Shinya Sugiura

List of Publications by Citations

124 papers	3,712 citations	32 h-index	58 g-index
148 ext. papers	4,512 ext. citations	6.5 avg, IF	6.18 L-index

#	Paper	IF	Citations
124	. *Proceedings of the IEEE*, **2014**, 102, 56-103	14.3	900
123	Coherent and Differential Space-Time Shift Keying: A Dispersion Matrix Approach. *IEEE Transactions on Communications*, **2010**, 58, 3219-3230	6.9	203
122	. *IEEE Communications Surveys and Tutorials*, **2016**, 18, 1687-1716	37.1	163
121	Subcarrier-Index Modulation Aided OFDM - Will It Work?. *IEEE Access*, **2016**, 4, 2580-2593	3.5	130
120	Generalized Space-Time Shift Keying Designed for Flexible Diversity-, Multiplexing- and Complexity-Tradeoffs. *IEEE Transactions on Wireless Communications*, **2011**, 10, 1144-1153	9.6	116
119	A Universal Space-Time Architecture for Multiple-Antenna Aided Systems. *IEEE Communications Surveys and Tutorials*, **2012**, 14, 401-420	37.1	87
118	Frequency-Domain Equalization of Faster-than-Nyquist Signaling. *IEEE Wireless Communications Letters*, **2013**, 2, 555-558	5.9	84
117	50 Years of Permutation, Spatial and Index Modulation: From Classic RF to Visible Light Communications and Data Storage. *IEEE Communications Surveys and Tutorials*, **2018**, 20, 1905-1938	37.1	81
116	Reduced-Complexity Coherent Versus Non-Coherent QAM-Aided Space-Time Shift Keying. *IEEE Transactions on Communications*, **2011**, 59, 3090-3101	6.9	78
115	Frequency-Domain-Equalization-Aided Iterative Detection of Faster-than-Nyquist Signaling. *IEEE Transactions on Vehicular Technology*, **2015**, 64, 2122-2128	6.8	71
114	Maximizing Constrained Capacity of Power-Imbalanced Optical Wireless MIMO Communications Using Spatial Modulation. *Journal of Lightwave Technology*, **2015**, 33, 519-527	4	63
113	Coherent Versus Non-Coherent Decode-and-Forward Relaying Aided Cooperative Space-Time Shift Keying. *IEEE Transactions on Communications*, **2011**, 59, 1707-1719	6.9	62
112	Effects of Channel Estimation on Spatial Modulation. *IEEE Signal Processing Letters*, **2012**, 19, 805-808	3.2	61
111	State-of-the-Art Design of Index Modulation in the Space, Time, and Frequency Domains: Benefits and Fundamental Limitations. *IEEE Access*, **2017**, 5, 21774-21790	3.5	59
110	Spatial Modulation and Space-Time Shift Keying: Optimal Performance at a Reduced Detection Complexity. *IEEE Transactions on Communications*, **2013**, 61, 206-216	6.9	52
109	Characterization of Inductively-Coupled RF Plasma Sources with Multiple Low-Inductance Antenna Units. *Japanese Journal of Applied Physics*, **2006**, 45, 8046-8049	1.4	52
108	Unified Differential Spatial Modulation. *IEEE Wireless Communications Letters*, **2014**, 3, 337-340	5.9	51

