

Themen Seminar Logistikmanagement

- **Operations Research/Management Science:**

Thema 1 (*A Branch-And-Price Approach for Graph Multi-Coloring*)
Mehrotra and Trick (2007)

Thema 2 (*Numerically Safe Gomory Mixed-Integer Cuts*)
Cook et al. (2009)

Thema 3 (*A new approach for the multiobjective minimum spanning tree*)
Santos et al. (2018)

Thema 4 (*An Exact Approach for the Vehicle Routing Problem with Two-Dimensional Loading Constraints*)
Iori et al. (2007)

Thema 5 (*General Variable Neighborhood Search for the Order Batching and Sequencing Problem*)
Menéndez et al. (2017)

Thema 6 (*Minimum Cost Flows: Network Simplex Algorithm*)
Ahuja et al. (1993)

Thema 7 (*Static repositioning in a bike-sharing system: models and solution approaches*)
Raviv et al. (2013)

Thema 8 (*The multiple vehicle balancing problem*)
Casazza et al. (2018)

- **Transportlogistik:**

Thema 9 (*GLNS: An effective large neighborhood search heuristic for the Generalized Traveling Salesman Problem*)
Smith and Imeson (2017)

Thema 10 (*A branch-and-cut algorithm for the Undirected Rural Postman Problem*)
Ghiani and Laporte (2000)

Thema 11 (*Vehicle Routing Problem with Steep Roads*)
Brunner et al. (2019)

Thema 12 (*Large Neighborhood-Based Metaheuristic and Branch-and-Price for the Pickup and Delivery Problem with Split Loads*)
Haddad et al. (2018)

- Revenue Management:

Thema 13 (*A column generation algorithm for choice-based network revenue management*)
Bront et al. (2009)

- Standortplanung:

Thema 14 (*Ambulance location and relocation problems with time-dependent travel times*)
Schmid and Doerner (2010)

Thema 15 (*An exact algorithm for the modular hub location problem with single assignments*)
Tanash et al. (2017)

Literatur

Ravindra K. Ahuja, Thomas L. Magnanti, and James B. Orlin. Minimum cost flows: Network simplex algorithm. In *Network Flows*, chapter 11, pages 402–460. Prentice-Hall, Inc., New Jersey, 1993.

Juan José Miranda Bront, Isabel Méndez-Díaz, and Gustavo Vulcano. A column generation algorithm for choice-based network revenue management. *Operations Research*, 57(3):769–784, 2009. doi: 10.1287/opre.1080.0567. URL <http://dx.doi.org/10.1287/opre.1080.0567>.

Carlos Brunner, Ricardo Giesen, and Mathias A. Klapp. Vehicle routing problem with steep roads. Optimization online, Engineering School, Pontificia Universidad Católica de Chile, 2019. http://www.optimization-online.org/DB_HTML/2019/03/7113.html.

Marco Casazza, Alberto Ceselli, Daniel Chemla, Frédéric Meunier, and Roberto Wolfson Calvo. The multiple vehicle balancing problem. *Networks*, 72(3):337–357, 2018. doi: 10.1002/net.21822. URL <https://onlinelibrary.wiley.com/doi/abs/10.1002/net.21822>.

William Cook, Sanjeeb Dash, Ricardo Fukasawa, and Marcos Goycoolea. Numerically safe gomory mixed-integer cuts. *INFORMS Journal on Computing*, 21(4):641–649, nov 2009. doi: 10.1287/ijoc.1090.0324. URL <https://doi.org/10.1287/ijoc.1090.0324>.

Gianpaolo Ghiani and Gilbert Laporte. A branch-and-cut algorithm for the undirected rural postman problem. *Mathematical Programming*, 87(3):467–481, May 2000. ISSN 1436-4646. doi: 10.1007/s101070050007. URL <https://doi.org/10.1007/s101070050007>.

Matheus Nohra Haddad, Rafael Martinelli, Thibaut Vidal, Simone Martins, Luiz Satoru Ochi, Marcone Jamilson Freitas Souza, and Richard Hartl. Large neighborhood-based metaheuristic and branch-and-price for the pickup and delivery problem with split loads. *European Journal of Operational Research*, 270(3):1014–1027, 2018.

Manuel Iori, Juan-José Salazar-González, and Daniele Vigo. An exact approach for the vehicle routing problem with two-dimensional loading constraints. *Transportation Science*, 41(2):253–264, may 2007. doi: 10.1287/trsc.1060.0165. URL <https://doi.org/10.1287/trsc.1060.0165>.

Anuj Mehrotra and Michael A. Trick. A branch-and-price approach for graph multi-coloring. In *Extending the Horizons: Advances in Computing, Optimization, and Decision Technologies*, pages 15–29. Springer US, Boston, MA, 2007. ISBN 978-0-387-48793-9. doi: 10.1007/978-0-387-48793-9_2. URL https://doi.org/10.1007/978-0-387-48793-9_2.

Borja Menéndez, Manuel Bustillo, Eduardo G. Pardo, and Abraham Duarte. General variable neighborhood search for the order batching and sequencing problem. *European Journal of Operational Research*, 263(1):82–93, nov 2017. doi: 10.1016/j.ejor.2017.05.001. URL <https://doi.org/10.1016/j.ejor.2017.05.001>.

Tal Raviv, Michal Tzur, and Iris A Forma. Static repositioning in a bike-sharing system: models and solution approaches. *EURO Journal on Transportation and Logistics*, 2(3):187–229, 2013.

J.L. Santos, Luigi Di Puglia Pugliese, and Francesca Guerriero. A new approach for the multi-objective minimum spanning tree. *Computers & Operations Research*, 98:69–83, oct 2018. doi: 10.1016/j.cor.2018.05.007. URL <https://doi.org/10.1016/j.cor.2018.05.007>.

Verena Schmid and Karl F. Doerner. Ambulance location and relocation problems with time-dependent travel times. *European Journal of Operational Research*, 207(3):1293–1303, dec 2010. doi: 10.1016/j.ejor.2010.06.033. URL <https://doi.org/10.1016/j.ejor.2010.06.033>.

Stephen L. Smith and Frank Imeson. GLNS: An effective large neighborhood search heuristic for the generalized traveling salesman problem. *Computers & Operations Research*, 87:1–19, nov 2017. doi: 10.1016/j.cor.2017.05.010. URL <https://doi.org/10.1016/j.cor.2017.05.010>.

Moayad Tanash, Ivan Contreras, and Navneet Vidyarthi. An exact algorithm for the modular hub location problem with single assignments. *Computers & Operations Research*, 85:32–44, sep 2017. doi: 10.1016/j.cor.2017.03.006. URL <https://doi.org/10.1016/j.cor.2017.03.006>.