Anna Scaglione

List of Publications by Year
in descending order

184	4,514	159358	133063
184 papers	**4,514** citations	**30** h-index	**59** g-index
184 all docs	**184** docs citations	**184** times ranked	**3755** citing authors

#	Article	IF	Citations
1	Gossip Algorithms for Distributed Signal Processing. Proceedings of the IEEE, 2010, 98, 1847-1864.	16.4	659
2	Distributed Constrained Optimization by Consensus-Based Primal-Dual Perturbation Method. IEEE Transactions on Automatic Control, 2014, 59, 1524-1538.	3.6	303
3	Generating Statistically Correct Random Topologies for Testing Smart Grid Communication and Control Networks. IEEE Transactions on Smart Grid, 2010, 1, 28-39.	6.2	213
4	Optimal Pricing to Manage Electric Vehicles in Coupled Power and Transportation Networks. IEEE Transactions on Control of Network Systems, 2017, 4, 863-875.	2.4	143
5	Real-Time Power Balancing Via Decentralized Coordinated Home Energy Scheduling. IEEE Transactions on Smart Grid, 2013, 4, 1490-1504.	6.2	128
6	Electrical centrality measures for electric power grid vulnerability analysis. , 2010, , .		122
7	A Scalable Stochastic Model for the Electricity Demand of Electric and Plug-In Hybrid Vehicles. IEEE Transactions on Smart Grid, 2014, 5, 848-860.	6.2	112
8	Demand-Side Management in the Smart Grid: Information Processing for the Power Switch. IEEE Signal Processing Magazine, 2012, 29, 55-67.	4.6	97
9	Anomaly Detection Using Optimally Placed <inline-formula> <tex-math notation="LaTeX">μPMU </tex-math> </inline-formula> Sensors in Distribution Grids. IEEE Transactions on Power Systems, 2018, 33, 3611-3623.	4.6	94
10	Consensus, Polarization and Clustering of Opinions in Social Networks. IEEE Journal on Selected Areas in Communications, 2013, 31, 1072-1083.	9.7	92
11	On the Interdependence of Routing and Data Compression in Multi-Hop Sensor Networks. Wireless Networks, 2005, 11, 149-160.	2.0	89
12	A Markov-Transition Model for Cascading Failures in Power Grids. , 2012, , .		72
13	Scalable Network Synchronization with Pulse-Coupled Oscillators. IEEE Transactions on Mobile Computing, 2011, 10, 392-405.	3.9	71
14	LayBack: SDN Management of Multi-Access Edge Computing (MEC) for Network Access Services and Radio Resource Sharing. IEEE Access, 2018, 6, 57545-57561.	2.6	67
15	Distributed Principal Subspace Estimation in Wireless Sensor Networks. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 725-738.	7.3	63
16	From Packet to Power Switching: Digital Direct Load Scheduling. IEEE Journal on Selected Areas in Communications, 2012, 30, 1027-1036.	9.7	61
17	Bio-inspired algorithms for decentralized round-robin and proportional fair scheduling. IEEE Journal on Selected Areas in Communications, 2010, 28, 564-575.	9.7	59
18	Unit Commitment With Continuous-Time Generation and Ramping Trajectory Models. IEEE Transactions on Power Systems, 2016, 31, 3169-3178.	4.6	57

