

# Reconfigurable Intelligent Surfaces vs. Relaying: Different Performance Comparison

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Wireless Secure Signal Transmission for Distributed Intelligent Surface-Aided Millimeter Wave Systems. IEEE Access, 2020, 8, 193478-193491.	2.6	10
2	Guest Editorial Special Issue on "Wireless Networks Empowered by Reconfigurable Intelligent Surfaces". IEEE Journal on Selected Areas in Communications, 2020, 38, 2445-2449.	9.7	2
3	Enhancing Secure MIMO Transmission via Intelligent Reflecting Surface. IEEE Transactions on Wireless Communications, 2020, 19, 7543-7556.	6.1	99
4	Programmable Metasurface Transmitter Aided Multicast Systems. , 2020, , .		0
5	Wireless 2.0: Toward an Intelligent Radio Environment Empowered by Reconfigurable Meta-Surfaces and Artificial Intelligence. IEEE Vehicular Technology Magazine, 2020, 15, 74-82.	2.8	50
6	RIS-Assisted Coverage Enhancement in Millimeter-Wave Cellular Networks. IEEE Access, 2020, 8, 188171-188185.	2.6	75
7	Intelligent Surfaces for 6G Wireless Networks: A Survey of Optimization and Performance Analysis Techniques. IEEE Access, 2020, 8, 202795-202818.	2.6	116
8	A Framework of Robust Transmission Design for IRS-Aided MISO Communications With Imperfect Cascaded Channels. IEEE Transactions on Signal Processing, 2020, 68, 5092-5106.	3.2	269
9	How Much do Hardware Imperfections Affect the Performance of Reconfigurable Intelligent Surface-Assisted Systems?. IEEE Open Journal of the Communications Society, 2020, 1, 1185-1195.	4.4	52
10	Outage Performance Analysis of Reconfigurable Intelligent Surfaces-Aided NOMA Under Presence of Hardware Impairment. IEEE Access, 2020, 8, 212156-212165.	2.6	69
11	Performance Evaluation of Reconfigurable Intelligent Surface Assisted D-band Wireless Communication. , 2020, , .		10
12	Wireless Communications With Reconfigurable Intelligent Surface: Path Loss Modeling and Experimental Measurement. IEEE Transactions on Wireless Communications, 2021, 20, 421-439.	6.1	685
13	Reconfigurable Intelligent Surfaces-Assisted Communications With Discrete Phase Shifts: How Many Quantization Levels Are Required to Achieve Full Diversity?. IEEE Wireless Communications Letters, 2021, 10, 358-362.	3.2	71
14	Ergodic Secrecy Rate of RIS-Assisted Communication Systems in the Presence of Discrete Phase Shifts and Multiple Eavesdroppers. IEEE Wireless Communications Letters, 2021, 10, 629-633.	3.2	35
15	Intelligent Reflecting Surface-Aided Joint Processing Coordinated Multipoint Transmission. IEEE Transactions on Communications, 2021, 69, 1650-1665.	4.9	77
16	On the Optimal Number of Reflecting Elements for Reconfigurable Intelligent Surfaces. IEEE Wireless Communications Letters, 2021, 10, 464-468.	3.2	34
17	Intelligent Reflecting Surface Aided Multiple Access Over Fading Channels. IEEE Transactions on Communications, 2021, 69, 2015-2027.	4.9	48
18	Outage Probability and Capacity Scaling Law of Multiple RIS-Aided Networks. IEEE Wireless Communications Letters, 2021, 10, 256-260.	3.2	85

#	ARTICLE	IF	CITATIONS
19	Optimization of Intelligent Reflecting Surface Assisted Full-Duplex Relay Networks. IEEE Wireless Communications Letters, 2021, 10, 363-367.	3.2	52
20	On the ergodic capacities of decode-and-forward MIMO relay network with simultaneous wireless information and power transfer. Transactions on Emerging Telecommunications Technologies, 2021, 32, .	2.6	2