107	MIMO-Aided Near-Capacity Turbo Transceivers: Taxonomy and Performance versus Complexity. *IEEE Communications Surveys and Tutorials*, **2012**, 14, 421-442	37.1	50
106	. *IEEE Transactions on Vehicular Technology*, **2016**, 1-1	6.8	49
105	Two Decades of MIMO Design Tradeoffs and Reduced-Complexity MIMO Detection in Near-Capacity Systems. *IEEE Access*, **2017**, 5, 18564-18632	3.5	47
104	Effects of Antenna Switching on Band-Limited Spatial Modulation. *IEEE Wireless Communications Letters*, **2014**, 3, 345-348	5.9	43
103	Single-RF Spatial Modulation Requires Single-Carrier Transmission: Frequency-Domain Turbo Equalization for Dispersive Channels. *IEEE Transactions on Vehicular Technology*, **2015**, 64, 4870-4875	6.8	42
102	Single-Carrier Frequency-Domain Equalization With Index Modulation. *IEEE Communications Letters*, **2017**, 21, 298-301	3.8	39
101	Theoretical Analysis of Hybrid Buffer-Aided Cooperative Protocol Based on Max□Max and Max□link Relay Selections. *IEEE Transactions on Vehicular Technology*, **2016**, 65, 9236-9246	6.8	37
100	. *IEEE Transactions on Vehicular Technology*, **2017**, 66, 385-394	6.8	35
99	Iterative Frequency-Domain Joint Channel Estimation and Data Detection of Faster-Than-Nyquist Signaling. *IEEE Transactions on Wireless Communications*, **2017**, 16, 6221-6231	9.6	35
98	Space-Time-Frequency Shift Keying for Dispersive Channels. *IEEE Signal Processing Letters*, **2011**, 18, 177-180	3.2	35
97	Extremely small wavevector regime in a one-dimensional photonic crystal heterostructure for angular transmission filtering. *Optics Letters*, **2016**, 41, 3829-32	3	34
96	OFDMA/SC-FDMA Aided Space□Time Shift Keying for Dispersive Multiuser Scenarios. *IEEE Transactions on Vehicular Technology*, **2013**, 62, 408-414	6.8	34
95	Rectangular Differential Spatial Modulation for Open-Loop Noncoherent Massive-MIMO Downlink. *IEEE Transactions on Wireless Communications*, **2017**, 16, 1908-1920	9.6	33
94	Physical Layer Security in Buffer-State-Based Max-Ratio Relay Selection Exploiting Broadcasting With Cooperative Beamforming and Jamming. *IEEE Transactions on Information Forensics and Security*, **2019**, 14, 431-444	8	33
93	Semi-Blind Joint Channel Estimation and Data Detection for Space-Time Shift Keying Systems. *IEEE Signal Processing Letters*, **2010**, 17, 993-996	3.2	32
92	. *IEEE Communications Surveys and Tutorials*, **2015**, 17, 550-579	37.1	29
91	On the Joint Optimization of Dispersion Matrices and Constellations for Near-Capacity Irregular Precoded Space-Time Shift Keying. *IEEE Transactions on Wireless Communications*, **2013**, 12, 380-387	9.6	29
90	Faster-Than-Nyquist Signaling With Index Modulation. *IEEE Wireless Communications Letters*, **2017**, 6, 630-633	5.9	29

89	Sixty Years of Coherent Versus Non-Coherent Tradeoffs and the Road From 5G to Wireless Futures. *IEEE Access*, **2019**, 7, 178246-178299	3.5	29
88	Reduced-Complexity Noncoherently Detected Differential Space-Time Shift Keying. *IEEE Signal Processing Letters*, **2011**, 18, 153-156	3.2	28
87	Reduced-Complexity Iterative-Detection-Aided Generalized Space-Time Shift Keying. *IEEE Transactions on Vehicular Technology*, **2012**, 61, 3656-3664	6.8	25
86	Reactively Steered Ring Antenna Array for Automotive Application. *IEEE Transactions on Antennas and Propagation*, **2007**, 55, 1902-1908	4.9	24
85	Reduced-Packet-Delay Generalized Buffer-Aided Relaying Protocol: Simultaneous Activation of Multiple Source-to-Relay Links. *IEEE Access*, **2016**, 4, 3632-3646	3.5	24
84	. *IEEE Wireless Communications Letters*, **2017**, 6, 674-677	5.9	23
83	. *IEEE Transactions on Communications*, **2017**, 1-1	6.9	21
82	Differential-Detection Aided Large-Scale Generalized Spatial Modulation is Capable of Operating in High-Mobility Millimeter-Wave Channels. *IEEE Journal on Selected Topics in Signal Processing*, **2019**, 13, 1360-1374	7.5	20
81	. *IEEE Transactions on Signal Processing*, **2018**, 66, 773-788	4.8	20
80	Coherent Versus Non-Coherent Reconfigurable Antenna Aided Virtual MIMO Systems. *IEEE Signal Processing Letters*, **2014**, 21, 390-394	3.2	18
79	Reduced-complexity noncoherently detected Differential Space-Time Shift Keying **2011**,		18
78	Finite-Cardinality Single-RF Differential Space-Time Modulation for Improving the Diversity-Throughput Tradeoff. *IEEE Transactions on Communications*, **2019**, 67, 318-335	6.9	18
77	Generalized Buffer-State-Based Relay Selection With Collaborative Beamforming. *IEEE Transactions on Vehicular Technology*, **2018**, 67, 1245-1257	6.8	17
76	SVD-Precoded Faster-Than-Nyquist Signaling With Optimal and Truncated Power Allocation. *IEEE Transactions on Wireless Communications*, **2019**, 18, 5909-5923	9.6	17
75	Dispersion Matrix Optimization for Space-Time Shift Keying. *IEEE Communications Letters*, **2011**, 15, 1152-1155	3.8	17
74	Spectrally Efficient Frequency Division Multiplexing With Index-Modulated Non-Orthogonal Subcarriers. *IEEE Wireless Communications Letters*, **2019**, 8, 233-236	5.9	17
73	Dual-Mode Time-Domain Index Modulation for Nyquist-Criterion and Faster-Than-Nyquist Single-Carrier Transmissions. *IEEE Access*, **2017**, 5, 27659-27667	3.5	16
72	Reduced-Complexity Approx-Log-MAP and Max-Log-MAP Soft PSK/QAM Detection Algorithms. *IEEE Transactions on Communications*, **2013**, 61, 1415-1425	6.9	16

