

REFERENCES

- [1] D. Alessandrini: Amoebas, tropical varieties and compactification of Teichmuller spaces preprint, [math.AG/0505269](#).
- [2] D. Alessandrini: Tropicalization of group representations, preprint, [math.AG/0703682](#).
- [3] D. Alessandrini: Logarithmic limit sets of real semi-algebraic sets, preprint, [arXiv:0707.0845](#).
- [4] F. Ardila: Subdominant matroid ultrametrics, *Annals of Combinat.* **8** (2004) 379–389.
- [5] F. Ardila: A tropical morphism related to the hyperplane arrangement of the complete bipartite graph, preprint, [math.CO/0404287](#).
- [6] F. Ardila and M. Develin: Tropical hyperplane arrangements and oriented matroids, preprint, [arXiv:0706.2920](#).
- [7] F. Ardila and C. Klivans: The Bergman complex of a matroid and phylogenetic trees, *Journal of Combinatorial Theory, Series B* **96** (2006) 38–49.
- [8] F. Ardila, C. Klivans and L. Williams: The positive Bergman complex of an oriented matroid, *European Journal of Combinatorics* **27** (2006) 577–591.
- [9] G. Bergman: The logarithmic limit-set of an algebraic variety, *Transactions of the American Math. Soc.* **157** (1971) 459–469.
- [10] R. Bieri and J.R.J. Groves: The geometry of the set of characters induced by valuations. *J. reine und angewandte Mathematik* **347** (1984) 168–195.
- [11] L. Billera, S. Holmes and K. Vogtman: Geometry of the space of phylogenetic trees, *Advances in Applied Mathematics* **27** (2001) 733–767.
- [12] T. Bogart, A. Jensen, D. Speyer, B. Sturmfels and R. Thomas: Computing tropical varieties, *Journal of Symbolic Computation* **42** (2007) 54–73.
- [13] J. Böhm: Mirror symmetry and tropical geometry, preprint, [arXiv:0708.4402](#)
- [14] A. Bjorner: The homology and shellability of matroids and geometric lattices, in *Matroid Applications*, (ed. N. White), Encyclopedia of Mathematics and Its Applications, Vol. 40, Cambridge University Press, 1992.
- [15] F. Block and J. Yu: Tropical convexity via cellular resolutions, *Journal of Algebraic Combinatorics* **24** (2006) 103–114.
- [16] P. Buneman: A note on metric properties of trees, *Journal of Combinatorial Theory, Ser. B* **17** (1974) 48–50.
- [17] P. Butkovič: Max-algebra: the linear algebra of combinatorics?, *Linear Algebra and Its Applications* **367** (2003) 313–335.
- [18] P. Butkovič and R.A. Cuninghame-Green: On matrix powers in max-algebra, *Linear Algebra and Its Applications* **421** (2007) 370–381.
- [19] S. Collart, M. Kalkbrener and D. Mall: Converting bases with the Gröbner walk, *J. Symbolic Computation* **24** (1997) 465–469.
- [20] M. Develin: Tropical secant varieties of linear spaces, *Discrete and Computational Geometry* **35** (2006) 117–129.
- [21] M. Develin: The moduli space of n tropically collinear points in \mathbb{R}^d , *Collectanea Mathematica* **56** (2005) 1–19.
- [22] M. Develin and B. Sturmfels: Tropical convexity, *Documenta Math.* **9** (2004) 1–27.
- [23] M. Develin, F. Santos and B. Sturmfels: On the rank of a tropical matrix, in *Discrete and Computational Geometry*, (eds. J.E. Goodman, J. Pach and E. Welzl), MSRI Publications, Volume 52, Cambridge University Press, 2005, pp. 213–242.
- [24] M. Develin and J. Yu: Tropical polytopes and cellular resolutions, *Experimental Mathematics*, to appear.
- [25] A. Dickenstein, E.M. Feichtner and B. Sturmfels: Tropical discriminants, *Journal of the American Mathematical Society* **20** (2007) 1111–1133.