21	RIS Aided MIMO Communications. Wireless Networks, 2021, , 19-104.	0.3	0
22	Performance Analysis of Multi-Branch Reconfigurable Intelligent Surfaces-Assisted Optical Wireless Communication System in Environment With Obstacles. IEEE Transactions on Vehicular Technology, 2021, 70, 9986-10001.	3.9	30
23	Adaptive Coding and Channel Shaping Through Reconfigurable Intelligent Surfaces: An Information-Theoretic Analysis. IEEE Transactions on Communications, 2021, 69, 7320-7334.	4.9	15
24	Intelligent Omni-Surfaces: Ubiquitous Wireless Transmission by Reflective-Refractive Metasurfaces. IEEE Transactions on Wireless Communications, 2022, 21, 219-233.	6.1	71
25	Joint Power Allocation and User Association Optimization for IRS-Assisted mmWave Systems. IEEE Transactions on Wireless Communications, 2022, 21, 577-590.	6.1	33
26	Spatial Modulation for RIS-Assisted Uplink Communication: Joint Power Allocation and Passive Beamforming Design. IEEE Transactions on Communications, 2021, 69, 7017-7031.	4.9	21
27	Reconfigurable Intelligent Surface Aided Power Control for Physical-Layer Broadcasting. IEEE Transactions on Communications, 2021, 69, 7821-7836.	4.9	14
28	Modeling RIS Empowered Outdoor-to-Indoor Communication in mmWave Cellular Networks. IEEE Transactions on Communications, 2021, 69, 7837-7850.	4.9	27
29	Reconfigurable Intelligent Surfaces: Principles and Opportunities. IEEE Communications Surveys and Tutorials, 2021, 23, 1546-1577.	24.8	520
30	A Vision and Framework for the High Altitude Platform Station (HAPS) Networks of the Future. IEEE Communications Surveys and Tutorials, 2021, 23, 729-779.	24.8	179
31	On Performance of Two-Way Full-Duplex Communication System With Reconfigurable Intelligent Surface. IEEE Access, 2021, 9, 81274-81285.	2.6	29
32	Reflection Resource Management for Intelligent Reflecting Surface Aided Wireless Networks. IEEE Transactions on Communications, 2021, 69, 6971-6986.	4.9	15
33	Cooperative Multi-RIS Communications for Wideband mmWave MISO-OFDM Systems. IEEE Wireless Communications Letters, 2021, 10, 2360-2364.	3.2	16
34	A Joint Precoding Framework for Wideband Reconfigurable Intelligent Surface-Aided Cell-Free Network. IEEE Transactions on Signal Processing, 2021, 69, 4085-4101.	3.2	141
35	Health Risks Associated With 5G Exposure: A View From the Communications Engineering Perspective. IEEE Open Journal of the Communications Society, 2021, 2, 2131-2179.	4.4	46
36	Capacity Improvement in Reconfigurable Intelligent Surface Assisted MIMO Communications. IEEE Access, 2021, 9, 137460-137469.	2.6	7

#	ARTICLE	IF	CITATIONS
37	Link Budget Analysis for Reconfigurable Smart Surfaces in Aerial Platforms. IEEE Open Journal of the Communications Society, 2021, 2, 1980-1995.	4.4	23
38	Reconfigurable Intelligent Surface-Aided Quadrature Reflection Modulation for Simultaneous Passive Beamforming and Information Transfer. IEEE Transactions on Wireless Communications, 2022, 21, 1469-1481.	6.1	24
39	Intelligent Reflecting Surface and UAV Assisted Secrecy Communication in Millimeter-Wave Networks. IEEE Transactions on Vehicular Technology, 2021, 70, 11949-11961.	3.9	31
40	Stochastic Learning-Based Robust Beamforming Design for RIS-Aided Millimeter-Wave Systems in the Presence of Random Blockages. IEEE Transactions on Vehicular Technology, 2021, 70, 1057-1061.	3.9	45
