Arkadi S Nemirovski

List of Publications by Citations

Source: https://exaly.com/author-pdf/4790054/arkadi-s-nemirovski-publications-by-citations.pdf
Version: 2024-04-28

117 papers	14,392 citations	40 h-index	119 g-index
132 ext. papers	16,643 ext. citations	2.2 avg, IF	6.77 L-index

#	Paper	IF	Citations
117	Interior-Point Polynomial Algorithms in Convex Programming **1994**,		2065
116	Robust Convex Optimization. *Mathematics of Operations Research*, **1998**, 23, 769-805	1.5	1531
115	Lectures on Modern Convex Optimization **2001**,		1322
114	Robust solutions of uncertain linear programs. *Operations Research Letters*, **1999**, 25, 1-13	1	1140
113	Robust solutions of Linear Programming problems contaminated with uncertain data. *Mathematical Programming*, **2000**, 88, 411-424	2.1	970
112	Adjustable robust solutions of uncertain linear programs. *Mathematical Programming*, **2004**, 99, 351-376	2.1	863
111	Robust optimization methodology and applications. *Mathematical Programming*, **2002**, 92, 453-480	2.1	806
110	Robust Stochastic Approximation Approach to Stochastic Programming. *SIAM Journal on Optimization*, **2009**, 19, 1574-1609	2	687
109	Convex Approximations of Chance Constrained Programs. *SIAM Journal on Optimization*, **2007**, 17, 969-996		592
108	Prox-Method with Rate of Convergence O(1/t) for Variational Inequalities with Lipschitz Continuous Monotone Operators and Smooth Convex-Concave Saddle Point Problems. *SIAM Journal on Optimization*, **2004**, 15, 229-251	2	263
107	Robust Truss Topology Design via Semidefinite Programming. *SIAM Journal on Optimization*, **1997**, 7, 991-1016	2	261
106			232
105	New variants of bundle methods. *Mathematical Programming*, **1995**, 69, 111-147	2.1	221
104	On Polyhedral Approximations of the Second-Order Cone. *Mathematics of Operations Research*, **2001**, 26, 193-205	1.5	210
103	Selected topics in robust convex optimization. *Mathematical Programming*, **2007**, 112, 125-158	2.1	207
102	Retailer-Supplier Flexible Commitments Contracts: A Robust Optimization Approach. *Manufacturing and Service Operations Management*, **2005**, 7, 248-271	4.6	200
101	Several NP-hard problems arising in robust stability analysis. *Mathematics of Control, Signals, and Systems*, **1993**, 6, 99-105	1.3	168

100	. *IEEE Transactions on Signal Processing*, **2005**, 53, 168-181	4.8	141
99	Extending Scope of Robust Optimization: Comprehensive Robust Counterparts of Uncertain Problems. *Mathematical Programming*, **2006**, 107, 63-89	2.1	115
98	On Complexity of Stochastic Programming Problems **2005**, 111-146		113
97	On Tractable Approximations of Uncertain Linear Matrix Inequalities Affected by Interval Uncertainty. *SIAM Journal on Optimization*, **2002**, 12, 811-833	2	110
96	Robust Solutions of Uncertain Quadratic and Conic-Quadratic Problems. *SIAM Journal on Optimization*, **2002**, 13, 535-560	2	107
95	On maximization of quadratic form over intersection of ellipsoids with common center. *Mathematical Programming*, **1999**, 86, 463-473	2.1	90
94	Interior-point methods for optimization. *Acta Numerica*, **2008**, 17, 191-234	15.1	89
93	On sparse representation in pairs of bases. *IEEE Transactions on Information Theory*, **2003**, 49, 1579-1581	2.8	89
92	Functional aggregation for nonparametric regression. *Annals of Statistics*, **2000**, 28, 681	3.2	88
91	Solving Variational Inequalities with Stochastic Mirror-Prox Algorithm. *Stochastic Systems*, **2011**, 1, 17-58	1.7	76
90	Scenario Approximations of Chance Constraints **2006**, 3-47		75
89	Optimal Halbach Permanent Magnet Designs for Maximally Pulling and Pushing Nanoparticles. *Journal of Magnetism and Magnetic Materials*, **2012**, 324, 742-754	2.8	64
88	Optimal Design of Trusses Under a Nonconvex Global Buckling Constraint. *Optimization and Engineering*, **2000**, 1, 189-213	2.1	59
87	The regularizing properties of the adjoint gradient method in ill-posed problems. *USSR Computational Mathematics and Mathematical Physics*, **1986**, 26, 7-16		59
86	On safe tractable approximations of chance constraints. *European Journal of Operational Research*, **2012**, 219, 707-718	5.6	57
85	The Ordered Subsets Mirror Descent Optimization Method with Applications to Tomography. *SIAM Journal on Optimization*, **2001**, 12, 79-108	2	57
84	On verifiable sufficient conditions for sparse signal recovery via ℓ1 minimization. *Mathematical Programming*, **2011**, 127, 57-88	2.1	56
83	Non-euclidean restricted memory level method for large-scale convex optimization. *Mathematical Programming*, **2005**, 102, 407-456	2.1	55

