

Vivek S Borkar

List of Publications by Citations

Source: <https://exaly.com/author-pdf/7542935/vivek-s-borkar-publications-by-citations.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

128
papers

1,927
citations

20
h-index

41
g-index

145
ext. papers

2,338
ext. citations

2.3
avg, IF

5.46
L-index

#	Paper	IF	Citations
128	Stochastic Approximation. <i>Texts and Readings in Mathematics</i> , 2008 ,	0.3	361
127	Stochastic approximation with two time scales. <i>Systems and Control Letters</i> , 1997 , 29, 291-294	2.4	162
126	A New Distributed Time Synchronization Protocol for Multihop Wireless Networks 2006 ,		115
125	Actor-Critic--Type Learning Algorithms for Markov Decision Processes. <i>SIAM Journal on Control and Optimization</i> , 1999 , 38, 94-123	1.9	105
124	An on-line learning algorithm for energy efficient delay constrained scheduling over a fading channel. <i>IEEE Journal on Selected Areas in Communications</i> , 2008 , 26, 732-742	14.2	88
123	Asynchronous Stochastic Approximations. <i>SIAM Journal on Control and Optimization</i> , 1998 , 36, 840-851	1.9	84
122	Occupation measures for controlled Markov processes: characterization and optimality. <i>Annals of Probability</i> , 1996 , 24, 1531	1.9	68
121	A convex analytic approach to Markov decision processes. <i>Probability Theory and Related Fields</i> , 1988 , 78, 583-602	1.4	56
120	Controlled diffusion processes. <i>Probability Surveys</i> , 2005 , 2, 213	2.2	40
119	A two Timescale Stochastic Approximation Scheme for Simulation-Based Parametric Optimization. <i>Probability in the Engineering and Informational Sciences</i> , 1998 , 12, 519-531	0.6	35
118	. <i>IEEE Transactions on Mobile Computing</i> , 2010 , 9, 1391-1406	4.6	32
117	Structural Properties of Optimal Transmission Policies Over a Randomly Varying Channel. <i>IEEE Transactions on Automatic Control</i> , 2008 , 53, 1476-1491	5.9	32
116	Convex Analytic Methods in Markov Decision Processes. <i>Profiles in Operations Research</i> , 2002 , 347-375	1	32
115	Common randomness and distributed control: A counterexample. <i>Systems and Control Letters</i> , 2007 , 56, 568-572	2.4	26
114	Optimal Control of Sleep Periods for Wireless Terminals. <i>IEEE Journal on Selected Areas in Communications</i> , 2011 , 29, 1605-1617	14.2	22
113	Averaging of Singularly Perturbed Controlled Stochastic Differential Equations. <i>Applied Mathematics and Optimization</i> , 2007 , 56, 169-209	1.5	22
112	Controlled diffusions with constraints. <i>Journal of Mathematical Analysis and Applications</i> , 1990 , 152, 88-108		21

111	Multiscale Stochastic Approximation for Parametric Optimization of Hidden Markov Models. <i>Probability in the Engineering and Informational Sciences</i> , 1997 , 11, 509-522	0.6	20
110	Stochastic approximation with controlled Markov noise. <i>Systems and Control Letters</i> , 2006 , 55, 139-145	2.4	20
109	Ergodic control of multidimensional diffusions, II: Adaptive control. <i>Applied Mathematics and Optimization</i> , 1990 , 21, 191-220	1.5	20
108	Opportunistic Scheduling as Restless Bandits. <i>IEEE Transactions on Control of Network Systems</i> , 2018 , 5, 1952-1961	4	17
107	Distributed Reinforcement Learning via Gossip. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 1465-1470	4.9	16
106	A Learning Algorithm for Risk-Sensitive Cost. <i>Mathematics of Operations Research</i> , 2008 , 33, 880-898	1.5	16
105	. <i>IEEE Transactions on Control of Network Systems</i> , 2018 , 5, 446-455	4	14
104	Fast rumor source identification via random walks. <i>Social Network Analysis and Mining</i> , 2016 , 6, 1	2.2	14
103	Asymptotics of the Invariant Measure in Mean Field Models with Jumps. <i>Stochastic Systems</i> , 2012 , 2, 322-380	1.7	13
102	Risk-Constrained Markov Decision Processes. <i>IEEE Transactions on Automatic Control</i> , 2014 , 59, 2574-2579	3.9	12
101	Singular Perturbations in Ergodic Control of Diffusions. <i>SIAM Journal on Control and Optimization</i> , 2007 , 46, 1562-1577	1.9	11
100	A further remark on dynamic programming for partially observed Markov processes. <i>Stochastic Processes and Their Applications</i> , 2004 , 112, 79-93	1.1	11
99	Controlled Markov chains with constraints. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 1990 , 15, 405-413	1	11
98	Risk-Sensitive Control and an Abstract Collatz-Wielandt Formula. <i>Journal of Theoretical Probability</i> , 2016 , 29, 1458-1484	0.5	10
97	On the diffusion of messages in on-line social networks. <i>Performance Evaluation</i> , 2013 , 70, 271-285	1.2	10
96	A topology for Markov controls. <i>Applied Mathematics and Optimization</i> , 1989 , 20, 55-62	1.5	10
95	Temporally Agnostic Rumor-Source Detection. <i>IEEE Transactions on Signal and Information Processing Over Networks</i> , 2017 , 3, 316-329	2.8	9
94	A novel ACO algorithm for optimization via reinforcement and initial bias. <i>Swarm Intelligence</i> , 2009 , 3, 3-34	3	9

