Gerard Cornuejols

List of Publications by Year
in descending order

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114 papers	5,583 citations	117453 34 h-index	82410 72 g-index
117 all docs	117 docs citations	117 times ranked	2494 citing authors

#	Article	IF	Citations
1	Idealness of k-wise intersecting families. Mathematical Programming, 2022, 192, 29-50.	1.6	7
2	Clean tangled clutters, simplices, and projective geometries. Journal of Combinatorial Theory Series B, 2022, 154, 60-92.	0.6	1
3	Clean Clutters and Dyadic Fractional Packings. SIAM Journal on Discrete Mathematics, 2022, 36, 1012-1037.	0.4	4
4	The max-flow min-cut property and Â±1-resistant sets. Discrete Applied Mathematics, 2021, 289, 455-476.	0.5	1
5	Resistant Sets in the Unit Hypercube. Mathematics of Operations Research, 2021, 46, 82-114.	0.8	3
6	A new infinite class of ideal minimally non-packing clutters. Discrete Mathematics, 2021, 344, 112413.	0.4	1
7	On the Rational Polytopes with ChvÃ¡tal Rank 1. Mathematical Programming, 2020, 179, 21-46.	1.6	2
8	Cuboids, a class of clutters. Journal of Combinatorial Theory Series B, 2020, 142, 144-209.	0.6	11
9	Computational Aspects of Bayesian Solution Estimators in Stochastic Optimization. INFORMS Journal on Optimization, 2020, 2, 256-272.	0.9	0
10	Intersecting Restrictions in Clutters. Combinatorica, 2020, 40, 605-623.	0.6	6
11	Idealness of k-wise Intersecting Families. Lecture Notes in Computer Science, 2020, , 1-12.	1.0	0
12	Idealness and 2-resistant sets. Operations Research Letters, 2019, 47, 358-362.	0.5	2
13	Identically Self-blocking Clutters. Lecture Notes in Computer Science, 2019, , 1-12.	1.0	2
14	On some polytopes contained in the 0,Â1 hypercube that have a small ChvÃ¡tal rank. Mathematical Programming, 2018, 172, 467-503.	1.6	2
15	Ideal Clutters That Do Not Pack. Mathematics of Operations Research, 2018, 43, 533-553.	0.8	18
16	Cut-Generating Functions for Integer Variables. Mathematics of Operations Research, 2016, 41, 1381-1403.	0.8	8
17	On Some Polytopes Contained in the 0,1 Hypercube that Have a Small ChvÃ¡tal Rank. Lecture Notes in Computer Science, 2016, , 300-311.	1.0	5
18	Combinatorial Optimization. Oberwolfach Reports, 2015, 11, 2873-2932.	0.0	2

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19	Cut-Generating Functions and S-Free Sets. Mathematics of Operations Research, 2015, 40, 276-391.	0.8	37
20	Special issue of Mathematical Programming, Series B, dedicated to the international symposium on mathematical programming, Pittsburgh, July 2015. Mathematical Programming, 2015, 151, 1-2.	1.6	1
21	On the relative strength of families of intersection cuts arising from pairs of tableau constraints in mixed integer programs. Mathematical Programming, 2015, 150, 459-489.	1.6	4
22	Sufficiency of cut-generating functions. Mathematical Programming, 2015, 152, 643-651.	1.6	9
23	Integer Programming. Graduate Texts in Mathematics, 2014, , .	0.4	322
24	Semidefinite Bounds. Graduate Texts in Mathematics, 2014, , 389-413.	0.4	13
25	Split and Gomory Inequalities. Graduate Texts in Mathematics, 2014, , 195-234.	0.4	0
26	On the safety of Gomory cut generators. Mathematical Programming Computation, 2013, 5, 345-395.	3.2	8
27	Unique lifting of integer variables in minimal inequalities. Mathematical Programming, 2013, 141, 561-576.	1.6	21
28	Lifting Gomory cuts with bounded variables. Operations Research Letters, 2013, 41, 142-146.	0.5	4
29	Extended formulations in combinatorial optimization. Annals of Operations Research, 2013, 204, 97-143.	2.6	41
30	A 3-Slope Theorem for the infinite relaxation in the plane. Mathematical Programming, 2013, 142, 83-105.	1.6	13
31	Combining Lift-and-Project and Reduce-and-Split. INFORMS Journal on Computing, 2013, 25, 475-487.	1.0	5
32	Cut-Generating Functions. Lecture Notes in Computer Science, 2013, , 123-132.	1.0	4
33	Intersection Cuts with Infinite Split Rank. Mathematics of Operations Research, 2012, 37, 21-40.	0.8	16
34	Unique Minimal Liftings for Simplicial Polytopes. Mathematics of Operations Research, 2012, 37, 346-355.	0.8	19
35	Mixed-integer nonlinear programs featuring â€œon/offâ€•constraints. Computational Optimization and Applications, 2012, 52, 537-558.	0.9	49
36	A counterexample to a conjecture of Gomory and Johnson. Mathematical Programming, 2012, 133, 25-38.	1.6	18

