Laurence A Wolsey

List of Publications by Year
in descending order

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117 papers	8,055 citations	61984 43 h-index	85541 71 g-index
124 all docs	124 docs citations	124 times ranked	3071 citing authors

#	Article	IF	Citations
1	Faces for a linear inequality in 0â€“1 variables. Mathematical Programming, 1975, 8, 165-178.	2.4	253
2	Solving Mixed Integer Programming Problems Using Automatic Reformulation. Operations Research, 1987, 35, 45-57.	1.9	245
3	Strong Formulations for Multi-Item Capacitated Lot Sizing. Management Science, 1984, 30, 1255-1261.	4.1	207
4	Formulating the single machine sequencing problem with release dates as a mixed integer program. Discrete Applied Mathematics, 1990, 26, 255-270.	0.9	195
5	A time indexed formulation of non-preemptive single machine scheduling problems. Mathematical Programming, 1992, 54, 353-367.	2.4	171
6	An exact algorithm for IP column generation. Operations Research Letters, 1996, 19, 151-159.	0.7	170
7	A recursive procedure to generate all cuts for 0â€“1 mixed integer programs. Mathematical Programming, 1990, 46, 379-390.	2.4	159
8	Cutting planes in integer and mixed integer programming. Discrete Applied Mathematics, 2002, 123, 397-446.	0.9	152
9	Aggregation and Mixed Integer Rounding to Solve MIPs. Operations Research, 2001, 49, 363-371.	1.9	146
10	bc â€” prod: A Specialized Branch-and-Cut System for Lot-Sizing Problems. Management Science, 2000, 46, 724-738.	4.1	137
11	Uncapacitated lot-sizing: The convex hull of solutions. Mathematical Programming Studies, 1984, , 32-43.	0.8	132
12	Modelling Practical Lot-Sizing Problems as Mixed-Integer Programs. Management Science, 2001, 47, 993-1007.	4.1	128
13	Polyhedra for lot-sizing with Wagnerâ€”Whitin costs. Mathematical Programming, 1994, 67, 297-323.	2.4	124
14	Solving Multi-Item Lot-Sizing Problems Using Strong Cutting Planes. Management Science, 1991, 37, 53-67.	4.1	122
15	Lot-Sizing with Constant Batches: Formulation and Valid Inequalities. Mathematics of Operations Research, 1993, 18, 767-785.	1.3	117
16	Integer programming duality: Price functions and sensitivity analysis. Mathematical Programming, 1981, 20, 173-195.	2.4	116
17	Lot-size models with backlogging: Strong reformulations and cutting planes. Mathematical Programming, 1988, 40-40, 317-335.	2.4	112
18	Maximising Real-Valued Submodular Functions: Primal and Dual Heuristics for Location Problems. Mathematics of Operations Research, 1982, 7, 410-425.	1.3	110

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19	Solving Multi-Item Lot-Sizing Problems with an MIP Solver Using Classification and Reformulation. Management Science, 2002, 48, 1587-1602.	4.1	110
20	Valid inequalities for mixed 0â€“1 programs. Discrete Applied Mathematics, 1986, 14, 199-213.	0.9	99
21	The 0-1 Knapsack problem with a single continuous variable. Mathematical Programming, 1999, 85, 15-33.	2.4	93
22	Technical Noteâ€”Facets and Strong Valid Inequalities for Integer Programs. Operations Research, 1976, 24, 367-372.	1.9	91
23	Inequalities from Two Rows of a Simplex Tableau. , 2007, , 1-15.		85
24	Valid inequalities for 0â€“1 knapsacks and mips with generalised upper bound constraints. Discrete Applied Mathematics, 1990, 29, 251-261.	0.9	80
25	MIP modelling of changeovers in production planning and scheduling problems. European Journal of Operational Research, 1997, 99, 154-165.	5.7	77
26	Tight formulations for some simple mixed integer programs and convex objective integer programs. Mathematical Programming, 2003, 98, 73-88.	2.4	77
27	An elementary survey of general duality theory in mathematical programming. Mathematical Programming, 1981, 21, 241-261.	2.4	70
28	Capacitated Facility Location: Valid Inequalities and Facets. Mathematics of Operations Research, 1995, 20, 562-582.	1.3	69
29	A maritime inventory routing problem: Discrete time formulations and valid inequalities. Networks, 2013, 62, 297-314.	2.7	65
30	Valid inequalities and projecting the multicommodity extended formulation for uncapacitated fixed charge network flow problems. European Journal of Operational Research, 1993, 71, 95-109.	5.7	63
31	bc-opt: a branch-and-cut code for mixed integer programs. Mathematical Programming, 1999, 86, 335-353.	2.4	61
32	Two â€œwell-knownâ€•properties of subgradient optimization. Mathematical Programming, 2009, 120, 213-220.	2.4	59
33	Coefficient reduction for inequalities in 0â€“1 variables. Mathematical Programming, 1974, 7, 263-282.	2.4	56
34	Progress with single-item lot-sizing. European Journal of Operational Research, 1995, 86, 395-401.	5.7	55
35	Lot-sizing with production and delivery time windows. Mathematical Programming, 2006, 107, 471-489.	2.4	55
36	Non-standard approaches to integer programming. Discrete Applied Mathematics, 2002, 123, 5-74.	0.9	53

