

# Shreyas Sundaram

## List of Publications by Year in descending order

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132  
papers

3,738  
citations

257101

24  
h-index

189595

50  
g-index

132  
all docs

132  
docs citations

132  
times ranked

1985  
citing authors

#	ARTICLE	IF	CITATIONS
1	Resilient Asymptotic Consensus in Robust Networks. IEEE Journal on Selected Areas in Communications, 2013, 31, 766-781.	9.7	468
2	Distributed Function Calculation via Linear Iterative Strategies in the Presence of Malicious Agents. IEEE Transactions on Automatic Control, 2011, 56, 1495-1508.	3.6	371
3	Distributed Autonomous Online Learning: Regrets and Intrinsic Privacy-Preserving Properties. IEEE Transactions on Knowledge and Data Engineering, 2013, 25, 2483-2493.	4.0	168
4	The Wireless Control Network: A New Approach for Control Over Networks. IEEE Transactions on Automatic Control, 2011, 56, 2305-2318.	3.6	137
5	Distributed function calculation and consensus using linear iterative strategies. IEEE Journal on Selected Areas in Communications, 2008, 26, 650-660.	9.7	126
6	Distributed Optimization Under Adversarial Nodes. IEEE Transactions on Automatic Control, 2019, 64, 1063-1076.	3.6	126
7	Distributed Observers for LTI Systems. IEEE Transactions on Automatic Control, 2018, 63, 3689-3704.	3.6	124
8	Delayed Observers for Linear Systems With Unknown Inputs. IEEE Transactions on Automatic Control, 2007, 52, 334-339.	3.6	120
9	Finite-Time Distributed Consensus in Graphs with Time-Invariant Topologies. Proceedings of the American Control Conference, 2007, , .	0.0	116
10	Sensor selection for Kalman filtering of linear dynamical systems: Complexity, limitations and greedy algorithms. Automatica, 2017, 78, 202-210.	3.0	116
11	A Notion of Robustness in Complex Networks. IEEE Transactions on Control of Network Systems, 2015, 2, 310-320.	2.4	114
12	Structural Controllability and Observability of Linear Systems Over Finite Fields With Applications to Multi-Agent Systems. IEEE Transactions on Automatic Control, 2013, 58, 60-73.	3.6	79
13	Consensus of multi-agent networks in the presence of adversaries using only local information. , 2012, , .		68
14	Byzantine-resilient distributed observers for LTI systems. Automatica, 2019, 108, 108487.	3.0	68
15	The wireless control network: Monitoring for malicious behavior. , 2010, , .		52
16	Robustness of information diffusion algorithms to locally bounded adversaries. , 2012, , .		51
17	Distributed function calculation via linear iterations in the presence of malicious agents &#x2014; Part I: Attacking the network. , 2008, , .		44
18	Interdependent Security Games on Networks Under Behavioral Probability Weighting. IEEE Transactions on Control of Network Systems, 2018, 5, 262-273.	2.4	41

#	ARTICLE	IF	CITATIONS
19	Robustness of Leader-Follower Networked Dynamical Systems. IEEE Transactions on Control of Network Systems, 2018, 5, 1752-1763.	2.4	37
20	Partial state observers for linear systems with unknown inputs. Automatica, 2008, 44, 3126-3132.	3.0	36
21	Spectral properties of the grounded Laplacian matrix with applications to consensus in the presence of stubborn agents. , 2014, , .		36
22	Secure distributed observers for a class of linear time invariant systems in the presence of Byzantine adversaries. , 2016, , .		36
23	Design of communication networks for distributed computation with privacy guarantees. , 2014, , .		35
24	Game-Theoretic Vaccination Against Networked SIS Epidemics and Impacts of Human Decision-Making. IEEE Transactions on Control of Network Systems, 2019, 6, 1461-1472.	2.4	35
25	Consensus-based distributed optimization with malicious nodes. , 2015, , .		34
26	Resilient distributed state estimation with mobile agents: overcoming Byzantine adversaries, communication losses, and intermittent measurements. Autonomous Robots, 2019, 43, 743-768.	3.2	34
27	Distributed function calculation via linear iterations in the presence of malicious agents &#x2014; Part II: Overcoming malicious behavior. , 2008, , .		32
28	Cooperative Vehicle Speed Fault Diagnosis and Correction. IEEE Transactions on Intelligent Transportation Systems, 2019, 20, 783-789.	4.7	31
29	Topological conditions for wireless control networks. , 2011, , .		30
30	Resilience against misbehaving nodes in asynchronous networks. Automatica, 2019, 104, 26-33.	3.0	30
31	Robustness of complex networks with implications for consensus and contagion. , 2012, , .		29
32	A simple median-based resilient consensus algorithm. , 2012, , .		29
33	Fragility of the commons under prospect-theoretic risk attitudes. Games and Economic Behavior, 2016, 98, 135-164.	0.4	29
34	Delayed unknown input observers for discrete-time linear systems with guaranteed performance. Systems and Control Letters, 2017, 103, 9-15.	1.3	28
35	A control-theoretic approach to disseminating values and overcoming malicious links in wireless networks. Automatica, 2012, 48, 2894-2901.	3.0	27
36	Topological Conditions for In-Network Stabilization of Dynamical Systems. IEEE Journal on Selected Areas in Communications, 2013, 31, 794-807.	9.7	26

