Vaithilingam Jeyakumar

List of Publications by Year
in descending order

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117	3,671	87723	168136
papers	citations	38 h-index	53 g-index

117	117	117	735
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nonsmooth Calculus, Minimality, and Monotonicity of Convexificators. Journal of Optimization Theory and Applications, 1999, 101, 599-621.	0.8	117
2	A class of nonconvex functions and mathematical programming. Bulletin of the Australian Mathematical Society, 1988, 38, 177-189.	0.3	114
3	New Sequential Lagrange Multiplier Conditions Characterizing Optimality without Constraint Qualification for Convex Programs. SIAM Journal on Optimization, 2003, 14, 534-547.	1.2	109
4	Strong Duality in Robust Convex Programming: Complete Characterizations. SIAM Journal on Optimization, 2010, 20, 3384-3407.	1.2	107
5	Approximate Jacobian Matrices for Nonsmooth Continuous Maps and C1-Optimization. SIAM Journal on Control and Optimization, 1998, 36, 1815-1832.	1.1	101
6	A Solvability Theorem for a Class of Quasiconvex Mappings with Applications to Optimization. Journal of Mathematical Analysis and Applications, 1993, 179, 537-546.	0.5	78
7	Hunting for a Smaller Convex Subdifferential. Journal of Global Optimization, 1997, 10, 305-326.	1.1	76
8	Non-convex quadratic minimization problems with quadratic constraints: global optimality conditions. Mathematical Programming, 2007, 110, 521-541.	1.6	76
9	Generalizations of Slater's constraint qualification for infinite convex programs. Mathematical Programming, 1992, 57, 85-101.	1.6	74
10	Robust solutions to multi-objective linear programs with uncertain data. European Journal of Operational Research, 2015, 242, 730-743.	3.5	70
11	Convexlike alternative theorems and mathematical programming. Optimization, 1985, 16, 643-652.	1.0	69
12	Convex composite multi-objective nonsmooth programming. Mathematical Programming, 1993, 59, 325-343.	1.6	67
13	Trust-region problems with linear inequality constraints: exact SDP relaxation, global optimality and robust optimization. Mathematical Programming, 2014, 147, 171-206.	1.6	67
14	Characterizing Set Containments Involving Infinite Convex Constraints and Reverse-Convex Constraints. SIAM Journal on Optimization, 2003, 13, 947-959.	1.2	65
15	Inequality Systems and Global Optimization. Journal of Mathematical Analysis and Applications, 1996, 202, 900-919.	0.5	63
16	Generalized second-order directional derivatives and optimization with C1,1 functions. Optimization, 1992, 26, 165-185.	1.0	62
17	A generalization of a minimax theorem of Fan via a theorem of the alternative. Journal of Optimization Theory and Applications, 1986, 48, 525-533.	0.8	61
18	On characterizing the solution sets of pseudolinear programs. Journal of Optimization Theory and Applications, 1995, 87, 747-755.	0.8	55

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19	A new geometric condition for Fenchel's duality in infinite dimensional spaces. Mathematical Programming, 2005, 104, 229-233.	1.6	54
20	Necessary and sufficient conditions for stable conjugate duality. Nonlinear Analysis: Theory, Methods & Applications, 2006, 64, 1998-2006.	0.6	54
21	Alternative Theorems for Quadratic Inequality Systems and Global Quadratic Optimization. SIAM Journal on Optimization, 2009, 20, 983-1001.	1.2	52
22	Robust duality for generalized convex programming problems under data uncertainty. Nonlinear Analysis: Theory, Methods & Applications, 2012, 75, 1362-1373.	0.6	51
23	Zero duality gaps in infinite-dimensional programming. Journal of Optimization Theory and Applications, 1990, 67, 87-108.	0.8	49
24	Necessary and sufficient constraint qualifications for solvability of systems of infinite convex inequalities. Nonlinear Analysis: Theory, Methods & Applications, 2008, 68, 1184-1194.	0.6	49
25	A screening algorithm for HIVâ€associated neurocognitive disorders. HIV Medicine, 2010, 11, 642-649.	1.0	48
26	Inequality systems and optimization. Journal of Mathematical Analysis and Applications, 1991, 159, 51-71.	0.5	47
27	Asymptotic Dual Conditions Characterizing Optimality for Infinite Convex Programs. Journal of Optimization Theory and Applications, 1997, 93, 153-165.	0.8	46
28	Equivalence of saddle-points and optima, and duality for a class of non-smooth non-convex problems. Journal of Mathematical Analysis and Applications, 1988, 130, 334-343.	0.5	45
29	Robust Solutions of MultiObjective Linear Semi-Infinite Programs under Constraint Data Uncertainty. SIAM Journal on Optimization, 2014, 24, 1402-1419.	1.2	45
30	Composite Nonsmooth Programming with GÃ¢teaux Differentiability. SIAM Journal on Optimization, 1991, 1, 30-41.	1.2	42
31	Characterizations of solution sets of convex vector minimization problems. European Journal of Operational Research, 2006, 174, 1380-1395.	3.5	42
32	Robust linear semi-infinite programming duality under uncertainty. Mathematical Programming, 2013, 139, 185-203.	1.6	42
33	Constraint Qualifications Characterizing Lagrangian Duality in Convex Optimization. Journal of Optimization Theory and Applications, 2008, 136, 31-41.	0.8	41
34	Complete Characterizations of Global Optimality for Problems Involving the Pointwise Minimum of Sublinear Functions. SIAM Journal on Optimization, 1996, 6, 362-372.	1.2	40
35	A Sharp Lagrange Multiplier Rule for Nonsmooth Mathematical Programming Problems Involving Equality Constraints. SIAM Journal on Optimization, 2000, 10, 1136-1148.	1.2	40
36	Lagrange Multiplier Conditions Characterizing the Optimal Solution Sets of Cone-Constrained Convex Programs. Journal of Optimization Theory and Applications, 2004, 123, 83-103.	0.8	40

