

Vikram Krishnamurthy

List of Publications by Year in Descending Order

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

149
papers

1,917
citations

23
h-index

39
g-index

181
ext. papers

2,380
ext. citations

4
avg, IF

5.64
L-index

#	Paper	IF	Citations
149	Controlling Segregation in Social Network Dynamics as an Edge Formation Game. <i>IEEE Transactions on Network Science and Engineering</i> , 2022 , 1-1	4.9	
148	Maximum Likelihood Estimation of Power-law Degree Distributions via Friendship Paradox-based Sampling. <i>ACM Transactions on Knowledge Discovery From Data</i> , 2021 , 15, 1-28	4	0
147	Segregation in Social Networks: MARKOV Bridge Models and Estimation 2021 ,		1
146	Risk-Averse Caching Policies for YouTube Content in Femtocell Networks using Density Forecasting. <i>IEEE Transactions on Cloud Computing</i> , 2021 , 9, 331-346	3.3	1
145	Echo Chambers and Segregation in Social Networks: Markov Bridge Models and Estimation. <i>IEEE Transactions on Computational Social Systems</i> , 2021 , 1-11	4.5	2
144	Quickest Change Detection of Time Inconsistent Anticipatory Agents. Human-Sensor and Cyber-Physical Systems. <i>IEEE Transactions on Signal Processing</i> , 2021 , 69, 1054-1069	4.8	0
143	. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2021 , 57, 2067-2081	3.7	0
142	Multi-kernel Passive Stochastic Gradient Algorithms and Transfer Learning. <i>IEEE Transactions on Automatic Control</i> , 2021 , 1-1	5.9	
141	Friendship paradox biases perceptions in directed networks. <i>Nature Communications</i> , 2020 , 11, 707	17.4	12
140	Controlled Sequential Information Fusion with Social Sensors. <i>IEEE Transactions on Automatic Control</i> , 2020 , 1-1	5.9	
139	Convex Stochastic Dominance in Bayesian Localization, Filtering, and Controlled Sensing POMDPs. <i>IEEE Transactions on Information Theory</i> , 2020 , 66, 3187-3201	2.8	2
138	Inverse Filtering for Hidden Markov Models With Applications to Counter-Adversarial Autonomous Systems. <i>IEEE Transactions on Signal Processing</i> , 2020 , 68, 4987-5002	4.8	4
137	What did your adversary believe? Optimal Filtering and Smoothing in Counter-Adversarial Autonomous Systems 2020 ,		1
136	Identifying Cognitive Radars - Inverse Reinforcement Learning Using Revealed Preferences. <i>IEEE Transactions on Signal Processing</i> , 2020 , 68, 4529-4542	4.8	3
135	Diffusion in Social Networks: Effects of Monophilic Contagion, Friendship Paradox, and Reactive Networks. <i>IEEE Transactions on Network Science and Engineering</i> , 2020 , 7, 1121-1132	4.9	6
134	. <i>IEEE Transactions on Signal and Information Processing Over Networks</i> , 2019 , 5, 538-553	2.8	1
133	What Do Your Friends Think? Efficient Polling Methods for Networks Using Friendship Paradox. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2019 , 1-1	4.2	6