71	Reduced-Complexity Soft-Decision Aided Space-Time Shift Keying. *IEEE Signal Processing Letters*, **2011**, 18, 547-550	3.2	16
70	Differential Space-Time Coding Dispensing With Channel Estimation Approaches the Performance of Its Coherent Counterpart in the Open-Loop Massive MIMO-OFDM Downlink. *IEEE Transactions on Communications*, **2018**, 66, 6190-6204	6.9	15
69	Differential Faster-Than-Nyquist Signaling. *IEEE Access*, **2018**, 6, 4199-4206	3.5	14
68	Stochastic-Resonance Based Iterative Detection for Serially-Concatenated Turbo Codes. *IEEE Signal Processing Letters*, **2012**, 19, 655-658	3.2	14
67	Frequency-domain equalization aided iterative detection of faster-than-Nyquist signaling with noise whitening **2016**,		13
66	A Unified MIMO Architecture Subsuming Space Shift Keying, OSTBC, BLAST and LDC **2010**,		12
65	Generalized Buffer-State-Based Relay Selection in Cooperative Cognitive Radio Networks. *IEEE Access*, **2020**, 8, 11644-11657	3.5	11
64	Quasi-Synchronous Cooperative Networks: A Practical Cooperative Transmission Protocol. *IEEE Vehicular Technology Magazine*, **2012**, 7, 66-76	9.9	11
63	Near-Perfect Finite-Cardinality Generalized Space-Time Shift Keying. *IEEE Journal on Selected Areas in Communications*, **2019**, 37, 2146-2164	14.2	10
62	Distance Adaptation Method for Magnetic Resonance Coupling Between Variable Capacitor-Loaded Parallel-Wire Coils. *IEEE Transactions on Microwave Theory and Techniques*, **2014**, 62, 892-900	4.1	10
61	The Evolution of Faster-Than-Nyquist Signaling. *IEEE Access*, **2021**, 9, 86535-86564	3.5	10
60	Constant-Envelope Space-Time Shift Keying. *IEEE Journal on Selected Topics in Signal Processing*, **2019**, 13, 1387-1402	7.5	9
59	Cooperative Differential Space Time Spreading for the Asynchronous Relay Aided CDMA Uplink Using Interference Rejection Spreading Code. *IEEE Signal Processing Letters*, **2010**, 17, 117-120	3.2	8
58	Effect of Number of Elements of a Reactively Loaded Ring Antenna Array on the Performance of Beamwidth Variation. *IEEE Antennas and Wireless Propagation Letters*, **2008**, 7, 669-672	3.8	8
57	Tradeoff Between Calculation Precision and Information Rate in Eigendecomposition-Based Faster-Than-Nyquist Signaling. *IEEE Access*, **2020**, 8, 223461-223471	3.5	8
56	Performance Evaluation of Generalized Buffer-State-Based Relay Selection in NOMA-Aided Downlink. *IEEE Access*, **2019**, 7, 173320-173328	3.5	8
55	Joint Beam and Polarization Forming of Intelligent Reflecting Surfaces for Wireless Communications. *IEEE Transactions on Vehicular Technology*, **2021**, 70, 1648-1657	6.8	8
54	Secrecy Performance of Eigendecomposition-Based FTN Signaling and NOFDM in Quasi-Static Fading Channels. *IEEE Transactions on Wireless Communications*, **2021**, 20, 5872-5882	9.6	8

