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List of Publications

Monograph:

1. *Knapsack Problems*,
(with H. Kellerer, D. Pisinger), 546 pages, Springer Verlag, 2004.

Publications in international, refereed journals:

2. Linear programs with an additional rank two reverse convex constraint,
(with H. Tuy),
Journal of Global Optimization **4**, 441–454, 1994.
3. Some geometric clustering problems,
(with R. Rudolf, G. J. Woeginger),
Nordic Journal of Computing **1**, 246–263, 1994.
4. Partitioning graphs into two trees,
(with G.J. Woeginger, E.-Y. Yao),
Acta Cybernetica **11**, 233–240, 1994.
5. Monge matrices make maximization manageable,
(with R. Rudolf, G.J. Woeginger),
Operations Research Letters **16**, 245–254, 1994.
6. The inverse-parametric knapsack problem,
(with R.E. Burkard),
EJOR European Journal of Operational Research **83**, 376–393, 1995.
7. The random linear bottleneck assignment problem,
RAIRO Operations Research **30**, 127–142, 1996.
8. The fractional greedy algorithm for data compression,
(with J. Békési, G. Galambos, G.J. Woeginger),
Computing **56**, 29–46, 1996.
9. Greedy algorithms for on-line data compression,
(with J. Békési, G. Galambos, G.J. Woeginger),
Journal of Algorithms **25**, 274–289, 1997.

10. Solution methods and computational investigations for the linear bottleneck assignment problem,
Computing **59**, 237–258, 1997.
11. Simple but efficient approaches for the collapsing knapsack problem,
(with D. Pisinger, G.J. Woeginger),
Discrete Applied Mathematics **77**, 271–280, 1997.
12. On-line waste management in a galvanization plant,
(with R.E. Burkard, R. Rudolf),
Yugoslav Journal of Operations Research **7**, 1–13, 1997.
13. Cardinality constrained bin-packing problems,
(with H. Kellerer), *Annals of Operations Research* **92** 335–348, 1999.
14. Stochastic analysis of greedy algorithms for the subset sum problem,
CEJOR Central European Journal of Operations Research **7**, 53–70, 1999.
15. A new fully polynomial approximation scheme for the knapsack problem,
(with H. Kellerer), *Journal of Combinatorial Optimization* **3**, 59–71, 1999.
16. Dynamic programming revisited: Improving knapsack algorithms,
Computing **63**, 419–430, 1999.
17. Approximation algorithms for knapsack problems with cardinality constraints,
(with A. Caprara, H. Kellerer, D. Pisinger),
EJOR European Journal of Operational Research **123**, 333–345, 2000.
18. The multiple subset sum problem,
(with A. Caprara, H. Kellerer),
SIAM Journal on Optimization **11**, 308–319, 2000.
19. A PTAS for the multiple subset sum problem with different knapsack capacities, (with A. Caprara, H. Kellerer),
Information Processing Letters **73**, 111–118, 2000.
20. Approximating multi-objective knapsack problems,
(with T. Erlebach, H. Kellerer),
Management Science **48**, 1603–1612, 2002.
21. Approximation schemes for correlated vector packing problems,
(with A. Caprara, H. Kellerer),
Naval Research Logistics **50**, 58–69, 2003.
22. An efficient fully polynomial approximation scheme for the subset-sum problem, (with H. Kellerer, R. Mansini, M. G. Speranza),
Journal of Computer and System Sciences **66**, 349–370, 2003.
23. A $3/4$ -approximation algorithm for multiple subset sum,
(with A. Caprara, H. Kellerer),
Journal of Heuristics **9**, 99–111, 2003.