41	RF Impairments in Wireless Transceivers: Phase Noise, CFO, and IQ Imbalance – A Survey. IEEE Access, 2021, 9, 111718-111791.	2.6	46
42	Reconfigurable Intelligent Surface Aided Multi-User Communications: State-of-the-Art Techniques and Open Issues. IEEE Access, 2021, 9, 118584-118605.	2.6	31
43	Spatially Correlated Dual Hop RIS Aided Next Generation Wireless Systems: An Outage Perspective. IEEE Access, 2021, 9, 56127-56139.	2.6	9
44	A Survey on Coverage Enhancement in Cellular Networks: Challenges and Solutions for Future Deployments. IEEE Communications Surveys and Tutorials, 2021, 23, 1302-1341.	24.8	41
45	Analytical Performance Assessment of Beamforming Efficiency in Reconfigurable Intelligent Surface-Aided Links. IEEE Access, 2021, 9, 115922-115931.	2.6	11
46	Joint Beam and Polarization Forming of Intelligent Reflecting Surfaces for Wireless Communications. IEEE Transactions on Vehicular Technology, 2021, 70, 1648-1657.	3.9	22
47	A Deep Learning-Based Power Control and Consensus Performance of Spectrum Sharing in the CR Network. Wireless Communications and Mobile Computing, 2021, 2021, 1-16.	0.8	10
48	Modeling and Analysis of Reconfigurable Intelligent Surfaces for Indoor and Outdoor Applications in Future Wireless Networks. IEEE Transactions on Communications, 2021, 69, 1290-1301.	4.9	147
50	Joint active and passive beamforming optimization for intelligent reflecting surface assisted proactive eavesdropping. IET Communications, 2021, 15, 1085-1095.	1.5	7
51	Robust Transmission Design for Intelligent Reflecting Surface-Aided Secure Communication Systems With Imperfect Cascaded CSI. IEEE Transactions on Wireless Communications, 2021, 20, 2487-2501.	6.1	120
52	Analysis and Optimization for RIS-Aided Multi-Pair Communications Relying on Statistical CSI. IEEE Transactions on Vehicular Technology, 2021, 70, 3897-3901.	3.9	58
53	Radiation Pattern Prediction for Metasurfaces: A Neural Network-Based Approach. Sensors, 2021, 21, 2765.	2.1	15
54	Sum-Rate Maximization for IRS-Assisted UAV OFDMA Communication Systems. IEEE Transactions on Wireless Communications, 2021, 20, 2530-2550.	6.1	126
55	End-to-End Mutual Coupling Aware Communication Model for Reconfigurable Intelligent Surfaces: An Electromagnetic-Compliant Approach Based on Mutual Impedances. IEEE Wireless Communications Letters, 2021, 10, 938-942.	3.2	82

#	ARTICLE	IF	CITATIONS
56	Intelligent Reflecting Surface-Aided Wireless Communications: A Tutorial. IEEE Transactions on Communications, 2021, 69, 3313-3351.	4.9	1,166
57	Performance Analysis of RIS-Aided Systems With Practical Phase Shift and Amplitude Response. IEEE Transactions on Vehicular Technology, 2021, 70, 4501-4511.	3.9	48
58	Joint Beamforming and Reflecting Design in Reconfigurable Intelligent Surface-Aided Multi-User Communication Systems. IEEE Transactions on Wireless Communications, 2021, 20, 3269-3283.	6.1	35
59	Towards intelligent reflecting surface empowered 6G terahertz communications: A survey. China Communications, 2021, 18, 93-119.	2.0	61
60	Reconfigurable Intelligent Surface-Assisted Non-Orthogonal Multiple Access. IEEE Transactions on Wireless Communications, 2021, 20, 3137-3151.	6.1	99
61	Accurate Performance Analysis of Reconfigurable Intelligent Surfaces Over Rician Fading Channels. IEEE Wireless Communications Letters, 2021, 10, 1051-1055.	3.2	60