53	Energy-Versus-Bandwidth-Efficiency Tradeoff in Spatially Modulated Massive MIMO Downlink. *IEEE Wireless Communications Letters*, **2019**, 8, 197-200	5.9	7
52	Differentially Modulated Spectrally Efficient Frequency-Division Multiplexing. *IEEE Signal Processing Letters*, **2019**, 26, 1046-1050	3.2	7
51	Decentralized-Precoding Aided Rateless Codes for Wireless Sensor Networks. *IEEE Communications Letters*, **2012**, 16, 506-509	3.8	7
50	Differentially-Encoded Rectangular Spatial Modulation Approaches the Performance of Its Coherent Counterpart. *IEEE Transactions on Communications*, **2020**, 68, 7593-7607	6.9	7
49	Dual-Mode Time-Domain Single-Carrier Index Modulation with Frequency-Domain Equalization **2017**,		6
48	Generalized Virtual Full-Duplex Relaying Protocol Based on Buffer-Aided Half-Duplex Relay Nodes **2017**,		6
47	. *Journal of Lightwave Technology*, **2016**, 34, 5601-5609	4	6
46	Multicarrier Division Duplex Aided Millimeter Wave Communications. *IEEE Access*, **2019**, 7, 100719-100732	3.5	6
45	Bloom-Filter Aided Two-Layered Structured Overlay for Highly-Dynamic Wireless Distributed Storage. *IEEE Communications Letters*, **2013**, 17, 629-632	3.8	6
44	Reduced-Complexity QAM-Aided Space-Time Shift Keying **2011**,		6
43	Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing. *IEEE Transactions on Wireless Communications*, **2020**, 1-1	9.6	6
42	IMToolkit: An Open-Source Index Modulation Toolkit for Reproducible Research Based on Massively Parallel Algorithms. *IEEE Access*, **2019**, 7, 93830-93846	3.5	5
41	. *IEEE Transactions on Vehicular Technology*, **2018**, 67, 10087-10091	6.8	5
40	**2017**,		5
39	Single- and Multiple-RF Aided Non-Coherent Generalized Spatial Modulation **2014**,		5
38	Buffer-Aided Virtual Full-Duplex Cooperative Networks Exploiting Source-to-Relay Broadcast Channels **2019**,		5
37	Performance Analysis and Constellation Optimization of Star-QAM-Aided Differential Faster-Than-Nyquist Signaling. *IEEE Signal Processing Letters*, **2019**, 26, 144-148	3.2	5
36	Hybrid NOMA/OMA Broadcasting-and-Buffer-State-Based Relay Selection. *IEEE Transactions on Vehicular Technology*, **2021**, 70, 1618-1631	6.8	5