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37	Approximate extended formulations. Mathematical Programming, 2006, 105, 501-522.	2.4	53
38	Sensitivity Analysis for Branch and Bound Integer Programming. Operations Research, 1985, 33, 1008-1023.	1.9	52
39	Integer Programming and Constraint Programming in Solving a Multimachine Assignment Scheduling Problem with Deadlines and Release Dates. INFORMS Journal on Computing, 2006, 18, 209-217.	1.7	51
40	Further facet generating procedures for vertex packing polytopes. Mathematical Programming, 1976, 11, 158-163.	2.4	49
41	Two row mixed-integer cuts via lifting. Mathematical Programming, 2010, 124, 143-174.	2.4	46
42	Strong formulations for mixed integer programming: A survey. Mathematical Programming, 1989, 45, 173-191.	2.4	45
43	Optimal Placement of Add/Drop Multiplexers: Heuristic and Exact Algorithms. Operations Research, 1998, 46, 719-728.	1.9	45
44	Uncapacitated Lot-Sizing Problems with Start-Up Costs. Operations Research, 1989, 37, 741-747.	1.9	44
45	Integer knapsack and flow covers with divisible coefficients: polyhedra, optimization and separation. Discrete Applied Mathematics, 1995, 59, 57-74.	0.9	44
46	The uncapacitated lot-sizing problem with sales and safety stocks. Mathematical Programming, 2001, 89, 487-504.	2.4	44
47	Constrained Infinite Group Relaxations of MIPs. SIAM Journal on Optimization, 2010, 20, 2890-2912.	2.0	44
48	Covering Linear Programming with Violations. INFORMS Journal on Computing, 2014, 26, 531-546.	1.7	44
49	Worst-Case and Probabilistic Analysis of Algorithms for a Location Problem. Operations Research, 1980, 28, 847-858.	1.9	42
50	Valid inequalities and separation for uncapacitated fixed charge networks. Operations Research Letters, 1985, 4, 105-112.	0.7	42
51	Lifting Integer Variables in Minimal Inequalities Corresponding to Lattice-Free Triangles. , 2008, , 463-475.		40
52	Strong formulations for mixed integer programs: valid inequalities and extended formulations. Mathematical Programming, 2003, 97, 423-447.	2.4	38
53	Uncapacitated two-level lot-sizing. Operations Research Letters, 2010, 38, 241-245.	0.7	36
54	Single-Period Cutting Planes for Inventory Routing Problems. Transportation Science, 2018, 52, 497-508.	4.4	34