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37	Complete characterizations of stable Farkasâ€™ lemma and cone-convex programming duality. Mathematical Programming, 2008, 114, 335-347.	1.6	40
38	Sufficient Global Optimality Conditions for Non-convex Quadratic Minimization Problems With Box Constraints. Journal of Global Optimization, 2006, 36, 471-481.	1.1	39
39	Characterizing robust set containments and solutions of uncertain linear programs without qualifications. Operations Research Letters, 2010, 38, 188-194.	0.5	39
40	Robust conjugate duality for convex optimization under uncertainty with application to data classification. Nonlinear Analysis: Theory, Methods & Applications, 2011, 74, 2327-2341.	0.6	39
41	Farkasâ€™ lemma: three decades of generalizations for mathematical optimization. Top, 2014, 22, 1-22.	1.1	39
42	Characterizing Robust Solution Sets of Convex Programs under Data Uncertainty. Journal of Optimization Theory and Applications, 2015, 164, 407-435.	0.8	39
43	On optimality conditions in nonsmooth inequality constrained minimization. Numerical Functional Analysis and Optimization, 1987, 9, 535-546.	0.6	36
44	Robust SOS-convex polynomial optimization problems: exact SDP relaxations. Optimization Letters, 2015, 9, 1-18.	0.9	35
45	A simple closure condition for the normal cone intersection formula. Proceedings of the American Mathematical Society, 2004, 133, 1741-1748.	0.4	33
46	Dual Characterizations of Set Containments with Strict Convex Inequalities. Journal of Global Optimization, 2006, 34, 33-54.	1.1	30
47	Stable zero duality gaps in convex programming: Complete dual characterisations with applications to semidefinite programs. Journal of Mathematical Analysis and Applications, 2009, 360, 156-167.	0.5	30
48	Simultaneous classification and feature selection via convex quadratic programming with application to HIV-associated neurocognitive disorder assessment. European Journal of Operational Research, 2010, 206, 470-478.	3.5	30
49	Robust Duality in Parametric Convex Optimization. Set-Valued and Variational Analysis, 2013, 21, 177-189.	0.5	30
50	Nonlinear Extensions of Farkasâ€™ Lemma with Applications to Global Optimization and Least Squares. Mathematics of Operations Research, 1995, 20, 818-837.	0.8	29
51	The strong conical hull intersection property for convex programming. Mathematical Programming, 2006, 106, 81-92.	1.6	29
52	A Farkas lemma for difference sublinear systems and quasidifferentiable programming. Mathematical Programming, 1994, 63, 109-125.	1.6	28
53	Necessary and sufficient conditions for S-lemma andÂnonconvex quadratic optimization. Optimization and Engineering, 2009, 10, 491-503.	1.3	28
54	Support vector machine classifiers with uncertain knowledge sets via robust optimization. Optimization, 2014, 63, 1099-1116.	1.0	28