35	Coherent Versus Noncoherent. *IEEE Vehicular Technology Magazine*, **2011**, 6, 38-48	9.9	4
34	Improved Markov Chain MBER Detection for Steered Linear Dispersion Coded MIMO Systems **2009**,		4
33	A Review of Recent Patents on Reactance-Loaded Reconfigurable Antennas. *Recent Patents on Electrical Engineering*, **2009**, 2, 200-206		4
32	Eigenvalue Decomposition Precoded Faster-Than-Nyquist Transmission of Index Modulated Symbols **2021**,		4
31	Exit-Chart-Based Design of Irregular Precoded Power-Imbalanced Optical Spatial Modulation **2015**,		3
30	Deep-Subwavelength MIMO Using Graphene-Based Nanoscale Communication Channel. *IEEE Access* , **2014**, 2, 1240-1247	3.5	3
29	MC-CDMA aided multi-user space-time shift keying in wideband channels **2013**,		3
28	Reduced-Complexity Iterative Markov Chain MBER Detection for MIMO Systems. *IEEE Signal Processing Letters*, **2009**, 16, 160-163	3.2	3
27	Reconfigurable Intelligent Surface Assisted Multi-Carrier Wireless Systems for Doubly Selective High-Mobility Ricean Channels. *IEEE Transactions on Vehicular Technology*, **2022**, 1-1	6.8	3
26	On the Simultaneous Exploitation of Multiple Source-to-Relay Channels in Buffer-Aided Two-Hop Cooperative Networks **2016**,		3
25	Low-Complexity Sphere Search-Based Adaptive Spatial Modulation. *IEEE Transactions on Vehicular Technology*, **2018**, 67, 7836-7840	6.8	3
24	Eigendecomposition-Precoded Faster-Than-Nyquist Signaling With Optimal Power Allocation in Frequency-Selective Fading Channel. *IEEE Transactions on Wireless Communications*, **2021**, 1-1	9.6	3
23	Subcarrier Subset Selection-Aided Transmit Precoding Achieves Full-Diversity in Index Modulation. *IEEE Transactions on Vehicular Technology*, **2019**, 68, 11031-11041	6.8	2
22	Semi-Blind Adaptive Space-Time Shift Keying Systems Based on Iterative Channel Estimation and Data Detection **2011**,		2
21	Iterative soft-detection of Space-Time-Frequency Shift Keying **2012**,		2
20	Varactor-Loaded H-Shaped Antenna With Radiation Pattern Control. *IEEE Transactions on Antennas and Propagation*, **2008**, 56, 2833-2840	4.9	2
19	QoS-Constrained Optimization of Intelligent Reflecting Surface Aided Secure Energy-Efficient Transmission. *IEEE Transactions on Vehicular Technology*, **2021**, 70, 5137-5142	6.8	2
18	Impact of Inter-Frame Interference on Eigendecomposition-Precoded Non-Orthogonal Frequency-Division Multiplexing. *IEEE Wireless Communications Letters*, **2021**, 10, 1567-1571	5.9	2

17	. *IEEE Open Journal of the Communications Society*, **2021**, 2, 1862-1873	6.7	2
16	Artificially Time-Varying Differential MIMO for Achieving Practical Physical Layer Security. *IEEE Open Journal of the Communications Society*, **2021**, 2, 2180-2194	6.7	2
15	Turbo Detection Aided Autoencoder for Multi-Carrier Wireless Systems: Integrating Deep Learning into Channel Coded Systems. *IEEE Transactions on Cognitive Communications and Networking*, **2022**, 1-1	6.6	2
14	Speed-dependent autonomous beamwidth variation for VANET safety applications **2015**,		1
13	Varactor-loaded compact folded dipole antenna for digital terrestrial radio reception. *Microwave and Optical Technology Letters*, **2010**, 52, 1463-1466	1.2	1
12	Eigenspace-based blind pattern optimisations of steerable antenna array for interference cancellation. *IET Microwaves, Antennas and Propagation*, **2008**, 2, 358-366	1.6	1
11	Variable-Block-Length Joint Channel Estimation and Data Detection for Spatial Modulation Over Time-Varying Channels. *IEEE Transactions on Vehicular Technology*, **2020**, 69, 13964-13969	6.8	1
10	Precoded Faster-than-Nyquist Signaling with Optimal Power Allocation in Frequency-Selective Channel **2021**,		1
9	. *IEEE Transactions on Wireless Communications*, **2021**, 20, 3847-3864	9.6	1
8	Optimal and Suboptimal Power Allocation for SVD-Precoded Faster-than-Nyquist Signaling **2019**,		1
7	Quantum Speedup for Index Modulation. *IEEE Access*, **2021**, 9, 111114-111124	3.5	1
6	Reduced-Complexity FFT-Spread Multicarrier Faster-Than-Nyquist Signaling in Frequency-Selective Fading Channel. *IEEE Open Journal of the Communications Society*, **2022**, 3, 530-542	6.7	1
5	Eigendecomposition-Precoded Faster-Than-Nyquist Signaling With Index Modulation. *IEEE Transactions on Communications*, **2022**, 1-1	6.9	1
4	QoS-Constrained Energy-Efficient Beamforming and Jamming With Intelligent Reflecting Surface for Secure Multi-User Downlink. *IEEE Transactions on Green Communications and Networking*, **2022**, 1-1	4	0
3	Cylindrical high impedance surface aided horizontally polarised omnidirectional antenna. *Electronics Letters*, **2013**, 49, 242-243	1.1	
2	Effects of Eigenvalue Distribution on Precoded Faster-than-Nyquist Signaling with Power Allocation		
1	Error Probability Analysis for Time-Varying Chaos Unitary Matrix based Differential MIMO System. *IEEE Wireless Communications Letters*, **2022**, 1-1	5.9	