# Shinya Sugiura

# 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.

124<br/>papers3,712<br/>citations32<br/>h-index58<br/>g-index148<br/>ext. papers4,512<br/>ext. citations6.5<br/>avg, IF6.18<br/>L-index

#	Paper	IF	Citations
124	Reconfigurable Intelligent Surface Assisted Multi-Carrier Wireless Systems for Doubly Selective High-Mobility Ricean Channels. <i>IEEE Transactions on Vehicular Technology</i> , <b>2022</b> , 1-1	6.8	3
123	QoS-Constrained Energy-Efficient Beamforming and Jamming With Intelligent Reflecting Surface for Secure Multi-User Downlink. <i>IEEE Transactions on Green Communications and Networking</i> , <b>2022</b> , 1-1	4	0
122	Reduced-Complexity FFT-Spread Multicarrier Faster-Than-Nyquist Signaling in Frequency-Selective Fading Channel. <i>IEEE Open Journal of the Communications Society</i> , <b>2022</b> , 3, 530-542	6.7	1
121	Turbo Detection Aided Autoencoder for Multi-Carrier Wireless Systems: Integrating Deep Learning into Channel Coded Systems. <i>IEEE Transactions on Cognitive Communications and Networking</i> , <b>2022</b> , 1-1	6.6	2
120	Eigendecomposition-Precoded Faster-Than-Nyquist Signaling With Index Modulation. <i>IEEE Transactions on Communications</i> , <b>2022</b> , 1-1	6.9	1
119	Error Probability Analysis for Time-Varying Chaos Unitary Matrix based Differential MIMO System. <i>IEEE Wireless Communications Letters</i> , <b>2022</b> , 1-1	5.9	
118	QoS-Constrained Optimization of Intelligent Reflecting Surface Aided Secure Energy-Efficient Transmission. <i>IEEE Transactions on Vehicular Technology</i> , <b>2021</b> , 70, 5137-5142	6.8	2
117	Precoded Faster-than-Nyquist Signaling with Optimal Power Allocation in Frequency-Selective Channel <b>2021</b> ,		1
116	. IEEE Transactions on Wireless Communications, <b>2021</b> , 20, 3847-3864	9.6	1
115	Eigenvalue Decomposition Precoded Faster-Than-Nyquist Transmission of Index Modulated Symbols <b>2021</b> ,		4
114	Impact of Inter-Frame Interference on Eigendecomposition-Precoded Non-Orthogonal Frequency-Division Multiplexing. <i>IEEE Wireless Communications Letters</i> , <b>2021</b> , 10, 1567-1571	5.9	2
113	Joint Beam and Polarization Forming of Intelligent Reflecting Surfaces for Wireless Communications. <i>IEEE Transactions on Vehicular Technology</i> , <b>2021</b> , 70, 1648-1657	6.8	8
112	Hybrid NOMA/OMA Broadcasting-and-Buffer-State-Based Relay Selection. <i>IEEE Transactions on Vehicular Technology</i> , <b>2021</b> , 70, 1618-1631	6.8	5
111	Secrecy Performance of Eigendecomposition-Based FTN Signaling and NOFDM in Quasi-Static Fading Channels. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 20, 5872-5882	9.6	8
110	Quantum Speedup for Index Modulation. <i>IEEE Access</i> , <b>2021</b> , 9, 111114-111124	3.5	1
109	The Evolution of Faster-Than-Nyquist Signaling. <i>IEEE Access</i> , <b>2021</b> , 9, 86535-86564	3.5	10
108	. IEEE Open Journal of the Communications Society, <b>2021</b> , 2, 1862-1873	6.7	2