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55	A robust von Neumann minimax theorem for zero-sum games under bounded payoff uncertainty. Operations Research Letters, 2011, 39, 109-114.	0.5	27
56	Solution Stability of Nonsmooth Continuous Systems with Applications to Cone-Constrained Optimization. SIAM Journal on Optimization, 2004, 14, 1106-1127.	1.2	26
57	Duality and infinite dimensional optimization. Nonlinear Analysis: Theory, Methods & Applications, 1990, 15, 1111-1122.	0.6	25
58	Convex composite minimization withC 1,1 functions. Journal of Optimization Theory and Applications, 1995, 86, 631-648.	0.8	25
59	Liberating the Subgradient Optimality Conditions from Constraint Qualifications. Journal of Global Optimization, 2006, 36, 127-137.	1.1	25
60	First and Second-Order Optimality Conditions for Convex Composite Multiobjective Optimization. Journal of Optimization Theory and Applications, 1997, 95, 209-224.	0.8	24
61	Sequential Lagrangian Conditions for Convex Programs with Applications to Semidefinite Programming. Journal of Optimization Theory and Applications, 2005, 125, 85-112.	0.8	24
62	On Polynomial Optimization Over Non-compact Semi-algebraic Sets. Journal of Optimization Theory and Applications, 2014, 163, 707-718.	0.8	24
63	Exact SDP relaxations for classes of nonlinear semidefinite programming problems. Operations Research Letters, 2012, 40, 529-536.	0.5	22
64	Lagrange multiplier characterizations of robust best approximations under constraint data uncertainty. Journal of Mathematical Analysis and Applications, 2012, 393, 285-297.	0.5	22
65	Nonconvex theorems of the alternative and minimization. Optimization, 1987, 18, 151-163.	1.0	21
66	Characterizing global optimality for DC optimization problems under convex inequality constraints. Journal of Global Optimization, 1996, 8, 171-187.	1.1	21
67	Approximate generalized Hessians and Taylorâ€™s expansions for continuously GÃ¢teaux differentiable functions. Nonlinear Analysis: Theory, Methods & Applications, 1999, 36, 353-368.	0.6	21
68	Dual conditions characterizing optimality for convex multi-objective programs. Mathematical Programming, 1999, 84, 201-217.	1.6	20
69	Limiting <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/common/struct-bib/dtd" xmlns:ce="http://www.elsevier.com/x	0.5	20
70	Convergence of the Lasserre hierarchy of SDP relaxations for convex polynomial programs without compactness. Operations Research Letters, 2014, 42, 34-40.	0.5	20
71	Solution Point Characterizations and Convergence Analysis of a Descent Algorithm for Nonsmooth Continuous Complementarity Problems. Journal of Optimization Theory and Applications, 2001, 110, 493-513.	0.8	19
72	A Global Approach to Nonlinearly Constrained Best Approximation. Numerical Functional Analysis and Optimization, 2005, 26, 205-227.	0.6	19

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73	Robust Duality for Fractional Programming Problems with Constraint-Wise Data Uncertainty. Journal of Optimization Theory and Applications, 2011, 151, 292-303.	0.8	19
74	Strong duality for robust minimax fractional programming problems. European Journal of Operational Research, 2013, 228, 331-336.	3.5	19
75	A general Farkas lemma and characterization of optimality for a nonsmooth program involving convex processes. Journal of Optimization Theory and Applications, 1987, 55, 449-461.	0.8	18
76	Sufficient Conditions for Global Optimality ofÂBivalentÂNonconvex Quadratic Programs withÂInequalityÂConstraints. Journal of Optimization Theory and Applications, 2007, 133, 123-130.	0.8	18
77	Necessary global optimality conditions for nonlinear programming problems with polynomial constraints. Mathematical Programming, 2011, 126, 393-399.	1.6	18
78	A new class of alternative theorems for SOS-convex inequalities and robust optimization. Applicable Analysis, 2015, 94, 56-74.	0.6	18
79	Asymptotic conditions for weak and proper optimality in infinite dimensional convex vector optimization. Numerical Functional Analysis and Optimization, 1996, 17, 323-343.	0.6	17
80	Generalized Fenchelâ€™s Conjugation Formulas and Duality for Abstract Convex Functions. Journal of Optimization Theory and Applications, 2007, 132, 441-458.	0.8	16
81	New dual constraint qualifications characterizing zero duality gaps of convex programs and semidefinite programs. Nonlinear Analysis: Theory, Methods & Applications, 2009, 71, e2239-e2249.	0.6	16
82	Robust Farkasâ€™ lemma for uncertain linear systems with applications. Positivity, 2011, 15, 331-342.	0.3	16
83	On subgradient duality with strong and weak convex functions. Journal of the Australian Mathematical Society Series A Pure Mathematics and Statistics, 1986, 40, 143-152.	0.3	14
84	Infinite-dimensional convex programming with applications to constrained approximation. Journal of Optimization Theory and Applications, 1992, 75, 569-586.	0.8	14
85	An open mapping theorem using unbounded generalized Jacobians. Nonlinear Analysis: Theory, Methods & Applications, 2002, 50, 647-663.	0.6	14
86	A note on strong duality in convex semidefinite optimization: necessary and sufficient conditions. Optimization Letters, 2007, 2, 15-25.	0.9	14
87	A generalized mean-value theorem and optimality conditions in composite nonsmooth minimization. Nonlinear Analysis: Theory, Methods & Applications, 1995, 24, 883-894.	0.6	13
88	Lagrange multiplier characterizations of solution sets of constrained pseudolinear optimization problems. Optimization, 2006, 55, 241-250.	1.0	13
89	Kuhnâ€“Tucker sufficiency for global minimum of multi-extremal mathematical programming problems. Journal of Mathematical Analysis and Applications, 2007, 335, 779-788.	0.5	13
90	Lagrange multiplier necessary conditions for global optimality for non-convex minimization over a quadratic constraint via S-lemma. Optimization Letters, 2009, 3, 23-33.	0.9	13