24. Improved dynamic programming in connection with an FPTAS for the knapsack problem, (with H. Kellerer),
Journal of Combinatorial Optimization **8**, 5–12, 2004.
25. Worst-case analysis of the subset sum algorithm for bin packing, (with A. Caprara), *Operations Research Letters* **32**, 159–166, 2004.
26. Securitization of financial assets: Approximation in theory and practice, (with R. Mansini),
Computational Optimization and Applications **29**, 147–171, 2004.
27. Material flow simulation to support site planning of a sawmill with an installed computer tomograph - A case study, (with A. Petutschnigg, P. Schwarzbauer),
Paper and Timber (Paperi ja Puu) **87**, 47–52, 2005.
28. Modified subset sum heuristics for bin packing, (with A. Caprara), *Information Processing Letters* **96**, 18–23, 2005.
29. An algorithmic framework for the exact solution of the prize-collecting Steiner tree problem, (with M. Fischetti, G. Klau, I. Ljubic, P. Mutzel, R. Weiskircher),
Mathematical Programming **105**, 427–449, 2006.
30. Influence of production costs on cutting optimization in window frame production - a graph-theoretical model, (with A. Petutschnigg),
Computers and Electronics in Agriculture **58**, 133–143, 2007.
31. The traveling group problem, (with C. Klamler), *Social Choice and Welfare* **29**, 429–452, 2007.
32. Maximizing the minimum voter satisfaction on spanning trees, (with A. Darmann, C. Klamler),
Mathematical Social Science **58**, 238–250, 2009.
33. A two-period portfolio selection model for asset-backed securitization, (with R. Mansini), *Algorithmic Operations Research* **4**, 155–170, 2009.
34. Algorithms to define limits for wood property categorization, (with G. Kain, H. Katz, A. Petutschnigg, A. Teischinger),
Forest Products Journal **59**, 75–83, 2009.
35. The knapsack problem with conflict graphs, (with J. Schauer),
Journal of Graph Algorithms and Applications **13**, 233–249, 2009.
36. Inverse 1-center location problems with edge length augmentation on trees, (with B. Alizadeh, R.E. Burkard),
Computing **86**, 331–343, 2009.

37. The multidimensional knapsack problem: Structure and algorithms,
(with J. Puchinger, G. Raidl),
INFORMS Journal on Computing **22**, 250–265, 2010.
38. A note on maximizing the minimum voter satisfaction on spanning trees,
(with A. Darmann, C. Klamler),
Mathematical Social Science **60**, 82–85, 2010.
39. Resource allocation with time intervals,
(with A. Darmann, J. Schauer),
Theoretical Computer Science **411**, 4217–4234, 2010.
40. Competitive subset selection with two agents,
(with G. Nicosia, A. Pacifici),
Discrete Applied Mathematics **159**, 1865–1877, 2011.
41. Finding socially best spanning trees,
(with A. Darmann, C. Klamler),
Theory and Decision **70**, 511–527, 2011.
42. Paths, trees and matchings under disjunctive constraints,
(with A. Darmann, J. Schauer, G.J. Woeginger),
Discrete Applied Mathematics **159**, 1726–1735, 2011.
43. Committee selection under weight constraints,
(with C. Klamler, S. Ruzika),
Mathematical Social Sciences **64**, 48–56, 2012.
44. Strategies in competing subset selection,
(with C. Marini, G. Nicosia, A. Pacifici),
Annals of Operations Research **207**, 181–200, 2013.
45. The maximum flow problem with disjunctive constraints,
(with J. Schauer)
Journal of Combinatorial Optimization **26**, 109–119, 2013.
46. The role of morphology in combination with ploidy analysis in characterizing
early gestational abortion,
(with I. Grinschgl, B. Guertl, G. Hoefler, M. Holzapfel-Bauer, S. Mannweiler),
International Journal of Pathology: Virchows Archiv **462**, 175–182, 2013.
47. Exact solution of the robust knapsack problem,
(with M. Monaci, P. Serafini),
Computers & Operations Research **40**, 2625–2631, 2013.

