

Asen L Dontchev

List of Publications by Year in descending order

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63
papers

2,743
citations

279798

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182427

51
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64
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64
docs citations

64
times ranked

795
citing authors

#	ARTICLE	IF	CITATIONS
1	Implicit Functions and Solution Mappings. Springer Monographs in Mathematics, 2009, , .	0.2	411
2	Implicit Functions and Solution Mappings. Springer Series in Operations Research, 2014, , .	1.4	239
3	Characterizations of Strong Regularity for Variational Inequalities over Polyhedral Convex Sets. SIAM Journal on Optimization, 1996, 6, 1087-1105.	2.0	225
4	Difference Methods for Differential Inclusions: A Survey. SIAM Review, 1992, 34, 263-294.	9.5	170
5	Second-Order Runge–Kutta Approximations in Control Constrained Optimal Control. SIAM Journal on Numerical Analysis, 2000, 38, 202-226.	2.3	143
6	Lipschitzian Stability in Nonlinear Control and Optimization. SIAM Journal on Control and Optimization, 1993, 31, 569-603.	2.1	120
7	An inverse mapping theorem for set-valued maps. Proceedings of the American Mathematical Society, 1994, 121, 481-489.	0.8	107
8	Optimality, stability, and convergence in nonlinear control. Applied Mathematics and Optimization, 1995, 31, 297-326.	1.6	96
9	Error estimates for discretized differential inclusions. Computing (Vienna/New York), 1989, 41, 349-358.	4.8	88
10	Implicit Functions, Lipschitz Maps, and Stability in Optimization. Mathematics of Operations Research, 1994, 19, 753-768.	1.3	75
11	Metric regularity of semi-infinite constraint systems. Mathematical Programming, 2005, 104, 329-346.	2.4	65
12	Error bounds for euler approximation of a state and control constrained optimal control problem ¹ . Numerical Functional Analysis and Optimization, 2000, 21, 653-682.	1.4	53
13	Ample Parameterization of Variational Inclusions. SIAM Journal on Optimization, 2001, 12, 170-187.	2.0	42
14	Lyusternik-Graves theorem and fixed points. Proceedings of the American Mathematical Society, 2011, 139, 521-521.	0.8	39
15	A Tikhonov-type theorem for singularly perturbed differential inclusions. Nonlinear Analysis: Theory, Methods & Applications, 1996, 26, 1547-1554.	1.1	37
16	Newton's method for generalized equations: a sequential implicit function theorem. Mathematical Programming, 2010, 123, 139-159.	2.4	37
17	A new approach to Lipschitz continuity in state constrained optimal control. Systems and Control Letters, 1998, 35, 137-143.	2.3	35
18	Robinson's implicit function theorem and its extensions. Mathematical Programming, 2009, 117, 129-147.	2.4	33

#	ARTICLE	IF	CITATIONS
19	Strong metric subregularity of mappings in variational analysis and optimization. <i>Journal of Mathematical Analysis and Applications</i> , 2018, 457, 1247-1282.	1.0	32
20	Convergence of inexact Newton methods for generalized equations. <i>Mathematical Programming</i> , 2013, 139, 115-137.	2.4	31
21	Local convergence of quasi-Newton methods under metric regularity. <i>Computational Optimization and Applications</i> , 2014, 58, 225-247.	1.6	27
22	Convergence of Newton's method for convex best interpolation. <i>Numerische Mathematik</i> , 2001, 87, 435-456.	1.9	26
23	Error Estimates for a Discrete Approximation to Constrained Control Problems. <i>SIAM Journal on Numerical Analysis</i> , 1981, 18, 500-514.	2.3	23
24	An a Priori Estimate for Discrete Approximations in Nonlinear Optimal Control. <i>SIAM Journal on Control and Optimization</i> , 1996, 34, 1315-1328.	2.1	23
25	Perturbations and Metric Regularity. <i>Set-Valued and Variational Analysis</i> , 2005, 13, 417-438.	0.5	23
26	Best Interpolation in a Strip. <i>Journal of Approximation Theory</i> , 1993, 73, 334-342.	0.8	21
27	1989, 10, 673-689.	1.4	18
28	Implicit function theorems for generalized equations. <i>Mathematical Programming</i> , 1995, 70, 91-106.	2.4	18
29	On the Bartle-Graves theorem. <i>Proceedings of the American Mathematical Society</i> , 2003, 131, 2553-2560.	0.8	14
30	Isolated calmness of solution mappings in convex semi-infinite optimization. <i>Journal of Mathematical Analysis and Applications</i> , 2009, 350, 829-837.	1.0	14
31	A Newton Method for Shape-Preserving Spline Interpolation. <i>SIAM Journal on Optimization</i> , 2002, 13, 588-602.	2.0	13
32	Generalizations of the Dennis-Moré Theorem. <i>SIAM Journal on Optimization</i> , 2012, 22, 821-830.	2.0	13
33	Time-scale decomposition of the reachable set of constrained linear systems. <i>Mathematics of Control, Signals, and Systems</i> , 1992, 5, 327-340.	2.3	12
34	Best interpolation in a strip II: Reduction to unconstrained convex optimization. <i>Computational Optimization and Applications</i> , 1996, 5, 233-251.	1.6	11
35	Extensions of Clarke's proximal characterization for reachable mappings of differential inclusions. <i>Journal of Mathematical Analysis and Applications</i> , 2008, 348, 454-460.	1.0	11
36	The weak Ekeland variational principle and fixed points. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 2014, 102, 91-96.	1.1	10