132	2019, 3, 523-528		8
131	The Friendship Paradox: Implications In Statistical Inference Of Social Networks 2019,		3
130	. <i>IEEE Transactions on Signal Processing</i> , 2019, 67, 6511-6525	4.8	6
129	. <i>IEEE Transactions on Signal and Information Processing Over Networks</i> , 2019, 5, 1-14	2.8	3
128	A Distributed Coalition Game Approach to Femto-Cloud Formation. <i>IEEE Transactions on Cloud Computing</i> , 2019, 7, 129-140	3.3	14
127	A Methodology for Optimal Distributed Storage Planning in Smart Distribution Grids. <i>IEEE Transactions on Sustainable Energy</i> , 2018, 9, 729-740	8.2	13
126	Filterbased stochastic volatility in continuous-time hidden Markov models. <i>Econometrics and Statistics</i> , 2018, 6, 1-21	0.8	9
125	Inverse Filtering for Linear Gaussian State-Space Models 2018,		7
124	Syntactic Enhancement to VSIMM for Roadmap Based Anomalous Trajectory Detection: A Natural Language Processing Approach. <i>IEEE Transactions on Signal Processing</i> , 2018, 66, 5212-5227	4.8	4
123	Adaptive Scheme for Caching YouTube Content in a Cellular Network: Machine Learning Approach. <i>IEEE Access</i> , 2017, 5, 5870-5881	3.5	63
122	Tracking Infection Diffusion in Social Networks: Filtering Algorithms and Threshold Bounds. <i>IEEE Transactions on Signal and Information Processing Over Networks</i> , 2017, 3, 298-315	2.8	4
121	Engagement and Popularity Dynamics of YouTube Videos and Sensitivity to Meta-Data. <i>IEEE Transactions on Knowledge and Data Engineering</i> , 2017, 29, 1426-1437	4.2	20
120	Utility Change Point Detection in Online Social Media: A Revealed Preference Framework. <i>IEEE Transactions on Signal Processing</i> , 2017, 65, 1869-1880	4.8	7
119	Asymptotically Efficient Identification of Known-Sensor Hidden Markov Models. <i>IEEE Signal Processing Letters</i> , 2017, 24, 1813-1817	3.2	1
118	Detection of Homophilic Communities and Coordination of Interacting Meta-Agents: A Game-Theoretic Viewpoint. <i>IEEE Transactions on Signal and Information Processing Over Networks</i> , 2016, 2, 84-101	2.8	3
117	Partially Observed Markov Decision Processes: From Filtering to Controlled Sensing 2016,		111
116	The Effect of Tethers on Artificial Cell Membranes: A Coarse-Grained Molecular Dynamics Study. <i>PLoS ONE</i> , 2016, 11, e0162790	3.7	7
115	Angle-Only Filtering in Three Dimensions 2016, 1-42		

114	Particle Filtering Combined with Interval Methods for Tracking Applications 2016 , 43-74		
113	Bayesian Multiple Target Filtering Using Random Finite Sets 2016 , 75-126		
112	The Continuous Time Roots of the Interacting Multiple Model Filter 2016 , 127-162		
111	Multitarget Tracking Using Multiple Hypothesis Tracking 2016 , 163-202		0
110	Tracking and Data Fusion for Ground Surveillance 2016 , 203-254		
109	Performance Bounds for Target Tracking: Computationally Efficient Formulations and Associated Applications 2016 , 255-310		
108	Track-Before-Detect Techniques 2016 , 311-362		0
107	PAC Algorithms for Detecting Nash Equilibrium Play in Social Networks: From Twitter to Energy Markets. <i>IEEE Access</i> , 2016 , 4, 8147-8161	3.5	4
106	Sequential Detection of Market Shocks With Risk-Averse CVaR Social Sensors. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2016 , 10, 1061-1072	7.5	6
105	Advances in Data Fusion Architectures 2016 , 363-386		
104	Spatiotemporal trajectory models for metalevel target tracking. <i>IEEE Aerospace and Electronic Systems Magazine</i> , 2015 , 30, 16-31	2.4	16
103	Dynamic Modeling of Antimicrobial Pore Formation in Engineered Tethered Membranes. <i>IEEE Transactions on Molecular, Biological, and Multi-Scale Communications</i> , 2015 , 1, 265-276	2.3	3
102	Adaptive Caching in the YouTube Content Distribution Network: A Revealed Preference Game-Theoretic Learning Approach. <i>IEEE Transactions on Cognitive Communications and Networking</i> , 2015 , 1, 71-85	6.6	16
101	Nonparametric Demand Forecasting and Detection of Energy Aware Consumers. <i>IEEE Transactions on Smart Grid</i> , 2015 , 6, 695-704	10.7	21
100	A Tutorial on Interactive Sensing in Social Networks. <i>IEEE Transactions on Computational Social Systems</i> , 2014 , 1, 3-21	4.5	42
99	. <i>IEEE Transactions on Information Theory</i> , 2014 , 60, 6609-6625	2.8	16
98	An engineered membrane to measure electroporation: effect of tethers and bioelectronic interface. <i>Biophysical Journal</i> , 2014 , 107, 1339-51	2.9	20
97	Sensor Management for Large-Scale Multisensor-Multitarget Tracking 2014 , 447-520		1