#	ARTICLE	IF	CITATIONS
37	Designing Stable Inverters and State Observers for Switched Linear Systems with Unknown Inputs. , 2006, , .		23
38	The Wireless Control Network: Synthesis and robustness. , 2010, , .		22
39	Resilient continuous-time consensus in fractional robust networks. , 2013, , .		22
40	Partially decentralized control of large-scale variable-refrigerant-flow systems in buildings. Journal of Process Control, 2014, 24, 798-819.	1.7	22
41	On the Smallest Eigenvalue of Grounded Laplacian Matrices. IEEE Transactions on Automatic Control, 2015, , 1-1.	3.6	22
42	Closing the loop. , 2012, , .		21
43	An approach for distributed state estimation of LTI systems. , 2016, , .		20
44	Behavioral and Game-Theoretic Security Investments in Interdependent Systems Modeled by Attack Graphs. IEEE Transactions on Control of Network Systems, 2020, 7, 1585-1596.	2.4	20
45	Secure Distributed State Estimation of an LTI System Over Time-Varying Networks and Analog Erasure Channels. , 2018, , .		19
46	Robustness and Algebraic Connectivity of Random Interdependent Networks. IFAC-PapersOnLine, 2015, 48, 252-257.	0.5	18
47	The Strategic Formation of Multi-Layer Networks. IEEE Transactions on Network Science and Engineering, 2015, 2, 164-178.	4.1	18
48	State and unknown input observers for discrete-time nonlinear systems. , 2016, , .		18
49	A New Approach to Distributed Hypothesis Testing and Non-Bayesian Learning: Improved Learning Rate and Byzantine Resilience. IEEE Transactions on Automatic Control, 2021, 66, 4084-4100.	3.6	18
50	Multi-Robot Routing for Persistent Monitoring with Latency Constraints. , 2019, , .		17
51	On a Networked SIS Epidemic Model With Cooperative and Antagonistic Opinion Dynamics. IEEE Transactions on Control of Network Systems, 2022, 9, 1154-1165.	2.4	17
52	Fault-Tolerant Convolution Via Chinese Remainder Codes Constructed From Non-Coprime Moduli. IEEE Transactions on Signal Processing, 2008, 56, 4244-4254.	3.2	15
53	Robust heterogeneous data center design. Performance Evaluation Review, 2011, 39, 28-30.	0.4	15
54	Sensor selection for optimal filtering of linear dynamical systems: Complexity and approximation. , 2015, , .		15

