Ryan Loxton

List of Publications by Year
in descending order

77 papers	1,866 citations	236925 25 h-index	265206 42 g-index
77 all docs	77 docs citations	77 times ranked	795 citing authors

#	Article	IF	Citations
1	The control parameterization method for nonlinear optimal control: A survey. Journal of Industrial and Management Optimization, 2014, 10, 275-309.	1.3	215
2	Optimal control problems with a continuous inequality constraint on the state and the control. Automatica, 2009, 45, 2250-2257.	5.0	131
3	Optimal control problems with multiple characteristic time points in the objective and constraints. Automatica, 2008, 44, 2923-2929.	5.0	104
4	Optimal switching instants for a switched-capacitor DC/DC power converter. Automatica, 2009, 45, 973-980.	5.0	99
5	Computational Method for a Class of Switched System Optimal Control Problems. IEEE Transactions on Automatic Control, 2009, 54, 2455-2460. </title> </titles> <publication_date> <month>09</month>	5.7	61
6	<year>2010</year> </publication_date> <pages> <first_page>1985</first_page> <last_page>1986</last_page> </pages> <publisher_item> <item_number item_number_type='arNumber'>5565453</item_number> </publisher_item> <doi_data> <doi>10.1109/TAC.2010.2069451</doi> <resource>http://ieeexplore.ieee.org/lpdocs/epic03/wrapper.htm?arn. IEEE Transactions on Autom	5.7	56
7	Control parameterization for optimal control problems with continuous inequality constraints: New convergence results. Numerical Algebra, Control and Optimization, 2012, 2, 571-599.	1.6	55
8	Optimal control computation for nonlinear systems with state-dependent stopping criteria. Automatica, 2012, 48, 2116-2129.	5.0	53
9	Parameter estimation for nonlinear time-delay systems with noisy output measurements. Automatica, 2015, 60, 48-56.	5.0	53
10	Optimal discrete-valued control computation. Journal of Global Optimization, 2013, 56, 503-518.	1.8	44
11	A new exact penalty method for semi-infinite programming problems. Journal of Computational and Applied Mathematics, 2014, 261, 271-286.	2.0	44
12	Dynamic Optimization for Switched Time-Delay Systems with State-Dependent Switching Conditions. SIAM Journal on Control and Optimization, 2018, 56, 3499-3523.	2.1	44
13	A unified parameter identification method for nonlinear time-delay systems. Journal of Industrial and Management Optimization, 2013, 9, 471-486.	1.3	43
14	Time delayed optimal control problems with multiple characteristic time points: Computation and industrial applications. Journal of Industrial and Management Optimization, 2009, 5, 705-718.	1.3	42
15	Optimal boundary control for water hammer suppression in fluid transmission pipelines. Computers and Mathematics With Applications, 2015, 69, 275-290.	2.7	41
16	Linear B-spline finite element method for the improved Boussinesq equation. Journal of Computational and Applied Mathematics, 2009, 224, 658-667.	2.0	37
17	Minimizing control variation in nonlinear optimal control. Automatica, 2013, 49, 2652-2664.	5.0	36
18	A Hybrid Time-Scaling Transformation for Time-Delay Optimal Control Problems. Journal of Optimization Theory and Applications, 2016, 169, 876-901.	1.5	36

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19	Robust suboptimal control of nonlinear systems. Applied Mathematics and Computation, 2011, 217, 6566-6576.	2.2	35
20	Optimal Control of Nonlinear Switched Systems: Computational Methods and Applications. Journal of the Operations Research Society of China, 2013, 1, 275-311.	1.4	35
21	A computational method for solving time-delay optimal control problems with free terminal time. Systems and Control Letters, 2014, 72, 53-60.	2.3	35
22	On the Cauchy problem for a generalized Boussinesq equation. Journal of Mathematical Analysis and Applications, 2009, 353, 186-195.	1.0	32
23	A class of optimal state-delay control problems. Nonlinear Analysis: Real World Applications, 2013, 14, 1536-1550.	1.7	32
24	Numerical solution of a pursuit-evasion differential game involving two spacecraft in low earth orbit. Journal of Industrial and Management Optimization, 2015, 11, 1127-1147.	1.3	29
25	Robust Optimal Control of a Microbial Batch Culture Process. Journal of Optimization Theory and Applications, 2015, 167, 342-362.	1.5	26
26	A stochastic fleet composition problem. Computers and Operations Research, 2012, 39, 3177-3184.	4.0	25
27	Water hammer mitigation via PDE-constrained optimization. Control Engineering Practice, 2015, 45, 54-63.	5.5	25
28	A neighboring extremal solution for an optimal switched impulsive control problem. Journal of Industrial and Management Optimization, 2012, 8, 591-609.	1.3	25
29	Switching Time and Parameter Optimization in Nonlinear Switched Systems with Multiple Time-Delays. Journal of Optimization Theory and Applications, 2014, 163, 957-988.	1.5	24
30	Chance-constrained optimization for pension fund portfolios in the presence of default risk. European Journal of Operational Research, 2017, 256, 205-214.	5.7	24
31	Time-delay estimation for nonlinear systems with piecewise-constant input. Applied Mathematics and Computation, 2013, 219, 9543-9560.	2.2	21
32	Optimal parameter selection for nonlinear multistage systems with time-delays. Computational Optimization and Applications, 2014, 59, 285-306.	1.6	21
33	Optimal 1,3-propanediol production: Exploring the trade-off between process yield and feeding rate variation. Journal of Process Control, 2015, 32, 1-9.	3.3	20
34	Optimal state-delay control in nonlinear dynamic systems. Automatica, 2022, 135, 109981.	5.0	19
35	Optimal control problems arising in the zinc sulphate electrolyte purification process. Journal of Global Optimization, 2012, 54, 307-323.	1.8	18
36	Bi-objective dynamic optimization of a nonlinear time-delay system in microbial batch process. Optimization Letters, 2018, 12, 1249-1264.	1.6	18