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37	A Geometric Perspective on Lifting. Operations Research, 2011, 59, 569-577.	1.2	40
38	On the relative strength of split, triangle and quadrilateral cuts. Mathematical Programming, 2011, 126, 281-314.	1.6	27
39	Branching on general disjunctions. Mathematical Programming, 2011, 128, 403-436.	1.6	27
40	Practical strategies for generating rank-1 split cuts in mixed-integer linear programming. Mathematical Programming Computation, 2011, 3, 281-318.	3.2	7
41	Corner polyhedron and intersection cuts. Surveys in Operations Research and Management Science, 2011, 16, 105-120.	3.1	22
42	Experiments with Two-Row Cuts from Degenerate Tableaux. INFORMS Journal on Computing, 2011, 23, 578-590.	1.0	20
43	A Probabilistic Analysis of the Strength of the Split and Triangle Closures. Lecture Notes in Computer Science, 2011, , 27-38.	1.0	9
44	Maximal Lattice-Free Convex Sets in Linear Subspaces. Mathematics of Operations Research, 2010, 35, 704-720.	0.8	76
45	Extended formulations in combinatorial optimization. 4or, 2010, 8, 1-48.	1.0	116
46	Equivalence between intersection cuts and the corner polyhedron. Operations Research Letters, 2010, 38, 153-155.	0.5	23
47	Mixed Integer NonLinear Programs featuring â€œOn/Offâ€•constraints: convex analysis and applications. Electronic Notes in Discrete Mathematics, 2010, 36, 1153-1160.	0.4	8
48	Minimal Inequalities for an Infinite Relaxation of Integer Programs. SIAM Journal on Discrete Mathematics, 2010, 24, 158-168.	0.4	54
49	Polyhedral Approaches to Mixed Integer Linear Programming. , 2010, , 343-385.		21
50	On Lifting Integer Variables in Minimal Inequalities. Lecture Notes in Computer Science, 2010, , 85-95.	1.0	9
51	Minimal Valid Inequalities for Integer Constraints. Mathematics of Operations Research, 2009, 34, 538-546.	0.8	74
52	A Feasibility Pump for mixed integer nonlinear programs. Mathematical Programming, 2009, 119, 331-352.	1.6	88
53	On the facets of mixed integer programs with two integer variables and two constraints. Mathematical Programming, 2009, 120, 429-456.	1.6	52
54	Lehman matrices. Journal of Combinatorial Theory Series B, 2009, 99, 531-556.	0.6	7