48. On the robust knapsack problem,
(with M. Monaci),
SIAM Journal of Optimization **23**, 1956–1982, 2013.
49. The subset sum game,
(with A. Darmann, G. Nicosia, J. Schauer),
European Journal of Operational Research **233**, 539–549, 2014.
50. Sharing the cost of a path,
(with A. Darmann, C. Klamler),
Studies in Microeconomics **3**, 1–12, 2015.
51. Scheduling two agent task chains with a central selection mechanism,
(with A. Agnetis, G. Nicosia, A. Pacifici),
Journal of Scheduling **18**, 243–261, 2015.
52. Two agent scheduling with a central selection mechanism,
(with G. Nicosia, A. Pacifici),
Theoretical Computer Science **596**, 109–123, 2015.
extended version available as: Technical Report RT-DIA-214-2015
Dipartimento di Ingegneria Universita “Roma Tre”
53. Approximation of the quadratic knapsack problem,
(with J. Schauer),
INFORMS Journal on Computing **28**, 308–318, 2016.
54. Maximin fairness-profit tradeoff in project budget allocation,
(with M. Naldi, G. Nicosia, A. Pacifici),
Procedia Computer Science **100**, 313–320, 2016.
55. Does the graphical abstract bring more visibility to your paper?
(with E.-M. Pferschy-Wenzig, D. Wang, A. Mocan, A.G. Atanasov),
Molecules **21**, 1247, 2016.
56. Linear models and computational experiments for the quadratic TSP,
(with A. Fischer, J.F. Meier, R. Stanek),
Electronic Notes in Discrete Mathematics **55**, 97–100, 2016.
57. Maximin fairness in project budget allocation,
(with M. Naldi, G. Nicosia, A. Pacifici),
Electronic Notes in Discrete Mathematics **55**, 65–68, 2016.
58. Price of fairness for allocating a bounded resource,
(with G. Nicosia, A. Pacifici),
European Journal of Operational Research **257**, 933–943, 2017.
59. On the shortest path game,
(with A. Darmann, J. Schauer),
Discrete Applied Mathematics **217**, 3–18, 2017.

60. Generating subtour elimination constraints for the TSP from pure integer solutions, (with Rostislav Stanek),
Central European Journal of Operations Research **25**, 231–260, 2017.
extended version available as: arXiv 1511.03533
61. Approximation of knapsack problems with conflict and forcing graphs,
(with Joachim Schauer),
Journal of Combinatorial Optimization **33**, 1300–1323, 2017.
62. Minimization and maximization versions of the quadratic traveling salesman problem,
(with O. Aichholzer, A. Fischer, F. Fischer, J.F. Meier, A. Pilz, R. Stanek),
Optimization **66**, 521–546, 2017
63. The shortest connection game,
(with Andreas Darmann, Joachim Schauer),
Discrete Applied Mathematics **231**, 139–154, 2017.
extended version available as: arXiv 1511.07847.
64. Improved dynamic programming and approximation results for the knapsack problem with setups, (with Rosario Scatamacchia),
International Transactions in Operational Research **25**, 667–682, 2018.
available as: Optimization Online 2016-07-5539.
65. Competitive multi-agent scheduling with an iterative selection rule,
(with Gaia Nicosia, Andrea Pacifici),
4OR, A Quarterly Journal of Operations Research **16**, 15–29, 2018.
66. Order batching and routing in a non-standard warehouse,
(with Joachim Schauer),
Electronic Notes in Discrete Mathematics **69**, 125–132, 2018.
67. On a Stackelberg subset sum game,
(with Gaia Nicosia, Andrea Pacifici),
Electronic Notes in Discrete Mathematics **69**, 133–140, 2018.
68. Optimized scheduling in human-robot collaboration - A use case in the assembly of Printed Circuit Boards, (with Karin Bogner, Roland Unterberger, Herwig Zeiner),
International Journal of Production Research **56**(16), 5522–5540, 2018.
69. Approximating the 3-period incremental knapsack problem,
(with Federico Della Croce, Rosario Scatamacchia),
Journal of Discrete Algorithms **52**, 55–69, 2018.
70. Integer Optimization with Penalized Fractional Values: The Knapsack Case,
(with Enrico Malaguti, Michele Monaci, Paolo Paronuzzi),
European Journal of Operational Research **273**, 874–888, 2019.