62	Using MetaPrisms for Performance Improvement in Wireless Communications. IEEE Transactions on Wireless Communications, 2021, 20, 3295-3307.	6.1	10
63	Channel Estimation for RIS Assisted Wireless Communicationsâ€”Part II: An Improved Solution Based on Double-Structured Sparsity. IEEE Communications Letters, 2021, 25, 1403-1407.	2.5	119
64	Two-user SINR Region for Reconfigurable Intelligent Surface Aided Downlink Channel. , 2021, , .		1
65	Mutual Coupling and Unit Cell Aware Optimization for Reconfigurable Intelligent Surfaces. IEEE Wireless Communications Letters, 2021, 10, 1183-1187.	3.2	34
66	RIS-Aided mmWave Transmission: A Stochastic Majorization-Minimization Approach. , 2021, , .		2
67	Relayâ€”Reconfigurable Intelligent Surface Cooperation for Energy-Efficient Multiuser Systems. , 2021, , .		7
68	Reconfigurable Intelligent Surface Configuration and Deployment in Three-dimensional Scenarios. , 2021, , .		6
69	Spectral Efficiency vs Complexity in Downlink Algorithms for Reconfigurable Intelligent Surfaces. , 2021, , .		2
70	Pathloss modeling of reconfigurable intelligent surface assisted THz wireless systems. , 2021, , .		5
71	Interference Analysis in Reconfigurable Intelligent Surface-Assisted Multiple-Input Multiple-Output Systems. , 2021, , .		2
72	Channel Modeling and Analysis of Reconfigurable Intelligent Surfaces Assisted Vehicular Networks. , 2021, , .		10
73	On the Performance of RIS-Assisted Dual-Hop Mixed RF-UWOC Systems. IEEE Transactions on Cognitive Communications and Networking, 2021, 7, 340-353.	4.9	33

#	ARTICLE	IF	CITATIONS
74	Achievable Rate Optimization for MIMO Systems With Reconfigurable Intelligent Surfaces. IEEE Transactions on Wireless Communications, 2021, 20, 3865-3882.	6.1	96
75	Multiplexing Gain of Modulating Phases Through Reconfigurable Intelligent Surface. , 2021, , .		7
76	Single-RF Multi-User Communication Through Reconfigurable Intelligent Surfaces: An Information-Theoretic Analysis. , 2021, , .		7
77	Survey of Millimeter-Wave Propagation Measurements and Models in Indoor Environments. Electronics (Switzerland), 2021, 10, 1653.	1.8	28
78	New Trends in Stochastic Geometry for Wireless Networks: A Tutorial and Survey. Proceedings of the IEEE, 2021, 109, 1200-1252.	16.4	54
79	Reconfigurable intelligent surfaces for smart wireless environments: channel estimation, system design and applications in 6G networks. Science China Information Sciences, 2021, 64, 1.	2.7	52
80	Improvement of Bi-directional Communications using Solar Powered Reconfigurable Intelligent Surfaces. , 2021, , .		3
81	Terahertz Massive MIMO With Holographic Reconfigurable Intelligent Surfaces. IEEE Transactions on Communications, 2021, 69, 4732-4750.	4.9	122
82	Multiple Intelligent Reflecting Surfaces for Capacity Maximization in LOS MIMO Systems. IEEE Wireless Communications Letters, 2021, 10, 1727-1731.	3.2	9
83	A General Wideband Non-Stationary Stochastic Channel Model for Intelligent Reflecting Surface-Assisted MIMO Communications. IEEE Transactions on Wireless Communications, 2021, 20, 5314-5328.	6.1	33
85	RIS source decode-and-forward relaying network with interference. Physical Communication, 2021, 47, 101333.	1.2	1
86	Mixed RF/FSO Relay Networks: RIS-Equipped RF Source vs RIS-Aided RF Source. IEEE Wireless Communications Letters, 2021, 10, 1712-1716.	3.2	20
