Sarah J Johnson

List of Publications by Year
in descending order

111 papers	2,512 citations	279798 23 h-index	276875 41 g-index
115 all docs	115 docs citations	115 times ranked	2717 citing authors

#	Article	IF	Citations
1	Do P2Y12 receptor inhibitors prescribed poststroke modify the risk of cognitive disorder or dementia? Protocol for a target trial using multiple national Swedish registries. BMJ Open, 2022, 12, e058244.	1.9	1
2	When Differential Privacy Implies Syntactic Privacy. IEEE Transactions on Information Forensics and Security, 2022, 17, 2110-2124.	6.9	1
3	Enabling transmission status detection in grant‐free power domain non‐orthogonal multiple access for massive Internet of Things. Transactions on Emerging Telecommunications Technologies, 2022, 33, .	3.9	3
4	NOMA Joint Channel Estimation and Signal Detection Using Rotational Invariant Codes and GMM-Based Clustering. IEEE Communications Letters, 2022, 26, 2485-2489.	4.1	5
5	Clinical Decision Support Tools for Predicting Outcomes in Patients Undergoing Total Knee Arthroplasty: A Systematic Review. Journal of Arthroplasty, 2021, 36, 1832-1845.e1.	3.1	8
6	Investigating the Mechanical Behavior of Clot Analogues Through Experimental and Computational Analysis. Annals of Biomedical Engineering, 2021, 49, 420-431.	2.5	26
7	Exploring How Low Oxygen Post Conditioning Improves Stroke-Induced Cognitive Impairment: A Consideration of Amyloid-Beta Loading and Other Mechanisms. Frontiers in Neurology, 2021, 12, 585189.	2.4	6
8	Indexing Cerebrovascular Health Using Transcranial Doppler Ultrasound. Ultrasound in Medicine and Biology, 2021, 47, 919-927.	1.5	5
9	Wave reflection: More than a round trip. Medical Engineering and Physics, 2021, 92, 40-44.	1.7	5
10	Corticosterone Administration Alters White Matter Tract Structure and Reduces Gliosis in the Sub-Acute Phase of Experimental Stroke. International Journal of Molecular Sciences, 2021, 22, 6693.	4.1	5
11	Indexing cerebrovascular health using near-infrared spectroscopy. Scientific Reports, 2021, 11, 14812.	3.3	2
12	Receiver Design for Uplink Power Domain NOMA With Discontinuous Transmissions. IEEE Communications Letters, 2021, 25, 2738-2742.	4.1	9
13	Index Modulation Aided Uplink NOMA for Massive Machine Type Communications. IEEE Wireless Communications Letters, 2020, 9, 2159-2162.	5.0	23
14	Improving Patient Outcomes Following Total Knee Arthroplasty: Identifying Rehabilitation Pathways Based on Modifiable Psychological Risk and Resilience Factors. Frontiers in Psychology, 2020, 11, 1061.	2.1	27
15	Grant-Free Non-Orthogonal Multiple Access for IoT: A Survey. IEEE Communications Surveys and Tutorials, 2020, 22, 1805-1838.	39.4	212
16	Structural Characteristics of Two-Sender Index Coding. Entropy, 2019, 21, 615.	2.2	5
17	Protograph LDPC Code Design for Asynchronous Random Access. Algorithms, 2019, 12, 170.	2.1	4
18	Multi-Sender Index Coding for Collaborative Broadcasting: A Rank-Minimization Approach. IEEE Transactions on Communications, 2019, 67, 1452-1466.	7.8	14

