# Stéphane Gaubert

## List of Publications by Year
## in descending order

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|---|---|---|---|
| 95<br>papers | 2,574<br>citations | 201385<br>27<br>h-index | 214527<br>47<br>g-index |
| 100<br>all docs | 100<br>docs citations | 100<br>times ranked | 836<br>citing authors |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 1 | Multi-stage Stochastic Alternating Current Optimal Power Flow with Storage: Bounding the Relaxation Gap. Electric Power Systems Research, 2022, 206, 107774. | 2.1 | 2 |
| 2 | Multiply Accelerated Value Iteration for NonSymmetric Affine Fixed Point Problems and Application to Markov Decision Processes. SIAM Journal on Matrix Analysis and Applications, 2022, 43, 199-232. | 0.7 | 0 |
| 3 | No self-concordant barrier interior point method is strongly polynomial. , 2022, , . |  | 4 |
| 4 | What Tropical Geometry Tells Us about the Complexity of Linear Programming. SIAM Review, 2021, 63, 123-164. | 4.2 | 22 |
| 5 | Spectral Inequalities for Nonnegative Tensors and Their Tropical Analogues. Vietnam Journal of Mathematics, 2020, 48, 893-928. | 0.4 | 1 |
| 6 | A Privacy-Preserving Method to Optimize Distributed Resource Allocation. SIAM Journal on Optimization, 2020, 30, 2303-2336. | 1.2 | 4 |
| 7 | Tropical planar networks. Linear Algebra and Its Applications, 2020, 595, 123-144. | 0.4 | 0 |
| 8 | Tropical Spectrahedra. Discrete and Computational Geometry, 2020, 63, 507-548. | 0.4 | 24 |
| 9 | A convergent hierarchy of non-linear eigenproblems to compute the joint spectral radius of nonnegative matrices. Mathematical Control and Related Fields, 2020, 10, 573-590. | 0.6 | 6 |
| 10 | A Convex Programming Approach to Solve Posynomial Systems. Lecture Notes in Computer Science, 2020, , 241-250. | 1.0 | 0 |
| 11 | Analysis and Implementation of an Hourly Billing Mechanism for Demand Response Management. IEEE Transactions on Smart Grid, 2019, 10, 4265-4278. | 6.2 | 34 |
| 12 | The Operator Approach to Entropy Games. Theory of Computing Systems, 2019, 63, 1089-1130. | 0.7 | 6 |
| 13 | Solving Ergodic Markov Decision Processes and Perfect Information Zero-sum Stochastic Games by Variance Reduced Deflated Value Iteration. , 2019, , . |  | 1 |
| 14 | The tropical analogue of the Heltonâ€“Nie conjecture is true. Journal of Symbolic Computation, 2019, 91, 129-148. | 0.5 | 1 |
| 15 | Matrix versions of the Hellinger distance. Letters in Mathematical Physics, 2019, 109, 1777-1804. | 0.5 | 28 |
| 16 | Tropical compound matrix identities. Linear Algebra and Its Applications, 2018, 551, 162-206. | 0.4 | 1 |
| 17 | Log-Barrier Interior Point Methods Are Not Strongly Polynomial. SIAM Journal on Applied Algebra and Geometry, 2018, 2, 140-178. | 0.9 | 45 |
| 18 | AlgÃ¨bre de groupe en caractÃ©ristique 1 et distances invariantes sur un groupe fini. Mathematische Zeitschrift, 2018, 289, 695-709. | 0.4 | 0 |

