Shabbir Ahmed

List of Publications by Year
in descending order

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126	6,725	100601	78623
papers	citations	38 h-index	77 g-index

130	130	130	4634
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimized Bonferroni approximations of distributionally robust joint chance constraints. Mathematical Programming, 2022, 191, 79-112.	1.6	32
2	Stochastic Lipschitz dynamic programming. Mathematical Programming, 2022, 191, 755-793.	1.6	9
3	Distributionally robust bottleneck combinatorial problems: uncertainty quantification and robust decision making. Mathematical Programming, 2022, 196, 597-640.	1.6	8
4	State-Variable Modeling for a Class of Two-Stage Stochastic Optimization Problems. INFORMS Journal on Computing, 2022, 34, 354-369.	1.0	0
5	Theoretical Investigations of Magnetic Properties and Mechanical Stability of Quaternary Heusler Compounds FeYCrZ (Zâ€‰=â€‰Al, Ga, Ge, and Si): a Spin Gapless Semiconductor. Journal of Superconductivity and Novel Magnetism, 2022, 35, 223-234.	0.8	5
6	Decomposition of loosely coupled integer programs: a multiobjective perspective. Mathematical Programming, 2022, 196, 427-477.	1.6	2
7	Theoretical investigation of structural and magnetic properties of MnTiX (Xâ€‰=â€‰Si, Ge, Se, Te) half-Heusler alloys. Indian Journal of Physics, 2021, 95, 841-849.	0.9	8
8	Distributionally robust facility location problem under decision-dependent stochastic demand. European Journal of Operational Research, 2021, 292, 548-561.	3.5	57
9	Efficient Algorithms for Distributionally Robust Stochastic Optimization with Discrete Scenario Support. SIAM Journal on Optimization, 2021, 31, 1690-1721.	1.2	5
10	Decentralized online integer programming problems with a coupling cardinality constraint. Computers and Operations Research, 2021, 135, 105421.	2.4	0
11	Structural and Magnetic Behavior of MoS2 on Doping of Transition Metals: a DFT Study. Journal of Superconductivity and Novel Magnetism, 2021, 34, 3441-3453.	0.8	6
12	Data-driven maintenance and operations scheduling in power systems under decision-dependent uncertainty. IISE Transactions, 2020, 52, 589-602.	1.6	21
13	A linear programming based approach to the Steiner tree problem with a fixed number of terminals. Networks, 2020, 75, 124-136.	1.6	7
14	Theoretical investigation of structural, mechanical, electronic and thermal behavior of platinum group metals and their intermetallic alloys PtRhX (X = Pd, Ir, Os, Ru). Physica B: Condensed Matter, 2020, 591, 412240.	1.3	3
15	Optimization-Driven Scenario Grouping. INFORMS Journal on Computing, 2020, 32, 805-821.	1.0	7
16	The Benders Dual Decomposition Method. Operations Research, 2020, 68, 878-895.	1.2	23
17	Exact Augmented Lagrangian Duality for Mixed Integer Quadratic Programming. SIAM Journal on Optimization, 2020, 30, 781-797.	1.2	5
18	First-principles computation of new series of quaternary Heusler alloys CoScCrZ (Zâ€‰=â€‰Al, Ga, Ge, In): a study of structural, magnetic, elastic and thermal response for spintronic devices. Molecular Physics, 2020, 118, .	0.8	19

