List of Publications

See also Google Scholar or DBLP

0.1 Journal Articles

[1] Mathias Weller, Annie Chateau, Clément Dallard, and Rodolphe Giroudeau. Scaffolding problems revisited: complexity, approximation and fixed parameter tractable algorithms, and some special cases. *Algorithmica*, 80(6):1771–1803, 2018.

[2] Nathann Cohen, Daniel Gonçalves, Eun Jung Kim, Christophe Paul, Ignasi Sau, Dimitrios M. Thilikos, and Mathias Weller. A polynomial-time algorithm for outerplanar diameter improvement. *J. Comput. Syst. Sci.*, 89:315–327, 2017.

[3] Edwin Jacox, Mathias Weller, Eric Tannier, and Céline Scornavacca. Resolution and reconciliation of non-binary gene trees with transfers, duplications and losses. *Bioinformatics*, 33(7):980–987, 2017.

[4] Magnus Bordewich, Celine Scornavacca, Nihan Tokac, and Mathias Weller. On the fixed parameter tractability of agreement-based phylogenetic distances. *Journal of Mathematical Biology*, pages 1–19, 2016.

[5] Valentin Garnero and Mathias Weller. Parameterized certificate dispersal and its variants. *Theoretical Computer Science*, 622:66–78, 2016.

[6] Steven Kelk, Leo van Iersel, Celine Scornavacca, and Mathias Weller. Phylogenetic incongruence through the lens of monadic second order logic. *Journal of Graph Algorithms and Applications*, 20(2):189–215, 2016.

[7] René van Bevern, Matthias Mnich, Rolf Niedermeier, and Mathias Weller. Interval scheduling and colorful independent sets. *Journal of Scheduling*, 18(5):449–469, 2015.

[8] Jiehua Chen, Christian Komusiewicz, Rolf Niedermeier, Manuel Sorge, Ondrej Suchý, and Mathias Weller. Polynomial-time data reduction for the subset interconnection design problem. *SIAM Journal on Discrete Mathematics*, 29(1):1–25, 2015.

[9] Mathias Weller, Annie Chateau, and Rodolphe Giroudeau. Exact approaches for scaffolding. *BMC Bioinformatics*, 16(Suppl 14):S2, 2015.

[10] Morgan Chopin, André Nichterlein, Rolf Niedermeier, and Mathias Weller. Constant thresholds can make target set selection tractable. *Theory of Computing Systems*, 55(1):61–83, 2014.

[11] Martin Dörnfelder, Jiong Guo, Christian Komusiewicz, and Mathias Weller. On the parameterized complexity of consensus clustering. *Theoretical Computer Science*, 542:71–82, 2014.

[12] Manuel Sorge, Hannes Moser, Rolf Niedermeier, and Mathias Weller. Exploiting a hypergraph model for finding golomb rulers. *Acta Informatica*, 51(7):449–471, 2014.

[13] Frederic Dorn, Hannes Moser, Rolf Niedermeier, and Mathias Weller. Efficient algorithms for Eulerian extension and rural postman. *SIAM Journal on Discrete Mathematics*, 27(1):75–94, 2013.

[14] Johannes Uhlmann and Mathias Weller. Two-layer planarization parameterized by feedback edge set. *Theoretical Computer Science*, 494:99–111, 2013.

[15] André Nichterlein, Rolf Niedermeier, Johannes Uhlmann, and Mathias Weller. On tractable cases of target set selection. *Social Network Analysis and Mining*, pages 1–24, 2012.

[16] Manuel Sorge, René van Bevern, Rolf Niedermeier, and Mathias Weller. A new view on rural postman based on Eulerian extension and matching. *Journal of Discrete Algorithms*, 16:12–33, 2012.

[17] Mathias Weller, Christian Komusiewicz, Rolf Niedermeier, and Johannes Uhlmann. On making directed graphs transitive. *Journal of Computer and System Sciences*, 78(2):559–574, 2012.

0.2 Conference Papers

[18] Mathias Weller. Linear-time tree containment in phylogenetic networks. In *Proceedings of RECOMB Comparative Genomics (RECOMB'CG'18)*, volume abs/1702.06364 of *LNBI*, page ??? Springer, 2018.

[19] Matthias Bentert, Josef Malík, and Mathias Weller. Tree containment with soft polytomies. In *Proceedings of the 16th Scandinavian Symposium and Workshops on Algorithm Theory (SWAT'18)*, volume 101 of *LIPIcs*, pages 9:1–9:14. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2018.

[20] Cédric Chauve, Mark Jones, Manuel Lafond, Céline Scornavacca, and Mathias Weller. Constructing a consensus phylogeny from a leaf-removal distance (extended abstract). In *Proceedings of the 24th International Symposium on String Processing and Information Retrieval (SPIRE'17)*, volume 10508 of *LNCS*, pages 129–143. Springer, 2017.

[21] Holger Dell, Christian Komusiewicz, Nimrod Talmon, and Mathias Weller. The PACE 2017 parameterized algorithms and computational experiments challenge: The second iteration. In *Proceedings of the 12th International Symposium on Parameterized and Exact Computation (IPEC'17)*, volume 89 of *LIPIcs*, pages 30:1–30:12. Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 2017.

[22] Benoît Darties, Annie Chateau, Rodolphe Giroudeau, and Mathias Weller. Improved complexity for power edge set problem. In *Proceedings of the 28th International Workshop on Combinatorial Algorithms (IWOCA'17), Revised Selected Papers*, volume 10765 of *Lecture Notes in Computer Science*, pages 128–141. Springer, 2017.

[23] Mathias Weller, Annie Chateau, and Rodolphe Giroudeau. On the linearization of scaffolds sharing repeated contigs. In *Proceedings of the 11th International Conference on Combinatorial Optimization and Applications (COCOA'17), Part III*, volume 10628 of *Lecture Notes in Computer Science*, pages 509–517. Springer, 2017.

[24] Benoît Darties, Annie Chateau, Rodolphe Giroudeau, and Mathias Weller. New insights for power edge set problem. In *Proceedings of the 11th International Conference on Combinatorial Optimization and Applications (COCOA'17), Part I*, volume 10627 of *Lecture Notes in Computer Science*, pages 180–194. Springer, 2017.