96	Efficient Inference in General Hybrid Bayesian Networks for Classification 2014 , 521-546		
95	Evaluating Multisensor Classification Performance with Bayesian Networks 2014 , 547-578		
94	Detection and Estimation of Radiological Sources 2014 , 579-616		
93	Angle-Only Filtering in Three Dimensions 2014 , 1-42		1
92	Particle Filtering Combined with Interval Methods for Tracking Applications 2014 , 43-74		1
91	Bayesian Multiple Target Filtering Using Random Finite Sets 2014 , 75-126		3
90	The Continuous Time Roots of the Interacting Multiple Model Filter 2014 , 127-162		
89	Multitarget Tracking Using Multiple Hypothesis Tracking 2014 , 163-203		1
88	Tracking and Data Fusion for Ground Surveillance 2014 , 203-254		
87	Track-Before-Detect Techniques 2014 , 311-362		2
86	Intent Inference and Detection of Anomalous Trajectories: A Metalevel Tracking Approach 2014 , 387-414		
85	Radar Resource Management for Target Tracking: A Stochastic Control Approach 2014 , 315-346		
84	Evidential Networks for Decision Support in Surveillance Systems 2014 , 661-704		
83	Distributed Detection and Decision Fusion with Applications to Wireless Sensor Networks 2014 , 617-660		
82	Interactive Sensing and Decision Making in Social Networks. <i>Foundations and Trends in Signal Processing</i> , 2014 , 7, 1-196	2.7	32
81	Advances in Data Fusion Architectures 2014 , 363-386		
80	Performance Bounds for Target Tracking: Computationally Efficient Formulations and Associated Applications 2014 , 255-310		1
79	. <i>IEEE Transactions on Computational Social Systems</i> , 2014 , 1, 164-179	4.5	10

78	Syntactic Models for Trajectory Constrained Track-Before-Detect. <i>IEEE Transactions on Signal Processing</i> , 2014 , 62, 6130-6142	4.8	5
77	Reduced Complexity HMM Filtering With Stochastic Dominance Bounds: A Convex Optimization Approach. <i>IEEE Transactions on Signal Processing</i> , 2014 , 62, 6309-6322	4.8	1
76	Distributed Energy-Aware Diffusion Least Mean Squares: Game-Theoretic Learning. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2013 , 7, 821-836	7.5	42
75	. <i>IEEE Transactions on Automatic Control</i> , 2013 , 58, 2435-2450	5.9	16
74	Mis-Information Removal in Social Networks: Constrained Estimation on Dynamic Directed Acyclic Graphs. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2013 , 7, 333-346	7.5	10
73	Multiple Surface-Based Biosensors for Enhanced Molecular Detection in Fluid Flow Systems. <i>IEEE Sensors Journal</i> , 2013 , 13, 1265-1273	4	3
72	Detection of Anomalous Trajectory Patterns in Target Tracking via Stochastic Context-Free Grammars and Reciprocal Process Models. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2013 , 7, 76-90	7.5	33
71	Collaborative Sub-Channel Allocation in Cognitive LTE Femto-Cells: A Cooperative Game-Theoretic Approach. <i>IEEE Transactions on Communications</i> , 2013 , 61, 325-334	6.9	52
70	A distributed control scheme for triangular formations with Markovian disturbances 2013 ,		1
69	Quickest Detection POMDPs With Social Learning: Interaction of Local and Global Decision Makers. <i>IEEE Transactions on Information Theory</i> , 2012 , 58, 5563-5587	2.8	37
68	Engineering aspects of biological ion channels--from biosensors to computational models for permeation. <i>Protoplasma</i> , 2012 , 249 Suppl 1, S3-9	3.4	7
67	Quickest detection of market shocks in agent based models of the order book 2012 ,		3
66	Gradient based policy optimization of constrained Markov decision processes. <i>Advances in Statistics, Probability and Actuarial Science</i> , 2012 , 503-547		0
65	Afriat's Test for Detecting Malicious Agents. <i>IEEE Signal Processing Letters</i> , 2012 , 19, 801-804	3.2	11
64	Average-Consensus in a Deterministic FrameworkPart I: Strong Connectivity. <i>IEEE Transactions on Signal Processing</i> , 2012 , 60, 6590-6603	4.8	7
63	Average-Consensus in a Deterministic FrameworkPart II: Central Connectivity. <i>IEEE Transactions on Signal Processing</i> , 2012 , 60, 6604-6616	4.8	1
62	Semi-Markov models for brownian dynamics permeation in biological ion channels. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , 2011 , 8, 273-81	3	1
61	. <i>IEEE Transactions on Aerospace and Electronic Systems</i> , 2011 , 47, 2824-2843	3.7	13