71. New exact approaches and approximation results for the penalized knapsack problem, (with Federico Della Croce, Rosario Scatamacchia),
Discrete Applied Mathematics **253**, 122–135, 2019.
extended version available as:
arXiv:1702.04211 and Optimization Online 2017-03-5880.
72. Geometric and LP-based heuristics for the quadratic travelling salesman problem, (with Rostislav Stanek, Peter Greistorfer, Klaus Ladner),
Computers and Operations Research **108**, 97–111, 2019.
extended version available as: arXiv: 1803.03681
73. On approximating the incremental knapsack problem,
(with Federico Della Croce, Rosario Scatamacchia),
Discrete Applied Mathematics **264**, 26–42, 2019.
available as: arXiv: 1801.04801
74. Profit-fairness trade-off in project selection,
(with Maurizio Naldi, Gaia Nicosia, Andrea Pacifici),
Socio-Economic Planning Sciences **67**, 133–146, 2019.
75. A Stackelberg knapsack game with weight control,
(with Gaia Nicosia, Andrea Pacifici),
Theoretical Computer Science **799**, 149–159, 2019.
76. Integer programming models versus advanced planning business software for a multi-level mixed-model assembly line problem, (with Tobias Kreiter),
Central European Journal of Operations Research **28**, 1141–1177, 2020.
77. Mean-variance portfolio optimization based on ordinal information,
(with Eranda Cela, Stephan Hafner, Roland Mestel),
Journal of Banking and Finance **122**, Article 105989, 2021.
78. On the Stackelberg knapsack game,
(with Gaia Nicosia, Andrea Pacifici, Joachim Schauer),
European Journal of Operational Research **291**, 18–31, 2021.
79. Optimally rescheduling jobs with a LIFO buffer,
(with Gaia Nicosia, Andrea Pacifici, Julia Resch, Giovanni Righini),
Journal of Scheduling **24**, 663–680, 2021.
available as: arXiv: 2106.15901.
80. Bin Packing with Lexicographic Objectives for Loading Weight- and Volume-Constrained Trucks in a Direct-Shipping System,
(with Katrin Heßler, Stefan Irnich, Tobias Kreiter),
to appear in *OR Spectrum*, 2021.
81. Approximating the Product Knapsack Problem,
(with Joachim Schauer, Clemens Thielen),
Optimization Letters **15**, 2529–2540, 2021. available as: arXiv: 1901.00695

82. Algorithms for rescheduling jobs with a LIFO buffer to minimize the weighted number of late jobs,
(with Julia Resch, Giovanni Righini), *Journal of Scheduling* on-line, 2022.
83. Fair allocation of indivisible items with conflict graphs,
(with Nina Chiarelli, Matjaz Krnc, Martin Milanic, Nevena Pivac, Joachim Schauer), *Algorithmica* on-line, 2022. available as: arXiv: 2003.11313
84. Allocation of indivisible items with individual preference graphs,
(with Nina Chiarelli, Clement Dallard, Andreas Darmann, Stefan Lendl, Martin Milanic, Peter Mursic, Nevena Pivac),
to appear in: *Discrete Applied Mathematics*, 2023.
85. Approximating Single- and Multi-objective Nonlinear Sum and Product Knapsack Problems, (with Jan Boeckmann, Clemens Thielen),
to appear in: *Discrete Optimization*, 2023.
available as: Social Science Research Network
<http://ssrn.com/abstract=4276275>

Papers submitted to international, refereed journals:

86. Bin packing resilient against random defects,
(with Claudio Arbib, Fatemeh K. Ranjbar, Fabrizio Marinelli),
2022, submitted.
87. Planning a Zero-Emission Mixed-Fleet Public Bus System with Minimal Life-Cycle Cost, (with Nathalie Frieß),
2022, submitted.
88. Integrating multiple sources of ordinal information in portfolio optimization,
(with Eranda Cela, Stephan Hafner, Roland Mestel),
2022, submitted.
available as: arXiv: 2211.00420
89. Operational Research: Computational complexity ,
(with Clemens Thielen), 2022, submitted.
90. Fair allocation algorithms for indivisible items under special conflict constraints, (with Nina Chiarelli, Matjaz Krnc, Martin Milanic, Joachim Schauer),
2022, submitted.
91. Rescheduling with New Orders under Bounded Disruption, (with Elena Renner, Stefan Lendl), 2023, submitted.
92. Curriculum-Based University Course Timetabling Considering Individual Course of Studies, (with Elmar Steiner, Andrea Schaerf), 2023, submitted.

Publications in strictly refereed conference proceedings:

93. The random linear bottleneck assignment problem,
 Proceedings of the fourth IPCO Conference 1995, Integer Programming and
 Combinatorial Optimization,
Springer Lecture Notes in Computer Science **920**, 145–156, 1995.
94. Worst–case analysis for on–line data compression,
 (with J. Békési, G. Galambos, G.J. Woeginger),
Proceedings of CCS '95: Combinatorics and Computer Science, Brest, 1995,
Springer Lecture Notes in Computer Science **1120**, 288–300, 1996.
95. An efficient approximation scheme for the subset-sum problem,
 (with H. Kellerer, M. G. Speranza),
 Proceedings of the 8th ISAAC Symposium, Singapore 1997,
Springer Lecture Notes in Computer Science **1350**, 394–403, 1997.
96. A new fully polynomial approximation scheme for the knapsack problem,
 (with H. Kellerer), Proceedings of the APPROX 98 Workshop, Aalborg 1998,
Springer Lecture Notes in Computer Science **1444**, 123–134, 1998.
97. Approximation schemes for ordered vector packing problems,
 (with A. Caprara, H. Kellerer),
 Proceedings of the APPROX 01 Workshop, Berkeley, CA, 2001,
Springer Lecture Notes in Computer Science **2129**, 63–74, 2001.
98. Approximating multi-objective knapsack problems,
 (with T. Erlebach, H. Kellerer),
 Proceedings of the WADS 01 Workshop, Providence, RI, 2001,
Springer Lecture Notes in Computer Science **2125**, 210–221, 2001.
99. The fractional prize-collecting Steiner tree problem on trees,
 (with G. Klau, I. Ljubic, P. Mutzel, R. Weiskircher), Proceedings of the 11th
 ESA European Symposium on Algorithms, Budapest, 2003,
Springer Lecture Notes in Computer Science **2832**, 691–702, 2003.
100. Combining a memetic algorithm with integer programming to solve the prize-
 collecting Steiner tree problem, (with G. Klau, I. Ljubic, A. Moser, P. Mutzel,
 P. Neuner, G. Raidl, R. Weiskircher), Proceedings of the GECCO Genetic and
 Evolutionary Computation Conference, Seattle, 2004,
Springer Lecture Notes in Computer Science **3102**, 1304–1315, 2004.
101. Solving the prize-collecting Steiner tree problem to optimality,
 (with M. Fischetti, G. Klau, I. Ljubic, P. Mutzel, R. Weiskircher),
 Proceedings of the Seventh Workshop on Algorithm Engineering and Experi-
 ments (ALENEX 05), eds.: C. Demetrescu et al. SIAM, 68–76, 2005.
102. The core concept for the multidimensional knapsack problem,
 (with J. Puchinger, G. Raidl), Proceedings of the 6th European Conference
 on Evolutionary Computation in Combinatorial Optimization (EvoCOP 06),
Springer Lecture Notes in Computer Science **3906**, 195–208, 2006.

103. A directed cut model for the design of the last mile in real-world fiber optic networks, (with P. Bachhiesl, P. Mutzel, G. Raidl, D. Wagner), Proceedings of the International Network Optimization Conference (INOC) 2007, ed.: B. Fortz, 103/1-6, Spa, Belgium, 2007.
104. Computing spanning trees in a social choice context, (with A. Darmann, C. Klamler), Proceedings of the 2nd International Workshop on Computational Social Choice (COMSOC-2008), 193–204, 2008.
105. Accelerating column generation for a survivable network design problem, (with M. Leitner, G. Raidl), Proceedings of the International Network Optimization Conference (INOC) 2009, ed.: M.G. Scutella, Pisa, Italien, 2009.
106. Committee selection with a weight constraint based on lexicographic rankings of individuals, (with C. Klamler, S. Ruzika), Proceedings of the International Conference on Algorithmic Decision Theory (ADT 2009), *Springer Lecture Notes in Computer Science* **5783**, 50–61, 2009.
107. Subset weight maximization with two competing agents, (with G. Nicosia, A. Pacifici), Proceedings of the International Conference on Algorithmic Decision Theory (ADT 2009), *Springer Lecture Notes in Computer Science* **5783**, 74–85, 2009.
108. Determining a minimum spanning tree with disjunctive constraints, (with A. Darmann, J. Schauer), Proceedings of the International Conference on Algorithmic Decision Theory (ADT 2009), *Springer Lecture Notes in Computer Science* **5783**, 414–423, 2009.
109. A maximin approach to finding fair spanning trees, (with A. Darmann, C. Klamler), Proceedings of the 3rd International Workshop on Computational Social Choice (COMSOC-2010), 115–126, 2010.
110. The maximum flow problem with conflict and forcing conditions, (with J. Schauer), Proceedings of the International Network Optimization Conference (INOC 2011), *Springer Lecture Notes in Computer Science* **6701**, 289–294, 2011.
111. Two agents competing for a shared machine, (with A. Agnetis, G. Nicosia, A. Pacifici), Proceedings of the 3rd International Conference on Algorithmic Decision Theory (ADT 2013), *Springer Lecture Notes in Computer Science* **8176**, 1–14, 2013.
112. Approximating the quadratic knapsack problem on special graph classes, (with J. Schauer), Proceedings of the 11th International Workshop on Approximation and Online Algorithms (WAOA 2013), *Springer Lecture Notes in Computer Science* **8447**, 61–72, 2014.
113. The shortest path game: Complexity and Algorithms, (with A. Darmann, J. Schauer),