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19	Segmentation, Tracing, and Quantification of Microglial Cells from 3D Image Stacks. Scientific Reports, 2019, 9, 8557.	3.3	21
20	Segmentation of Heavily Clustered Nuclei from Histopathological Images. Scientific Reports, 2019, 9, 4551.	3.3	52
21	Low oxygen post conditioning prevents thalamic secondary neuronal loss caused by excitotoxicity after cortical stroke. Scientific Reports, 2019, 9, 4841.	3.3	22
22	A Dynamic Model of Brain Hemodynamics in Near-Infrared Spectroscopy. IEEE Transactions on Biomedical Engineering, 2019, 67, 1-1.	4.2	3
23	Low Oxygen Post Conditioning as an Efficient Non-pharmacological Strategy to Promote Motor Function After Stroke. Translational Stroke Research, 2019, 10, 402-412.	4.2	11
24	Cooperative Multi-Sender Index Coding. IEEE Transactions on Information Theory, 2019, 65, 1725-1739.	2.4	14
25	Spatiotemporal analysis of impaired microglia process movement at sites of secondary neurodegeneration post-stroke. Journal of Cerebral Blood Flow and Metabolism, 2019, 39, 2456-2470.	4.3	52
26	Growth Hormone Improves Cognitive Function After Experimental Stroke. Stroke, 2018, 49, 1257-1266.	2.0	44
27	Sustained administration of corticosterone at stress-like levels after stroke suppressed glial reactivity at sites of thalamic secondary neurodegeneration. Brain, Behavior, and Immunity, 2018, 69, 210-222.	4.1	21
28	Chronic stress induced disturbances in Laminin: A significant contributor to modulating microglial pro-inflammatory tone?. Brain, Behavior, and Immunity, 2018, 68, 23-33.	4.1	13
29	A Dynamic Model of Synthetic Resting-State Brain Hemodynamics. , 2018, , .		0
30	Centralized Caching with Unequal Cache Sizes. , 2018, , .		5
31	A Design of Reconfigurable Raptor Codes for Wide SNR Ranges Using a Multi-Edge Framework. IEEE Communications Letters, 2018, 22, 1532-1535.	4.1	7
32	Corrections to â€œInterlinked Cycles for Index Coding: Generalizing Cycles and Cliquesâ€•[Jun 17 3692-3711]. IEEE Transactions on Information Theory, 2018, 64, 6460-6460.	2.4	3
33	Raptor Codes for Higher-Order Modulation Using a Multi-Edge Framework. IEEE Wireless Communications Letters, 2018, 7, 110-113.	5.0	5
34	Joint optimisation technique for multiâ€edge type lowâ€density parityâ€check codes. IET Communications, 2017, 11, 61-68.	2.2	6
35	Oral administration of corticosterone at stress-like levels drives microglial but not vascular disturbances post-stroke. Neuroscience, 2017, 352, 30-38.	2.3	14
36	The DoF Region of the Three-Receiver Gaussian MIMO Broadcast Channel With Receiver Message Side Information. IEEE Transactions on Communications, 2017, 65, 2000-2010.	7.8	1

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37	Interlinked Cycles for Index Coding: Generalizing Cycles and Cliques. IEEE Transactions on Information Theory, 2017, 63, 3692-3711.	2.4	28
38	Chronic stress induced disruption of the peri-infarct neurovascular unit following experimentally induced photothrombotic stroke. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 3709-3724.	4.3	31
39	Impaired microglia process dynamics post‐stroke are specific to sites of secondary neurodegeneration. Glia, 2017, 65, 1885-1899.	4.9	44
40	Massive Non-Orthogonal Multiple Access for Cellular IoT: Potentials and Limitations. , 2017, 55, 55-61.		311
41	On the Fundamental Limits of Random Non-Orthogonal Multiple Access in Cellular Massive IoT. IEEE Journal on Selected Areas in Communications, 2017, 35, 2238-2252.	14.0	122
42	An analysis of signal processing algorithm performance for cortical intrinsic optical signal imaging and strategies for algorithm selection. Scientific Reports, 2017, 7, 7198.	3.3	5
43	Analysis and Design of Raptor Codes Using a Multi-Edge Framework. IEEE Transactions on Communications, 2017, 65, 5123-5136.	7.8	10
44	Massive Multiple Access Based on Superposition Raptor Codes for Cellular M2M Communications. IEEE Transactions on Wireless Communications, 2017, 16, 307-319.	9.2	45
45	Reconsidering the role of glial cells in chronic stress-induced dopaminergic neurons loss within the substantia nigra? Friend or foe?. Brain, Behavior, and Immunity, 2017, 60, 117-125.	4.1	23
46	On the problem of non-zero word error rates for fixed-rate error correction codes in continuous variable quantum key distribution. New Journal of Physics, 2017, 19, 023003.	2.9	6
47	Improved bounds for multi-sender index coding. , 2017, , .		10
48	Leveraging Receiver Message Side Information in Two-Receiver Broadcast Channels: A General Approach â€. Entropy, 2017, 19, 138.	2.2	0
49	Approaching the capacity of AWGN channels using multi-layer raptor codes and superposition modulation. , 2016, , .		2
50	Raptor Codes in the Low SNR Regime. IEEE Transactions on Communications, 2016, 64, 4449-4460.	7.8	25
51	Design of Raptor codes in the low SNR regime with applications in quantum key distribution. , 2016, , .		7
52	A New Density Evolution Approximation for LDPC and Multi-Edge Type LDPC Codes. IEEE Transactions on Communications, 2016, , 1-1.	7.8	17
53	Automated tracing of microglia using multilevel thresholding and minimum spanning trees. , 2016, 2016, 1208-1211.		10
54	A unified inner bound for the two-receiver memoryless broadcast channel with channel state and message side information. , 2016, , .		1

