

Themen Seminar Logistikmanagement

- **Operations Research/Management Science:**

Thema 1 (*Bin packing and cutting stock problems: Mathematical models and exact algorithms*)
Delorme *et al.* (2016)

Thema 2 (*The Fixed Charge Transportation Problem: An Exact Algorithm Based on a New Integer Programming Formulation*)
Roberti *et al.* (2015)

Thema 3 (*The Three-Dimensional Bin Packing Problem*)
Martello *et al.* (2000)

Thema 4 (*The 0-1 Knapsack Problem*)
Pisinger and Toth (1998)

Thema 5 (*A branch and bound algorithm for cutting and packing irregularly shaped pieces*)
Alvarez-Valdes *et al.* (2013)

Thema 6 (*Maximum-weight stable sets and safe lower bounds for graph coloring*)
Held *et al.* (2012)

Thema 7 (*A Branch-and-Repair Method for Three-Dimensional Bin Selection and Packing in E-Commerce*)
Fontaine and Minner (2023)

Thema 8 (*Scattered storage assignment: mathematical model and valid inequalities to optimize the intra-order item distances*)
Albán *et al.* (2023)

Thema 9 (*The impact of order batching and picking area zoning on order picking system performance*)
Yu and De Koster (2009)

Thema 10 (*Variable Neighborhood Search for the Set Orienteering Problem and its application to other Orienteering Problem variants*)
Pěnička *et al.* (2019)

Thema 11 (*Timetable synchronization of the last several trains at night in an urban rail transit network*)
Zhang *et al.* (2024)

Thema 12 (*Solving matching problems with linear programming*)
Grötschel and Holland (1985)

• **Transportation:**

Thema 13 (*An adaptive large neighborhood search approach for multiple traveling repairman problem with profits*)

Avci and Avci (2019)

Thema 14 (*A Branch-and-Price-and-Cut Algorithm for the Vehicle Routing Problem with Two-Dimensional Loading Constraints*)

Zhang *et al.* (2022)

Thema 15 (*A Compact Arc-Based ILP Formulation for the Pickup and Delivery Problem with Divisible Pickups and Deliveries*)

Jargalsaikhan *et al.* (2021)

Thema 16 (*A Branch and Price Algorithm for the Heterogeneous Fleet Multi-Depot Multi-Trip Vehicle Routing Problem with Time Windows*)

Şahin and Yaman (2022)

Thema 17 (*An exact algorithm for the vehicle routing problem based on the set partitioning formulation with additional cuts*)

Baldacci *et al.* (2008)

Thema 18 (*A Branch-and-Cut Algorithm for the Symmetric Generalized Traveling Salesman Problem*)

Fischetti *et al.* (1997)

Thema 19 (*A New Exact Algorithm for Single-Commodity Vehicle Routing with Split Pickups and Deliveries*)

Li *et al.* (2023)

Thema 20 (*Branch-Cut-and-Price for the Time-Dependent Green Vehicle Routing Problem with Time Windows*)

Liu *et al.* (2023)

Thema 21 (*An exact Price-Cut-and-Enumerate Method for the Capacitated Multitrip Vehicle Routing Problem with Time Windows*)

Yang (2023)

Thema 22 (*A Branch-Cut-and-Price Approach for the Single-Trip and Multi-Trip Two-Echelon Vehicle Routing Problem with Time Windows*)

Marques *et al.* (2022)

Thema 23 (*Nested column generation for split pickup vehicle routing problem with time windows and time-dependent demand*)

Wu *et al.* (2024)

Thema 24 (*Iterated Inside Out: A New Exact Algorithm for the Transportation Problem*)

Bargetto *et al.* (2025)

- **Location Planning:**

Thema 25 (*Median and Covering Location Problems with Interconnected Facilities*)
Cherkesly *et al.* (2019)

Thema 26 (*Revisiting the Hamiltonian p -median problem: A new formulation on directed graphs and a branch-and-cut algorithm*)
Bektaş *et al.* (2019)

Thema 27 (*Compact MILP formulations for the p -center problem*)
Ales and Sourour (2018)

Thema 28 (*Benders decomposition for the discrete ordered median problem*)
Ljubić *et al.* (2024)

Literatur

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