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|---|---|---|---|
| 19 | Generic uniqueness of the bias vector of finite zero-sum stochastic games with perfect information. Journal of Mathematical Analysis and Applications, 2018, 457, 1038-1064. | 0.5 | 1 |
| 20 | Solving generic nonarchimedean semidefinite programs using stochastic game algorithms. Journal of Symbolic Computation, 2018, 85, 25-54. | 0.5 | 23 |
| 21 | Stationary solutions of discrete and continuous Petri nets with priorities. Performance Evaluation, 2017, 113, 1-12. | 0.9 | 6 |
| 22 | Log-majorization of the moduli of the eigenvalues of a matrix polynomial by tropical roots. Linear Algebra and Its Applications, 2017, 528, 394-435. | 0.4 | 7 |
| 23 | Checking strict positivity of Kraus maps is NP-hard. Information Processing Letters, 2017, 118, 35-43. | 0.4 | 2 |
| 24 | Tropical Kraus maps for optimal control of switched systems. , 2017, , . | | 0 |
| 25 | Uniqueness of the fixed point of nonexpansive semidifferentiable maps. Transactions of the American Mathematical Society, 2016, 368, 1271-1320. | 0.5 | 6 |
| 26 | Solving Generic Nonarchimedean Semidefinite Programs Using Stochastic Game Algorithms. , 2016, , . | | 2 |
| 27 | Maximizing concave piecewise affine functions on the unitary group. Optimization Letters, 2016, 10, 655-665. | 0.9 | 2 |
| 28 | Non-archimedean valuations of eigenvalues of matrix polynomials. Linear Algebra and Its Applications, 2016, 498, 592-627. | 0.4 | 6 |
| 29 | A Scalable Algebraic Method to Infer Quadratic Invariants of Switched Systems. Transactions on Embedded Computing Systems, 2016, 15, 1-20. | 2.1 | 2 |
| 30 | Tropicalizing the Simplex Algorithm. SIAM Journal on Discrete Mathematics, 2015, 29, 751-795. | 0.4 | 47 |
| 31 | Certification of real inequalities: templates and sums of squares. Mathematical Programming, 2015, 151, 477-506. | 1.6 | 1 |
| 32 | Dobrushinâ€™s Ergodicity Coefficient for Markov Operators on Cones. Integral Equations and Operator Theory, 2015, 81, 127-150. | 0.4 | 15 |
| 33 | Definable Zero-Sum Stochastic Games. Mathematics of Operations Research, 2015, 40, 171-191. | 0.8 | 21 |
| 34 | Discrete limit and monotonicity properties of the Floquet eigenvalue in an age structured cell division cycle model. Journal of Mathematical Biology, 2015, 71, 1663-1703. | 0.8 | 4 |
| 35 | Ergodicity conditions for zero-sum games. Discrete and Continuous Dynamical Systems, 2015, 35, 3901-3931. | 0.5 | 8 |
| 36 | Tropical Fourierâ€"Motzkin elimination, with an application to real-time verification. International Journal of Algebra and Computation, 2014, 24, 569-607. | 0.4 | 12 |

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| 37 | Combinatorial Simplex Algorithms Can Solve Mean Payoff Games. SIAM Journal on Optimization, 2014, 24, 2096-2117. | 1.2 | 26 |
| 38 | The contraction rate in Thompson's part metric of order-preserving flows on a cone â€" Application to generalized Riccati equations. Journal of Differential Equations, 2014, 256, 2902-2948. | 1.1 | 11 |
| 39 | Computing the smallest fixed point of order-preserving nonexpansive mappings arising in positive stochastic games and static analysis of programs. Journal of Mathematical Analysis and Applications, 2014, 410, 227-240. | 0.5 | 19 |
| 40 | Tropical bounds for eigenvalues of matrices. Linear Algebra and Its Applications, 2014, 446, 281-303. | 0.4 | 7 |
| 41 | Computing the Vertices of Tropical Polyhedra Using Directed Hypergraphs. Discrete and Computational Geometry, 2013, 49, 247-279. | 0.4 | 41 |
| 42 | Submodular spectral functions of principal submatrices of a hermitian matrix, extensions and applications. Linear Algebra and Its Applications, 2013, 438, 3872-3884. | 0.4 | 7 |
| 43 | Perronâ€"Frobenius theorem for nonnegative multilinear forms and extensions. Linear Algebra and Its Applications, 2013, 438, 738-749. | 0.4 | 232 |
| 44 | The level set method for the two-sided max-plus eigenproblem. Discrete Event Dynamic Systems: Theory and Applications, 2013, 23, 105-134. | 0.6 | 12 |
| 45 | Max-Plus Algebra. Discrete Mathematics and Its Applications, 2013, , 571-592. | 0.1 | 4 |
| 46 | Certification of Bounds of Non-linear Functions: The Templates Method. Lecture Notes in Computer Science, 2013, , 51-65. | 1.0 | 3 |
| 47 | Certification of inequalities involving transcendental functions: Combining SDP and max-plus approximation. , 2013, , . |  | 4 |
| 48 | TROPICAL POLYHEDRA ARE EQUIVALENT TO MEAN PAYOFF GAMES. International Journal of Algebra and Computation, 2012, 22, 1250001. | 0.4 | 88 |
| 49 | A maximin characterisation of the escape rate of non-expansive mappings in metrically convex spaces. Mathematical Proceedings of the Cambridge Philosophical Society, 2012, 152, 341-363. | 0.3 | 28 |
| 50 | Abstract interpretation meets convex optimization. Journal of Symbolic Computation, 2012, 47, 1416-1446. | 0.5 | 20 |
| 51 | Tropical linear-fractional programming and parametric mean payoff games. Journal of Symbolic Computation, 2012, 47, 1447-1478. | 0.5 | 49 |
| 52 | Min-Max Spaces and Complexity Reduction in Min-Max Expansions. Applied Mathematics and Optimization, 2012, 65, 315-348. | 0.8 | 9 |
| 53 | Coupling policy iteration with semi-definite relaxation to compute accurate numerical invariants in static analysis. Logical Methods in Computer Science, 2012, 8, . | 0.4 | 14 |
| 54 | Curse of dimensionality reduction in max-plus based approximation methods: Theoretical estimates and improved pruning algorithms. , 2011, , . |  | 27 |