82	Validation analysis of mirror descent stochastic approximation method. *Mathematical Programming* , **2012**, 134, 425-458	2.1	53
81	. *IEEE Transactions on Signal Processing*, **2004**, 52, 2177-2188	4.8	52
80	Robust Modeling of Multi-Stage Portfolio Problems. *Applied Optimization*, **2000**, 303-328		51
79	The design and implementation of COSEM, an iterative algorithm for fully 3-D listmode data. *IEEE Transactions on Medical Imaging*, **2001**, 20, 633-42	11.7	46
78	Some Problems on Nonparametric Estimation in Gaussian White Noise. *Theory of Probability and Its Applications*, **1987**, 31, 391-406	0.5	41
77	Conditional gradient algorithms for norm-regularized smooth convex optimization. *Mathematical Programming*, **2015**, 152, 75-112	2.1	39
76	Free Material Design via Semidefinite Programming: The Multiload Case with Contact Conditions. *SIAM Journal on Optimization*, **1999**, 9, 813-832	2	39
75	An interior-point method for generalized linear-fractional programming. *Mathematical Programming*, **1995**, 69, 177-204	2.1	39
74	On Safe Tractable Approximations of Chance-Constrained Linear Matrix Inequalities. *Mathematics of Operations Research*, **2009**, 34, 1-25	1.5	36
73	On estimation of the L r norm of a regression function. *Probability Theory and Related Fields*, **1999**, 113, 221-253	1.4	32
72			32
71	The projective method for solving linear matrix inequalities. *Mathematical Programming*, **1997**, 77, 163-190	2.1	31
70	Robust energy cost optimization of water distribution system with uncertain demand. *Automation and Remote Control*, **2014**, 75, 1754-1769	0.6	27
69	Potential Reduction Polynomial Time Method for Truss Topology Design. *SIAM Journal on Optimization*, **1994**, 4, 596-612	2	27
68	On first-order algorithms for l1/nuclear norm minimization. *Acta Numerica*, **2013**, 22, 509-575	15.1	26
67	Extended Matrix Cube Theorems with Applications to Theory in Control. *Mathematics of Operations Research*, **2003**, 28, 497-523	1.5	26
66	Accuracy Certificates for Computational Problems with Convex Structure. *Mathematics of Operations Research*, **2010**, 35, 52-78	1.5	25
65	Sums of random symmetric matrices and quadratic optimization under orthogonality constraints. *Mathematical Programming*, **2007**, 109, 283-317	2.1	25

