

Debasish Chatterjee

List of Publications by Year in descending order

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Version: 2024-02-01

93
papers

1,482
citations

430874

18
h-index

361022

35
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93
all docs

93
docs citations

93
times ranked

1021
citing authors

#	ARTICLE	IF	CITATIONS
1	Stability analysis of deterministic and stochastic switched systems via a comparison principle and multiple Lyapunov functions. <i>SIAM Journal on Control and Optimization</i> , 2006, 45, 174-206.	2.1	121
2	Swing-up and stabilization of a cart-pendulum system under restricted cart track length. <i>Systems and Control Letters</i> , 2002, 47, 355-364.	2.3	118
3	Stochastic receding horizon control with output feedback and bounded controls. <i>Automatica</i> , 2012, 48, 77-88.	5.0	96
4	On Stability of Randomly Switched Nonlinear Systems. <i>IEEE Transactions on Automatic Control</i> , 2007, 52, 2390-2394.	5.7	82
5	Stochastic Receding Horizon Control With Bounded Control Inputs: A Vector Space Approach. <i>IEEE Transactions on Automatic Control</i> , 2011, 56, 2704-2710.	5.7	76
6	Stabilizing Switching Signals for Switched Systems. <i>IEEE Transactions on Automatic Control</i> , 2015, 60, 882-888.	5.7	69
7	Generalized switching signals for input-to-state stability of switched systems. <i>Automatica</i> , 2016, 64, 270-277.	5.0	67
8	Convexity and convex approximations of discrete-time stochastic control problems with constraints. <i>Automatica</i> , 2011, 47, 2082-2087.	5.0	63
9	Stabilizing Randomly Switched Systems. <i>SIAM Journal on Control and Optimization</i> , 2011, 49, 2008-2031.	2.1	46
10	On Stability and Performance of Stochastic Predictive Control Techniques. <i>IEEE Transactions on Automatic Control</i> , 2015, 60, 509-514.	5.7	44
11	Scenario of future e-waste generation and recycle-reuse-landfill-based disposal pattern in India: a system dynamics approach. <i>Environment, Development and Sustainability</i> , 2017, 19, 1473-1487.	5.0	41
12	Characterization of maximum hands-off control. <i>Systems and Control Letters</i> , 2016, 94, 31-36.	2.3	37
13	The stochastic reach-avoid problem and set characterization for diffusions. <i>Automatica</i> , 2016, 70, 43-56.	5.0	33
14	On mean square boundedness of stochastic linear systems with bounded controls. <i>Systems and Control Letters</i> , 2012, 61, 375-380.	2.3	31
15	On stability of discrete-time switched systems. <i>Nonlinear Analysis: Hybrid Systems</i> , 2017, 23, 191-210.	3.5	30
16	On stochastic receding horizon control with bounded control inputs. , 2009, , .		26
17	Attaining Mean Square Boundedness of a Marginally Stable Stochastic Linear System With a Bounded Control Input. <i>IEEE Transactions on Automatic Control</i> , 2010, 55, 2414-2418.	5.7	26
18	Stabilizing Stochastic Predictive Control Under Bernoulli Dropouts. <i>IEEE Transactions on Automatic Control</i> , 2018, 63, 1579-1590.	5.7	20