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55	Graph-Theoretic Approaches to Two-Sender Index Coding. , 2016, , .		13
56	Repeat-accumulate codes for reconciliation in continuous variable quantum key distribution. , 2016, , .		8
57	Strategies to improve quantitative assessment of immunohistochemical and immunofluorescent labelling. Scientific Reports, 2015, 5, 10607.	3.3	31
58	A new index coding scheme exploiting interlinked cycles. , 2015, , .		3
59	Generalized interlinked cycle cover for index coding. , 2015, , .		8
60	A unified scheme for two-receiver broadcast channels with receiver message side information. , 2015, , .		4
61	A comparison of signal processing techniques for Intrinsic Optical Signal imaging in mice. , 2015, 2015, 6281-4.		2
62	Chronic stress exacerbates neuronal loss associated with secondary neurodegeneration and suppresses microglial-like cells following focal motor cortex ischemia in the mouse. Brain, Behavior, and Immunity, 2015, 48, 57-67.	4.1	51
63	Photothrombotic Stroke Induces Persistent Ipsilateral and Contralateral Astrogliosis in Key Cognitive Control Nuclei. Neurochemical Research, 2015, 40, 362-371.	3.3	31
64	Optimal Coding Schemes for the Three-Receiver AWGN Broadcast Channel With Receiver Message Side Information. IEEE Transactions on Information Theory, 2015, 61, 5490-5503.	2.4	13
65	A combined cumulative threshold spectra and digital reconstruction analysis reveal structural alterations of microglia within the prefrontal cortex following low-dose LPS administration. Neuroscience, 2015, 310, 629-640.	2.3	30
66	Optimization of graph based codes for belief propagation decoding. , 2014, , .		3
67	Quantitative assessment of microglial morphology and density reveals remarkable consistency in the distribution and morphology of cells within the healthy prefrontal cortex of the rat. Journal of Neuroinflammation, 2014, 11, 182.	7.2	89
68	Memoryâ€efficient quasiâ€cyclic spatially coupled lowâ€density parityâ€check and repeatâ€accumulate codes. IET Communications, 2014, 8, 3179-3188.	2.2	14
69	The capacity of three-receiver AWGN broadcast channels with receiver message side information. , 2014, , .		13
70	Optimal coding functions for pairwise message sharing on finite-field multi-way relay channels. , 2014, , .		1
71	On the capacity of the binaryâ€symmetric parallelâ€relay network. Transactions on Emerging Telecommunications Technologies, 2014, 25, 217-230.	3.9	7
72	On Index Coding in Noisy Broadcast Channels with Receiver Message Side Information. IEEE Communications Letters, 2014, 18, 640-643.	4.1	7