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37	On One-Sided Lipschitz Stability of Set-Valued Contractions. Numerical Functional Analysis and Optimization, 2014, 35, 837-850.	1.4	10
38	Singular perturbations in linear control systems with weakly coupled stable and unstable fast subsystems. Journal of Mathematical Analysis and Applications, 1985, 110, 1-30.	1.0	9
39	Lipschitz properties of the attainable set of singularly perturbed linear systems. Systems and Control Letters, 1988, 11, 385-391.	2.3	9
40	Inexact Newton-Kantorovich Methods for Constrained Nonlinear Model Predictive Control. IEEE Transactions on Automatic Control, 2019, 64, 3602-3615.	5.7	9
41	Euler approximation of the feasible set. Numerical Functional Analysis and Optimization, 1994, 15, 245-261.	1.4	8
42	State constraints in the linear regulator problem: Case study. Journal of Optimization Theory and Applications, 1995, 87, 323-347.	1.5	8
43	On the Inner and Outer Norms of Sublinear Mappings. Set-Valued and Variational Analysis, 2007, 15, 61-65.	0.5	8
44	Lipschitz Stability in Discretized Optimal Control with Application to SQP. SIAM Journal on Control and Optimization, 2019, 57, 468-489.	2.1	8
45	The Radius of Metric Subregularity. Set-Valued and Variational Analysis, 2020, 28, 451-473.	1.1	8
46	Relaxation and well-posedness of nonlinear optimal processes. Systems and Control Letters, 1983, 3, 177-179.	2.3	7
47	A nonsmooth Robinson's inverse function theorem in Banach spaces. Mathematical Programming, 2016, 156, 257-270.	2.4	7
48	Primal-Dual Solution Perturbations in Convex Optimization. Set-Valued and Variational Analysis, 2001, 9, 49-65.	0.5	6
49	A Perturbed Chord (Newton-Kantorovich) Method for Constrained Nonlinear Model Predictive Control. IFAC-PapersOnLine, 2016, 49, 253-258.	0.9	6
50	Bartle-Graves Theorem Revisited. Set-Valued and Variational Analysis, 2020, 28, 109-122.	1.1	5
51	Efficient estimates of the solutions of perturbed control problems. Journal of Optimization Theory and Applications, 1981, 35, 85-109.	1.5	4
52	A Proof of the Necessity of Linear Independence Condition and Strong Second-Order Sufficient Optimality Condition for Lipschitzian Stability in Nonlinear Programming. Journal of Optimization Theory and Applications, 1998, 98, 467-473.	1.5	4
53	A proof of the Lyusternik-Graves theorem. Optimization, 2015, 64, 41-48.	1.7	4
54	Sensitivity-Based Warmstarting for Nonlinear Model Predictive Control With Polyhedral State and Control Constraints. IEEE Transactions on Automatic Control, 2020, 65, 4288-4294.	5.7	3

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55	On Derivative Criteria for Metric Regularity. Springer Proceedings in Mathematics and Statistics, 2013, , 365-374.	0.2	3
56	Solution Mappings for Variational Problems. Springer Series in Operations Research, 2014, , 69-142.	1.4	2
57	̈%-Limit Sets for Differential Inclusions. Springer INdAM Series, 2015, , 159-169.	0.5	1
58	On Existence of Solutions of Parametrized Generalized Equations. Set-Valued and Variational Analysis, 2021, 29, 735-744.	1.1	1
59	The Inverse Function Theorems of L. M. Graves. , 2019, , 153-163.		1
60	Applications in Numerical Variational Analysis. Springer Series in Operations Research, 2014, , 363-454.	1.4	1
61	On the Effect of Neglecting Sensor Dynamics in Parameter Identification Problems. SIAM Journal on Control and Optimization, 2000, 38, 1309-1321.	2.1	0
62	On Some Open Problems in Optimal Control. Lecture Notes in Economics and Mathematical Systems, 2018, , 3-13.	0.3	0
63	Metric Regularity in Infinite Dimensions. Springer Series in Operations Research, 2014, , 277-362.	1.4	0