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55	Submodularity and valid inequalities in capacitated fixed charge networks. Operations Research Letters, 1989, 8, 119-124.	0.7	33
56	Tight Mip Formulation for Multi-Item Discrete Lot-Sizing Problems. Operations Research, 2003, 51, 557-565.	1.9	32
57	Network Formulations of Mixed-Integer Programs. Mathematics of Operations Research, 2009, 34, 194-209.	1.3	31
58	Extensions of the Group Theoretic Approach in Integer Programming. Management Science, 1971, 18, 74-83.	4.1	30
59	Relaxation Methods for Pure and Mixed Integer Programming Problems. Management Science, 1972, 18, 229-239.	4.1	30
60	Compact formulations as a union of polyhedra. Mathematical Programming, 2008, 114, 277-289.	2.4	27
61	MIP formulations and heuristics for two-level production-transportation problems. Computers and Operations Research, 2012, 39, 2776-2786.	4.0	26
62	Generalized dynamic programming methods in integer programming. Mathematical Programming, 1973, 4, 222-232.	2.4	25
63	Chapter VI Integer programming. Handbooks in Operations Research and Management Science, 1989, 1, 447-527.	0.6	25
64	Dynamic knapsack sets and capacitated lot-sizing. Mathematical Programming, 2003, 95, 53-69.	2.4	23
65	Optimizing production and transportation in a commit-to-delivery business mode. European Journal of Operational Research, 2010, 203, 614-618.	5.7	23
66	Singleâ€item reformulations for a vendor managed inventory routing problem: Computational experience with benchmark instances. Networks, 2015, 65, 129-138.	2.7	23
67	Group-Theoretic Results in Mixed Integer Programming. Operations Research, 1971, 19, 1691-1697.	1.9	21
68	Multi-item lot-sizing with joint set-up costs. Mathematical Programming, 2009, 119, 79-94.	2.4	21
69	Valid Inequalities, Covering Problems and Discrete Dynamic Programs. Annals of Discrete Mathematics, 1977, 1, 527-538.	1.4	20
70	Improved models for a single vehicle continuous-time inventory routing problem with pickups and deliveries. European Journal of Operational Research, 2022, 297, 164-179.	5.7	20
71	Relaxations for two-level multi-item lot-sizing problems. Mathematical Programming, 2014, 146, 495-523.	2.4	19
72	Fractional covers for forests and matchings. Mathematical Programming, 1984, 29, 1-14.	2.4	16

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73	Optimal placement of add /drop multiplexers static and dynamic models. European Journal of Operational Research, 1998, 108, 26-35.	5.7	16
74	The Mixing Set with Flows. SIAM Journal on Discrete Mathematics, 2007, 21, 396-407.	0.8	16
75	Lot-sizing on a tree. Operations Research Letters, 2008, 36, 7-13.	0.7	16
76	Tight MIP formulations for bounded up/down times and interval-dependent start-ups. Mathematical Programming, 2017, 164, 129-155.	2.4	16
77	Combining Problem Structure with Basis Reduction to Solve a Class of Hard Integer Programs. Mathematics of Operations Research, 2002, 27, 470-484.	1.3	15
78	Trees and Cuts. North-Holland Mathematics Studies, 1983, 75, 511-517.	0.2	14
79	Modelling piecewise linear concave costs in a tree partitioning problem. Discrete Applied Mathematics, 1994, 50, 101-109.	0.9	14
80	On unions and dominants of polytopes. Mathematical Programming, 2004, 99, 223-239.	2.4	14
81	Lifting, superadditivity, mixed integer rounding and single node flow sets revisited. Annals of Operations Research, 2007, 153, 47-77.	4.1	14
82	Polyhedral and Lagrangian approaches for lot sizing with production time windows and setup times. Computers and Operations Research, 2010, 37, 182-188.	4.0	13
83	Composite lifting of group inequalities and an application to two-row mixing inequalities. Discrete Optimization, 2010, 7, 256-268.	0.9	13
84	On the cut polyhedron. Discrete Mathematics, 2004, 277, 279-285.	0.7	12
85	Single item lot-sizing with non-decreasing capacities. Mathematical Programming, 2010, 121, 123-143.	2.4	11
86	â€œFacetâ€•separation with one linear program. Mathematical Programming, 2019, 178, 361-380.	2.4	11
87	On the Practical Strength of Two-Row Tableau Cuts. INFORMS Journal on Computing, 2014, 26, 222-237.	1.7	10
88	Lattice based extended formulations for integer linear equality systems. Mathematical Programming, 2010, 121, 337-352.	2.4	9
89	Sufficiency of cut-generating functions. Mathematical Programming, 2015, 152, 643-651.	2.4	9
90	Finding minimum cost directed trees with demands and capacities. Annals of Operations Research, 1991, 33, 285-303.	4.1	8