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73	Chronic stress induces prolonged suppression of the P2X7 receptor within multiple regions of the hippocampus: A cumulative threshold spectra analysis. Brain, Behavior, and Immunity, 2014, 42, 69-80.	4.1	23
74	Coding schemes for a class of receiver message side information in AWGN broadcast channels. , 2014, , .		2
75	Spatially Coupled Repeat-Accumulate Codes. IEEE Communications Letters, 2013, 17, 373-376.	4.1	34
76	Chronic stress-induced disruption of the astrocyte network is driven by structural atrophy and not loss of astrocytes. Acta Neuropathologica, 2013, 126, 75-91.	7.7	151
77	Multi-Way Relay Networks: Orthogonal Uplink, Source-Channel Separation and Code Design. IEEE Transactions on Communications, 2013, 61, 753-768.	7.8	9
78	The Three-User Finite-Field Multi-Way Relay Channel with Correlated Sources. IEEE Transactions on Communications, 2013, 61, 3125-3135.	7.8	7
79	The finite field multi-way relay channel with correlated sources: Beyond three users. , 2012, , .		1
80	The Half-Duplex AWGN Single-Relay Channel: Full Decoding or Partial Decoding?. IEEE Transactions on Communications, 2012, 60, 3156-3160.	7.8	5
81	The capacity region of restricted multi-way relay channels with deterministic uplinks. , 2012, , .		1
82	Absorbing sets and cycles. , 2012, , .		0
83	On Capacity and Optimal Scheduling for the Half-Duplex Multiple-Relay Channel. IEEE Transactions on Information Theory, 2012, 58, 5770-5784.	2.4	17
84	On the Equal-Rate Capacity of the AWGN Multiway Relay Channel. IEEE Transactions on Information Theory, 2012, 58, 5761-5769.	2.4	33
85	The Capacity Region of the Restricted Two-Way Relay Channel with Any Deterministic Uplink. IEEE Communications Letters, 2012, 16, 396-399.	4.1	7
86	On achievable rate regions of the asymmetric AWGN two-way relay channel. , 2011, , .		3
87	The Capacity Region of Multiway Relay Channels Over Finite Fields With Full Data Exchange. IEEE Transactions on Information Theory, 2011, 57, 3016-3031.	2.4	62
88	Joint channelâ€network coding strategies for networks with lowâ€complexity relays. European Transactions on Telecommunications, 2011, 22, 396-406.	1.2	6
89	The finite field multi-way relay channel with correlated sources: The three-user case. , 2011, , .		2
90	The capacity of a class of multi-way relay channels. , 2010, , .		1

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91	Functional-decode-forward for the general discrete memoryless two-way relay channel. , 2010, , .		3
92	Capacity Theorems for the AWGN multi-way relay channel. , 2010, , .		38
93	An optimal coding strategy for the binary multi-way relay channel. IEEE Communications Letters, 2010, 14, 330-332.	4.1	57
94	The binary-symmetric parallel-relay network. , 2010, , .		1
95	Irregular repeat-accumulate-like codes with improved error floor performance. , 2010, , .		2
96	Achievable rate regions of the butterfly network with noisy links and end-to-end error correction. , 2009, , .		1
97	Optimal schedules for the D-node half duplex phase fading MRC. , 2009, , .		1
98	A Finite-Length Algorithm for LDPC Codes Without Repeated Edges on the Binary Erasure Channel. IEEE Transactions on Information Theory, 2009, 55, 27-32.	2.4	1
99	Burst erasure correcting LDPC codes. IEEE Transactions on Communications, 2009, 57, 641-652.	7.8	20
100	Practical Interleavers for Repeat--Accumulate Codes. IEEE Transactions on Communications, 2009, 57, 1225-1228.	7.8	4
101	Combinatorial Interleavers for Systematic Regular Repeat-Accumulate Codes [Transactions Letters]. IEEE Transactions on Communications, 2008, 56, 1201-1206.	7.8	12
102	Joint network and channel coding for cooperative networks. , 2007, , .		2
103	Constraining LDPC degree distributions for improved error floor performance. IEEE Communications Letters, 2006, 10, 103-105.	4.1	19
104	Constructions for irregular repeat-accumulate codes. , 2005, , .		9
105	Codes for Iterative Decoding From Partial Geometries. IEEE Transactions on Communications, 2004, 52, 236-243.	7.8	43
106	Resolvable 2-designs for regular low-density parity-check codes. IEEE Transactions on Communications, 2003, 51, 1413-1419.	7.8	39
107	Regular low-density parity-check codes from oval designs. European Transactions on Telecommunications, 2003, 14, 399-409.	1.2	10
108	A family of irregular LDPC codes with low encoding complexity. IEEE Communications Letters, 2003, 7, 79-81.	4.1	91

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109	Regular low-density parity-check codes from combinatorial designs. , 0, , .		50
110	Interleaver and Accumulator Design for Systematic Repeat-Accumulate Codes. , 0, , .		4
111	Finite-Length Repeat-Accumulate Codes on the Binary Erasure Channel. , 0, , .		3