Proceedings of Theoretical Computer Science (TCS 2014), Rome,
Springer Lecture Notes in Computer Science **8705**, 39–53, 2014.

114. A quadratic knapsack model for optimizing the media mix of a promotional campaign, (with J. Schauer, G. Maier), Selected papers from the Third International Conference ICORES 2014,
Springer Communications in Computer and Information Science **509**, 251–264, 2015.
115. Brief announcement: On the fair subset sum problem,
(with G. Nicosia, A. Pacifici), Proceedings of the 8th International Symposium on Algorithmic Game Theory (SAGT 2015),
Springer Lecture Notes in Computer Science **9347**, 309–311, 2015.
116. Approximation results for the incremental knapsack problem,
(with F. Della Croce, R. Scatamacchia),
Combinatorial Algorithms: 28th International Workshop, IWOCA 2017,
Springer Lecture Notes in Computer Science **10765**, 75–87, 2018.
117. Constrained job rearrangements on a single machine,
(with A. Alfieri, G. Nicosia, A. Pacifici),
in: *New Trends in Emerging Complex Real Life Problems*, AIRO Springer Series **1**, 33–41, 2018.
118. Fair packing of independent sets,
(with Nina Chiarelli, Matjaz Krnc, Martin Milanic, Nevena Pivac, Joachim Schauer),
Combinatorial Algorithms: 31st International Workshop, IWOCA 2020,
Springer Lecture Notes in Computer Science **12126**, 154–165, 2020.
119. Decision-support system for the optimal technology split of a decarbonized bus network, (with Nathalie Frieß),
IEEE 45th Annual Computers, Software, and Applications Conference (COMPSAC 2021), SSMLS 2021: Smart & Sustainable Mobility & Logistics in Smart Cities, 1279–1284, 2021.
120. Allocating indivisible items with minimum dissatisfaction on preference graphs (with Nina Chiarelli, Clement Dallard, Andreas Darmann, Stefan Lendl, Martin Milanic, Peter Mursic, Nevena Pivac),
Proceedings of the International Conference on Algorithmic Decision Theory (ADT 2021),
Springer Lecture Notes in Computer Science **13023**, 243–257, 2021.

Publications in partially refereed conference proceedings:

121. Algorithms for on-line data compression,
(with J. Békési, G. Galambos, G.J. Woeginger),
Operations Research Proceedings 1994, Springer, 76–80, 1995.