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55	Stable sets, corner polyhedra and the ChvÃ¡tal closure. Operations Research Letters, 2009, 37, 375-378.	0.5	12
56	The ChvÃ¡tal closure of generalized stable sets in bidirected graphs. Electronic Notes in Discrete Mathematics, 2009, 35, 89-95.	0.4	0
57	On the Relative Strength of Split, Triangle and Quadrilateral Cuts. , 2009, , .		7
58	Projected ChvÃ¡talâ€“Gomory cuts for mixed integer linear programs. Mathematical Programming, 2008, 113, 241-257.	1.6	38
59	A note on the MIR closure. Operations Research Letters, 2008, 36, 4-6.	0.5	10
60	An algorithmic framework for convex mixed integer nonlinear programs. Discrete Optimization, 2008, 5, 186-204.	0.6	622
61	Valid inequalities for mixed integer linear programs. Mathematical Programming, 2007, 112, 3-44.	1.6	136
62	Revival of the Gomory cuts in the 1990â€™s. Annals of Operations Research, 2007, 149, 63-66.	2.6	27
63	Balanced matrices. Discrete Mathematics, 2006, 306, 2411-2437.	0.4	23
64	Decomposing Berge Graphs Containing No Proper Wheel, Long Prism Or Their Complements. Combinatorica, 2006, 26, 533-558.	0.6	2
65	Odd Hole Recognition in Graphs of Bounded Clique Size. SIAM Journal on Discrete Mathematics, 2006, 20, 42-48.	0.4	11
66	Balanced Matrices. Handbooks in Operations Research and Management Science, 2005, 12, 277-319.	0.6	3
67	Reduce-and-Split Cuts: Improving the Performance of Mixed-Integer Gomory Cuts. Management Science, 2005, 51, 1720-1732.	2.4	37
68	Recognizing Berge Graphs. Combinatorica, 2005, 25, 143-186.	0.6	234
69	Split closure and intersection cuts. Mathematical Programming, 2005, 102, 457-493.	1.6	65
70	Square-free perfect graphs. Journal of Combinatorial Theory Series B, 2004, 90, 257-307.	0.6	20
71	Decomposition of odd-hole-free graphs by double star cutsets and 2-joins. Discrete Applied Mathematics, 2004, 141, 41-91.	0.5	18
72	4. Bicolorings and Equitable Bicolorings of Matrices. , 2004, , 33-37.		2

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73	Graphs without odd holes, parachutes or proper wheels: a generalization of Meyniel graphs and of line graphs of bipartite graphs. Journal of Combinatorial Theory Series B, 2003, 87, 300-330.	0.6	11
74	K-Cuts: A Variation of Gomory Mixed Integer Cuts from the LP Tableau. INFORMS Journal on Computing, 2003, 15, 385-396.	1.0	30
75	Even-hole-free graphs part I: Decomposition theorem. Journal of Graph Theory, 2002, 39, 6-49.	0.5	43
76	Even-hole-free graphs part II: Recognition algorithm. Journal of Graph Theory, 2002, 40, 238-266.	0.5	40
77	A connection between cutting plane theory and the geometry of numbers. Mathematical Programming, 2002, 93, 123-127.	1.6	19
78	On the rank of mixed 0,1 polyhedra. Mathematical Programming, 2002, 91, 391-397.	1.6	42
79	Perfect Graphs, Partitionable Graphs and Cutsets. Combinatorica, 2002, 22, 19-33.	0.6	6
80	Ideal clutters. Discrete Applied Mathematics, 2002, 123, 303-338.	0.5	6
81	Perfect, ideal and balanced matrices. European Journal of Operational Research, 2001, 133, 455-461.	3.5	8
82	Balanced 0,ÂÂ±1 Matrices I. Decomposition. Journal of Combinatorial Theory Series B, 2001, 81, 243-274.	0.6	19
83	Balanced 0,ÂÂ±1 Matrices II. Recognition Algorithm. Journal of Combinatorial Theory Series B, 2001, 81, 275-306.	0.6	10
84	Elementary closures for integer programs. Operations Research Letters, 2001, 28, 1-8.	0.5	55
85	On the Rank of Mixed 0,1 Polyhedra. Lecture Notes in Computer Science, 2001, , 71-77.	1.0	4
86	Triangle-free graphs that are signable without even holes. Journal of Graph Theory, 2000, 34, 204-220.	0.5	12
87	The packing property. Mathematical Programming, 2000, 89, 113-126.	1.6	34
88	Balanced cycles and holes in bipartite graphs. Discrete Mathematics, 1999, 199, 27-33.	0.4	3
89	Decomposition of Balanced Matrices. Journal of Combinatorial Theory Series B, 1999, 77, 292-406.	0.6	46
90	Even and odd holes in cap-free graphs. Journal of Graph Theory, 1999, 30, 289-308.	0.5	33