60	Cognitive Base Stations in LTE/3GPP Femtocells: A Correlated Equilibrium Game-Theoretic Approach. <i>IEEE Transactions on Communications</i> , 2011 , 59, 3485-3493	6.9	95
59	Bayesian Sequential Detection With Phase-Distributed Change Time and Nonlinear Penalty/A POMDP Lattice Programming Approach. <i>IEEE Transactions on Information Theory</i> , 2011 , 57, 7096-7124	2.8	33
58	Interference Diversity Gain and its Application in Multi-Channel Systems: Capacity Maximization and QoS Guarantee Strategies. <i>IEEE Transactions on Communications</i> , 2011 , 59, 248-257	6.9	1
57	A Price Based Decentralized Rate Selection in IEEE 802.11 Based WLANs. <i>Wireless Personal Communications</i> , 2011 , 56, 517-534	1.9	2
56	Factor graph-based structural equilibria in dynamical games 2011 ,		1
55	Destination-aware target tracking via syntactic signal processing 2011 ,		18
54	Quickest time detection and constrained optimal social learning with variance penalty 2010 ,		1
53	Distributed correlated Q-learning for dynamic transmission control of sensor networks 2010 ,		7
52	On prolonging life-time in wireless sensor networks with application in localization: A coalitional game-theoretic approach 2010 ,		2
51	Monotonicity of Constrained Optimal Transmission Policies in Correlated Fading Channels With ARQ. <i>IEEE Transactions on Signal Processing</i> , 2010 , 58, 438-451	4.8	29
50	A Dynamical Games Approach to Transmission-Rate Adaptation in Multimedia WLAN. <i>IEEE Transactions on Signal Processing</i> , 2010 , 58, 3635-3646	4.8	8
49	Coalition Formation for Bearings-Only Localization in Sensor Networks/A Cooperative Game Approach. <i>IEEE Transactions on Signal Processing</i> , 2010 , 58, 4322-4338	4.8	40
48	Ion-Channel BiosensorsPart I: Construction, Operation, and Clinical Studies. <i>IEEE Nanotechnology Magazine</i> , 2010 , 9, 303-312	2.6	23
47	Ion Channel BiosensorsPart II: Dynamic Modeling, Analysis, and Statistical Signal Processing. <i>IEEE Nanotechnology Magazine</i> , 2010 , 9, 313-321	2.6	15
46	Decentralized spectrum access via multivariate global games 2010 ,		2
45	Transmission control in cognitive radio as a Markovian dynamic game: Structural result on randomized threshold policies. <i>IEEE Transactions on Communications</i> , 2010 , 58, 301-310	6.9	30
44	Multi-user scalable video transmission control in cognitive radio networks as a Markovian dynamic game 2009 ,		10
43	Decentralized Spectrum Access Amongst Cognitive Radios/A Interacting Multivariate Global Game-Theoretic Approach. <i>IEEE Transactions on Signal Processing</i> , 2009 , 57, 3999-4013	4.8	20

42	Decentralized dynamic spectrum access for cognitive radios: cooperative design of a non-cooperative game. <i>IEEE Transactions on Communications</i> , 2009 , 57, 459-469	6.9	125
41	Optimal adaptive modulation and coding with switching costs. <i>IEEE Transactions on Communications</i> , 2009 , 57, 697-706	6.9	9
40	Optimality of threshold policies for transmission scheduling in correlated fading channels. <i>IEEE Transactions on Communications</i> , 2009 , 57, 2474-2483	6.9	36
39	Truth revealing opportunistic scheduling in cognitive radio systems 2009 ,		2
38	Optimal Threshold Policies for Multivariate POMDPs in Radar Resource Management. <i>IEEE Transactions on Signal Processing</i> , 2009 , 57, 3954-3969	4.8	46
37	Stochastic multi-particle Brownian Dynamics simulation of biological ion channels: A Finite Element approach 2009 ,		1
36	Application of Mechanism Design in Opportunistic Scheduling under Cognitive Radio Systems 2009 ,		2
35	Combined link adaptation and traffic control scheme for MGS H.264/AVC video transmission 2009 ,		1
34	Moment based regression algorithms for drift and volatility estimation in continuous-time Markov switching models. <i>Econometrics Journal</i> , 2008 , 11, 244-270	2.4	12
33	Optimal Channel-Aware ALOHA Protocol for Random Access in WLANs With Multipacket Reception and Decentralized Channel State Information. <i>IEEE Transactions on Signal Processing</i> , 2008 , 56, 2575-2588	4.8	32
32	Real-time joint rate and protection allocation for multi-user scalable video streaming 2008 ,		5
31	Decentralized Node Selection for Localization in Wireless Unattended Ground Sensor Networks 2008 ,		8
30	Transmission control in cognitive radio systems with latency constraints as a switching control dynamic game 2008 ,		4
29	Game Theoretic Rate Adaptation for Spectrum-Overlay Cognitive Radio Networks 2008 ,		5
28	Decentralized Activation in Dense Sensor Networks via Global Games. <i>IEEE Transactions on Signal Processing</i> , 2008 , 56, 4936-4950	4.8	19
27	Rate and distortion modeling of medium grain scalable video coding 2008 ,		10
26	Joint media-channel aware unequal error protection for wireless scalable video streaming. <i>Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing</i> , 2008 ,	1.6	10
25	Cross-layer radio resource allocation in packet CDMA wireless mobile networks. <i>Wireless Networks</i> , 2008 , 14, 183-198	2.5	

