Vladimir Gaitsgory

List of Publications by Year
in descending order

62 papers	921 citations	471061 17 h-index	500791 28 g-index
63 all docs	63 docs citations	63 times ranked	208 citing authors

#	Article	IF	Citations
1	Suboptimization of Singularly Perturbed Control Systems. SIAM Journal on Control and Optimization, 1992, 30, 1228-1249.	1.1	94
2	Linear Programming Approach to Deterministic Infinite Horizon Optimal Control Problems with Discounting. SIAM Journal on Control and Optimization, 2009, 48, 2480-2512.	1.1	68
3	The Value Function of Singularly Perturbed Control Systems. Applied Mathematics and Optimization, 2000, 41, 425-445.	0.8	55
4	Tracking Fast Trajectories Along a Slow Dynamics: A Singular Perturbations Approach. SIAM Journal on Control and Optimization, 1997, 35, 1487-1507.	1.1	54
5	On a Representation of the Limit Occupational Measures Set of a Control System with Applications to Singularly Perturbed Control Systems. SIAM Journal on Control and Optimization, 2004, 43, 325-340.	1.1	45
6	Control of singularly perturbed hybrid stochastic systems. IEEE Transactions on Automatic Control, 2001, 46, 179-190.	3.6	40
7	Linear Programming Approach to Deterministic Long Run Average Problems of Optimal Control. SIAM Journal on Control and Optimization, 2006, 44, 2006-2037.	1.1	39
8	Stabilization with discounted optimal control. Systems and Control Letters, 2015, 82, 91-98.	1.3	37
9	Suboptimal control of singularly perturbed systems and periodic optimization. IEEE Transactions on Automatic Control, 1993, 38, 888-903.	3.6	34
10	Limit Occupational Measures Set for a Control System and Averaging of Singularly Perturbed Control Systems. Journal of Mathematical Analysis and Applications, 1999, 233, 461-475.	0.5	34
11	Multiscale Singularly Perturbed Control Systems: Limit Occupational Measures Sets and Averaging. SIAM Journal on Control and Optimization, 2002, 41, 954-974.	1.1	32
12	Averaging of Singularly Perturbed Controlled Stochastic Differential Equations. Applied Mathematics and Optimization, 2007, 56, 169-209.	0.8	29
13	Asymptotic Optimization of a Nonlinear Hybrid System Governed by a Markov Decision Process. SIAM Journal on Control and Optimization, 1997, 35, 2070-2085.	1.1	26
14	On sets of occupational measures generated by a deterministic control system on an infinite time horizon. Nonlinear Analysis: Theory, Methods & Applications, 2013, 88, 27-41.	0.6	23
15	Stabilization of strictly dissipative discrete time systems with discounted optimal control. Automatica, 2018, 93, 311-320.	3.0	23
16	Limit Hamiltonâ€"Jacobiâ€"Isaacs Equations for Singularly Perturbed Zero-Sum Differential Games. Journal of Mathematical Analysis and Applications, 1996, 202, 862-899.	0.5	22
17	Duality in Linear Programming Problems Related to Deterministic Long Run Average Problems of Optimal Control. SIAM Journal on Control and Optimization, 2008, 47, 1667-1700.	1.1	22
18	On Existence of Limit Occupational Measures Set of a Controlled Stochastic Differential Equation. SIAM Journal on Control and Optimization, 2005, 44, 1436-1473.	1.1	17

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19	Stability and singular perturbations in constrained Markov decision problems. IEEE Transactions on Automatic Control, 1993, 38, 971-975.	3.6	16
20	Control of a hybrid stochastic system. Systems and Control Letters, 1993, 20, 307-314.	1.3	15
21	Singular Perturbations in Ergodic Control of Diffusions. SIAM Journal on Control and Optimization, 2007, 46, 1562-1577.	1.1	14
22	LP Formulations of Discrete Time Long-Run Average Optimal Control Problems: The NonErgodic Case. SIAM Journal on Control and Optimization, 2019, 57, 1783-1817.	1.1	14
23	Linear programming formulations of deterministic infinite horizon optimal control problems in discrete time. Discrete and Continuous Dynamical Systems - Series B, 2017, 22, 3821-3838.	0.5	14
24	Linear-quadratic tracking of coupled slow and fast targets. Mathematics of Control, Signals, and Systems, 1997, 10, 1-30.	1.4	13
25	Averaging and Linear Programming in Some Singularly Perturbed Problems of Optimal Control. Applied Mathematics and Optimization, 2015, 71, 195-276.	0.8	13
26	A folk theorem for dynamic games. Journal of Mathematical Economics, 1994, 23, 167-178.	0.4	11
27	Averaging of three time scale singularly perturbed control systems. Systems and Control Letters, 2001, 42, 395-403.	1.3	11
28	Linear Programming Formulation of Long-Run Average Optimal Control Problem. Journal of Optimization Theory and Applications, 2019, 181, 101-125.	0.8	11
29	On asymptotic optimization of a class of nonlinear stochastic hybrid systems. Mathematical Methods of Operations Research, 1998, 47, 289-315.	0.4	10
30	Perturbation theory for mathematical programming problems. Journal of Optimization Theory and Applications, 1986, 49, 389-410.	0.8	9
31	A new reduction technique for a class of singularly perturbed optimal control problems. IEEE Transactions on Automatic Control, 1995, 40, 721-724.	3.6	9
32	On the construction of asymptotically optimal controls for singularly perturbed systems. Systems and Control Letters, 1997, 30, 139-147.	1.3	9
33	Linear programming solutions of periodic optimization problems: approximation of the optimal control. Journal of Industrial and Management Optimization, 2007, 3, 399-413.	0.8	9
34	Control of singularly perturbed hybrid stochastic systems. , 0, , .		6
35	Constraint augmentation in pseudo-singularly perturbed linear programs. Mathematical Programming, 2012, 132, 179-208.	1.6	5
36	Convergence to convex compact sets in infinite dimensions. Journal of Mathematical Analysis and Applications, 2003, 284, 471-480.	0.5	4