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91	A Class of Hard Small 0-1 Programs. INFORMS Journal on Computing, 1999, 11, 205-210.	1.0	42
92	A Class of Hard Small 0â€”1 Programs. Lecture Notes in Computer Science, 1998, , 284-293.	1.0	24
93	Universally signable graphs. Combinatorica, 1997, 17, 67-77.	0.6	27
94	Perfect 0, Â± 1 matrices. Linear Algebra and Its Applications, 1997, 253, 299-309.	0.4	10
95	Perfect matchings in balanced hypergraphs. Combinatorica, 1996, 16, 325-329.	0.6	17
96	Mixed 0-1 Programming by Lift-and-Project in a Branch-and-Cut Framework. Management Science, 1996, 42, 1229-1246.	2.4	200
97	Polyhedral methods for the maximum clique problem. DIMACS Series in Discrete Mathematics and Theoretical Computer Science, 1996, , 11-28.	0.0	23
98	Balanced 0, Â±1-matrices, bicoloring and total dual integrality. Mathematical Programming, 1995, 71, 249-258.	1.6	21
99	A class of logic problems solvable by linear programming. Journal of the ACM, 1995, 42, 1107-1112.	1.8	30
100	Combining and strengthening Gomory cuts. Lecture Notes in Computer Science, 1995, , 438-451.	1.0	17
101	From Totally Unimodular to Balanced 0, Â±1 Matrices: A Family of Integer Polytopes. Mathematics of Operations Research, 1994, 19, 21-23.	0.8	8
102	Polyhedral study of the capacitated vehicle routing problem. Mathematical Programming, 1993, 60, 21-52.	1.6	94
103	A lift-and-project cutting plane algorithm for mixed 0â€“1 programs. Mathematical Programming, 1993, 58, 295-324.	1.6	551
104	A matroid algorithm and its application to the efficient solution of two optimization problems on graphs. Mathematical Programming, 1988, 42, 471-487.	1.6	22
105	Probabilistic Analysis of a Relaxation for the k-Median Problem. Mathematics of Operations Research, 1988, 13, 1-31.	0.8	52
106	Two algorithms for weighted matroid intersection. Mathematical Programming, 1986, 36, 39-53.	1.6	39
107	The traveling salesman problem on a graph and some related integer polyhedra. Mathematical Programming, 1985, 33, 1-27.	1.6	239
108	Submodular set functions, matroids and the greedy algorithm: Tight worst-case bounds and some generalizations of the Rado-Edmonds theorem. Discrete Applied Mathematics, 1984, 7, 251-274.	0.5	219

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109	A Primal Approach to the Simple Plant Location Problem. SIAM Journal on Algebraic and Discrete Methods, 1982, 3, 504-510.	0.8	23
110	A matching problem with side conditions. Discrete Mathematics, 1980, 29, 135-159.	0.4	77
111	Worst-Case and Probabilistic Analysis of Algorithms for a Location Problem. Operations Research, 1980, 28, 847-858.	1.2	42
112	A Canonical Representation of Simple Plant Location Problems and Its Applications. SIAM Journal on Algebraic and Discrete Methods, 1980, 1, 261-272.	0.8	36
113	Perfect triangle-free 2-matchings. Mathematical Programming Studies, 1980, , 1-7.	0.8	19
114	Exceptional Paperâ€"Location of Bank Accounts to Optimize Float: An Analytic Study of Exact and Approximate Algorithms. Management Science, 1977, 23, 789-810.	2.4	724