemans, and F.C.R. Spijksma,  
Annals of Operations Research **26**, 455-480, 1990.
- 1 *On the system setup and the scheduling problem in a flexible manufacturing system (FMS)*,  
Spijksma, F.C.R., K. Vrieze, and A.G. Oerlemans,  
Statistica Neerlandica **44**, 125-138, 1990.

### 6.3 Some Publications in Conference Proceedings

*Finding Diverse Minimum s-t Cuts*,

de Berg, M., López Martínez, A., and F.C.R. Spijksma, in: Proceedings of the 34th International Symposium on Algorithms and Computation (ISAAC2023), edited by Satoru Iwata and Naonori Kakimura, Leibniz International Proceedings in Informatics (LIPIcs) **283**, 24:1 - 24:17.

*Stable Approximation Algorithms for Dominating Set and Independent Set*,

de Berg, M., A. Sadhukhan, and F.C.R. Spijksma, in: Proceedings of the International Conference on Approximation Algorithms for Combinatorial Optimization Problems (APPROX2023), edited by Nicole Megow and Adam D. Smith, Leibniz International Proceedings in Informatics (LIPIcs) **275**, 27:1 - 27:16.

*Exciting times or: How to best schedule for a last round showdown*,

Lambers, R., B. Gieling and F.C.R. Spijksma, in: Proceedings of the World Congress of Science and Football, Groningen 2023, page 58.

*Package Delivery Using Drones with Restricted Movement Areas*,

Erlebach, T., K. Luo and F.C.R. Spijksma, in: Proceedings of the 33rd International Symposium on Algorithms and Computation (ISAAC 2022), edited by S.W. Bae and H. Park, Leibniz International Proceedings in Informatics (LIPIcs) **248**, 49:1 - 49:16.

*Rejection-proof Kidney Exchange Mechanisms*,

Blom, D., B. Smeulders and F. Spijksma, accepted for MATCH-UP 2022.

*Stable Approximation Algorithms for the Dynamic Broadcast Range-Assignment Problem*,

de Berg, M., A. Sadhukhan, F.C.R. Spijksma, in: Proceedings of the 18th Scandinavian Symposium and Workshops on Algorithm Theory (SWAT2022), edited by A. Czumaj and Q. Xin, Lipics, Article no 15, 15:1 - 15:21.

- A Hybrid Model to Find Schedules for Double Round Robin Tournaments With Side Constraints*, van Doornmalen, M.J.J., C. Hojny, R. Lambers, and F.C.R. Spieksma, in: Proceedings of the 13th International Conference on the Practice and Theory of Automated Timetabling (PATAT13), edited by P. Causmaecker, E. Özcan, G. Vandenbergh, 412-419, 2021.
- Ranking rankings as predictor of the final ranking*, Lambers, R. and F.C.R. Spieksma, in: Proceedings of the 8th Mathsport International Conference, edited by J. Reade, 129-134, 2021.
- The traveling social golfer problem: the case of the Volleyball Nations League*, Lambers, R., L. Rothuizen, and F.C.R. Spieksma, in: Proceedings of the 18th International Conference on the Integration of Constraint Programming, Artificial Intelligence, and Operations Research (CPAIOR 2021), edited by Peter J. Stuckey, Lecture Notes in Computer Science **12735**, 149-162, 2021.
- Online Bin Packing with Overload Cost*, Luo, K. and F.C.R. Spieksma, in: Proceedings of the 7th International Conference on Algorithms and Discrete Applied Mathematics (CALDAM2021), edited by A. Mudgalkar, C.R. Subramaniam, Lecture Notes in Computer Science **12601**, 3-15, 2021.
- The Stackleberg Kidney Exchange Problem is  $\Sigma_2^P$ -complete*, Smeulders, B., D. Blom and F.C.R. Spieksma, in: Proceedings of the 13th International Symposium on Algorithmic Game Theory (SAGT 2020), edited by Tobias Harks, Max Klimm, Lecture Notes in Computer Science **12283**, 342, 2020.
- Approximation algorithms for car sharing problems*, Luo, K. and F.C.R. Spieksma, in: Proceedings of the 26th International Computing and Combinatorics Conference (COCOON2020), edited by D. Kim, R. Uma, Z. Cai, D. Lee, Lecture Notes in Computer Science **12273**, 262-273, 2020.
- Recourse in Kidney Exchange Programs*, Bartier, V., Y. Crama, B. Smeulders and F. Spieksma, accepted for MATCH-UP 2019.
- Partitioning Vectors into Quadruples: worst-case analysis of a matching-based algorithm*, Ficker, A., T. Erlebach, M. Mihalák, and F.C.R. Spieksma, in: Proceedings of the 29th International Symposium on Algorithms and Computation (ISAAC2018), LIPICS **123**, edited by Wen-Lian Hsu, Der-Tsai Lee, and Chung-Shou Liao, 45:1 - 45:12 (2018).
- Balanced Vector Optimization*, Ficker, A., F.C.R. Spieksma and G.J. Woeginger, in: Proceedings of the 14th International Workshop on Approximation and Online Algorithms (WAOA2016), LNCS **10138**, edited by K. Jansen and M. Mastrolilli, 92-102 (2017).
- Conference scheduling: a personalized approach*, Vangerven, B., A. Ficker, D. Goossens, W. Passchyn, F.C.R. Spieksma, and G. Woeginger, in: Proceedings of the 11th International Conference on Practice and Theory of Automated Timetabling (PATAT2016), 384-401 (2016).
- Round-Robin Tournaments Generated by the Circle Method Have Maximum Carry-Over*, Lambrechts, E. A.M.C. Ficker, D.R. Goossens, F.C.R. Spieksma, in: Proceedings of the 18th IPCO Conference, LNCS **9682**, edited by Q. Louveaux and M. Skutella, 178-189 (2016).
- Mathematical programming models for scheduling locks in sequence*, Passchyn, W., D. Briskorn and F.C.R. Spieksma, in: Proceedings of the 14th Workshop on Algorithmic Approaches for Transportation Modeling, Optimization, and Systems (ATMOS), OASICS **42**, edited by S. Funke and M. Mihalak, 92-106 (2014).
- Fast Separation Algorithms for Three-Index Assignment Problems*, Dokka, T., I. Mourtos, and F.C.R. Spieksma, in: Proceedings of the 2nd International Symposium on Combinatorial Optimization, LNCS **7422**, edited by A.R. Mahjoub, V. Markakis, I. Milis, V. Paschos, 189-200 (2012).
- Approximating the Multi-level Bottleneck Assignment Problem*, Dokka, T., A. Kouvela, and F.C.R. Spieksma, in: Proceedings of the 6th International Workshop on Algorithms and Computation (WALCOM), LNCS **7157**, edited by M. Rahman and S. Nakano, 64-75 (2012).
- Approximation Algorithms for the Wafer to Wafer Integration Problem*, Dokka, T., M. Bougeret, V. Boudet, R. Giroudeau, and F.C.R. Spieksma, in: Proceedings of the 10th International Workshop on Approximation and Online Algorithms (WAOA), LNCS **7846**, edited by T. Erlebach and G. Persiano, 286-297 (2012).
- Solids - A Combinatorial Auction for a Housing Corporation*, Dries R. Goossens and Sander Onderstal and Frits C. R. Spieksma, in: Proceedings of the 2nd International Workshop on Auctions, Market Mechanisms, and Their Applications (AMMA), Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering **80**, edited by P. Coles, S. Das, S. Lahaie, B. Szymanski, 76-87 (2011).
- The Lockmaster's problem*, Sofie Coene and Frits C. R. Spieksma, in: Proceedings of the 11th Workshop on Algorithmic Approaches for Transportation Modeling, Optimization, and Systems (ATMOS), OASICS **20**, edited by A. Caprara and S. Kontogiannis, 27-37 (2011).