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19	Tailoring parallel alternating criteria search for domain specific MIPs: Application to maritime inventory routing. Computers and Operations Research, 2019, 111, 21-34.	2.4	4
20	The Value of Multi-Stage Stochastic Programming in Risk-Averse Unit Commitment Under Uncertainty. IEEE Transactions on Power Systems, 2019, 34, 3667-3676.	4.6	18
21	Multistage Stochastic Unit Commitment Using Stochastic Dual Dynamic Integer Programming. IEEE Transactions on Power Systems, 2019, 34, 1814-1823.	4.6	84
22	Stochastic dual dynamic integer programming. Mathematical Programming, 2019, 175, 461-502.	1.6	132
23	Nonconvex Medium-Term Hydropower Scheduling by Stochastic Dual Dynamic Integer Programming. IEEE Transactions on Sustainable Energy, 2019, 10, 481-490.	5.9	58
24	Long-Range Planning of Chemical Manufacturing Systems. , 2019, , 1-1-1-25.		0
25	On Deterministic Reformulations of Distributionally Robust Joint Chance Constrained Optimization Problems. SIAM Journal on Optimization, 2018, 28, 1151-1182.	1.2	51
26	On quantile cuts and their closure for chance constrained optimization problems. Mathematical Programming, 2018, 172, 621-646.	1.6	15
27	Stochastic Optimization of Maintenance and Operations Schedules Under Unexpected Failures. IEEE Transactions on Power Systems, 2018, 33, 6755-6765.	4.6	41
28	Distributionally Robust Chance Constrained Optimal Power Flow with Renewables: A Conic Reformulation. IEEE Transactions on Power Systems, 2018, 33, 1860-1867.	4.6	123
29	Lot targeting and lot dispatching decision policies for semiconductor manufacturing: optimisation under uncertainty with simulation validation. International Journal of Production Research, 2018, 56, 629-641.	4.9	15
30	Parallel Scenario Decomposition of Risk-Averse 0-1 Stochastic Programs. INFORMS Journal on Computing, 2018, 30, 90-105.	1.0	5
31	A polyhedral approach to online bipartite matching. Mathematical Programming, 2018, 172, 443-465.	1.6	4
32	Alternating criteria search: a parallel large neighborhood search algorithm for mixed integer programs. Computational Optimization and Applications, 2018, 69, 1-24.	0.9	14
33	Distributionally robust simple integer recourse. Computational Management Science, 2018, 15, 351-367.	0.8	11
34	Partially Adaptive Stochastic Optimization for Electric Power Generation Expansion Planning. INFORMS Journal on Computing, 2018, 30, 388-401.	1.0	12
35	Relaxations and approximations of chance constraints under finite distributions. Mathematical Programming, 2018, 170, 43-65.	1.6	21
36	Polyhedral results for a class of cardinality constrained submodular minimization problems. Discrete Optimization, 2017, 24, 87-102.	0.6	10

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37	Relaxations and discretizations for the pooling problem. Journal of Global Optimization, 2017, 67, 631-669.	1.1	43
38	Exact augmented Lagrangian duality for mixed integer linear programming. Mathematical Programming, 2017, 161, 365-387.	1.6	29
39	A rolling-horizon unit commitment framework with flexible periodicity. International Journal of Electrical Power and Energy Systems, 2017, 90, 280-291.	3.3	21
40	A hybrid primal heuristic for finding feasible solutions to mixed integer programs. European Journal of Operational Research, 2017, 263, 62-71.	3.5	15
41	Maximizing a class of submodular utility functions with constraints. Mathematical Programming, 2017, 162, 145-164.	1.6	15
42	Ab initio study of structural, electronic and elastic properties of CdSe 1â^'x S x semiconductor. Solar Energy, 2017, 158, 63-70.	2.9	9
43	Chapter 29: Stochastic Optimization. , 2017, , 379-391.		0
44	Ab initio study of structural, electronic, and thermal properties of Pt1â^'xPdx alloys. International Journal of Modern Physics B, 2017, 31, 1650243.	1.0	1
45	A parallel local search framework for the Fixed-Charge Multicommodity Network Flow problem. Computers and Operations Research, 2017, 77, 44-57.	2.4	13
46	Nonanticipative duality, relaxations, and formulations for chance-constrained stochastic programs. Mathematical Programming, 2017, 162, 51-81.	1.6	40
47	Learning to Run Heuristics in Tree Search. , 2017, , .		44
48	Scenario Decomposition for 0-1 Stochastic Programs: Improvements and Asynchronous Implementation. , 2016, , .		10
49	Theoretical calculations of structural, electronic, and elastic properties of CdSe _{1â^' x} Te _x : A first principles study. Chinese Physics B, 2016, 25, 076104.	0.7	12
50	First-principles calculation of the structural, electronic, and magnetic properties of cubic perovskite Rb X F ₃ (X = Mn, V, Co, Fe). Chinese Physics B, 2016, 25, 117401.	0.7	8
51	On the Computational Complexity of Minimum-Concave-Cost Flow in a Two-Dimensional Grid. SIAM Journal on Optimization, 2016, 26, 2059-2079.	1.2	9
52	Strengthened bounds for the probability of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si108.gif" display="inline" overflow="scroll"><mml:mi>k</mml:mi></mml:math>-out-of-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si106.gif" display="inline" overflow="scroll"><mml:mi>n</mml:mi></mml:math> events. Discrete Applied Mathematics, 2016, 198, 232-240.	0.5	6
53	Improving the Integer L-Shaped Method. INFORMS Journal on Computing, 2016, 28, 483-499.	1.0	57
54	Density functional theory study of structural, electronic, and thermal properties of Pt, Pd, Rh, Ir, Os and PtPd X (X = Ir, Os, and Rh) alloys. Chinese Physics B, 2016, 25, 036501.	0.7	5