24	Optimal and Approximate Mobility-Assisted Opportunistic Scheduling in Cellular Networks. <i>IEEE Transactions on Mobile Computing</i> , 2007 , 6, 633-648	4.6	12
23	Gramicidin Ion Channel-Based Biosensors: Construction, Stochastic Dynamical Models, and Statistical Detection Algorithms. <i>IEEE Sensors Journal</i> , 2007 , 7, 1281-1288	4	7
22	Q-Learning Algorithms for Constrained Markov Decision Processes With Randomized Monotone Policies: Application to MIMO Transmission Control. <i>IEEE Transactions on Signal Processing</i> , 2007 , 55, 2170-2181	4.8	52
21	Structured Threshold Policies for Dynamic Sensor Scheduling: A Partially Observed Markov Decision Process Approach. <i>IEEE Transactions on Signal Processing</i> , 2007 , 55, 4938-4957	4.8	74
20	Optimal Joint Session Admission Control in Integrated WLAN and CDMA Cellular Networks with Vertical Handoff. <i>IEEE Transactions on Mobile Computing</i> , 2007 , 6, 126-139	4.6	103
19	On Optimality of Monotone Channel-Aware Transmission Policies: A Constrained Markov Decision Process Approach 2007 ,		3
18	Decentralized adaptation in sensor networks: Analysis and application of regret-based algorithms 2007 ,		4
17	Channel Adaptive Multi-User Scalable Video Streaming with Unequal Erasure Protection 2007 ,		6
16	Optimality of Monotone Policies for Transmission Control with Switching Costs 2007 ,		1
15	Game Theoretic Cross-Layer Transmission Policies in Multipacket Reception Wireless Networks. <i>IEEE Transactions on Signal Processing</i> , 2007 , 55, 1911-1926	4.8	34
14	Adaptive Brownian dynamics for shape estimation of sodium ion channels. <i>Journal of Nanoscience and Nanotechnology</i> , 2007 , 7, 2273-82	1.3	2
13	MIMO Transmission Control in Fading Channels: A Constrained Markov Decision Process Formulation With Monotone Randomized Policies. <i>IEEE Transactions on Signal Processing</i> , 2007 , 55, 5069-5083	4.8	52
12	Transmission Scheduling for Optimizing Sensor Network Lifetime: A Stochastic Shortest Path Approach. <i>IEEE Transactions on Signal Processing</i> , 2007 , 55, 2294-2309	4.8	89
11	SPCp1-08: Adaptive Learning of Transmission Control Policies for MIMO Fading Channels under Delay Constraint. <i>IEEE Global Telecommunications Conference (GLOBECOM)</i> , 2006 ,		1
10	Stochastic Approximation Based Tracking of Correlated Equilibria for Game-Theoretic Reconfigurable Sensor Network Deployment 2006 ,		1
9	Controlled hidden markov models for dynamically adapting patch clamp experiment to estimate Nernst potential of single-ion channels. <i>IEEE Transactions on Nanobioscience</i> , 2006 , 5, 115-25	3.4	3
8	Modeling of Loss-Distortion in Hierarchical Prediction Codecs 2006 ,		10
7	Adaptive Brownian dynamics simulation for estimating potential mean force in ion channel permeation. <i>IEEE Transactions on Nanobioscience</i> , 2006 , 5, 126-38	3.4	6

6	Brownian dynamics simulation for modeling ion permeation across bionanotubes. <i>IEEE Transactions on Nanobioscience</i> , 2005 , 4, 102-11	3-4	9
5	A graph theoretic approach to data incest management in network centric warfare 2005 ,		2
4	Dynamic ion channel activation scheduling in patch clamp on a chip. <i>IEEE Transactions on Nanobioscience</i> , 2004 , 3, 217-24	3-4	1
3	Adaptive learning algorithms for nernst potential and I-V curves in nerve cell membrane ion channels modeled as hidden Markov models. <i>IEEE Transactions on Nanobioscience</i> , 2003 , 2, 266-78	3-4	6
2	A method for constructing the observer trajectory in bearings-only tracking of targets with a Markovian model		3
1	Game Theoretic Activation and Transmission Scheduling in Unattended Ground Sensor Networks: A Correlated Equilibrium Approach 349-387		1