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19	Discrete-Time Optimal Attitude Control of a Spacecraft with Momentum and Control Constraints. Journal of Guidance, Control, and Dynamics, 2018, 41, 199-211.	2.8	19
20	A discrete-time Pontryagin maximum principle on matrix Lie groups. Automatica, 2018, 97, 376-391.	5.0	19
21	A graph theoretic approach to input-to-state stability of switched systems. European Journal of Control, 2016, 29, 44-50.	2.6	17
22	A new condition for asymptotic consensus over switching graphs. Automatica, 2018, 97, 18-26.	5.0	17
23	ISS of Switched Systems and Applications to Switching Adaptive Control. , 0, , .		16
24	Stabilizing discrete-time switched linear systems. , 2014, , .		16
25	Discrete Time Pontryagin Maximum Principle Under State-Action-Frequency Constraints. IEEE Transactions on Automatic Control, 2019, 64, 4202-4208.	5.7	16
26	CLOT norm minimization for continuous hands-off control. Automatica, 2020, 113, 108679.	5.0	16
27	Stability Analysis and Stabilization of Randomly Switched Systems. , 2006, , .		15
28	A Stochastic Model Predictive Controller for Systems with Unreliable Communications. IFAC-PapersOnLine, 2015, 48, 57-64.	0.9	15
29	Stochastic receding horizon control with output feedback and bounded control inputs. , 2010, , .		14
30	Sparse and constrained stochastic predictive control for networked systems. Automatica, 2018, 87, 40-51.	5.0	14
31	Stochastic predictive control under intermittent observations and unreliable actions. Automatica, 2020, 118, 109012.	5.0	14
32	On the connections between PCTL and dynamic programming. , 2010, , .		14
33	A jammer's perspective of reachability and LQ optimal control. Automatica, 2016, 70, 295-302.	5.0	13
34	Structure-Preserving Constrained Optimal Trajectory Planning of a Wheeled Inverted Pendulum. IEEE Transactions on Robotics, 2020, 36, 910-923.	10.3	13
35	Maximizing the probability of attaining a target prior to extinction. Nonlinear Analysis: Hybrid Systems, 2011, 5, 367-381.	3.5	12
36	Hybrid PSO-ACO algorithm to solve economic load dispatch problem with transmission loss for small scale power system. , 2016, , .		12

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37	Stabilizing switching signals: A transition from point-wise to asymptotic conditions. Systems and Control Letters, 2017, 106, 16-23.	2.3	12
38	Optimal multiplexing of sparse controllers for linear systems. Automatica, 2019, 106, 134-142.	5.0	11
39	Robust matrix commutator conditions for stability of switched linear systems under restricted switching. Automatica, 2020, 115, 108904.	5.0	11
40	On a problem of stochastic reach-avoid set characterization. , 2011, , .		9
41	Motion Planning for Continuous-Time Stochastic Processes: A Dynamic Programming Approach. IEEE Transactions on Automatic Control, 2016, 61, 2155-2170.	5.7	8
42	Towards ISS disturbance attenuation for randomly switched systems. , 2007, , .		6
43	On convexity of stochastic optimization problems with constraints. , 2009, , .		6
44	Chance-constrained LQG with bounded control policies. , 2013, , .		6
45	Resource efficient stochastic predictive control under packet dropouts. IET Control Theory and Applications, 2017, 11, 1666-1673.	2.1	6
46	Scenario Approach for Minmax Optimization with Emphasis on the Nonconvex Case: Positive Results and Caveats. SIAM Journal on Optimization, 2020, 30, 1119-1143.	2.0	6
47	Mean-square boundedness of stochastic networked control systems with bounded control inputs. , 2010, , .		5
48	Event triggered green control for discrete time dynamical systems. , 2015, , .		5
49	Reference tracking stochastic model predictive control over unreliable channels and bounded control actions. Automatica, 2021, 127, 109512.	5.0	5
50	Sparse optimal control problems with intermediate constraints: Necessary conditions. Optimal Control Applications and Methods, 2022, 43, 369-385.	2.1	5
51	Designing of a Novel Shroud for Improving the Quality of Steel in Tundish. Advanced Materials Research, 0, 585, 359-363.	0.3	4
52	Stabilizing discrete-time switched systems with inputs. , 2015, , .		4
53	Dropout feedback parametrized policies for stochastic predictive controller. IFAC-PapersOnLine, 2016, 49, 59-64.	0.9	4
54	Stable stochastic predictive controller under unreliable up-link. , 2016, , .		4