87	Active Reconfigurable Intelligent Surface-Aided Wireless Communications. IEEE Transactions on Wireless Communications, 2021, 20, 4962-4975.	6.1	202
88	Uplink Achievable Rate Maximization for Reconfigurable Intelligent Surface Aided Millimeter Wave Systems With Resolution-Adaptive ADCs. IEEE Wireless Communications Letters, 2021, 10, 1608-1612.	3.2	19
89	Aerial intelligent reflecting surface-enhanced cell-free massive MIMO for high-mobility communication: joint Doppler compensation and power optimization. Eurasip Journal on Advances in Signal Processing, 2021, 2021, .	1.0	6
90	Single-RF MIMO: From Spatial Modulation to Metasurface-Based Modulation. IEEE Wireless Communications, 2021, 28, 88-95.	6.6	50
91	Performance Analysis of Intelligent Reflecting Surface-Assisted Multi-Users Communication Networks. Electronics (Switzerland), 2021, 10, 2084.	1.8	5
92	IRS Meets Relaying: Joint Resource Allocation and Passive Beamforming Optimization. IEEE Wireless Communications Letters, 2021, 10, 2080-2084.	3.2	31

#	ARTICLE	IF	CITATIONS
93	Reconfigurable-Intelligent-Surface-Assisted MAC for Wireless Networks: Protocol Design, Analysis, and Optimization. IEEE Internet of Things Journal, 2021, 8, 14171-14186.	5.5	32
94	Power Optimization for Aerial Intelligent Reflecting Surface-Aided Cell-Free Massive MIMO-Based Wireless Sensor Network. Security and Communication Networks, 2021, 2021, 1-10.	1.0	4
96	An Overview of Signal Processing Techniques for Terahertz Communications. Proceedings of the IEEE, 2021, 109, 1628-1665.	16.4	158
97	Channel modeling for reflective phased array type RISs in mmWave networks. , 2021, , .		2
98	Hybrid automatic repeat request-based intelligent reflecting surface-assisted communication system. Electronics Letters, 2021, 57, 303-305.	0.5	2
99	On 5G-V2X Use Cases and Enabling Technologies: A Comprehensive Survey. IEEE Access, 2021, 9, 107710-107737.	2.6	67
100	Capacity Characterization for Reconfigurable Intelligent Surfaces Assisted Multiple-Antenna Multicast. IEEE Transactions on Wireless Communications, 2021, 20, 6940-6953.	6.1	17
101	Non-Orthogonal Multiple Access (NOMA) With Multiple Intelligent Reflecting Surfaces. IEEE Transactions on Wireless Communications, 2021, 20, 7184-7195.	6.1	34
102	Coverage Analysis of Reconfigurable Intelligent Surface Assisted THz Wireless Systems. IEEE Open Journal of Vehicular Technology, 2021, 2, 94-110.	3.4	34
103	Reconfigurable Intelligent Surface Optimal Placement in Millimeter-Wave Networks. IEEE Open Journal of the Communications Society, 2021, 2, 704-718.	4.4	35
104	Multiple UAV-Borne IRS-Aided Millimeter Wave Multicast Communications: A Joint Optimization Framework. IEEE Communications Letters, 2021, 25, 3674-3678.	2.5	19
105	Green for ICT, Green by ICT, Green by Design. Advances in Web Technologies and Engineering Book Series, 2021, , 96-121.	0.4	0
106	Robust Secure UAV Communications With the Aid of Reconfigurable Intelligent Surfaces. IEEE Transactions on Wireless Communications, 2021, 20, 6402-6417.	6.1	126
107	Performance Analysis of Intelligent Reflecting Surface-Assisted Wireless System With Non-Ideal Transceiver. IEEE Open Journal of the Communications Society, 2021, 2, 671-686.	4.4	24
108	Survey on 6G Frontiers: Trends, Applications, Requirements, Technologies and Future Research. IEEE Open Journal of the Communications Society, 2021, 2, 836-886.	4.4	294