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19	Models for the Diffusion of Beliefs in Social Networks: An Overview. IEEE Signal Processing Magazine, 2013, 30, 16-29.	4.6	55
20	Decentralized Frankâ€"Wolfe Algorithm for Convex and Nonconvex Problems. IEEE Transactions on Automatic Control, 2017, 62, 5522-5537.	3.6	54
21	Coding With Side Information for Rate-Constrained Consensus. IEEE Transactions on Signal Processing, 2008, 56, 3753-3764.	3.2	52
22	Active Sensing of Social Networks. IEEE Transactions on Signal and Information Processing Over Networks, 2016, 2, 406-419.	1.6	52
23	Robust Decentralized State Estimation and Tracking for Power Systems via Network Gossiping. IEEE Journal on Selected Areas in Communications, 2013, 31, 1184-1194.	9.7	51
24	The decentralized estimation of the sample covariance. , 2008, , .		50
25	A Metric-Based Validation Process to Assess the Realism of Synthetic Power Grids. Energies, 2017, 10, 1233.	1.6	45
26	Multipacket Reception of Passive UHF RFID Tags: A Communication Theoretic Approach. IEEE Transactions on Signal Processing, 2011, 59, 4225-4237.	3.2	44
27	Blind topology identification for power systems. , 2013, , .		43
28	A Framework for Phasor Measurement Placement in Hybrid State Estimation Via Gaussâ€"Newton. IEEE Transactions on Power Systems, 2014, 29, 824-832.	4.6	40
29	Reduced-Order Load Models for Large Populations of Flexible Appliances. IEEE Transactions on Power Systems, 2015, 30, 1758-1774.	4.6	38
30	Micro Synchrophasor-Based Intrusion Detection in Automated Distribution Systems: Toward Critical Infrastructure Security. IEEE Internet Computing, 2016, 20, 18-27.	3.2	36
31	Hybrid Control Network Intrusion Detection Systems for Automated Power Distribution Systems. , 2014, , .		33
32	Phasor Measurement Units Optimal Placement and Performance Limits for Fault Localization. IEEE Journal on Selected Areas in Communications, 2020, 38, 180-192.	9.7	33
33	Grid-Graph Signal Processing (Grid-GSP): A Graph Signal Processing Framework for the Power Grid. IEEE Transactions on Signal Processing, 2021, 69, 2725-2739.	3.2	33
34	Randomized cooperation in asynchronous dispersive links. IEEE Transactions on Communications, 2009, 57, 64-68.	4.9	32
35	The Node Degree Distribution in Power Grid and Its Topology Robustness under Random and Selective Node Removals. , 2010, , .		31
36	The Restless Multi-Armed Bandit Formulation of the Cognitive Compressive Sensing Problem. IEEE Transactions on Signal Processing, 2015, 63, 1183-1198.	3.2	30

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37	Data injection attacks in randomized gossiping. IEEE Transactions on Signal and Information Processing Over Networks, 2016, , 1-1.	1.6	30
38	Convergence and Applications of a Gossip-Based Gauss-Newton Algorithm. IEEE Transactions on Signal Processing, 2013, 61, 5231-5246.	3.2	29
39	Automated Generation Algorithm for Synthetic Medium Voltage Radial Distribution Systems. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2017, 7, 271-284.	2.7	28
40	Dynamic Incentive Design for Participation in Direct Load Scheduling Programs. IEEE Journal on Selected Topics in Signal Processing, 2014, 8, 1111-1126.	7.3	27
41	Blind Community Detection From Low-Rank Excitations of a Graph Filter. IEEE Transactions on Signal Processing, 2020, 68, 436-451.	3.2	27
42	PulseSS: A Pulse-Coupled Synchronization and Scheduling Protocol for Clustered Wireless Sensor Networks. IEEE Internet of Things Journal, 2016, 3, 1222-1234.	5.5	26
43	An Amplify-and-Forward Scheme for Spectrum Sharing in Cognitive Radio Channels. IEEE Transactions on Wireless Communications, 2015, 14, 5629-5642.	6.1	25
44	A User Guide to Low-Pass Graph Signal Processing and Its Applications: Tools and Applications. IEEE Signal Processing Magazine, 2020, 37, 74-85.	4.6	25
45	How will demand response aggregators affect electricity markets? — A Cournot game analysis. , 2012, , .		24
46	STiCMAC: A MAC Protocol for Robust Space-Time Coding in Cooperative Wireless LANs. IEEE Transactions on Wireless Communications, 2012, 11, 1358-1369.	6.1	23
47	Broadcast gossip algorithms: Design and analysis for consensus. , 2008, , .		22
48	A hybrid network IDS for protective digital relays in the power transmission grid. , 2014, , .		22
49	Generation Ramping Valuation in Day-Ahead Electricity Markets. , 2016, , .		22
50	A Model for Joint Probabilistic Forecast of Solar Photovoltaic Power and Outdoor Temperature. IEEE Transactions on Signal Processing, 2019, 67, 6368-6383.	3.2	22
51	A Simple Recruitment Scheme of Multiple Nodes for Cooperative MAC. IEEE Transactions on Communications, 2010, 58, 2667-2682.	4.9	21
52	Cooperative Randomized MIMO-OFDM Downlink for Multicell Networks: Design and Analysis. IEEE Transactions on Signal Processing, 2010, 58, 384-402.	3.2	21
53	Randomized Decode-and-Forward Strategies for Two-Way Relay Networks. IEEE Transactions on Wireless Communications, 2011, 10, 4214-4225.	6.1	21
54	Transmitting Important Bits and Sailing High Radio Waves: A Decentralized Cross-Layer Approach to Cooperative Video Transmission. IEEE Journal on Selected Areas in Communications, 2012, 30, 1597-1604.	9.7	21