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37	Multiscale singularly perturbed control systems: limit occupational measures sets and averaging. , 0, , .		4
38	Linear programming estimates for CesÃro and Abel limits of optimal values in optimal control problems. Discrete and Continuous Dynamical Systems - Series B, 2022, 27, 1591.	0.5	4
39	A Hybrid (Differential-Stochastic) Zero-Sum Game with a Fast Stochastic Part. , 1995, , 47-59.		4
40	On Average Control Generating Families for Singularly Perturbed Optimal Control Problems with Long Run Average Optimality Criteria. Set-Valued and Variational Analysis, 2015, 23, 87-131.	0.5	3
41	LP-related representations of CesÃro and Abel limits of optimal value functions. Optimization, 2022, 71, 1151-1170.	1.0	3
42	Singularly perturbed linear programs and Markov decision processes. Operations Research Letters, 2016, 44, 297-301.	0.5	2
43	On Near Optimal Control of Systems with Slow Observables. SIAM Journal on Control and Optimization, 2017, 55, 1398-1428.	1.1	2
44	Analysis of TCP-AQM Interaction Via Periodic Optimization and Linear Programming: The Case of Sigmoidal Utility Function. Lecture Notes in Computer Science, 2006, , 517-529.	1.0	2
45	LP based upper and lower bounds for CesÃro and Abel limits of the optimal values in problems of control of stochastic discrete time systems. Journal of Mathematical Analysis and Applications, 2022, 512, 126121.	0.5	2
46	Asymptotic optimization for a class of nonlinear stochastic hybrid systems on infinite time horizon. , 1997, , .		1
47	ON A CLASS OF NASH EQUILIBRIA WITH MEMORY STRATEGIES FOR NONZERO-SUM DIFFERENTIAL GAMES. International Game Theory Review, 2000, 02, 173-192.	0.3	1
48	Linear programming formulation of a discrete time infinite horizon optimal control problem with time discounting criterion. , 2016, , .		1
49	On Nonzero-Sum Game Considered on Solutions of a Hybrid System with Frequent Random Jumps. Dynamic Games and Applications, 2017, 7, 386-401.	1.1	1
50	On Numerical Solution of Singularly Perturbed Optimal Control Problems. Journal of Optimization Theory and Applications, 2017, 174, 762-784.	0.8	1
51	On LP Formulations of Optimal Control Problems with Time Averaging and Time Discounting Criteria in Non-Ergodic Case. , 2019, , .		1
52	Threshold value of the penalty parameter in the minimization of L_1-penalized conditional value-at-risk. Journal of Industrial and Management Optimization, 2013, 9, 191-204.	0.8	1
53	On optimization of a class of hybrid systems with fast stochastic dynamics. , 0, , .		0
54	Asymptotic analysis of stochastic manufacturing system with slow and fast machines. , 0, , .		0

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55	The averaging principle for perturbations of continuous time control problems with fast controlled jump parameters. , 0, , .		0
56	Occupational Measures Formulation and Linear Programming Solution of Deterministic Long Run Average Problems of Optimal Control. , 2006, , .		0
57	Existence of limit occupational measures set used for averaging of singularly perturbed controlled stochastic differential equations. , 2006, , .		0
58	Duality in linear programming problems related to deterministic long run average problems of optimal control with applications to periodic optimization. , 2009, , .		0
59	Duality, viability and optimality through linear programming approach to deterministic infinite horizon optimal control problems with discounting. , 2010, , .		0
60	On Stochastic Hybrid Zero-Sum Games with Nonlinear Slow Dynamics. , 2001, , 129-145.		0
61	Use of Approximations of Hamilton-Jacobi-Bellman Inequality for Solving Periodic Optimization Problems. Springer Proceedings in Mathematics and Statistics, 2014, , 91-114.	0.1	0
62	LP Based Bounds for CesÃro and Abel Limits of the Optimal Values in Non-ergodic Stochastic Systems. , 2021, , .		0