#	ARTICLE	IF	CITATIONS
55	On the Impact of Trusted Nodes in Resilient Distributed State Estimation of LTI Systems. , 2018, , .		15
56	A New Approach for Distributed Hypothesis Testing with Extensions to Byzantine-Resilience. , 2019, , .		15
57	On the Complexity and Approximability of Optimal Sensor Selection and Attack for Kalman Filtering. IEEE Transactions on Automatic Control, 2021, 66, 2146-2161.	3.6	15
58	Byzantine-Resilient Distributed Optimization of Multi-Dimensional Functions. , 2020, , .		15
59	Distributed consensus and linear functional calculation in networks. , 2007, , .		14
60	Spectral and structural properties of random interdependent networks. Automatica, 2017, 83, 234-242.	3.0	14
61	Finite-Time Distributed State Estimation over Time-Varying Graphs: Exploiting the Age-of-Information. , 2019, , .		14
62	Coherence and convergence rate in networked dynamical systems. , 2015, , .		13
63	On the Complexity and Approximability of Optimal Sensor Selection for Kalman Filtering. , 2018, , .		12
64	A Communication-Efficient Algorithm for Exponentially Fast Non-Bayesian Learning in Networks. , 2019, , .		12
65	On the Impacts of Redundancy, Diversity, and Trust in Resilient Distributed State Estimation. IEEE Transactions on Control of Network Systems, 2021, 8, 713-724.	2.4	12
66	Optimal State Estimators for Linear Systems with Unknown Inputs. , 2006, , .		11
67	Distributed Finite-Time Optimization. , 2018, , .		10
68	Resilient Sensor Placement for Kalman Filtering in Networked Systems: Complexity and Algorithms. IEEE Transactions on Control of Network Systems, 2020, 7, 1870-1881.	2.4	10
69	On the computational complexity of the secure state-reconstruction problem. Automatica, 2022, 136, 110083.	3.0	10
70	When is the Secure State-Reconstruction Problem Hard?. , 2019, , .		9
71	A Game-Theoretic Framework for Securing Interdependent Assets in Networks. Static and Dynamic Game Theory: Foundations and Applications, 2018, , 157-184.	0.4	9
72	Secure local filtering algorithms for distributed optimization. , 2016, , .		8

#	ARTICLE	IF	CITATIONS
73	Distributed Inference With Sparse and Quantized Communication. IEEE Transactions on Signal Processing, 2021, 69, 3906-3921.	3.2	8
74	Distributed dominating sets on grids. , 2013, , .		7
75	Stability of dynamical systems on a graph. , 2014, , .		7
76	Multi-layer network formation via a Colonel Blotto game. , 2014, , .		7
77	Distributed unknown input observers for interconnected nonlinear systems. , 2016, , .		7
78	Min-Max Tours for Task Allocation to Heterogeneous Agents. , 2018, , .		7
79	Game-Theoretic Protection Against Networked SIS Epidemics by Human Decision-Makers. IFAC-PapersOnLine, 2019, 51, 145-150.	0.5	7
80	Min-Max Tours and Paths for Task Allocation to Heterogeneous Agents. IEEE Transactions on Control of Network Systems, 2020, 7, 1511-1522.	2.4	7
81	Network defense and behavioral biases: an experimental study. Experimental Economics, 2022, 25, 254-286.	1.0	7
82	The Impacts of Behavioral Probability Weighting on Security Investments in Interdependent Systems. , 2019, , .		7
83	Reputation-based networked control with data-corrupting channels. , 2011, , .		6
84	Distributed functional observers for LTI systems. , 2017, , .		6
85	Resilience against Misbehaving Nodes in Self-triggered Coordination Networks. , 2018, , .		6
86	Protecting Assets with Heterogeneous Valuations under Behavioral Probability Weighting. , 2019, , .		6
87	Optimal Sequencing Policies for Recovery of Physical Infrastructure After Disasters. , 2019, , .		6
88	Event-Triggered Distributed Inference. , 2020, , .		6
89	The Effect of Behavioral Probability Weighting in a Simultaneous Multi-Target Attacker-Defender Game. , 2021, , .		6
90	An Efficient Periodic Resource Supply Model for Workloads with Transient Overloads. , 2013, , .		5