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55	Maximizing expected utility over a knapsack constraint. Operations Research Letters, 2016, 44, 180-185.	0.5	5
56	Risk neutral and risk averse approaches to multistage renewable investment planning under uncertainty. European Journal of Operational Research, 2016, 250, 979-989.	3.5	67
57	On the Quantile Cut Closure of Chance-Constrained Problems. Lecture Notes in Computer Science, 2016, , 398-409.	1.0	0
58	A Polyhedral Approach to Online Bipartite Matching. Lecture Notes in Computer Science, 2016, , 287-299.	1.0	0
59	Corrigendum to â€œA scenario decomposition algorithm for 0â€“1 stochastic programsâ€•[Oper. Res. Lett. 41(6) (2013) 565â€“569]. Operations Research Letters, 2015, 43, 215-217.	0.5	1
60	Forbidden Vertices. Mathematics of Operations Research, 2015, 40, 350-360.	0.8	17
61	Large-scale decentralized unit commitment. International Journal of Electrical Power and Energy Systems, 2015, 73, 97-106.	3.3	82
62	Theoretical investigation of sulfur defects on structural, electronic, and elastic properties of ZnSe semiconductor. Chinese Physics B, 2015, 24, 076106.	0.7	8
63	Minimum concave cost flow over a grid network. Mathematical Programming, 2015, 150, 79-98.	1.6	12
64	Covering Linear Programming with Violations. INFORMS Journal on Computing, 2014, 26, 531-546.	1.0	44
65	A cutting and scheduling problem in float glass manufacturing. Journal of Scheduling, 2014, 17, 95-107.	1.3	8
66	Convex relaxations of chance constrained optimization problems. Optimization Letters, 2014, 8, 1-12.	0.9	36
67	Congestion-aware dynamic routing in automated material handling systems. Computers and Industrial Engineering, 2014, 70, 176-182.	3.4	49
68	The Robust Redundancy Allocation Problem in Series-Parallel Systems With Budgeted Uncertainty. IEEE Transactions on Reliability, 2014, 63, 239-250.	3.5	37
69	Semi-continuous network flow problems. Mathematical Programming, 2014, 145, 565-599.	1.6	3
70	First-principles calculations of structural, electronic, and thermodynamic properties of ZnO _{1â^' x} S _x alloys. Chinese Physics B, 2014, 23, 106108.	0.7	12
71	Using diversification, communication and parallelism to solve mixed-integer linear programs. Operations Research Letters, 2014, 42, 186-189.	0.5	15
72	Totally unimodular stochastic programs. Mathematical Programming, 2013, 138, 1-13.	1.6	10