109	Wireless Communication Aided by Intelligent Reflecting Surface: Active or Passive?. IEEE Wireless Communications Letters, 2021, 10, 2659-2663.	3.2	112
110	On the Capacity of Reconfigurable Intelligent Surface Assisted MIMO Symbiotic Communications. IEEE Transactions on Wireless Communications, 2022, 21, 1943-1959.	6.1	8
111	Potential key technologies for 6G mobile communications. Science China Information Sciences, 2020, 63, 1.	2.7	102

#	ARTICLE	IF	CITATIONS
112	Sum Rate Maximization via Reconfigurable Intelligent Surface in UAV Communication: Phase Shift and Trajectory Optimization. , 2020, , .		18
114	Battery Recharging Time Models for Reconfigurable Intelligent Surfaces-Assisted Wireless Power Transfer Systems. IEEE Transactions on Green Communications and Networking, 2022, 6, 1173-1185.	3.5	8
115	Joint Optimization for RIS-Assisted Wireless Communications: From Physical and Electromagnetic Perspectives. IEEE Transactions on Communications, 2022, 70, 606-620.	4.9	17
116	Learning-Based Prediction, Rendering and Transmission for Interactive Virtual Reality in RIS-Assisted Terahertz Networks. IEEE Journal on Selected Areas in Communications, 2022, 40, 710-724.	9.7	26
117	On the Performance of Multi-Antenna IRS-Assisted NOMA Networks With Continuous and Discrete IRS Phase Shifting. IEEE Transactions on Wireless Communications, 2022, 21, 3012-3023.	6.1	35
118	Outage Probability Expressions for an IRS-Assisted System With and Without Source-Destination Link for the Case of Quantized Phase Shifts in $\alpha/\eta$ Fading. IEEE Transactions on Communications, 2022, 70, 101-117.	4.9	15
119	Performance Analysis of Intelligent Reflecting Surface Assisted NOMA Networks. IEEE Transactions on Wireless Communications, 2022, 21, 2623-2636.	6.1	72
120	Large Intelligent Surface-Based Generalized Index Modulation. IEEE Communications Letters, 2021, 25, 3965-3969.	2.5	14
121	Impact of Reconfigurable Intelligent Surface size on beamforming efficiency. , 2021, , .		3
122	Performance analysis of RIS-assisted SM with I/Q imbalance. Physical Communication, 2021, 49, 101473.	1.2	6
123	A deep learning approach for inverse design of the metasurface for dual-polarized waves. Applied Physics A: Materials Science and Processing, 2021, 127, 1.	1.1	28
124	Performance Analysis of RIS-Assisted FSO Communications over Fisher's Snedecor F Turbulence Channels. Applied Sciences (Switzerland), 2021, 11, 10149.	1.3	9
125	Reflecting Surfaces for Beyond Line-Of-Sight Coverage in Millimeter Wave Vehicular Networks. , 2020, , .		6
126	Outage Constrained Transmission Design for IRS-aided Communications with Imperfect Cascaded Channels. , 2020, , .		8
127	Capacity Enhancement for Irregular Reconfigurable Intelligent Surface-Aided Wireless Communications. , 2020, , .		15
128	Reconfigurable Intelligent Surface-Aided Wireless Communications: Adaptive Beamforming and Experimental Validations. IEEE Access, 2021, 9, 147442-147457.	2.6	22
129	Channel Estimation in RIS-Aided Networks. , 2022, , 203-220.		3
131	A Statistical MIMO Channel Model for Reconfigurable Intelligent Surface Assisted Wireless Communications. IEEE Transactions on Communications, 2022, 70, 1360-1375.	4.9	15