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| 55 | The HrpN Effector of <i>Erwinia amylovora</i>, Which Is Involved in Type III Translocation, Contributes Directly or Indirectly to Callose Elicitation on Apple Leaves. Molecular Plant-Microbe Interactions, 2011, 24, 577-584. | 1.4 | 33 |
| 56 | Best approximation in max-plus semimodules. Linear Algebra and Its Applications, 2011, 435, 3261-3296. | 0.4 | 44 |
| 57 | Minimal half-spaces and external representation of tropical polyhedra. Journal of Algebraic Combinatorics, 2011, 33, 325-348. | 0.4 | 43 |
| 58 | The set of realizations of a max-plus linear sequence is semi-polyhedral. Journal of Computer and System Sciences, 2011, 77, 820-833. | 0.9 | 1 |
| 59 | Stability and convergence in discrete convex monotone dynamical systems. Journal of Fixed Point Theory and Applications, 2011, 9, 295-325. | 0.6 | 4 |
| 60 | Tropical polar cones, hypergraph transversals, and mean payoff games. Linear Algebra and Its Applications, 2011, 435, 1549-1574. | 0.4 | 26 |
| 61 | Circadian rhythm and cell population growth. Mathematical and Computer Modelling, 2011, 53, 1558-1567. | 2.0 | 23 |
| 62 | The number of extreme points of tropical polyhedra. Journal of Combinatorial Theory - Series A, 2011, 118, 162-189. | 0.5 | 34 |
| 63 | Carathéodory, Helly and the Others in the Max-Plus World. Discrete and Computational Geometry, 2010, 43, 648-662. | 0.4 | 29 |
| 64 | Submodularity and Randomized rounding techniques for Optimal Experimental Design. Electronic Notes in Discrete Mathematics, 2010, 36, 679-686. | 0.4 | 16 |
| 65 | Sperner Oiks. Electronic Notes in Discrete Mathematics, 2010, 36, 1273-1280. | 0.4 | 4 |
| 66 | Scarf Oiks. Electronic Notes in Discrete Mathematics, 2010, 36, 1281-1288. | 0.4 | 1 |
| 67 | Duality Between Invariant Spaces for Max-Plus Linear Discrete Event Systems. SIAM Journal on Control and Optimization, 2010, 48, 5606-5628. | 1.1 | 33 |
| 68 | The tropical analogue of polar cones. Linear Algebra and Its Applications, 2009, 431, 608-625. | 0.4 | 19 |
| 69 | Max-plus Algebraic Tools for Discrete Event Systems, Static Analysis, and Zero-Sum Games. Lecture Notes in Computer Science, 2009, , 7-11. | 1.0 | 0 |
| 70 | Cyclic projectors and separation theorems in idempotent convex geometry. Journal of Mathematical Sciences, 2008, 155, 815-829. | 0.1 | 16 |
| 71 | The Max-Plus Finite Element Method for Solving Deterministic Optimal Control Problems: Basic Properties and Convergence Analysis. SIAM Journal on Control and Optimization, 2008, 47, 817-848. | 1.1 | 63 |
| 72 | Evaluation of potential risks associated with recombination in transgenic plants expressing viral sequences. Journal of General Virology, 2008, 89, 327-335. | 1.3 | 23 |