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73	A scenario decomposition algorithm for 0â€“1 stochastic programs. Operations Research Letters, 2013, 41, 565-569.	0.5	63
74	Solving Mixed Integer Bilinear Problems Using MILP Formulations. SIAM Journal on Optimization, 2013, 23, 721-744.	1.2	120
75	Optimization of automated float glass lines. International Journal of Production Economics, 2013, 145, 561-572.	5.1	7
76	Probabilistic Set Covering with Correlations. Operations Research, 2013, 61, 438-452.	1.2	23
77	Sell or Hold: A simple two-stage stochastic combinatorial optimization problem. Operations Research Letters, 2012, 40, 69-73.	0.5	3
78	Mixed integer linear programming formulations for probabilistic constraints. Operations Research Letters, 2012, 40, 153-158.	0.5	17
79	A Probabilistic Comparison of Split and Type 1 Triangle Cuts for Two-Row Mixed-Integer Programs. SIAM Journal on Optimization, 2011, 21, 617-632.	1.2	5
80	Maximizing a class of submodular utility functions. Mathematical Programming, 2011, 128, 149-169.	1.6	54
81	An integer programming approach for linear programs with probabilistic constraints. Mathematical Programming, 2010, 122, 247-272.	1.6	245
82	A stochastic programming approach for planning horizons of infinite horizon capacity planning problems. European Journal of Operational Research, 2010, 200, 74-84.	3.5	27
83	A Note on â€œA Superior Representation Method for Piecewise Linear Functionsâ€• INFORMS Journal on Computing, 2010, 22, 493-497.	1.0	17
84	An Automated Intensity-Modulated Radiation Therapy Planning System. INFORMS Journal on Computing, 2010, 22, 568-583.	1.0	9
85	Expectation and Chance-Constrained Models and Algorithms for Insuring Critical Paths. Management Science, 2010, 56, 1794-1814.	2.4	23
86	Mixed-Integer Models for Nonseparable Piecewise-Linear Optimization: Unifying Framework and Extensions. Operations Research, 2010, 58, 303-315.	1.2	257
87	The Value of Multistage Stochastic Programming in Capacity Planning Under Uncertainty. Operations Research, 2009, 57, 893-904.	1.2	86
88	Sample Average Approximation Method for Chance Constrained Programming: Theory and Applications. Journal of Optimization Theory and Applications, 2009, 142, 399-416.	0.8	378
89	Supply chain design under uncertainty using sample average approximation and dual decomposition. European Journal of Operational Research, 2009, 199, 409-419.	3.5	213
90	Approximating the stability region for binary mixed-integer programs. Operations Research Letters, 2009, 37, 250-254.	0.5	4

