Themenliste für das Bachelor Seminar MAT.352, SS 2017
Diskrete Mathematik und Algorithmentheorie (Gruppe Optimierung)

Die Themen 1-8 werden von Eranda Dragoti-Çela betreut, die Themen 9-17 von Bettina Klinz.

Literatur

[1] Claudio Arbib, Mara Servilio, Claudia Archetti, and M. Grazia Speranza, The directed profitable location Rural Postman Problem, *European Journal of Operational Research* **236**, 2014, 811–819. `http://www.sciencedirect.com/science/journal/03772217/236`

[2] Pierre Baptiste, Alain Hertz, André Linhares und Djamal Rebaine, A polynomial time algorithm for unloading boxes off a gravity conveyor, *Discrete Optimization* **10**, 2013, 251–262.

[3] Christoph Buchheim und Jannis Kurtz, Min-max-min Robust Combinatorial Optimization under Uncertainty Based on Multiple Solutions, *International Network Optimization Conference INOC 2015*, to appear. `http://www.mathematik.tu-dortmund.de/lsv/people/kurtz/`

[4] Leah Epstein, Asaf Levin, und Gerhard J. Woeginger, The (Weighted) Metric Dimension of Graphs: Hard and Easy Cases, in *Graph Theoretic Concepts in Computer Science, 38th International Workshop (WG 2012)*, LNCS 7551, Springer, 2012, S. 114–125. `https://link.springer.com/chapter/10.1007%2F978-3-642-34611-8_14#page-1`

[5] Luis Gouweia, Markus Leitner und Mario Ruthmair, Extended Formulations and Branch-and-Cut Algorithms for the Black-and-White Traveling Salesman Problem, 2016, available at `https://scholar.google.com/citations?hl=de&user=ffjG63YAAAAJ&view_op=list_works&sortby=pubdate`

[6] Isabella Hoffmann, Sascha Kurz, and Jörg Rambau, The Maximum Scatter TSP on a Regular Grid, `http://arxiv.org/abs/1512.02054`

[7] Sven O. Krumke and Clemens Thielen, The Generalized Assignment Problem with Minimum Quantities, *European Journal of Operations Research* **228(1)**, 2013, 46–55.

[8] Ruonan Zhang, Santosh N. Kabadi, Abraham P. Punnen, The minimum spanning tree problem with conflict constraints and its variations, *Discrete Optimization* **8**, 2011, 191-205.

[9] F. Abed, L. Chen, Y. Disser, M. Groß, N. Megow, J. Meißner, A.T. Richter and R. Rischke, Scheduling maintenance job in networks, January 2017, `https://arxiv.org/abs/1701.08809`.

[10] K. Cechlarova, T. Fleiner, D.F. Manlove, I. McBride, Stable matchings of teachers to schools, *Theoretical computer science* **653**, 2016, 15-25, `http://www.sciencedirect.com/science/article/pii/S0304397516305011`.

[11] N. Megow, J. Meißner and M. Skutella, Randomization helps computing a minimum spanning tree under uncertainty, in: *Algorithms - ESA 2015*, pp. 878–890, Lectures Notes in Computer Science **9294**, Springer, Berlin, Heidelberg, 2015, journal version to appear in *SIAM Journal on Computing*, 2017, `http://link.springer.com/chapter/10.1007/978-3-662-48350-3_73`.

[12] J.B. Orlin, A. Sedeño-Noda, An $O(mn)$ time algorithm for finding the min length directed cycle in a graph, in: *Proceedings of the Twenty-Eigth Annual ACM-SIAM Symposium on Discrete Algorithms*, pp. 1866-1879, 2017,
`http://epubs.siam.org/doi/10.1137/1.9781611974782.122`.

[13] W. Passchyn, D. Briskorn, F.C.R. Spieksma, Mathematical programming models for lock scheduling with an emission objective, *European Journal of Operational Research* **248**, 2016, 802–814,
`http://www.sciencedirect.com/science/article/pii/S037722171500836X`.

[14] W. Vancroonenburg, F. Della Croce, D. Goossens, F.C.R. Spieksma, The red-blue transportation problem, *European Journal of Operational Research* **237**, 2014, 814–823,
`http://www.sciencedirect.com/science/article/pii/S0377221714001908`.

[15] B. Vangerven, D.R. Goossens, F.C.R. Spieksma, Winner determination in geometrical combinatorial auctions, *European Journal of Operational Research* **258**, 2017, 254–263,
`http://www.sciencedirect.com/science/article/pii/S0377221716306762`.

[16] S. Waldherr, J. Poppenborg, S. Knust, The bottleneck transportation problem with auxiliary resources, *4OR - A Quarterly Journal of Operations Research* **13**, 2015, 279–292,
`http://link.springer.com/article/10.1007%2Fs10288-015-0284-9`.

[17] C. Weiß, S. Knust, N.V. Shakhlevich, S. Waldherr, The assignment problem with nearly Monge arrays and incompatible partner indices, *Discrete Applied Mathematics* **211**, 2016, 183–203,
`http://www.sciencedirect.com/science/article/pii/S0166218X16301780`.