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| 73 | Curse-of-complexity attenuation in the curse-of-dimensionality-free method for HJB PDEs. , 2008, , . | | 32 |
| 74 | Inferring Min and Max Invariants Using Max-Plus Polyhedra. Lecture Notes in Computer Science, 2008, , 189-204. | 1.0 | 36 |
| 75 | An inequality for the Perron and Floquet eigenvalues of monotone differential systems and age structured equations. Comptes Rendus Mathematique, 2007, 345, 549-554. | 0.1 | 19 |
| 76 | The Minkowski theorem for max-plus convex sets. Linear Algebra and Its Applications, 2007, 421, 356-369. | 0.4 | 59 |
| 77 | A policy iteration algorithm for zero-sum stochastic games with mean payoff. Comptes Rendus Mathematique, 2006, 343, 377-382. | 0.1 | 10 |
| 78 | How to solve large scale deterministic games with mean payoff by policy iteration. , 2006, , . | | 21 |
| 79 | REACHABILITY PROBLEMS FOR PRODUCTS OF MATRICES IN SEMIRINGS. International Journal of Algebra and Computation, 2006, 16, 603-627. | 0.4 | 18 |
| 80 | Iteration of order preserving subhomogeneous maps on a cone. Mathematical Proceedings of the Cambridge Philosophical Society, 2006, 140, 157. | 0.3 | 23 |
| 81 | Max-Plus Convex Geometry. Lecture Notes in Computer Science, 2006, , 192-206. | 1.0 | 21 |
| 82 | A novel strategy for creating recombinant infectious RNA virus genomes. Journal of Virological Methods, 2004, 121, 247-257. | 1.0 | 21 |
| 83 | Duality and separation theorems in idempotent semimodules. Linear Algebra and Its Applications, 2004, 379, 395-422. | 0.4 | 175 |
| 84 | The Perron-Frobenius theorem for homogeneous, monotone functions. Transactions of the American Mathematical Society, 2004, 356, 4931-4950. | 0.5 | 101 |
| 85 | Transient expression in mammalian cells of transgenes transcribed from theCauliflower mosaic virus35S promoter. Environmental Biosafety Research, 2004, 3, 91-97. | 1.1 | 25 |
| 86 | Spectral theorem for convex monotone homogeneous maps, and ergodic control. Nonlinear Analysis: Theory, Methods & Applications, 2003, 52, 637-679. | 0.6 | 41 |
| 87 | Generic Asymptotics of Eigenvalues Using Min-Plus Algebra. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 789-794. | 0.4 | 6 |
| 88 | A Spectral Theorem for Convex Monotone Homogeneous Maps. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 867-872. | 0.4 | 4 |
| 89 | A constructive fixed point theorem for min-max functions. Dynamical Systems, 1999, 14, 407-433. | 0.7 | 71 |
| 90 | Max-plus algebra and system theory: Where we are and where to go now. Annual Reviews in Control, 1999, 23, 207-219. | 4.4 | 114 |

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|---|---------|-----|-----------|
| 91 | Petri Net Languages and Infinite Subsets of Nm. Journal of Computer and System Sciences, 1999, 59, 373-391. | 0.9 | 24 |
| 92 | Asymptotics of the Perron eigenvalue and eigenvector using max-algebra. Comptes Rendus Mathematique, 1998, 327, 927-932. | 0.5 | 13 |
| 93 | Minimal (max,+) Realization of Convex Sequences. SIAM Journal on Control and Optimization, 1998, 36, 137-147. | 1.1 | 41 |
| 94 | Numerical Computation of Spectral Elements in Max-Plus Algebra â˜†. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 667-674. | 0.4 | 88 |
| 95 | On the burnside problem for semigroups of matrices in the (max,+) algebra. Semigroup Forum, 1996, 52, 271-292. | 0.3 | 23 |