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55	Continuous Time Multi-Stage Stochastic Unit Commitment With Storage. IEEE Transactions on Power Systems, 2019, 34, 4476-4489.	4.6	21
56	Restless multi-armed bandits under time-varying activation constraints for dynamic spectrum access. , 2014, , .		20
57	Detection of False Data Injection Attack Using Graph Signal Processing for the Power Grid. , 2019, , .		20
58	Compressing Electrical Power Grids. , 2010, , .		19
59	A Dynamic Multistage Stochastic Unit Commitment Formulation for Intraday Markets. IEEE Transactions on Power Systems, 2018, 33, 3653-3663.	4.6	19
60	Information infrastructure for cellular load management in green power delivery systems. , 2011, , .		18
61	Grid integration of distributed renewables through coordinated demand response. , 2012, , .		18
62	A consensus-based decentralized algorithm for non-convex optimization with application to dictionary learning. , 2015, , .		18
63	Cooperative MAC for Rate Adaptive Randomized Distributed Space-Time Coding. , 2008, , .		17
64	On the impact of SmartGrid metering infrastructure on load forecasting. , 2010, , .		17
65	Randomized space-time block coding for distributed amplify-and-forward cooperative relays. , 2010, , .		17
66	Monitoring Security of Networked Control Systems: It's the Physics. IEEE Security and Privacy, 2014, 12, 32-39.	1.5	17
67	Broadcast gossip algorithms. , 2008, , .		16
68	Computing Along Routes via Gossiping. IEEE Transactions on Signal Processing, 2010, 58, 3313-3327.	3.2	16
69	Joint Network Topology and Dynamics Recovery From Perturbed Stationary Points. IEEE Transactions on Signal Processing, 2019, 67, 4582-4596.	3.2	16
70	Coordinated home energy management for real-time power balancing. , 2012, , .		15
71	A Multi-Layer Multi-Timescale Network Utility Maximization Framework for the SDN-Based LayBack Architecture Enabling Wireless Backhaul Resource Sharing. Electronics (Switzerland), 2019, 8, 937.	1.8	15
72	Compressive Link Acquisition in Multiuser Communications. IEEE Transactions on Signal Processing, 2013, 61, 3229-3245.	3.2	14

