

LIST OF PUBLICATIONS

MICHAEL JOSWIG

JOURNAL PUBLICATIONS

- [1] **2024** (with Andrei Comănesci). “Tropical medians by transportation”. *Math. Program.* 205.1-2, pp. 813–839. DOI: [10.1007/s10107-023-01996-8](https://doi.org/10.1007/s10107-023-01996-8).
- [2] **2023a** (with Andrei Comănesci). “Asymmetric tropical distances and power diagrams”. *Algebr. Comb.* 6.5, pp. 1211–1233. DOI: [10.5802/alco.306](https://doi.org/10.5802/alco.306).
- [3] **2023b** (with Ben Smith). “Convergent Hahn series and tropical geometry of higher rank”. *J. Lond. Math. Soc. (2)* 107.4, pp. 1450–1481. DOI: [10.1112/jlms.12716](https://doi.org/10.1112/jlms.12716).
- [4] **2023c** (with Georg Loho, Dante Luber, and Jorge Alberto Olarte). “Generalized permutahedra and positive flag Dressians”. *Int. Math. Res. Not.* 19, pp. 16748–16777. DOI: [10.1093/imrn/rnac349](https://doi.org/10.1093/imrn/rnac349).
- [5] **2023d** (with Holger Eble, Lisa Lamberti, and William B. Ludington). “Master regulators of biological systems in higher dimensions”. *Proc. Natl. Acad. Sci. USA* 120.51. Published online: 14 Dec 2023. DOI: [10.1073/pnas.2300634120](https://doi.org/10.1073/pnas.2300634120).
- [6] **2023e** (with Mario Kummer, Andreas Thom, and Claudia He Yun). “Some thoughts and experiments on Bergman’s compact amalgamation problem”. *Beiträge Algebra Geom.* Published online: 13 Sep 2023. DOI: [10.1007/s13366-023-00709-8](https://doi.org/10.1007/s13366-023-00709-8).
- [7] **2022a** (with Mara Belotti and Marta Panizzut). “Algebraic degrees of 3-dimensional polytopes”. *Vietnam J. Math.* 50.3, pp. 581–597. DOI: [10.1007/s10013-022-00559-2](https://doi.org/10.1007/s10013-022-00559-2).
- [8] **2022b** (with Davide Lofano, Frank H. Lutz, and Mimi Tsuruga). “Frontiers of sphere recognition in practice”. *J. Appl. Comput. Topol.* 6.4, pp. 503–527. DOI: [10.1007/s41468-022-00092-8](https://doi.org/10.1007/s41468-022-00092-8).
- [9] **2022c** (with Max Klimm and Sylvain Spitz). “Generalized permutahedra and optimal auctions”. *SIAM J. Appl. Algebra Geom.* 6.4, pp. 711–739. DOI: [10.1137/21M1441286](https://doi.org/10.1137/21M1441286).
- [10] **2022d** (with Benjamin Schröter). “Parametric shortest-path algorithms via tropical geometry”. *Math. Oper. Res.* 47.3, pp. 2065–2081. DOI: [10.1287/moor.2021.1199](https://doi.org/10.1287/moor.2021.1199).
- [11] **2022e** (with Francisco Criado and Francisco Santos). “Tropical bisectors and Voronoi diagrams”. *Found. Comput. Math.* 22.6, pp. 1923–1960. DOI: [10.1007/s10208-021-09538-4](https://doi.org/10.1007/s10208-021-09538-4).
- [12] **2021a** (with Ayush Kumar Tewari). “Forbidden patterns in tropical plane curves”. *Beitr. Algebra Geom.* 62.1, pp. 65–81. DOI: [10.1007/s13366-020-00523-6](https://doi.org/10.1007/s13366-020-00523-6).
- [13] **2021b** (with Xavier Allamigeon, Pascal Benchimol, and Stéphane Gaubert). “What tropical geometry tells us about the complexity of linear programming”. *SIAM Rev.* 63.1, pp. 123–164. DOI: [10.1137/20M1380211](https://doi.org/10.1137/20M1380211).
- [14] **2020a** (with Georg Loho). “Monomial tropical cones for multicriteria optimization”. *SIAM J. Discrete Math.* 34.2, pp. 1172–1191. DOI: [10.1137/17M1153066](https://doi.org/10.1137/17M1153066).
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- [16] **2020c** (with Timo Burggraf et al.). “Semi-automatically optimized calibration of internal combustion engines”. *Optim. Eng.* 21.1, pp. 73–106. DOI: [10.1007/s11081-019-09434-5](https://doi.org/10.1007/s11081-019-09434-5).

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- [67] **2023b** (with Max Klimm and Sylvain Spitz). “The polyhedral geometry of truthful auctions”. In: *Programming and Combinatorial Optimization — 24th International Conference, IPCO 2023*. Ed. by Alberta Del Pia and Volker Kaibel. Vol. 13904. Lecture Notes in Computer Science. Springer Cham, pp. 231–245. DOI: [10.1007/978-3-031-32726-1_17](https://doi.org/10.1007/978-3-031-32726-1_17).
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