#	ARTICLE	IF	CITATIONS
91	Strategic multi-layer network formation. , 2013, , .		5
92	The Game-Theoretic Formation of Interconnections Between Networks. IEEE Journal on Selected Areas in Communications, 2017, 35, 341-352.	9.7	5
93	Graph-Theoretic Analysis of Estimators for Stochastically-Driven Diffusive Network Processes. , 2018, , .		5
94	Morshed: Guiding Behavioral Decision-Makers towards Better Security Investment in Interdependent Systems. , 2021, , .		5
95	Towards Resilience for Multi-Agent QD-Learning. , 2021, , .		5
96	Error detection and correction in switched linear controllers via periodic and non-concurrent checks. Automatica, 2006, 42, 383-391.	3.0	4
97	Information dissemination in networks via linear iterative strategies over finite fields. , 2009, , .		4
98	Network synthesis for dynamical system stabilization. , 2011, , .		4
99	Optimal network topologies for mitigating security and epidemic risks. , 2016, , .		4
100	Controlling human utilization of shared resources via taxes. , 2016, , .		4
101	Optimal Sensor Placement for Kalman Filtering in Stochastically Forced Consensus Networks. , 2018, , .		4
102	Distributed Maximization of Submodular and Approximately Submodular Functions. , 2020, , .		4
103	Controlling Human Utilization of Failure-Prone Systems via Taxes. IEEE Transactions on Automatic Control, 2021, 66, 5772-5787.	3.6	4
104	Distributed calculation of linear functions in noisy networks via linear iterations. , 2008, , .		3
105	Ignoring extreme opinions in complex networks: The impact of heterogeneous thresholds. , 2016, , .		3
106	Approximation algorithms for the recovery of infrastructure after disasters under precedence constraints. IFAC-PapersOnLine, 2019, 52, 175-180.	0.5	3
107	Interdependent Security Games Under Behavioral Probability Weighting. Lecture Notes in Computer Science, 2015, , 150-169.	1.0	3
108	The Effect of Behavioral Probability Weighting in a Sequential Defender-Attacker Game. , 2020, , .		3

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109	Distributed State Estimation Over Time-Varying Graphs: Exploiting the Age-of-Information. IEEE Transactions on Automatic Control, 2022, 67, 6349-6365.	3.6	3
110	Peak Infection Time for a Networked SIR Epidemic with Opinion Dynamics. , 2021, , .		3
111	Control of quantized multi-agent systems with linear nearest neighbor rules: A finite field approach. , 2010, , .		2
112	Stability analysis for decentralized control of multi-evaporator vapor-compression cycle systems. , 2012, , .		2
113	Predictable revenue under processor sharing. , 2012, , .		2
114	Stabilizability over deterministic relay networks. , 2013, , .		2
115	On the Location of the Minimizer of the Sum of Two Strongly Convex Functions. , 2018, , .		2
116	Distributed Estimation of Sparse Inverse Covariances. , 2021, , .		2
117	Linear iterative strategies for transmitting streams of values through sensor networks. , 2009, , .		1
118	Resource sharing games with failures and heterogeneous risk attitudes. , 2013, , .		1
119	A Novel Switched Linear Observer for Estimating the State of a Dynamical Process with a Mobile Agent. , 2018, , .		1
120	Sensor Selection for Hypothesis Testing: Complexity and Greedy Algorithms. , 2019, , .		1
121	Optimizing Quality of Experience for Long-Range UAS Video Streaming. , 2021, , .		1
122	On the Set of Possible Minimizers of a Sum of Known and Unknown Functions. , 2020, , .		1
123	Parameter Estimation in Epidemic Spread Networks Using Limited Measurements. SIAM Journal on Control and Optimization, 2022, 60, S49-S74.	1.1	1
124	Symposium and Control and Modeling of Alternative Energy Systems [Conference Reports]. IEEE Control Systems, 2010, 30, 87-89.	1.0	0
125	HMM-based characterization of channel behavior for networked control systems. , 2012, , .		0
126	State estimation for linear systems with unknown inputs: Unknown input norm-observers and BIBOBS stability. , 2015, , .		0



#	ARTICLE	IF	CITATIONS
127	Pricing schemes in processor sharing systems. Telecommunication Systems, 2016, 63, 421-435.	1.6	0
128	Sensor Selection and Removal for State Estimation of Linear Systems with Unknown Inputs. , 2018, , .		0
129	Resilience for Consensus-based Distributed Algorithms in Hostile Environmentâ€. , 2019, , .		0
130	Optimal Repair Policies for Systems Deteriorating After Disruptions. IEEE Transactions on Automatic Control, 2021, , 1-1.	3.6	0
131	HIOA-CPS: Combining Hybrid Input-Output Automaton and Game Theory for Security Modeling of Cyber-Physical Systems. , 2021, , .		0
132	Control Policies for Recovery of Interdependent Systems After Disruptions. IEEE Transactions on Control of Network Systems, 2021, , 1-1.	2.4	0