#### (2019-2021)

107	Eigendecomposition-Precoded Faster-Than-Nyquist Signaling With Optimal Power Allocation in Frequency-Selective Fading Channel. <i>IEEE Transactions on Wireless Communications</i> , <b>2021</b> , 1-1	9.6	3
106	Artificially Time-Varying Differential MIMO for Achieving Practical Physical Layer Security. <i>IEEE Open Journal of the Communications Society</i> , <b>2021</b> , 2, 2180-2194	6.7	2
105	Generalized Buffer-State-Based Relay Selection in Cooperative Cognitive Radio Networks. <i>IEEE Access</i> , <b>2020</b> , 8, 11644-11657	3.5	11
104	Variable-Block-Length Joint Channel Estimation and Data Detection for Spatial Modulation Over Time-Varying Channels. <i>IEEE Transactions on Vehicular Technology</i> , <b>2020</b> , 69, 13964-13969	6.8	1
103	Differentially-Encoded Rectangular Spatial Modulation Approaches the Performance of Its Coherent Counterpart. <i>IEEE Transactions on Communications</i> , <b>2020</b> , 68, 7593-7607	6.9	7
102	Eigenvalue-Decomposition-Precoded Ultra-Dense Non-Orthogonal Frequency-Division Multiplexing. <i>IEEE Transactions on Wireless Communications</i> , <b>2020</b> , 1-1	9.6	6
101	Tradeoff Between Calculation Precision and Information Rate in Eigendecomposition-Based Faster-Than-Nyquist Signaling. <i>IEEE Access</i> , <b>2020</b> , 8, 223461-223471	3.5	8
100	Constant-Envelope Space-Time Shift Keying. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2019</b> , 13, 1387-1402	7.5	9
99	IMToolkit: An Open-Source Index Modulation Toolkit for Reproducible Research Based on Massively Parallel Algorithms. <i>IEEE Access</i> , <b>2019</b> , 7, 93830-93846	3.5	5
98	Subcarrier Subset Selection-Aided Transmit Precoding Achieves Full-Diversity in Index Modulation. <i>IEEE Transactions on Vehicular Technology</i> , <b>2019</b> , 68, 11031-11041	6.8	2
97	Differential-Detection Aided Large-Scale Generalized Spatial Modulation is Capable of Operating in High-Mobility Millimeter-Wave Channels. <i>IEEE Journal on Selected Topics in Signal Processing</i> , <b>2019</b> , 13, 1360-1374	7.5	20
96	Energy-Versus-Bandwidth-Efficiency Tradeoff in Spatially Modulated Massive MIMO Downlink. <i>IEEE Wireless Communications Letters</i> , <b>2019</b> , 8, 197-200	5.9	7
95	Physical Layer Security in Buffer-State-Based Max-Ratio Relay Selection Exploiting Broadcasting With Cooperative Beamforming and Jamming. <i>IEEE Transactions on Information Forensics and Security</i> , <b>2019</b> , 14, 431-444	8	33
94	Multicarrier Division Duplex Aided Millimeter Wave Communications. <i>IEEE Access</i> , <b>2019</b> , 7, 100719-1007	73,25	6
93	Differentially Modulated Spectrally Efficient Frequency-Division Multiplexing. <i>IEEE Signal Processing Letters</i> , <b>2019</b> , 26, 1046-1050	3.2	7
92	Near-PerfectIFinite-Cardinality Generalized Space-Time Shift Keying. <i>IEEE Journal on Selected Areas in Communications</i> , <b>2019</b> , 37, 2146-2164	14.2	10
91	SVD-Precoded Faster-Than-Nyquist Signaling With Optimal and Truncated Power Allocation. <i>IEEE Transactions on Wireless Communications</i> , <b>2019</b> , 18, 5909-5923	9.6	17
90	Buffer-Aided Virtual Full-Duplex Cooperative Networks Exploiting Source-to-Relay Broadcast Channels <b>2019</b> ,		5