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73	Lossy DistFlow Formulation for Single and Multiphase Radial Feeders. IEEE Transactions on Power Systems, 2020, 35, 1758-1768.	4.6	14
74	Differential Nested Lattice Encoding for Consensus Problems. , 2007, , .		13
75	Estimating Social Opinion Dynamics Models From Voting Records. IEEE Transactions on Signal Processing, 2018, 66, 4193-4206.	3.2	13
76	Multi-Layer Decomposition of Network Utility Maximization Problems. IEEE/ACM Transactions on Networking, 2020, 28, 2077-2091.	2.6	13
77	A scalable wireless communication architecture for average consensus. , 2007, , .		12
78	Estimation of sparse multipath channels. , 2008, , .		12
79	Scalable distributed Kalman filtering through consensus. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	12
80	A Framework for Generating Synthetic Distribution Feeders using OpenStreetMap. , 2019, , .		12
81	Machine Learning From Distributed, Streaming Data [From the Guest Editors]. IEEE Signal Processing Magazine, 2020, 37, 11-13.	4.6	12
82	Time-varying power line block transmission models over doubly selective channels. , 2008, , .		11
83	On the Communication Architecture for Wide-Area Real-Time Monitoring in Power Networks. , 2007, , .		10
84	Asymmetric information diffusion via gossiping on static and dynamic networks. , 2010, , .		10
85	Utility Maximizing Sequential Sensing Over a Finite Horizon. IEEE Transactions on Signal Processing, 2017, 65, 3430-3445.	3.2	10
86	A Case of Distributed Optimization in Adversarial Environment. , 2019, , .		10
87	Distributed Randomized Space-Time Coding for HF Transmission. , 2006, , .		9
88	Optimal sensor placement for hybrid state estimation in smart grid. , 2013, , .		9
89	Detection of data injection attacks in decentralized learning. , 2015, , .		9
90	Fast and privacy preserving distributed low-rank regression. , 2017, , .		9

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91	The Impact of Random Actions on Opinion Dynamics. IEEE Transactions on Signal and Information Processing Over Networks, 2018, 4, 576-584.	1.6	9
92	On Modeling Voltage Phasor Measurements as Graph Signals. , 2019, , .		9
93	Learning Behavior of Distribution System Discrete Control Devices for Cyber-Physical Security. IEEE Transactions on Smart Grid, 2020, 11, 749-761.	6.2	9
94	Consensus on State and Time: Decentralized Regression With Asynchronous Sampling. IEEE Transactions on Signal Processing, 2015, 63, 2972-2985.	3.2	8
95	Accelerating incremental gradient optimization with curvature information. Computational Optimization and Applications, 2020, 76, 347-380.	0.9	8
96	Decentralized space-time block coding for two-way relay networks. , 2010, , .		7
97	Trust, opinion diffusion and radicalization in social networks. , 2011, , .		7
98	The social system identification problem. , 2015, , .		7
99	A projection-free decentralized algorithm for non-convex optimization. , 2016, , .		7
100	Decentralized DC Microgrid Monitoring and Optimization via Primary Control Perturbations. IEEE Transactions on Signal Processing, 2018, 66, 3280-3295.	3.2	7
101	A Mathematical Programming Solution for Automatic Generation of Synthetic Power Flow Cases. IEEE Transactions on Power Systems, 2019, 34, 729-741.	4.6	7
102	Adaptive Control of Distributed Energy Resources for Distribution Grid Voltage Stability. IEEE Transactions on Power Systems, 2023, 38, 129-141.	4.6	7
103	Differentially Private K-Means Clustering Applied to Meter Data Analysis and Synthesis. IEEE Transactions on Smart Grid, 2022, 13, 4801-4814.	6.2	7
104	Limiting rate behavior and rate allocation strategies for average consensus problems with bounded convergence. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	6
105	Pulse coupled oscillators' primitive for low complexity scheduling. , 2009, , .		6
106	A Useful Performance Metric for Compressed Channel Sensing. IEEE Transactions on Signal Processing, 2011, 59, 2982-2988.	3.2	6
107	On Modeling and Marketing the Demand Flexibility of Deferrable Loads at the Wholesale Level. , 2013, , .		6
108	Advances in decentralized state estimation for power systems. , 2013, , .		6

