

List of topics for the master seminar (Combinatorics and Optimization) MAT.606, SS 2017

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The topics 1-7 are supervised by Eranda Dragoti-Çela betreut, the topics 8-18 by Bettina Klinz.

References

- [1] D.P. Bertsekas, Robust shortest paths planing and semicontractive dynamic programming, Preprint, August 2016.
<https://arxiv.org/abs/1608.01670>.
- [2] M. Carvalho, A. Lodi, J.P. Pedroso and A. Viana, Nash equilibria in the two-player kidney exchange game, *Mathematical Programming Ser. A* **161**, 2017, 389–417.
- [3] A. Chassein, S.O. Krumke and C. Thielen, Capacitated network design games with weighted players, *Networks* **68(2)**, 2016, 141–158.
- [4] L. Epstein, S.O. Krumke, A. Levin and H. Sperber, Selfish bin coloring, *Journal of Combinatorial Optimization* **22**, 2011, 531–548.
- [5] S. Hougaard, On the integrality ratio of the subtour LP for the Euclidean TSP, Preprint, August 2014.
<https://arxiv.org/abs/1402.5904>
- [6] C. Nagarajan and D.P. Williamson, Offline and online facility leasing, *Discrete Optimization* **10**, 2013, 361–370.
- [7] R. Zenklusen, An $O(1)$ -approximation for minimum spanning tree interdiction, in: Proceedings of the 56th Annual Symposium on Foundations of Computer (FOCS) Science, 2015, 709–728.
- [8] H. Aissi, R. Mahjoub, S.T. McCormick and M. Queyranne, Strongly polynomial bounds for multiobjective and parametric global minimum cuts in graphs and hypergraphs, *Mathematical Programming* **154**, 2015, 3–28.
<http://link.springer.com/article/10.1007/s10107-015-0944-8>.
- [9] H. Beyhaghi, D. Saban and E. Tardos, Effect of selfish choices in deferred acceptance with short lists, Preprint, January 2017.
<https://arxiv.org/abs/1701.00849>
- [10] U. Bhaskar, L. Fleischer and E. Anshelevich, A Stackelberg strategy for routing flow over time, *Games and Economic Behaviour* **92**, 2015, 232–247.
<http://www.sciencedirect.com/science/article/pii/S0899825613001334>.
- [11] K. Cechlarova, B. Klaus and D.F. Manlove Pareto optimal matchings of students to courses in the presence of prerequisites, Preprint, May 2016. <https://arxiv.org/abs/1603.00858>.
- [12] Y. Disser and J. Matuschke, Degree-constrained orientations of embedded graphs, *Journal of Combinatorial Optimization* **31**, 758–773, 2016.
<http://link.springer.com/article/10.1007/s10878-014-9786-1>.

- [13] M.X. Goemans and T. Rothvoß, Polynomiality for bin packing with a constant number of item types, in: *Proceedings of the Twenty-Fifth Annual Symposium on Discrete Algorithms*, pp. 830–839, SIAM, Philadelphia, PA, 2014.
<http://dl.acm.org/citation.cfm?id=2634135>.
- [14] C. Gottschalk, A.M.C.A. Koster, F. Liers, B. Peis, D. Schmand and A. Wierz, Robust flows over time: models and complexity results, Preprint, March 2017.
<https://arxiv.org/abs/1608.06520>.
- [15] S. Lovett and R. Meka, Constructive discrepancy minimization by walking on the edges, *SIAM Journal on Computing* **44**, 1573–1582, 2015.
Journal version: <http://pubs.siam.org/doi/pdf/10.1137/130929400> (not available via TU Graz, please contact me). Preprint version: <https://arxiv.org/abs/1203.5747>.
- [16] J. Matuschke, M. Skutella and J.A. Soto, Robust randomized matchings, in *Proceedings of the Twenty-Sixth Annual ACM-SIAM Symposium on Discrete Algorithms*, pp. 1904–1915, SIAM, Philadelphia, PA, 2015.
<http://dx.doi.org/10.1137/1.9781611973730.127>.
- [17] M. Mucha and M. Sviridenko, No-wait flowshop scheduling is as hard as asymmetric traveling salesman problem, *Mathematics of Operations Research* **41**, 247–254, 2016.
Permalink: <http://dx.doi.org/10.1287/moor.2015.0725>.
- [18] M. Skutella, M. Sviridenko and M. Uetz, Unrelated machine scheduling with stochastic processing times, *Mathematics of Operations Research* **41**, 851–864, 2016.
<http://pubsonline.informs.org/doi/10.1287/moor.2015.0757>.