93	WLC39-3: Power Optimal Opportunistic Scheduling. <i>IEEE Global Telecommunications Conference (GLOBECOM), 2006,</i>		9
92	Directed graphs, Hamiltonicity and doubly stochastic matrices. <i>Random Structures and Algorithms, 2004, 25, 376-395</i>	0.8	9
91	Whittle indexability in egalitarian processor sharing systems. <i>Annals of Operations Research, 2017, 1</i>	3.2	8
90	A Concentration Bound for Stochastic Approximation via Alekseev's Formula. <i>Stochastic Systems, 2019, 9, 1-26</i>	1.7	8
89	Metastability in Stochastic Replicator Dynamics. <i>Dynamic Games and Applications, 2019, 9, 366-390</i>	1.1	8
88	On the Hamiltonicity Gap and doubly stochastic matrices. <i>Random Structures and Algorithms, 2009, 34, 502-519</i>	0.8	8
87	Small noise asymptotics for invariant densities for a class of diffusions: A control theoretic view. <i>Journal of Mathematical Analysis and Applications, 2009, 360, 476-484</i>	1.1	8
86	Low Complexity Online Radio Access Technology Selection Algorithm in LTE-WiFi HetNet. <i>IEEE Transactions on Mobile Computing, 2020, 19, 376-389</i>	4.6	8
85	Ergodic control of partially observed Markov chains. <i>Systems and Control Letters, 1998, 34, 185-189</i>	2.4	7
84	A Convex Analytic Framework for Ergodic Control of Semi-Markov Processes. <i>Mathematics of Operations Research, 1995, 20, 923-936</i>	1.5	7
83	On extremal solutions to stochastic control problems. <i>Applied Mathematics and Optimization, 1991, 24, 317-330</i>	1.5	7
82	Ergodic and adaptive control of nearest-neighbor motions. <i>Mathematics of Control, Signals, and Systems, 1991, 4, 81-98</i>	1.3	7
81	Reinforcement Learning: A Bridge Between Numerical Methods and Monte Carlo. <i>Statistical Science and Interdisciplinary Research, 2009, 71-91</i>		7
80	Distributed Stochastic Approximation with Local Projections. <i>SIAM Journal on Optimization, 2018, 28, 3375-3401</i>	2	7
79	The actor-critic algorithm as multi-time-scale stochastic approximation. <i>Sadhana - Academy Proceedings in Engineering Sciences, 1997, 22, 525-543</i>	1	6
78	TRANSMISSION RATE CONTROL OVER RANDOMLY VARYING CHANNELS. <i>Probability in the Engineering and Informational Sciences, 2005, 19, 73-82</i>	0.6	6
77	Linear Programming Formulation of Long-Run Average Optimal Control Problem. <i>Journal of Optimization Theory and Applications, 2019, 181, 101-125</i>	1.6	6
76	LP Formulations of Discrete Time Long-Run Average Optimal Control Problems: The NonErgodic Case. <i>SIAM Journal on Control and Optimization, 2019, 57, 1783-1817</i>	1.9	5

