

Meike Neuwohner

List of publications

Ahmad Abdi, Mahsa Dalirrooyfard, and Meike Neuwohner. Cosigning crossing families and outer-planar gadgets, 2026. to appear in the proceedings of ISCO 2026. [arXiv:2602.24124](#).

Meike Neuwohner, Olha Silina, and Michael Zlatin. A better-than-2 approximation for the directed tree augmentation problem. In *Proceedings of the 2026 Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 1536–1569. doi:10.1137/1.9781611978971.56.

Meike Neuwohner, Vera Traub, and Rico Zenklusen. Approximation schemes for planar graph connectivity problems, 2025. to appear in the proceedings of IPCO 2026. [arXiv:2512.21128](#).

Ahmad Abdi, Mahsa Dalirrooyfard, and Meike Neuwohner. Strong orientation of a connected graph for a crossing family. *Operations Research Letters*, 62, 2025. doi:10.1016/j.orl.2025.107333.

Katharina Eickhoff, Meike Neuwohner, Britta Peis, Niklas Rieken, Laura Vargas Koch, and László A. Végh. Faster dynamic auctions via polymatroid sum. *ACM Trans. Econ. Comput.*, 13(3), June 2025. doi:10.1145/3729429.

Meike Neuwohner. A $4/3$ -approximation for the maximum leaf spanning arborescence problem in dags. *Mathematical Programming*, May 2025. doi:10.1007/s10107-025-02233-0.

Jannis Blauth, Meike Neuwohner, Luise Puhmann, and Jens Vygen. Improved guarantees for the A Priori TSP. *Mathematics of Operations Research*, 50(4):2909–2940, 2025. doi:10.1287/moor.2023.0322.

Marco Caoduro, Meike Neuwohner, and Joseph Paat. A characterization of unimodular hypergraphs with disjoint hyperedges, 2024. [arXiv:2411.10593](#).

Meike Neuwohner. A $4/3$ -approximation for the maximum leaf spanning arborescence problem in dags. In Jens Vygen and Jarosław Byrka, editors, *Integer Programming and Combinatorial Optimization - 25th International Conference, IPCO 2024, Wrocław, Poland, July 3–5, 2024, Proceedings*, volume 14679 of *Lecture Notes in Computer Science*, pages 337–350. Springer, 2024. doi:10.1007/978-3-031-59835-7_25.

Jannis Blauth, Meike Neuwohner, Luise Puhmann, and Jens Vygen. Improved Guarantees for the a Priori TSP. In Satoru Iwata and Naonori Kakimura, editors, *34th International Symposium on Algorithms and Computation (ISAAC 2023)*,

volume 283 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 14:1–14:16, Dagstuhl, Germany, 2023. Schloss Dagstuhl – Leibniz-Zentrum für Informatik. doi:10.4230/LIPIcs.ISAAC.2023.14.

Meike Neuwöhner. The limits of local search for weighted k-set packing. *Mathematical Programming*, Oct 2023. doi:10.1007/s10107-023-02026-3.

Meike Neuwöhner. The 2-3-set packing problem and a $\frac{4}{3}$ -approximation for the maximum leaf spanning arborescence problem in rooted dags, 2023. arXiv:2305.07808.

Meike Neuwöhner. Passing the limits of pure local search for weighted k-set packing. In *Proceedings of the 2023 Annual ACM-SIAM Symposium on Discrete Algorithms (SODA)*, pages 1090–1137. Society for Industrial and Applied Mathematics, 2023. doi:10.1137/1.9781611977554.ch41.

Stefan Hougardy, Meike Neuwöhner, and Ulrike Schorr. A fast optimal double row legalization algorithm. *ACM Trans. Des. Autom. Electron. Syst.*, jan 2023. doi:10.1145/3579844.

Bento Natura, Meike Neuwöhner, and Stefan Weltge. The Pareto Cover Problem. In Shiri Chechik, Gonzalo Navarro, Eva Rotenberg, and Grzegorz Herman, editors, *30th Annual European Symposium on Algorithms (ESA 2022)*, volume 244 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 80:1–80:12, Dagstuhl, Germany, 2022. Schloss Dagstuhl – Leibniz-Zentrum für Informatik. doi:10.4230/LIPIcs.ESA.2022.80.

Meike Neuwöhner. The limits of local search for weighted k-set packing. In Karen Aardal and Laura Sanità, editors, *Integer Programming and Combinatorial Optimization - 23rd International Conference, IPCO 2022, Eindhoven, The Netherlands, June 27-29, 2022, Proceedings*, volume 13265 of *Lecture Notes in Computer Science*, pages 415–428. Springer, 2022. doi:10.1007/978-3-031-06901-7_31.

Meike Neuwöhner. An Improved Approximation Algorithm for the Maximum Weight Independent Set Problem in d-Claw Free Graphs. In Markus Bläser and Benjamin Monmege, editors, *38th International Symposium on Theoretical Aspects of Computer Science (STACS 2021)*, volume 187 of *Leibniz International Proceedings in Informatics (LIPIcs)*, pages 53:1–53:20, Dagstuhl, Germany, 2021. Schloss Dagstuhl – Leibniz-Zentrum für Informatik. doi:10.4230/LIPIcs.STACS.2021.53.

Stefan Hougardy, Meike Neuwöhner, and Ulrike Schorr. A fast optimal double row legalization algorithm. In *Proceedings of the 2021 International Symposium on Physical Design, ISPD '21*, page 23–30, New York, NY, USA, 2021. Association for Computing Machinery. doi:10.1145/3439706.3447044.

Meike Neuwöhner. Reducing moser’s square packing problem to a bounded number of squares. abs/2103.06597, 2021. arXiv:2103.06597.