89	Optimal and Suboptimal Power Allocation for SVD-Precoded Faster-than-Nyquist Signaling 2019,		1
88	Performance Evaluation of Generalized Buffer-State-Based Relay Selection in NOMA-Aided Downlink. <i>IEEE Access</i> , <b>2019</b> , 7, 173320-173328	3.5	8
87	Sixty Years of Coherent Versus Non-Coherent Tradeoffs and the Road From 5G to Wireless Futures. <i>IEEE Access</i> , <b>2019</b> , 7, 178246-178299	3.5	29
86	Performance Analysis and Constellation Optimization of Star-QAM-Aided Differential Faster-Than-Nyquist Signaling. <i>IEEE Signal Processing Letters</i> , <b>2019</b> , 26, 144-148	3.2	5
85	Spectrally Efficient Frequency Division Multiplexing With Index-Modulated Non-Orthogonal Subcarriers. <i>IEEE Wireless Communications Letters</i> , <b>2019</b> , 8, 233-236	5.9	17
84	Finite-Cardinality Single-RF Differential Space-Time Modulation for Improving the Diversity-Throughput Tradeoff. <i>IEEE Transactions on Communications</i> , <b>2019</b> , 67, 318-335	6.9	18
83	Differential Faster-Than-Nyquist Signaling. <i>IEEE Access</i> , <b>2018</b> , 6, 4199-4206	3.5	14
82	Generalized Buffer-State-Based Relay Selection With Collaborative Beamforming. <i>IEEE Transactions on Vehicular Technology</i> , <b>2018</b> , 67, 1245-1257	6.8	17
81	. IEEE Transactions on Signal Processing, <b>2018</b> , 66, 773-788	4.8	20
80	50 Years of Permutation, Spatial and Index Modulation: From Classic RF to Visible Light Communications and Data Storage. <i>IEEE Communications Surveys and Tutorials</i> , <b>2018</b> , 20, 1905-1938	37.1	81
79	. IEEE Transactions on Vehicular Technology, 2018, 67, 10087-10091	6.8	5
78	Differential Space-Time Coding Dispensing With Channel Estimation Approaches the Performance of Its Coherent Counterpart in the Open-Loop Massive MIMO-OFDM Downlink. <i>IEEE Transactions on Communications</i> , <b>2018</b> , 66, 6190-6204	6.9	15
77	Low-Complexity Sphere Search-Based Adaptive Spatial Modulation. <i>IEEE Transactions on Vehicular Technology</i> , <b>2018</b> , 67, 7836-7840	6.8	3
76	. IEEE Transactions on Vehicular Technology, <b>2017</b> , 66, 385-394	6.8	35
75	Rectangular Differential Spatial Modulation for Open-Loop Noncoherent Massive-MIMO Downlink. <i>IEEE Transactions on Wireless Communications</i> , <b>2017</b> , 16, 1908-1920	9.6	33
74	Two Decades of MIMO Design Tradeoffs and Reduced-Complexity MIMO Detection in Near-Capacity Systems. <i>IEEE Access</i> , <b>2017</b> , 5, 18564-18632	3.5	47
73	Dual-Mode Time-Domain Single-Carrier Index Modulation with Frequency-Domain Equalization <b>2017</b> ,		6
72	Generalized Virtual Full-Duplex Relaying Protocol Based on Buffer-Aided Half-Duplex Relay Nodes <b>2017</b> ,		6