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91	Extended trust-region problems with one or two balls: exact copositive and Lagrangian relaxations. Journal of Global Optimization, 2018, 71, 551-569.	1.1	13
92	Knowledge-based semidefinite linear programming classifiers. Optimization Methods and Software, 2006, 21, 693-706.	1.6	11
93	A new version of Farkas' lemma and global convex maximization. Applied Mathematics Letters, 1993, 6, 39-43.	1.5	10
94	Global minimization of difference of quadratic and convex functions over box or binary constraints. Optimization Letters, 2008, 2, 223-238.	0.9	10
95	Equivalence of a Ky Fan type minimax theorem and a Gordan type alternative theorem. Operations Research Letters, 1986, 5, 99-102.	0.5	9
96	Convex composite non-Lipschitz programming. Mathematical Programming, 2002, 92, 177-195.	1.6	8
97	Generalized Farkas Lemma with Adjustable Variables and Two-Stage Robust Linear Programs. Journal of Optimization Theory and Applications, 2020, 187, 488-519.	0.8	8
98	Sufficient global optimality conditions for multi-extremal smooth minimisation problems with bounds and linear matrix inequality constraints. ANZIAM Journal, 2006, 47, 439-450.	0.3	7
99	Regularized Lagrangian duality for linearly constrained quadratic optimization and trust-region problems. Journal of Global Optimization, 2011, 49, 1-14.	1.1	7
100	CONDITIONS FOR GLOBAL OPTIMALITY OF QUADRATIC MINIMIZATION PROBLEMS WITH LMI CONSTRAINTS. Asia-Pacific Journal of Operational Research, 2007, 24, 149-160.	0.9	6
101	Robust solutions of quadratic optimization over single quadratic constraint under interval uncertainty. Journal of Global Optimization, 2013, 55, 209-226.	1.1	6
102	Solvability theorems for classes of difference convex functions. Nonlinear Analysis: Theory, Methods & Applications, 1994, 22, 1191-1200.	0.6	4
103	Robust Optimization and Data Classification for Characterization of Huntington Disease Onset via Duality Methods. Journal of Optimization Theory and Applications, 2022, 193, 649-675.	0.8	4
104	New Kuhnâ€“Tucker sufficiency for global optimality via convexification. Nonlinear Analysis: Theory, Methods & Applications, 2009, 71, 373-381.	0.6	3
105	Geometric conditions for Kuhnâ€“Tucker sufficiency of global optimality in mathematical programming. European Journal of Operational Research, 2009, 194, 363-367.	3.5	3
106	Exact Conic Programming Relaxations for a Class of Convex Polynomial Cone Programs. Journal of Optimization Theory and Applications, 2017, 172, 156-178.	0.8	3
107	Global Optimality Conditions for Classes of Non-convex Multi-objective Quadratic Optimization Problems. Springer Optimization and Its Applications, 2010, , 177-186.	0.6	3
108	A Dual Criterion for Maximal Monotonicity of Composition Operators. Set-Valued and Variational Analysis, 2007, 15, 265-273.	0.5	2

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109	New Sufficiency for Global Optimality and Duality ofÂMathematical Programming Problems viaÂUnderestimators. Journal of Optimization Theory and Applications, 2009, 140, 239-247.	0.8	2
110	Generalized convex relations with applications to optimization and models of economic dynamics. Set-Valued and Variational Analysis, 1996, 4, 67-89.	0.5	1
111	Sharp Variational Conditions for Convex Composite Nonsmooth Functions. SIAM Journal on Optimization, 2002, 13, 904-920.	1.2	1
112	Unified global optimality conditions for smooth minimization problems with mixed variables. RAIRO - Operations Research, 2008, 42, 361-370.	1.0	1
113	New strong duality results for convex programs with separable constraints. European Journal of Operational Research, 2010, 207, 1203-1209.	3.5	1
114	Robust best approximation with interpolation constraints under ellipsoidal uncertainty: Strong duality and nonsmooth Newton methods. Nonlinear Analysis: Theory, Methods & Applications, 2013, 81, 1-11.	0.6	1
115	A Nonnegativity Criterion for Biconvex Functions. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 1994, 74, 71-72.	0.9	0
116	Global optimality of quadratic minimization over symmetric polytopes. Optimization, 2007, 56, 633-640.	1.0	0
117	Global optimality conditions for nonlinear programming problems with bounds via quadratic underestimators. Optimization, 2010, 59, 161-173.	1.0	0