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91	Cutting plane algorithms for solving a stochastic edge-partition problem. Discrete Optimization, 2009, 6, 420-435.	0.6	10
92	Cutting Planes for Multistage Stochastic Integer Programs. Operations Research, 2009, 57, 287-298.	1.2	43
93	Selection, acquisition, and allocation of manufacturing technology in a multi-period environment. European Journal of Operational Research, 2008, 189, 807-821.	3.5	12
94	A note on natural risk statistics. Operations Research Letters, 2008, 36, 662-664.	0.5	24
95	Sample average approximation of expected value constrained stochastic programs. Operations Research Letters, 2008, 36, 515-519.	0.5	96
96	A Sample Approximation Approach for Optimization with Probabilistic Constraints. SIAM Journal on Optimization, 2008, 19, 674-699.	1.2	438
97	A Lifted Linear Programming Branch-and-Bound Algorithm for Mixed-Integer Conic Quadratic Programs. INFORMS Journal on Computing, 2008, 20, 438-450.	1.0	96
98	Solving Chance-Constrained Stochastic Programs via Sampling and Integer Programming. , 2008, , 261-269.		70
99	On a Multi-stage Stochastic Programming Model for Inventory Planning. Infor, 2008, 46, 155-163.	0.5	5
100	An Integer Programming Approach for Linear Programs with Probabilistic Constraints. , 2007, , 410-423.		12
101	Sequential pairing of mixed integer inequalities. Discrete Optimization, 2007, 4, 21-39.	0.6	14
102	Coherent risk measures in inventory problems. European Journal of Operational Research, 2007, 182, 226-238.	3.5	166
103	On formulations of the stochastic uncapacitated lot-sizing problem. Operations Research Letters, 2006, 34, 241-250.	0.5	25
104	A branch-and-cut algorithm for the stochastic uncapacitated lot-sizing problem. Mathematical Programming, 2006, 105, 55-84.	1.6	57
105	Convexity and decomposition of mean-risk stochastic programs. Mathematical Programming, 2006, 106, 433-446.	1.6	140
106	A branch-reduce-cut algorithm for the global optimization of probabilistically constrained linear programs. Mathematical Programming, 2006, 108, 617-634.	1.6	32
107	Sequential Pairing of Mixed Integer Inequalities. Lecture Notes in Computer Science, 2005, , 23-34.	1.0	3
108	A stochastic programming approach for supply chain network design under uncertainty. European Journal of Operational Research, 2005, 167, 96-115.	3.5	870

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109	The inverse optimal value problem. Mathematical Programming, 2005, 102, 91-110.	1.6	43
110	On Bridging the Gap Between Stochastic Integer Programming and MIP Solver Technologies. INFORMS Journal on Computing, 2004, 16, 73-83.	1.0	18
111	On robust optimization of two-stage systems. Mathematical Programming, 2004, 99, 109-126.	1.6	87
112	A finite branch-and-bound algorithm for two-stage stochastic integer programs. Mathematical Programming, 2004, 100, 355-377.	1.6	169
113	On a Class of Minimax Stochastic Programs. SIAM Journal on Optimization, 2004, 14, 1237-1249.	1.2	95
114	A Multi-Stage Stochastic Integer Programming Approach for Capacity Expansion under Uncertainty. Journal of Global Optimization, 2003, 26, 3-24.	1.1	232
115	Dynamic Capacity Acquisition and Assignment under Uncertainty. Annals of Operations Research, 2003, 124, 267-283.	2.6	44
116	Title is missing!. Computational Optimization and Applications, 2003, 24, 289-333.	0.9	337
117	An Approximation Scheme for Stochastic Integer Programs Arising in Capacity Expansion. Operations Research, 2003, 51, 461-471.	1.2	97
118	Product Disaggregation in Global Optimization and Relaxations of Rational Programs. Optimization and Engineering, 2002, 3, 281-303.	1.3	15
119	Global Optimization of 0-1 Hyperbolic Programs. Journal of Global Optimization, 2002, 24, 385-416.	1.1	52
120	Analytical investigations of the process planning problem. Computers and Chemical Engineering, 2000, 23, 1605-1621.	2.0	20
121	An improved decomposition algorithm for optimization under uncertainty. Computers and Chemical Engineering, 2000, 23, 1589-1604.	2.0	26
122	Long-Range Planning of Chemical Manufacturing Systems. , 2000, , .		0
123	Robust Process Planning under Uncertainty. Industrial & Engineering Chemistry Research, 1998, 37, 1883-1892.	1.8	181
124	Learning to Solve Large-Scale Security-Constrained Unit Commitment Problems. INFORMS Journal on Computing, 0, , .	1.0	45
125	Bicriteria Approximation of Chance-Constrained Covering Problems. Operations Research, 0, , .	1.2	6
126	Scenario Grouping and Decomposition Algorithms for Chance-Constrained Programs. INFORMS Journal on Computing, 0, , .	1.0	1