## (2015-2017)

71	Faster-Than-Nyquist Signaling With Index Modulation. <i>IEEE Wireless Communications Letters</i> , <b>2017</b> , 6, 630-633	5.9	29
70	. IEEE Wireless Communications Letters, <b>2017</b> , 6, 674-677	5.9	23
69	Iterative Frequency-Domain Joint Channel Estimation and Data Detection of Faster-Than-Nyquist Signaling. <i>IEEE Transactions on Wireless Communications</i> , <b>2017</b> , 16, 6221-6231	9.6	35
68	. IEEE Transactions on Communications, <b>2017</b> , 1-1	6.9	21
67	Single-Carrier Frequency-Domain Equalization With Index Modulation. <i>IEEE Communications Letters</i> , <b>2017</b> , 21, 298-301	3.8	39
66	State-of-the-Art Design of Index Modulation in the Space, Time, and Frequency Domains: Benefits and Fundamental Limitations. <i>IEEE Access</i> , <b>2017</b> , 5, 21774-21790	3.5	59
65	2017,		5
64	Dual-Mode Time-Domain Index Modulation for Nyquist-Criterion and Faster-Than-Nyquist Single-Carrier Transmissions. <i>IEEE Access</i> , <b>2017</b> , 5, 27659-27667	3.5	16
63	Extremely small wavevector regime in a one-dimensional photonic crystal heterostructure for angular transmission filtering. <i>Optics Letters</i> , <b>2016</b> , 41, 3829-32	3	34
62	Frequency-domain equalization aided iterative detection of faster-than-Nyquist signaling with noise whitening <b>2016</b> ,		13
61	. Journal of Lightwave Technology, <b>2016</b> , 34, 5601-5609	4	6
60	Subcarrier-Index Modulation Aided OFDM - Will It Work?. IEEE Access, 2016, 4, 2580-2593	3.5	130
59	. IEEE Communications Surveys and Tutorials, <b>2016</b> , 18, 1687-1716	37.1	163
58	Theoretical Analysis of Hybrid Buffer-Aided Cooperative Protocol Based on MaxMax and MaxIlink Relay Selections. <i>IEEE Transactions on Vehicular Technology</i> , <b>2016</b> , 65, 9236-9246	6.8	37
57	On the Simultaneous Exploitation of Multiple Source-to-Relay Channels in Buffer-Aided Two-Hop Cooperative Networks <b>2016</b> ,		3
56	. IEEE Transactions on Vehicular Technology, <b>2016</b> , 1-1	6.8	49
55	Reduced-Packet-Delay Generalized Buffer-Aided Relaying Protocol: Simultaneous Activation of Multiple Source-to-Relay Links. <i>IEEE Access</i> , <b>2016</b> , 4, 3632-3646	3.5	24
54	Single-RF Spatial Modulation Requires Single-Carrier Transmission: Frequency-Domain Turbo Equalization for Dispersive Channels. <i>IEEE Transactions on Vehicular Technology</i> , <b>2015</b> , 64, 4870-4875	6.8	42

53	. IEEE Communications Surveys and Tutorials, <b>2015</b> , 17, 550-579	37.1	29
52	Frequency-Domain-Equalization-Aided Iterative Detection of Faster-than-Nyquist Signaling. <i>IEEE Transactions on Vehicular Technology</i> , <b>2015</b> , 64, 2122-2128	6.8	71
51	Exit-Chart-Based Design of Irregular Precoded Power-Imbalanced Optical Spatial Modulation 2015,		3
50	Speed-dependent autonomous beamwidth variation for VANET safety applications 2015,		1
49	Maximizing Constrained Capacity of Power-Imbalanced Optical Wireless MIMO Communications Using Spatial Modulation. <i>Journal of Lightwave Technology</i> , <b>2015</b> , 33, 519-527	4	63
48	Distance Adaptation Method for Magnetic Resonance Coupling Between Variable Capacitor-Loaded Parallel-Wire Coils. <i>IEEE Transactions on Microwave Theory and Techniques</i> , <b>2014</b> , 62, 892-900	4.1	10
47	Coherent Versus Non-Coherent Reconfigurable Antenna Aided Virtual MIMO Systems. <i>IEEE Signal Processing Letters</i> , <b>2014</b> , 21, 390-394	3.2	18
46	Unified Differential Spatial Modulation. <i>IEEE Wireless Communications Letters</i> , <b>2014</b> , 3, 337-340	5.9	51
45	Deep-Subwavelength MIMO Using Graphene-Based Nanoscale Communication Channel. <i>IEEE Access</i> , <b>2014</b> , 2, 1240-1247	3.5	3
44	Effects of Antenna Switching on Band-Limited Spatial Modulation. <i>IEEE Wireless Communications Letters</i> , <b>2014</b> , 3, 345-348	5.9	43
43	Single- and Multiple-RF Aided Non-Coherent Generalized Spatial Modulation 2014,		5
42	. Proceedings of the IEEE, <b>2014</b> , 102, 56-103	14.3	900
41	Frequency-Domain Equalization of Faster-than-Nyquist Signaling. <i>IEEE Wireless Communications Letters</i> , <b>2013</b> , 2, 555-558	5.9	84
40	Cylindrical high impedance surface aided horizontally polarised omnidirectional antenna. <i>Electronics Letters</i> , <b>2013</b> , 49, 242-243	1.1	
39	Bloom-Filter Aided Two-Layered Structured Overlay for Highly-Dynamic Wireless Distributed Storage. <i>IEEE Communications Letters</i> , <b>2013</b> , 17, 629-632	3.8	6
38	On the Joint Optimization of Dispersion Matrices and Constellations for Near-Capacity Irregular Precoded Space-Time Shift Keying. <i>IEEE Transactions on Wireless Communications</i> , <b>2013</b> , 12, 380-387	9.6	29
37	Reduced-Complexity Approx-Log-MAP and Max-Log-MAP Soft PSK/QAM Detection Algorithms. <i>IEEE Transactions on Communications</i> , <b>2013</b> , 61, 1415-1425	6.9	16
36	Spatial Modulation and Space-Time Shift Keying: Optimal Performance at a Reduced Detection	6.9	