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37	Towards global solutions of optimal discrete‐valued control‰problems. Optimal Control Applications and Methods, 2012, 33, 576-594.	2.1	17
38	VISUAL MISER: An efficient user-friendly visual program for solving optimal control problems. Journal of Industrial and Management Optimization, 2015, 12, 781-810.	1.3	15
39	A computational algorithm for a class of non-smooth optimal control problems arising in aquaculture operations. Applied Mathematics and Computation, 2013, 219, 8738-8746.	2.2	14
40	Dynamic optimization of open-loop input signals for ramp-up current profiles in tokamak plasmas. Communications in Nonlinear Science and Numerical Simulation, 2016, 32, 31-48.	3.3	14
41	Optimal feedback control for dynamic systems with state constraints: An exact penalty approach. Optimization Letters, 2014, 8, 1535-1551.	1.6	13
42	Optimal train control via switched system dynamic optimization. Optimization Methods and Software, 2021, 36, 602-626.	2.4	13
43	A decision support system for grain harvesting, storage, and distribution logistics. Knowledge-Based Systems, 2021, 223, 107037.	7.1	12
44	A computational method for a class of non-standard time optimal control problems involving multiple time horizons. Mathematical and Computer Modelling, 2009, 49, 1682-1691.	2.0	9
45	A Max‐Min Control Problem Arising in Gradient Elution Chromatography. Industrial & Engineering Chemistry Research, 2012, 51, 6137-6144.	3.7	9
46	An optimal machine maintenance problem with probabilistic state constraints. Information Sciences, 2014, 281, 386-398.	6.9	9
47	Optimal fleet composition via dynamic programming and golden section search. Journal of Industrial and Management Optimization, 2011, 7, 875-890.	1.3	9
48	Optimal control problems with stopping constraints. Journal of Global Optimization, 2015, 63, 835-861.	1.8	8
49	A generalized expansion method for nonlinear wave equations. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 045207.	2.1	7
50	A heuristic algorithm for optimal fleet composition with vehicle routing considerations. Optimization Methods and Software, 2016, 31, 272-289.	2.4	7
51	Dynamic optimization of dual-mode hybrid systems with state-dependent switching conditions. Optimization Methods and Software, 2018, 33, 297-310.	2.4	6
52	Stabilization of a coupled second order ODE-wave system. , 2016, , .		4
53	Cargo scheduling decision support for offshore oil and gas production: a case study. Optimization and Engineering, 2017, 18, 991-1008.	2.4	4
54	Modelling and optimal control of blood glucose levels in the human body. Journal of Industrial and Management Optimization, 2015, 11, 1149-1164.	1.3	4

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55	Optimal Investment and Proportional Reinsurance with Risk Constraint. Journal of Mathematical Finance, 2013, 03, 437-447.	0.3	3
56	Optimal control of impulsive switched systems with minimum subsystem durations. Journal of Global Optimization, 2014, 60, 737-750.	1.8	3
57	Dynamic optimization for robust path planning of horizontal oil wells. Applied Mathematics and Computation, 2016, 274, 711-725.	2.2	3
58	Minimizing control volatility for nonlinear systems with smooth piecewise-quadratic input signals. Systems and Control Letters, 2020, 145, 104797.	2.3	3
59	Geometric Control and Disturbance Decoupling for Fractional Systems. SIAM Journal on Control and Optimization, 2020, 58, 1403-1428.	2.1	3
60	Optimal control of nonlinear Markov jump systems by control parametrisation technique. IET Control Theory and Applications, 2023, 17, 241-249.	2.1	3
61	Path planning for underactuated Dubins micro-robots using switching control. , 2013, , .		2
62	State-delay estimation for nonlinear systems using inexact output data. , 2014, , .		2
63	A gradient-based parameter identification method for time-delay chaotic systems. , 2014, , .		2
64	Bi-objective optimization for robust RGB-D visual odometry. , 2015, , .		2
65	Insulin injections and exercise scheduling for individuals with diabetes: An optimal control model. Optimal Control Applications and Methods, 2018, 39, 663-681.	2.1	2
66	Factors and scenarios affecting a farmer's grain harvest logistics. Australian Journal of Agricultural and Resource Economics, 2020, 64, 244-265.	2.6	2
67	Guaranteed-cost controls of minimal variation: A numerical algorithm based on control parameterization. , 2014, , .		1
68	Finite Element Approximation and Input Parameterization for the Optimal Control of Current Profiles in Tokamak Plasmas. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 7892-7897.	0.4	1
69	Output stabilization of boundary-controlled parabolic PDEs via gradient-based dynamic optimization. , 2015, , .		1
70	Optimal Operation for Medium-speed Maglev Trains. , 2020, , .		1
71	Dynamics, Control, and Optimization with Applications. Abstract and Applied Analysis, 2013, 2013, 1-1.	0.7	0
72	Dynamics, Control, and Optimization with Applications 2014. Abstract and Applied Analysis, 2014, 2014, 1-1.	0.7	0

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73	Dynamic optimization of tokamak plasmas via control parameterization and the time-scaling transformation. , 2015, , .		0
74	On combining neighbouring extremals with control parameterization. , 2015, , .		0
75	Fast model order reduction via nonlinear optimization. , 2016, , .		0
76	A fractional model of the friction-temperature behavior in robot joints. , 2019, , .		0
77	A mixed-integer linear programming model for optimal vessel scheduling in offshore oil and gas operations. Journal of Industrial and Management Optimization, 2017, 13, 1601-1623.	1.3	0