64	Robustness. *Profiles in Operations Research*, **2000**, 139-162	1	24
63	Foreword: special issue on robust optimization. *Mathematical Programming*, **2006**, 107, 1-3	2.1	21
62	Optimal methods of smooth convex minimization. *USSR Computational Mathematics and Mathematical Physics*, **1985**, 25, 21-30		20
61	On nonparametric tests of positivity/monotonicity/convexity. *Annals of Statistics*, **2002**, 30, 498	3.2	19
60	Cascading an approach to robust material optimization. *Computers and Structures*, **2000**, 76, 431-442	4.5	19
59	Advances in convex optimization: conic programming413-444		19
58	On lower complexity bounds for large-scale smooth convex optimization. *Journal of Complexity*, **2015**, 31, 1-14	1.2	18
57	Adaptive de-noising of signals satisfying differential inequalities. *IEEE Transactions on Information Theory*, **1997**, 43, 872-889	2.8	18
56	Large-scale semidefinite programming via a saddle point Mirror-Prox algorithm. *Mathematical Programming*, **2007**, 109, 211-237	2.1	18
55	. *IEEE Transactions on Information Theory*, **2011**, 57, 7818-7839	2.8	17
54	Non-asymptotic confidence bounds for the optimal value of a stochastic program. *Optimization Methods and Software*, **2017**, 32, 1033-1058	1.3	16
53	On tractable approximations of randomly perturbed convex constraints		16
52	A network flow algorithm for just-in-time project scheduling. *European Journal of Operational Research*, **1994**, 79, 167-175	5.6	16
51	Verifiable conditions of 1-recovery for sparse signals with sign restrictions. *Mathematical Programming*, **2011**, 127, 89-122	2.1	14
50	Participation in auctions. *Games and Economic Behavior*, **2007**, 60, 75-103	1.1	14
49	Robust solutions to conic quadratic problems and their applications. *Optimization and Engineering*, **2008**, 9, 1-18	2.1	13
48	Free Material Design via Semidefinite Programming: The Multiload Case with Contact Conditions. *SIAM Review*, **2000**, 42, 695-715	7.4	13
47	On complexity of matrix scaling. *Linear Algebra and Its Applications*, **1999**, 302-303, 435-460	0.9	13

46	Finding the stationary states of Markov chains by iterative methods. *Applied Mathematics and Computation*, **2015**, 255, 58-65	2.7	12
45	Dual subgradient algorithms for large-scale nonsmooth learning problems. *Mathematical Programming*, **2014**, 148, 143-180	2.1	12
44	Mirror Prox algorithm for multi-term composite minimization and semi-separable problems. *Computational Optimization and Applications*, **2015**, 61, 275-319	1.4	11
43	Nonparametric estimation by convex programming. *Annals of Statistics*, **2009**, 37,	3.2	11
42	A Randomized Mirror-Prox Method for Solving Structured Large-Scale Matrix Saddle-Point Problems. *SIAM Journal on Optimization*, **2013**, 23, 934-962	2	10
41	Robust Dissipativity of Interval Uncertain Linear Systems. *SIAM Journal on Control and Optimization*, **2003**, 41, 1661-1695	1.9	9
40	“Cone-free” primal-dual path-following and potential-reduction polynomial time interior-point methods. *Mathematical Programming*, **2005**, 102, 261-294	2.1	9
39	Hypothesis testing by convex optimization. *Electronic Journal of Statistics*, **2015**, 9,	1.2	8
38	An Interior Point Algorithm for Truss Topology Design **1993**, 55-69		8
37	Decomposition Techniques for Bilinear Saddle Point Problems and Variational Inequalities with Affine Monotone Operators. *Journal of Optimization Theory and Applications*, **2017**, 172, 402-435	1.6	7
36	Multi-Parameter Surfaces of Analytic Centers and Long-Step Surface-Following Interior Point Methods. *Mathematics of Operations Research*, **1998**, 23, 1-38	1.5	7
35	Problem Complexity and Method Efficiency in Optimization. *Journal of the Operational Research Society*, **1984**, 35, 455-455	2	7
34	Solving variational inequalities with monotone operators on domains given by Linear Minimization Oracles. *Mathematical Programming*, **2016**, 156, 221-256	2.1	6
33	Randomized first order algorithms with applications to ℓ_1-minimization. *Mathematical Programming*, **2013**, 142, 269-310	2.1	6
32	On Low Rank Matrix Approximations with Applications to Synthesis Problem in Compressed Sensing. *SIAM Journal on Matrix Analysis and Applications*, **2011**, 32, 1019-1029	1.5	6
31	Accuracy guaranties for ell_{1} recovery of block-sparse signals. *Annals of Statistics*, **2012**, 40,	3.2	6
30	On a unified view of nullspace-type conditions for recoveries associated with general sparsity structures. *Linear Algebra and Its Applications*, **2014**, 441, 124-151	0.9	5
29	The long-step method of analytic centers for fractional problems. *Mathematical Programming*, **1997** , 77, 191-224	2.1	5