### (2011-2013)

35	OFDMA/SC-FDMA Aided SpaceIIime Shift Keying for Dispersive Multiuser Scenarios. <i>IEEE Transactions on Vehicular Technology</i> , <b>2013</b> , 62, 408-414	6.8	34
34	MC-CDMA aided multi-user space-time shift keying in wideband channels <b>2013</b> ,		3
33	Decentralized-Precoding Aided Rateless Codes for Wireless Sensor Networks. <i>IEEE Communications Letters</i> , <b>2012</b> , 16, 506-509	3.8	7
32	Effects of Channel Estimation on Spatial Modulation. <i>IEEE Signal Processing Letters</i> , <b>2012</b> , 19, 805-808	3.2	61
31	Quasi-Synchronous Cooperative Networks: A Practical Cooperative Transmission Protocol. <i>IEEE Vehicular Technology Magazine</i> , <b>2012</b> , 7, 66-76	9.9	11
30	A Universal Space-Time Architecture for Multiple-Antenna Aided Systems. <i>IEEE Communications Surveys and Tutorials</i> , <b>2012</b> , 14, 401-420	37.1	87
29	Iterative soft-detection of Space-Time-Frequency Shift Keying <b>2012</b> ,		2
28	MIMO-Aided Near-Capacity Turbo Transceivers: Taxonomy and Performance versus Complexity. <i>IEEE Communications Surveys and Tutorials</i> , <b>2012</b> , 14, 421-442	37.1	50
27	Stochastic-Resonance Based Iterative Detection for Serially-Concatenated Turbo Codes. <i>IEEE Signal Processing Letters</i> , <b>2012</b> , 19, 655-658	3.2	14
26	Reduced-Complexity Iterative-Detection-Aided Generalized Space-Time Shift Keying. <i>IEEE Transactions on Vehicular Technology</i> , <b>2012</b> , 61, 3656-3664	6.8	25
25	Generalized Space-Time Shift Keying Designed for Flexible Diversity-, Multiplexing- and Complexity-Tradeoffs. <i>IEEE Transactions on Wireless Communications</i> , <b>2011</b> , 10, 1144-1153	9.6	116
24	Space-Time-Frequency Shift Keying for Dispersive Channels. <i>IEEE Signal Processing Letters</i> , <b>2011</b> , 18, 17	7 <sub>3</sub> 1£0	35
23	Dispersion Matrix Optimization for Space-Time Shift Keying. <i>IEEE Communications Letters</i> , <b>2011</b> , 15, 115	52 <del>3.</del> 815	517
22	Coherent Versus Non-Coherent Decode-and-Forward Relaying Aided Cooperative Space-Time Shift Keying. <i>IEEE Transactions on Communications</i> , <b>2011</b> , 59, 1707-1719	6.9	62
21	Reduced-Complexity Coherent Versus Non-Coherent QAM-Aided Space-Time Shift Keying. <i>IEEE Transactions on Communications</i> , <b>2011</b> , 59, 3090-3101	6.9	78
20	Coherent Versus Noncoherent. <i>IEEE Vehicular Technology Magazine</i> , <b>2011</b> , 6, 38-48	9.9	4
19	Reduced-Complexity Soft-Decision Aided Space-Time Shift Keying. <i>IEEE Signal Processing Letters</i> , <b>2011</b> , 18, 547-550	3.2	16
18	Reduced-Complexity Noncoherently Detected Differential Space-Time Shift Keying. <i>IEEE Signal Processing Letters</i> , <b>2011</b> , 18, 153-156	3.2	28