75	A reinforcement learning algorithm for restless bandits 2018 ,		5
74	Q-learning for Markov decision processes with a satisfiability criterion. <i>Systems and Control Letters</i> , 2018 , 113, 45-51	2.4	5
73	Asynchronous Gossip for Averaging and Spectral Ranking. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2014 , 8, 703-716	7.5	5
72	Feature Search in the Grassmanian in Online Reinforcement Learning. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2013 , 7, 746-758	7.5	5
71	Application of nonlinear filtering to credit risk. <i>Operations Research Letters</i> , 2010 , 38, 527-532	1	5
70	Quasi-stationary distributions as centrality measures for the giant strongly connected component of a reducible graph. <i>Journal of Computational and Applied Mathematics</i> , 2010 , 234, 3075-3090	2.4	5
69	A note on linear function approximation using random projections. <i>Systems and Control Letters</i> , 2008 , 57, 784-786	2.4	5
68	Pathwise recurrence orders and simulated annealing. <i>Journal of Applied Probability</i> , 1992 , 29, 472-476	0.8	5
67	A note on controlled diffusions on line with time-averaged cost. <i>Systems and Control Letters</i> , 1984 , 4, 1-4	2.4	5
66	Gaussian approximations in high dimensional estimation. <i>Systems and Control Letters</i> , 2016 , 92, 42-45	2.4	4
65	Stochastic approximation 2013 , 18, 1086-1094		4
64	A Distributed Boyle--Dykstra--Han Scheme. <i>SIAM Journal on Optimization</i> , 2017 , 27, 1880-1897	2	4
63	Approachability in Stackelberg Stochastic Games with Vector Costs. <i>Dynamic Games and Applications</i> , 2017 , 7, 422-442	1.1	4
62	Whittle Index for Partially Observed Binary Markov Decision Processes. <i>IEEE Transactions on Automatic Control</i> , 2017 , 62, 6614-6618	5.9	4
61	Controlling G-AIMD by index policy 2017 ,		4
60	Vector field guidance for convoy monitoring using elliptical orbits 2017 ,		4
59	Whittle index policy for crawling ephemeral content 2015 ,		4
58	A New Learning Algorithm for Optimal Stopping. <i>Discrete Event Dynamic Systems: Theory and Applications</i> , 2009 , 19, 91-113	1	4

57	A remark on control of partially observed Markov chains. <i>Annals of Operations Research</i> , 1991 , 29, 429-438	3.2	4
56	Mimicking finite dimensional marginals of a controlled diffusion by simpler controls. <i>Stochastic Processes and Their Applications</i> , 1989 , 31, 333-342	1.1	4
55	Controlled diffusions with boundary-crossing costs. <i>Applied Mathematics and Optimization</i> , 1988 , 18, 67-83	1.5	4
54	The probabilistic structure of controlled diffusion processes. <i>Acta Applicandae Mathematicae</i> , 1988 , 11, 19-48	1.1	4
53	Concentration bounds for two time scale stochastic approximation 2018 ,		4
52	A Structure-aware Online Learning Algorithm for Markov Decision Processes 2019 ,		3
51	Stochastic approximation algorithms for rumor source inference on graphs. <i>Performance Evaluation</i> , 2019 , 132, 1-20	1.2	3
50	Adaptive Feature Pursuit: Online Adaptation of Features in Reinforcement Learning 2013 , 517-534		3
49	Risk-constrained Markov decision processes 2010 ,		3
48	Cooperative dynamics and Wardrop equilibria. <i>Systems and Control Letters</i> , 2009 , 58, 91-93	2.4	3
47	On a controlled eigenvalue problem. <i>Systems and Control Letters</i> , 2010 , 59, 734-735	2.4	3
46	Distributed self-tuning of sensor networks. <i>Wireless Networks</i> , 2006 , 12, 531-544	2.5	3
45	Markov chains, Hamiltonian cycles and volumes of convex bodies. <i>Journal of Global Optimization</i> , 2013 , 55, 633-639	1.5	2
44	A stochastic Kaczmarz algorithm for network tomography. <i>Automatica</i> , 2014 , 50, 910-914	5.7	2
43	Who is the fairest of them all? 2012 ,		2
42	Evolutionary games with two timescales. <i>Physica D: Nonlinear Phenomena</i> , 1999 , 125, 155-166	3.3	2
41	On extremal solutions to stochastic control problems, II. <i>Applied Mathematics and Optimization</i> , 1993 , 28, 49-56	1.5	2
40	Control of a partially observed diffusion up to an exit time. <i>Systems and Control Letters</i> , 1987 , 8, 429-434	2.4	2