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109	The Cognitive Compressive Sensing problem. , 2014, , .		6
110	Continuous Time Multi-Stage Stochastic Reserve and Unit Commitment. , 2018, , .		6
111	SUCAG: Stochastic Unbiased Curvature-aided Gradient Method for Distributed Optimization. , 2018, , .		6
112	Physical layer design of distributed proportional fair scheduling in wireless body area networks. , 2010, , .		5
113	Low complexity acquisition of GPS signals. , 2011, , .		5
114	A Cournot game analysis on market effects of queuing energy request as demand response. , 2012, , .		5
115	Distributed sparse regression by consensus-based primal-dual perturbation optimization. , 2013, , .		5
116	The pulse coupled phasor measurement units. , 2014, , .		5
117	An amplify-and-forward scheme for cognitive radios. , 2014, , .		5
118	Convergence Results on Pulse Coupled Oscillator Protocols in Locally Connected Networks. IEEE/ACM Transactions on Networking, 2017, 25, 1004-1019.	2.6	5
119	Multi-layer Decomposition of Optimal Resource Sharing Problems. , 2018, , .		5
120	Gas and Electric Grid Unit Commitment with Coordinated N-1 Generator Contingency Analysis. , 2018, , .		5
121	Community Inference from Graph Signals with Hidden Nodes. , 2019, , .		5
122	Log(v) 3LPF: A Linear Power Flow Formulation for Unbalanced Three-Phase Distribution Systems. IEEE Transactions on Power Systems, 2023, 38, 100-113.	4.6	5
123	Layered randomized cooperation for multicast. , 2008, , .		4
124	Computing along the routes via gossiping. , 2009, , .		4
125	Compressed channel sensing: Is the Restricted Isometry Property the right metric?. , 2011, , .		4
126	On scheduling without a master clock: Coupled Oscillator Time Division Multiplexing. , 2011, , .		4

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127	PulseSS: A microcontroller implementation of Pulse-coupled Scheduling and Synchronization protocol for cluster-based wireless sensor networks. , 2015, , .		4
128	Curvature-aided incremental aggregated gradient method. , 2017, , .		4
129	Online Thevenin parameter tracking using synchrophasor data. , 2017, , .		4
130	Identifying Susceptible Agents in Time Varying Opinion Dynamics Through Compressive Measurements. , 2018, , .		4
131	Lyapunov stability of smart inverters using linearized distflow approximation. IET Renewable Power Generation, 2021, 15, 114-126.	1.7	4
132	Integrating Hardware Security into a Blockchain-Based Transactive Energy Platform. , 2021, , .		4
133	Federated Edge Network Utility Maximization for a Multi-Server System: Algorithm and Convergence. IEEE/ACM Transactions on Networking, 2022, 30, 2002-2017.	2.6	4
134	Community Inference From Partially Observed Graph Signals: Algorithms and Analysis. IEEE Transactions on Signal Processing, 2022, 70, 2136-2151.	3.2	4
135	Sequential source coding with side information for sensor networks. , 2007, , .		3
136	Group Testing for Binary Markov Sources: Data-Driven Group Queries for Cooperative Sensor Networks. IEEE Transactions on Information Theory, 2008, 54, 3538-3551.	1.5	3
137	Network information flow: Gossiping with groups. , 2008, , .		3
138	Directed gossiping for distributed data aggregation. , 2009, , .		3
139	Pulse Coupled Discrete Oscillators dynamics for network scheduling. , 2012, , .		3
140	The emergence of deferrable energy requests and a greener future: What stands in the way?. , 2012, , .		3
141	A compressive sensing framework for the analysis of solar Photo-Voltaic power. , 2016, , .		3
142	SoDa: An Irradiance-Based Synthetic Solar Data Generation Tool. , 2020, , .		3
143	On the Asymptotic Scalability of the Consensus Algorithm. , 2007, , .		2
144	Design of a Distributed Protocol for Proportional Fairness in Wireless Body Area Networks. , 2010, , .		2