17	Reduced-complexity noncoherently detected Differential Space-Time Shift Keying 2011,		18
16	Reduced-Complexity QAM-Aided Space-Time Shift Keying <b>2011</b> ,		6
15	Semi-Blind Adaptive Space-Time Shift Keying Systems Based on Iterative Channel Estimation and Data Detection <b>2011</b> ,		2
14	A Unified MIMO Architecture Subsuming Space Shift Keying, OSTBC, BLAST and LDC <b>2010</b> ,		12
13	Semi-Blind Joint Channel Estimation and Data Detection for Space-Time Shift Keying Systems. <i>IEEE Signal Processing Letters</i> , <b>2010</b> , 17, 993-996	3.2	32
12	Cooperative Differential SpaceIIime Spreading for the Asynchronous Relay Aided CDMA Uplink Using Interference Rejection Spreading Code. <i>IEEE Signal Processing Letters</i> , <b>2010</b> , 17, 117-120	3.2	8
11	Coherent and Differential Space-Time Shift Keying: A Dispersion Matrix Approach. <i>IEEE Transactions on Communications</i> , <b>2010</b> , 58, 3219-3230	6.9	203
10	Varactor-loaded compact folded dipole antenna for digital terrestrial radio reception. <i>Microwave and Optical Technology Letters</i> , <b>2010</b> , 52, 1463-1466	1.2	1
9	Reduced-Complexity Iterative Markov Chain MBER Detection for MIMO Systems. <i>IEEE Signal Processing Letters</i> , <b>2009</b> , 16, 160-163	3.2	3
8	Improved Markov Chain MBER Detection for Steered Linear Dispersion Coded MIMO Systems 2009,		4
7	A Review of Recent Patents on Reactance-Loaded Reconfigurable Antennas. <i>Recent Patents on Electrical Engineering</i> , <b>2009</b> , 2, 200-206		4
6	Effect of Number of Elements of a Reactively Loaded Ring Antenna Array on the Performance of Beamwidth Variation. <i>IEEE Antennas and Wireless Propagation Letters</i> , <b>2008</b> , 7, 669-672	3.8	8
5	Eigenspace-based blind pattern optimisations of steerable antenna array for interference cancellation. <i>IET Microwaves, Antennas and Propagation</i> , <b>2008</b> , 2, 358-366	1.6	1
4	Varactor-Loaded H-Shaped Antenna With Radiation Pattern Control. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2008</b> , 56, 2833-2840	4.9	2
3	Reactively Steered Ring Antenna Array for Automotive Application. <i>IEEE Transactions on Antennas and Propagation</i> , <b>2007</b> , 55, 1902-1908	4.9	24
2	Characterization of Inductively-Coupled RF Plasma Sources with Multiple Low-Inductance Antenna Units. <i>Japanese Journal of Applied Physics</i> , <b>2006</b> , 45, 8046-8049	1.4	52

Effects of Eigenvalue Distribution on Precoded Faster-than-Nyquist Signaling with Power Allocation