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91	On discrete lot-sizing and scheduling on identical parallel machines. Optimization Letters, 2012, 6, 545-557.	1.6	8
92	Cubical sperner lemmas as applications of generalized complementary pivoting. Journal of Combinatorial Theory - Series A, 1977, 23, 78-87.	0.8	6
93	Valid Inequalities for the Lasdon-Terjung Production Model. Journal of the Operational Research Society, 1992, 43, 435-441.	3.4	6
94	Extended formulations for Gomory Corner polyhedra. Discrete Optimization, 2004, 1, 141-165.	0.9	6
95	Projecting an Extended Formulation for Mixed-Integer Covers on Bipartite Graphs. Mathematics of Operations Research, 2010, 35, 603-623.	1.3	6
96	Lot-sizing polyhedra with a cardinality constraint. Operations Research Letters, 1992, 11, 13-18.	0.7	5
97	On the Wagner-Whitin Lot-Sizing Polyhedron. Mathematics of Operations Research, 2001, 26, 591-600.	1.3	5
98	Continuous knapsack sets with divisible capacities. Mathematical Programming, 2016, 156, 1-20.	2.4	5
99	Convex hull results for the warehouse problem. Discrete Optimization, 2018, 30, 108-120.	0.9	5
100	On the Balanced Minimum Evolution polytope. Discrete Optimization, 2020, 36, 100570.	0.9	5
101	The StockingCost Constraint. Lecture Notes in Computer Science, 2014, , 382-397.	1.3	5
102	Lot-Sizing with Stock Upper Bounds and Fixed Charges. SIAM Journal on Discrete Mathematics, 2010, 24, 853-875.	0.8	4
103	Uncapacitated lot-sizing with buying, sales and backlogging. Optimization Methods and Software, 2004, 19, 427-436.	2.4	3
104	Mixing Sets Linked by Bidirected Paths. SIAM Journal on Optimization, 2011, 21, 1594-1613.	2.0	3
105	The continuous knapsack set. Mathematical Programming, 2016, 155, 471-496.	2.4	3
106	A number theoretic reformulation and decomposition method for integer programming. Discrete Mathematics, 1974, 7, 393-403.	0.7	2
107	Lot-Sizing on a Tree. SSRN Electronic Journal, 2006, , .	0.4	2
108	Traces of the XII Aussois Workshop on Combinatorial Optimization. Mathematical Programming, 2010, 124, 1-6.	2.4	2

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109	On the use of penumbras in blocking and antiblocking theory. Mathematical Programming, 1982, 22, 71-81.	2.4	1
110	Optimum turn-restricted paths, nested compatibility, and optimum convex polygons. Journal of Combinatorial Optimization, 2018, 36, 90-107.	1.3	1
111	Convex hull results for generalizations of the constant capacity single node flow set. Mathematical Programming, 2021, 187, 351-382.	2.4	1
112	Submodularity and valid inequalities in capacitated fixed charge networks. Operations Research Letters, 1989, 8, 295.	0.7	0
113	The Aussois 2000 workshop in combinatorial optimization introduction. Mathematical Programming, 2003, 94, 189-191.	2.4	0
114	Combinatorial Optimization: Theory and Computation The Aussois Workshop 2004. Mathematical Programming, 2006, 105, 157-160.	2.4	0
115	Strong and compact relaxations in the original space using a compact extended formulation. EURO Journal on Computational Optimization, 2013, 1, 71-80.	2.4	0
116	The item dependent stockingcost constraint. Constraints, 2019, 24, 183-209.	0.7	0
117	Lattice Reformulation Cuts. SIAM Journal on Optimization, 2021, 31, 2539-2557.	2.0	0