- Exact Algorithms for Coloring Graphs While Avoiding Monochromatic Cycles*,  
Fabrice Talla Nobibon and Cor A. J. Hurkens and Roel Leus and Frits C. R. Spieksma, in:  
Proceedings of the 6th International Workshop on Algorithmic Aspects in Information and Management (AAIM), LNCS **6124**, edited by B. Chen, 229–242 (2010).
- The Focus of Attention Problem*,  
Dries R. Goossens and Sergey Polyakovskiy and Frits C. R. Spieksma and Gerhard J. Woeginger,  
in: Proceedings of the Twenty-First Annual ACM-SIAM Symposium on Discrete Algorithms (SODA), SIAM, edited by M. Charikar, 312–317 (2010).
- Heuristics for the Traveling Repairman Problem with Profits*,  
Thijs Dewilde and Dirk Cattrysse and Sofie Coene and Frits C. R. Spieksma and Pieter Vansteenwegen,  
in: Proceedings of the 10th Workshop on Algorithmic Approaches for Transportation Modeling, Optimization, and Systems (ATMOS), OASICS **14**, edited by T. Erlebach and M. Lübbecke, 34–44 (2010).
- Between a Rock and a Hard Place: The Two-to-One Assignment Problem*,  
Dries R. Goossens and Sergey Polyakovskiy and Frits C. R. Spieksma and Gerhard J. Woeginger,  
in: Proceedings of the 6th International Workshop on Approximation and Online Algorithms (WAOA), LNCS **5893**, edited by E. Bampis and K. Jansen, 159–169 (2009).
- Exact Algorithms for the Matrix Bid Auction*,  
Dries R. Goossens and Frits C. R. Spieksma, in: Proceedings of the 6th International Workshop on Experimental Algorithms (WEA), LNCS **4525**, edited by C. Demetrescu, 433–445 (2007).
- Approximation of Rectangle Stabbing and Interval Stabbing Problems*,  
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:

- Operations Research Letters (2008-present),
- Journal of Quantitative Analysis in Sports (2013-present),
- 4OR (2015-present).

Past:

- 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:

- 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

- President of EURO (2024 - present)
- 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)
- Principal Investigator of NETWORKS (Jan 1, 2019 - current)
- 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](http://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](http://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 IPCO2022, Eindhoven.
- Responsible for the organization of the IFORS Webinars:
  - “Global Sports Analytics”, Nov 19, 2021
  - “OR and the Pandemic”, May 5, 2022
- 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. Spijksma (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. Spijksma (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. Spijksma (2020), *De echte eindstand*, Euclides **96**, No 3, 8-9.
- Lambers, R., J. Nederlof, and F.C.R. Spijksma (2020), *How the schedule in the TATA Steel Chess Championship forced Carlsen to help Caruana win*, The Network Pages.
- Spijksma, 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.