- [26] J. Draisma: A tropical approach to secant dimensions, preprint, [math.AG/0605345](#).
- [27] A. Dress and W. Terhalle: The tree of life and other affine buildings, *Documenta Mathematica*, Extra Volume ICM 1998, Part III, 565–574.
- [28] A. Dress and W. Wenzel, Valuated matroids, *Advances in Math.* **93** (1992) 214–250.
- [29] M. Einsiedler, M. Kapranov and D. Lind: Non-archimedean amoebas and tropical varieties, *Journal f. d. reine und angewandte Mathematik* **601** (2006) 139–157.
- [30] D. Eisenbud: *Commutative Algebra with a View Toward Algebraic Geometry*, Graduate Texts in Mathematics, 150. Springer Verlag, New York, 1995
- [31] S. Gao and A. Lauder: Decomposition of polytopes and polynomials, *Discrete and Computational Geometry* **26** (2001) 89–104.
- [32] A. Gathmann: Tropical algebraic geometry, *Jahresbericht der DMV* **108** (2006) 3–32.
- [33] A. Gathmann and M. Kerber, A Riemann-Roch theorem in tropical geometry, *Mathematische Zeitschrift*, to appear, [math.CO/0612129](#).
- [34] A. Gathmann and H. Markwig: The numbers of tropical plane curves through points in general position, *Journal f. d. reine und angewandte Mathematik* **602** (2007) 155–177.
- [35] A. Gathmann and H. Markwig: The Caporaso-Harris formula and plane relative Gromov-Witten invariants in tropical geometry, *Math. Annalen* **338** (2007) 845–868.
- [36] A. Gathmann, M. Kerber and H. Markwig: Tropical fans and the moduli spaces of tropical curves, preprint, [arXiv:0708.2268](#).
- [37] S. Gaubert and R. Katz: The Minkowski theorem for max-plus convex sets, *Linear Algebra and its Applications* **421** (2007) 356–369.
- [38] M. Gross and B. Siebert: From real affine geometry to complex geometry, preprint, [math/0703822](#).
- [39] W. Gubler: Tropical varieties for non-archimedean analytic spaces, preprint, [math.NT/0609383](#).
- [40] P. Hacking, S. Keel and J. Tevelev: Stable pair, tropical, and log canonical compact moduli of del Pezzo surfaces, preprint, [math.AG/0702505](#).
- [41] B. Heldergott: *Max-Plus Linear Stochastic Systems and Perturbation Analysis*, The International Series of Discrete Event Systems, **15**, Springer, 2007.
- [42] K. Hept and T. Theobald: Tropical bases by regular projections, preprint, [arXiv:0708.1727](#).
- [43] I. Itenberg, V. Kharlamov and E. Shustin: Welschinger invariant and enumeration of real rational curves, *International Math. Research Notices* **49** (2003) 2639–2653.
- [44] I. Itenberg, G. Mikhalkin and E. Shustin: *Tropical Algebraic Geometry*, Oberwolfach Seminars, Vol. 35 Birkhäuser, 2007.
- [45] A. Jensen, H. Markwig and T. Markwig: An algorithm for lifting points in a tropical variety, preprint, [arXiv:0705.2441](#).
- [46] M. Joswig: Tropical halfspaces, preprint, [math.CO/0312068](#).
- [47] M. Joswig, B. Sturmfels and J. Yu: Affine buildings and tropical convexity, preprint, [math.MG/0706.1918](#).
- [48] E. Katz: The tropical degree of cones in the secondary fan, preprint, [math.AG/0604290](#).
- [49] E. Katz: A tropical toolkit, preprint, [math/0610878](#).
- [50] S. Keel and J. Tevelev: Geometry of Chow quotients of Grassmannians, *Duke Mathematical Journal* **134** (2006) 259–311.
- [51] M. Kerber and H. Markwig: Counting tropical elliptic plane curves with fixed j -invariant, preprint, [math.AG/0608472](#).
- [52] J. Maurer: Puiseux expansions for space curves, *Manuscripta Math.* **32** (1980) 91–100.
- [53] G. Mikhalkin: Enumerative tropical geometry in \mathbb{R}^2 , *Journal of the American Mathematical Society* **18** (2005) 313–377.