39	The value function in ergodic control of diffusion processes with partial observations II. <i>Appliciones Mathematicae</i> , 2000 , 27, 455-464	2	2
38	Aerial monitoring of slow moving convoys using elliptical orbits. <i>European Journal of Control</i> , 2019 , 46, 90-102	2.5	2
37	Online Reinforcement Learning of Optimal Threshold Policies for Markov Decision Processes. <i>IEEE Transactions on Automatic Control</i> , 2021 , 1-1	5.9	2
36	Whittle index based Q-learning for restless bandits with average reward. <i>Automatica</i> , 2022 , 139, 1101865-7	5.7	2
35	Event-driven stochastic approximation. <i>Indian Journal of Pure and Applied Mathematics</i> , 2016 , 47, 291-299	3	1
34	Non-asymptotic error bounds for constant stepsize stochastic approximation for tracking mobile agents. <i>Mathematics of Control, Signals, and Systems</i> , 2019 , 31, 589-614	1.3	1
33	Blackwell's approachability in stackelberg stochastic games: A learning version 2014 ,		1
32	An actor critic algorithm based on Grassmanian search 2014 ,		1
31	Linear and dynamic programming approaches to degenerate risk-sensitive reward processes 2017 ,		1
30	Reinforcement learning, particle filters and the EM algorithm 2014 ,		1
29	Finite dimensional approximation and Newton-based algorithm for stochastic approximation in Hilbert space. <i>Automatica</i> , 2009 , 45, 2815-2822	5.7	1
28	An Information Theoretic View of Stochastic Resonance 2007 ,		1
27	Ergodic Control of Partially Degenerate Diffusions in a Compact Domain. <i>Stochastic and Stochastics Reports</i> , 2003 , 75, 221-231		1
26	Erratum to Ergodic control of partially observed Markov chains [Systems Control Lett. 34 (1998) 185-189]. <i>Systems and Control Letters</i> , 1999 , 37, 181	2.4	1
25	A comparison principle for certain convex functionals of a diffusion process without drift. <i>Stochastic Processes and Their Applications</i> , 1987 , 25, 245-248	1.1	1
24	A Variational Characterization of the Risk-Sensitive Average Reward for Controlled Diffusions on \mathbb{R}^d . <i>SIAM Journal on Control and Optimization</i> , 2020 , 58, 3785-3813	1.9	1
23	Accelerating MCMC by Rare Intermittent Resets. <i>Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering</i> , 2021 , 107-125	0.2	1
22	On LP Formulations of Optimal Control Problems with Time Averaging and Time Discounting Criteria in Non-Ergodic Case 2019 ,		1

21	A learning algorithm for the Whittle index policy for scheduling web crawlers 2019 ,		1
20	Empirical Q-Value Iteration. <i>Stochastic Systems</i> , 2021 , 11, 1-18	1.7	1
19	Simultaneous Small Noise Limit for Singularly Perturbed Slow-Fast Coupled Diffusions. <i>Applied Mathematics and Optimization</i> , 2021 , 83, 2327-2374	1.5	1
18	A concentration bound for contractive stochastic approximation. <i>Systems and Control Letters</i> , 2021 , 153, 104947	2.4	1
17	Uniform Stability of Controlled Markov Processes. <i>Kluwer International Series in Engineering and Computer Science</i> , 2000 , 107-120		1
16	User Association in Dense mmWave Networks as Restless Bandits. <i>IEEE Transactions on Vehicular Technology</i> , 2022 , 1-1	6.8	1
15	Scheduling in wireless networks with spatial reuse of spectrum as restless bandits. <i>Performance Evaluation</i> , 2021 , 149-150, 102208	1.2	0
14	Prospect-theoretic Q-learning. <i>Systems and Control Letters</i> , 2021 , 156, 105009	2.4	0
13	Opinion shaping in social networks using reinforcement learning. <i>IEEE Transactions on Control of Network Systems</i> , 2021 , 1-1	4	0
12	Reinforcement learning, Sequential Monte Carlo and the EM algorithm. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2018 , 43, 1	1	
11	Newton's method 2002 , 7, 31-36		
10	Mathematical Programming Embeddings of Logic. <i>Journal of Automated Reasoning</i> , 2002 , 29, 91-106	1	
9	CORRECTION TO "TRANSMISSION RATE CONTROL OVER RANDOMLY VARYING CHANNELS" <i>Probability in the Engineering and Informational Sciences</i> , 2005 , 19, 471-471	0.6	
8	Method in the madness 2000 , 5, 37-46		
7	Weak convergence methods and singularly perturbed stochastic control and filtering problems. <i>Automatica</i> , 1992 , 28, 1071-1072	5.7	
6	Minimum toll control of diffusions. <i>Systems and Control Letters</i> , 1989 , 12, 343-349	2.4	
5	Pathwise smoothing of Markov processes with noisy observations. <i>Journal of Mathematical Analysis and Applications</i> , 1982 , 90, 525-535	1.1	
4	Parameter estimation in stochastic systems: some recent results and applications. <i>Systems and Control Letters</i> , 1982 , 1, 221-226	2.4	

- 3 Controlled Versions of the Collatz, Wielandt and Donsker-Varadhan Formulae. *Infosys Science Foundation Series*, **2020**, 199-214 0.1
- 2 On the fastest finite Markov processes. *Journal of Mathematical Analysis and Applications*, **2020**, 481, 123488 1.1
- 1 Revisiting SIR in the Age of COVID-19: Explicit Solutions and Control Problems. *SIAM Journal on Control and Optimization*, S370-S395 1.9