28	On polynomiality of the method of analytic centers for fractional problems. *Mathematical Programming*, **1996**, 73, 175-198	2.1	5
27	On Necessary Conditions for Efficient Estimation of Functionals of a Nonparametric Signal in White Noise. *Theory of Probability and Its Applications*, **1991**, 35, 94-103	0.5	5
26	Self-Concordant Barriers for Convex Approximations of Structured Convex Sets. *Foundations of Computational Mathematics*, **2010**, 10, 485-525	2.7	4
25	Probability-constrained approach to estimation of random Gaussian parameters		4
24	On self-concordant convex�oncave functions. *Optimization Methods and Software*, **1999**, 11, 303-384	1.3	4
23	On Parallel Complexity of Nonsmooth Convex Optimization. *Journal of Complexity*, **1994**, 10, 451-463	1.2	4
22	First-Order Methods for Nonsmooth Convex Large-Scale Optimization, I: General Purpose Methods **2011**,		4
21	Sparse non Gaussian component analysis by semidefinite programming. *Machine Learning*, **2013**, 91, 211-238	4	3
20	Nonparametric denoising of signals with unknown local structure, I: Oracle inequalities. *Applied and Computational Harmonic Analysis*, **2009**, 27, 157-179	3.1	3
19	Nonparametric denoising signals of unknown local structure, II: Nonparametric function recovery. *Applied and Computational Harmonic Analysis*, **2010**, 29, 354-367	3.1	3
18	On Solving Large-Scale Polynomial Convex Problems by Randomized First-Order Algorithms. *Mathematics of Operations Research*, **2015**, 40, 474-494	1.5	2
17	Near-optimality of linear recovery in Gaussian observation scheme under $Vert cdot Vert_{2}^{2}$-loss. *Annals of Statistics*, **2018**, 46,	3.2	2
16	On Approximate Robust Counterparts of Uncertain Semidefinite and Conic Quadratic Programs. *IFIP Advances in Information and Communication Technology*, **2003**, 1-22	0.5	2
15	Algorithms of Robust Stochastic Optimization Based on Mirror Descent Method. *Automation and Remote Control*, **2019**, 80, 1607-1627	0.6	1
14	On sequential hypotheses testing via convex optimization. *Automation and Remote Control*, **2015**, 76, 809-825	0.6	1
13	Hypothesis testing via affine detectors. *Electronic Journal of Statistics*, **2016**, 10,	1.2	1
12	Convex Parameter Recovery for Interacting Marked Processes. *IEEE Journal on Selected Areas in Information Theory*, **2020**, 1, 799-813	2.5	1
11	Absence of Eigenvalues for Quasi-Periodic Lattice Operators with Liouville Frequencies. *International Mathematics Research Notices*, **2016**, rnw036	0.8	1

10	Signal Recovery by Stochastic Optimization. *Automation and Remote Control*, **2019**, 80, 1878-1893	0.6	1
9	Near-optimality of linear recovery from indirect observations. *Mathematical Statistics and Learning*, **2018**, 1, 171-225	1	1
8	On well-structured convex–concave saddle point problems and variational inequalities with monotone operators. *Optimization Methods and Software*,1-36	1.3	1
7	Convex Optimization for Finite-Horizon Robust Covariance Control of Linear Stochastic Systems. *SIAM Journal on Control and Optimization*, **2021**, 59, 296-319	1.9	1
6	Discussion on: “Why Is Resorting to Fate Wise? A Critical Look at Randomized Algorithms in Systems and Control” *European Journal of Control*, **2010**, 16, 432-436	2.5	
5	Foreword: special issue on nonsmooth optimization and applications. *Mathematical Programming*, **2009**, 120, 1-2	2.1	
4	Minimax Confidence Intervals for Pointwize Nonparametric Regression Estimation. *IFAC Postprint Volumes IPPV / International Federation of Automatic Control*, **2009**, 42, 1586-1590		
3	Estimating functionals, II. *Lecture Notes in Mathematics*, **2000**, 258-277	0.4	
2	Near-optimal recovery of linear and N-convex functions on unions of convex sets. *Information and Inference*, **2020**, 9, 423-453	2.4	
1	Constant Depth Decision Rules for multistage optimization under uncertainty. *European Journal of Operational Research*, **2021**, 295, 223-232	5.6	