- [54] G. Mikhalkin: Amoebas of algebraic varieties and tropical geometry, in *Different Faces of Geometry*, (S. Donaldson et al., eds), Kluwer, NY, 2004, pp. 257–300.
- [55] G. Mikhalkin: Tropical Geometry and its Applications, Proceedings of the International Congress of Mathematicians, Madrid 2006, pp. 827–852.
- [56] G. Mikhalkin, Moduli spaces of rational tropical curves, preprint, [arXiv:0704.0839](https://arxiv.org/abs/0704.0839).
- [57] G. Mikhalkin and I. Zharkov: Tropical curves, their Jacobians and theta functions, preprint, [math.AG/0612267](https://arxiv.org/abs/math/0612267).
- [58] T. Mora and L. Robbiano: The Gröbner fan of an ideal, *Journal of Symbolic Computation* **6** (1988) 183–208.
- [59] K. Murota: On exchange axioms for valuated matroids and valuated delta-matroids, *Combinatorica* **16** (1996) 591–596.
- [60] L. Pachter and B. Sturmfels: Tropical geometry of statistical models, *Proceedings of the National Academy of Sciences* **101** (2004) 16132–16137.
- [61] L. Pachter and B. Sturmfels: *Algebraic Statistics for Computational Biology*, Cambridge University Press, 2005.
- [62] L. Pachter and D. Speyer: Reconstructing trees from subtree weights, *Applied Mathematics Letters* **17** (2004) 615–621.
- [63] S. Payne: Fibers of tropicalization, preprint, [arXiv:0705.1732](https://arxiv.org/abs/0705.1732).
- [64] J.-E. Pin: Tropical semirings. *Idempotency* (Bristol, 1994), 50–69, Publ. Newton Inst., **11**, Cambridge Univ. Press, Cambridge, 1998.
- [65] J. Richter-Gebert, B. Sturmfels and T. Theobald: First steps in tropical geometry, in *Idempotent Mathematics and Mathematical Physics*, Proceedings Vienna 2003, (eds G.L. Litvinov and V.P. Maslov), American Mathematical Society, Contemporary Mathematics **377** (2005) 289–317.
- [66] C. Semple and M. Steel: *Phylogenetics*, Oxford University Press, Oxford, 2003.
- [67] E. Shustin: A tropical approach to enumerative geometry, *St. Petersburg Mathematical Journal* **17** (2006) 343–375.
- [68] E. Shustin: Patchworking singular algebraic curves, non-Archimedean amoebas and enumerative geometry, preprint, [math.AG/0211278](https://arxiv.org/abs/math/0211278).
- [69] E. Shustin and Z. Izhakian: A tropical nullstellensatz, *Proceedings of the AMS*, to appear, [math.AC/0508413](https://arxiv.org/abs/math/0508413).
- [70] I. Simon: Recognizable sets with multiplicities in the tropical semiring. Mathematical foundations of computer science, (Carlsbad, 1988), 107–120, Lecture Notes in Comput. Sci., **324**, Springer, Berlin, 1988.
- [71] D. Speyer: *Tropical Geometry*, PhD dissertation, UC Berkeley, 2005, <http://www-math.mit.edu/~speyer/thesis.pdf>.
- [72] D. Speyer: Tropical linear spaces, preprint, [math.CO/0410455](https://arxiv.org/abs/math/0410455).
- [73] D. Speyer: A matroid invariant via the K-theory of the Grassmannian, preprint, [math.AG/0603551](https://arxiv.org/abs/math/0603551).
- [74] D. Speyer and B. Sturmfels: The tropical Grassmannian, *Advances in Geometry* **4** (2004) 389–411.
- [75] B. Sturmfels, *Algorithms in Invariant Theory*, Springer Verlag, Vienna, 1993.
- [76] B. Sturmfels, *Gröbner Bases and Convex Polytopes*, University Lecture Series, American Math. Society, Providence, 1995.
- [77] B. Sturmfels: *Solving Systems of Polynomial Equations*, American Mathematical Society, CMBS Series, **97**, 2002.
- [78] B. Sturmfels and J. Tevelev: Elimination theory for tropical varieties, preprint, [arXiv:0704.3471](https://arxiv.org/abs/0704.3471).

- [79] B. Sturmfels, J. Tevelev and J. Yu: The Newton polytope of the implicit equation, *Moscow Mathematical Journal* **7** (2007) 327–346.
- [80] B. Sturmfels and J. Yu: Tropical implicitization and mixed fiber polytopes, in M. Stillman, N. Takayama and J. Verschelde (eds.): *Software for Algebraic Geometry*, IMA Volumes in Mathematics and its Applications, to appear.
- [81] L.F. Tabera: Tropical constructive Pappus’ theorem, *International Mathematics Research Notices* **39** (2005) 2373–2389.
- [82] L.F. Tabera: Constructive proof of extended Kapranov Theorem, *Proceedings de EACA 2006*, <http://personales.unican.es/taberalf/>.
- [83] T. Theobald: On the frontiers of polynomial computations in tropical geometry, *Journal of Symbolic Computation* **41** (2006) 1360–1375.
- [84] S. Tillmann: Boundary slopes and the logarithmic limit set, *Topology* **44** (2005) 203–216.
- [85] N. Touda: Local tropical variety, preprint, [math.AG/0511486](https://arxiv.org/abs/math/0511486).
- [86] H. Trappmann and G. Ziegler: Shellability of complexes of trees, *Journal of Combinatorial Theory, Series A* **82** (1998) 168–178.
- [87] M. Vigeland: Smooth tropical surfaces with infinitely many tropical lines, preprint, [math.AG/0703682](https://arxiv.org/abs/math/0703682).
- [88] K. Vogtmann: Local structure of some $\text{OUT}(F_n)$ -complexes, *Proceedings of the Edinburgh Mathematical Society* **33** (1990) 367–379.
- [89] J. Yu and D. Yuster: Representing tropical linear spaces by circuits, Proceedings of FPSAC 2007, [arXiv:math.CO/0611579](https://arxiv.org/abs/math/0611579).