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55	Output Feedback Stable Stochastic Predictive Control With Hard Control Constraints. , 2017, 1, 382-387.		4
56	On a frame theoretic measure of quality of LTI systems. , 2017, , .		4
57	Stabilization under round-robin scheduling of control inputs in nonlinear systems. Automatica, 2021, 134, 109912.	5.0	4
58	Constrained Smoothing Splines by Optimal Control. , 2022, 6, 1298-1303.		4
59	Analysis of controlled biological switches via stochastic motion planning. , 2013, , .		4
60	Randomized algorithms for stabilizing switching signals. Mathematical Control and Related Fields, 2019, 9, 159-174.	1.1	4
61	Stochastic MPC with Imperfect State Information and Bounded Controls. , 2010, , .		3
62	Stochastic localization of sources using autonomous underwater vehicles. , 2012, , .		3
63	Effect of smoothing reactor on the performance of a PWM chopper fed Dc motor drive. , 2017, , .		3
64	Structure-preserving discrete-time optimal maneuvers of a wheeled inverted pendulum. IFAC-PapersOnLine, 2018, 51, 149-154.	0.9	3
65	A frequency-constrained geometric Pontryagin maximum principle on matrix Lie groups. , 2018, , .		3
66	Discrete-time Maximum Hands-Off Control with Minimum Switches. , 2019, , .		3
67	On stochastic control up to a hitting time. , 2009, , .		2
68	An Excursion-Theoretic Approach to Stability of Discrete-Time Stochastic Hybrid Systems. Applied Mathematics and Optimization, 2011, 63, 217-237.	1.6	2
69	Stable Networked Control Systems With Bounded Control Authority. IEEE Transactions on Automatic Control, 2012, 57, 3153-3157.	5.7	2
70	Isospectral flows on a class of finite-dimensional Jacobi matrices. Systems and Control Letters, 2013, 62, 388-394.	2.3	2
71	Discrete time optimal control with frequency constraints for non-smooth systems. Automatica, 2019, 107, 493-501.	5.0	2
72	Maintaining Ferment. , 2019, , .		2

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73	Exact Isoholonomic Motion of the Planar Purcell's Swimmer. IEEE Transactions on Automatic Control, 2022, 67, 429-435.	5.7	2
74	Complexity of constrained sensor placement problems for optimal observability. Automatica, 2021, 131, 109758.	5.0	2
75	On Minimum Cost Sparsest Input-Connectivity for Controllability of Linear Systems. , 2018, , .		2
76	Robust Discrete-Time Pontryagin Maximum Principle on Matrix Lie Groups. , 2020, , .		2
77	Stochastic Receding Horizon Control: Stability Results. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 150-155.	0.4	1
78	On Mean-Square Boundedness of Stochastic Linear Systems With Quantized Observations. IEEE Transactions on Automatic Control, 2013, 58, 2082-2085.	5.7	1
79	Stability of switched linear systems: New results. , 2014, , .		1
80	A simple proof of the discrete time geometric Pontryagin maximum principle on smooth manifolds. Automatica, 2020, 114, 108791.	5.0	1
81	Robust Discrete-Time Pontryagin Maximum Principle on Matrix Lie Groups. IEEE Transactions on Automatic Control, 2022, 67, 3545-3552.	5.7	1
82	On strict consistency of a class of stabilizing switching signals for discrete-time switched linear systems. , 2015, , .		0
83	A geometric approach to single axis time-optimal attitude manoeuvres. , 2015, , .		0
84	Call for Papers: Special issue of <i>international journal of robust and nonlinear control</i> : "stochastic predictive control". International Journal of Robust and Nonlinear Control, 2016, 26, 3670-3670.	3.7	0
85	On Sparse Optimal Control Scheduling for Linear Systems. , 2018, , .		0
86	Continuity of the Combined L^1 - L^2 Optimal Control for Linear Systems. , 2019, , .		0
87	Stochastic predictive control. International Journal of Robust and Nonlinear Control, 2019, 29, 4985-4986.	3.7	0
88	Performance Bounds for Stochastic Receding Horizon Control with Randomly Sampled Measurements. , 2019, , .		0
89	A frequency-constrained geometric Pontryagin maximum principle on matrix Lie groups. International Journal of Robust and Nonlinear Control, 2020, 30, 6281-6297.	3.7	0
90	A complete characterization of optimal dictionaries for least squares representation. Linear Algebra and Its Applications, 2020, 601, 219-264.	0.9	0

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91	Optimal Multiplexing of Discrete-Time Constrained Control Systems on Matrix Lie Groups. IEEE Transactions on Automatic Control, 2021, 66, 1895-1901.	5.7	0
92	Measure of quality of finite-dimensional linear systems: A frame-theoretic view. Systems and Control Letters, 2021, 151, 104911.	2.3	0
93	Rate Constrained Discrete-time Maximum Principle. IFAC-PapersOnLine, 2021, 54, 346-351.	0.9	0