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145	Sufficiently Informative Excitation for Estimation of Linear Responses Due to Sparse Scattering. IEEE Transactions on Signal Processing, 2011, 59, 5353-5368.	3.2	2
146	A course on smartgrid networks. , 2012, , .		2
147	Optimal sampling structure for asynchronous multi-access channels. , 2012, , .		2
148	Decentralized data processing and management in Smart Grid via gossiping. , 2012, , .		2
149	Learning hidden Markov sparse models. , 2013, , .		2
150	Data mining the underlying trust in the US Congress. , 2016, , .		2
151	Caching for distributed parameter estimation in wireless sensor networks. , 2017, , .		2
152	An Active Sequential Xampling Detector for Spectrum Sensing. IEEE Transactions on Cognitive Communications and Networking, 2018, 4, 192-205.	4.9	2
153	Decentralized Array Processing with Application to Cooperative Passive Radar. , 2019, , .		2
154	Federated Network Utility Maximization. , 2020, , .		2
155	Analysis of a model of a natural gas pipeline—a transfer function approach. Transactions of Mathematics and Its Applications, 2021, 5, .	1.6	2
156	Cooperative broadcast in dense networks with multiple sources. , 2009, , .		1
157	A simple and scalable algorithm for alignment in broadcast networks. IEEE Journal on Selected Areas in Communications, 2010, 28, 1190-1199.	9.7	1
158	Maximum likelihood blind deconvolution for sparse systems. , 2010, , .		1
159	The expectation and sparse maximization algorithm. Journal of Communications and Networks, 2010, 12, 317-329.	1.8	1
160	A Decentralized Cross-Layer Approach to Cooperative Video Transmission. , 2011, , .		1
161	Strategic communications in opinion diffusion. , 2012, , .		1
162	Robust collaborative state estimation for smart grid monitoring. , 2013, , .		1

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163	Spatial-spectral sensing using the Shrink & Match algorithm in asynchronous MIMO OFDM signals. , 2013, , .		1
164	Decentralized regression with asynchronous sub-Nyquist sampling. , 2014, , .		1
165	Identifying trust in social networks with stubborn agents, with application to market decisions. , 2015, , .		1
166	Continuous-time marginal pricing of power trajectories in power systems. , 2016, , .		1
167	A Wyner Ziv Codec for Correlated Vector Sources. , 2006, , .		0
168	Achievable Distortion/Rate Tradeoff in a Decentralized Gaussian Parameter Estimation Problem. , 2008, , .		0
169	On the Problem of Adding Infinitely Many Values. , 2008, , .		0
170	Opportunistic interference alignment effects in cooperative broadcast of multiple-source. , 2010, , .		0
171	Randomized two-way relay cooperation. , 2010, , .		0
172	Probabilistic RFID tag detector model. , 2010, , .		0
173	Can we cope with the distortion of decentralized cooperative schemes?. , 2011, , .		0
174	Do Cooperative Radios Collide?. IEEE Transactions on Communications, 2012, 60, 1020-1032.	4.9	0
175	The Central Detection Officer problem: SALSA detector and performance guarantees. , 2013, , .		0
176	Modeling group dynamics using graphical models and tensor decompositions. , 2014, , .		0
177	The myopic solution of the Multi-Armed Bandit Compressive Spectrum Sensing problem. , 2014, , .		0
178	Active online learning of trusts in social networks. , 2016, , .		0
179	Active spectrum sensing with sequential sub-Nyquist sampling. , 2017, , .		0
180	Data Injection Attack on Decentralized Optimization. , 2018, , .		0

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181	A Synthetic Test Instance for a U.S. Natural Gas Network and Associated Power Grid. , 2020, , .		0
182	Efficient Caching by Linear Compression for Parameter Estimation in Wireless Sensor Networks. IEEE Transactions on Signal Processing, 2022, 70, 1155-1169.	3.2	0
183	Randomized Cooperative Transmission in Large-Scale Sensor Networks. , 0, , 251-275.		0
184	Localization of Data Injection Attacks on Distributed M-Estimation. IEEE Transactions on Signal and Information Processing Over Networks, 2022, 8, 655-669.	1.6	0