122. Waste treatment in a metal-processing plant,
(with R.E. Burkard, R. Rudolf),
Operations Research Proceedings 1996, Springer, 392–398, 1997.
123. Waste–water minimization in metal industry,
(with R.E. Burkard, R. Rudolf), *Proceedings of the 4th International Symposium on Operational Research* 1997, Slovenia, 77–82, 1997.
124. Nurse scheduling with overlapping and interrupted working shifts,
(with E. Schieffer), *Proceedings of the Seventh Workshop on Models and Algorithms for Planning and Scheduling Problems* (MAPSP 05), 222–224, 2005.
125. Window frame production: Optimization of cutting plans,
(with A. Petutschnigg, L. Sattler), *Proceedings of the 17th International Wood Machining Seminar* (IWMS 17), 191–200, 2005.
126. Collective decisions for tours, (with C. Klamler),
Combinatorial Optimization, Oberwolfach Report No. 50/2005, 68–70, 2005.
127. A multi-commodity flow approach for the design of the last mile in real-world fiber optic networks, (with P. Bachhiesl, P. Mutzel, G. Raidl, D. Wagner),
Operations Research Proceedings 2006, Springer, 197–202, 2007.
128. ILP Models for a nurse scheduling problem,
(with B. Klinz, J. Schauer),
Operations Research Proceedings 2006, Springer, 319–324, 2007.
129. The core concept and collaborative approaches for the multidimensional knapsack problem, (with J. Puchinger, G. Raidl),
Algorithm Engineering, Oberwolfach Report No. 25/2007, 23–25, 2007.
130. Optimal algorithms for inverse center location problems with edge length augmentation on trees, (with B. Alizadeh, R.E. Burkard), *Proceedings of the 14th Belgian-French-German Conference on Optimization*, Leuven, p. 216, 2009.
131. Algorithms to define boundaries of categories for wood property categorization,
(with G. Kain, H. Katz, A. Petutschnigg, A. Teischinger),
Proceedings of the Cost Action E53 Conference, Lisbon, 10 pages, 2009.
132. Combinatorial optimization problems with conflict graphs,
(with A. Darmann, J. Schauer, G.J. Woeginger),
Proceedings of the 8th Cologne-Twente Workshop on Graphs and Combinatorial Optimization CTW09, 293–296, eds. L. Liberti et al., Paris, 2009.
133. On the robust knapsack problem, (with M. Monaci),
Proceedings of the 10th Cologne-Twente Workshop on Graphs and Combinatorial Optimization CTW2011, 207–210, Rome, 2011.
134. Mathematical models and solutions for network design problems,
Proceedings of the 11th International Symposium on Operational Research SOR '11, Slovenia, 23–28, 2011.

135. Applying social choice rules for the solution of the multi-dimensional knapsack problem *Computation and Incentives in Social Choice (Dagstuhl Seminar 12101) Dagstuhl Reports* **2 (3)**, 16–17, 2012.
136. Using pure integer solutions to solve the traveling salesman problem, (with R. Stanek), *MATCOS-13 Middle-European Conference on Applied Theoretical Computer Science, Proceedings of the 16th International Multi-conference (Information Society - IS 2013)*, Ljubljana, Slovenia, 565–568, 2013.
137. Media mix optimization - Applying a quadratic knapsack model, (with J. Schauer, G. Maier), *Proceedings of the 3rd International Conference on Operations Research and Enterprise Systems (ICORES 2014)*, Scitepress, 363–370, 2014.
138. Personnel planning with multi-tasking and structured qualifications, (with T. Kreiter), *Operations Research Proceedings 2015*, Springer, 597–603, 2017.
139. A simulation study of fairness-profit trade-off in project selection based on HHI and knapsack models, (with M. Naldi, G. Nicosia, A. Pacifici, B. Leder), *Proceedings of the 10th European Modelling Symposium on Computer Modelling and Simulation 2016 (UKSim-AMSS)*, IEEE, 85–90, 2017.
140. Meta- and matheuristic approaches for the symmetric quadratic traveling salesman problem, (with R. Stanek, P. Greistorfer, K. Ladner), *Proceedings of the 12th Metaheuristics International Conference (MIC 2017)*, Universitat Pompeu Fabra Barcelona, 817–819, 2017.
141. Single machine scheduling with bounded job rearrangements, (with A. Alfieri, G. Nicosia, A. Pacifici), *Proceedings of the 16th Cologne-Twente Workshop on Graphs and Combinatorial Optimization CTW2018*, 131–134, Paris, 2018.
142. Two Stackelberg knapsack games, (with G. Nicosia, A. Pacifici, J. Schauer), *Proceedings of the 16th Cologne-Twente Workshop on Graphs and Combinatorial Optimization CTW2018*, 209–211, Paris, 2018.
143. Fair packing of indivisible goods under conflict constraints, (with Nina Chiarelli, Matjaz Krnc, Martin Milanic, Nevena Pivac, Joachim Schauer), extended abstract in: *CTW2020 Proceedings: Graphs and Combinatorial Optimization: from Theory to Applications*, 2020.
http://ctw2020.iasi.cnr.it/wp-content/uploads/2020/08/CTW2020_paper_53_328039.pdf

Academic publications:

144. Mathematical programs with a two-dimensional reverse convex constraint,
Diploma thesis, 1991, Department of Mathematics, TU Graz,
supervisors: Prof. Rainer E. Burkard (Graz) and Prof. Hoang Tuy (Hanoi),
145. On Three Topics in Combinatorial Optimization,
PhD thesis, 1995, supervisors: Prof. Rainer E. Burkard and Prof. Franz Rendl.
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