#	ARTICLE	IF	CITATIONS
132	Intelligent Reflecting Surface Aided Secure Communications for NOMA Networks. IEEE Transactions on Vehicular Technology, 2022, 71, 2761-2773.	3.9	20
133	Holographic Smart EM Skins for Advanced Beam Power Shaping in Next Generation Wireless Environments. IEEE Journal on Multiscale and Multiphysics Computational Techniques, 2021, 6, 171-182.	1.4	49
134	On the Impact of Beam Misalignment in Reconfigurable Intelligent Surface Assisted THz Systems. , 2021, , .		2
135	Maximum-Rate Optimization of Hybrid Intelligent Reflective Surface and Relay Systems. , 2021, , .		1
136	Learning from UAV Experimental Results for Performance Modeling of Reconfigurable Intelligent Surface Flying Platform. , 2021, , .		3
137	Data-driven and Model-driven Deep Learning Detection for RIS-aided Spatial Modulation. , 2021, , .		5
138	On Maximizing the Sum Secret Key Rate for Reconfigurable Intelligent Surface-Assisted Multiuser Systems. IEEE Transactions on Information Forensics and Security, 2022, 17, 211-225.	4.5	28
139	Performance Analysis of RIS-Assisted Systems With Statistical Channel State Information. IEEE Transactions on Vehicular Technology, 2022, 71, 1089-1094.	3.9	15
140	Intelligent Reflecting Surface Assisted Wireless Information and Power Transfer With X-Duplex for 6G Networks. IEEE Systems Journal, 2022, 16, 5894-5905.	2.9	2
141	Reconfigurable Intelligent Surfaces Aided Multi-Cell NOMA Networks: A Stochastic Geometry Model. IEEE Transactions on Communications, 2022, 70, 951-966.	4.9	25
142	LiFi through Reconfigurable Intelligent Surfaces: A New Frontier for 6G?. IEEE Vehicular Technology Magazine, 2022, 17, 37-46.	2.8	45
143	Robust Design for Intelligent Reflecting Surface-Assisted Secrecy SWIPT Network. IEEE Transactions on Wireless Communications, 2022, 21, 4133-4149.	6.1	34
144	Cascaded Composite Turbulence and Misalignment: Statistical Characterization and Applications to Reconfigurable Intelligent Surface-Empowered Wireless Systems. IEEE Transactions on Vehicular Technology, 2022, 71, 3821-3836.	3.9	16
145	3-D Pattern Modulation Surfaces Using Short-Circuited Slotline Structure: Proposal, Design, and Implementation. IEEE Transactions on Antennas and Propagation, 2022, 70, 8739-8747.	3.1	5
146	Fast Beamforming Design Method for IRS-Aided mmWave MISO Systems. , 2021, , .		1
147	Planning Mm-Wave Access Networks With Reconfigurable Intelligent Surfaces. , 2021, , .		11
148	Intelligent Reflecting Surfaces Versus Full-Duplex Relaying: Performance Comparison for Non-Ideal Transmitter Case. , 2021, , .		6
149	Wide Incident Angle Digital Coding Metasurface Applied to Reconfigurable Intelligent Surfaces. , 2021, , .		2

#	ARTICLE	IF	CITATIONS
150	A Study on Machine Learning-based Approaches for Reconfigurable Intelligent Surface. , 2021, , .		1
151	Reconfigurable Intelligent Surfaces With Outdated Channel State Information: Centralized vs. Distributed Deployments. IEEE Transactions on Communications, 2022, 70, 2742-2756.	4.9	32
152	AoA-Based Positioning for Aerial Intelligent Reflecting Surface-Aided Wireless Communications: An Angle-Domain Approach. IEEE Wireless Communications Letters, 2022, 11, 761-765.	3.2	14
153	Deployment Optimization of Reconfigurable Intelligent Surface for Relay Systems. IEEE Transactions on Green Communications and Networking, 2022, 6, 221-233.	3.5	13
154	Performance of Cooperative Communication System With Multiple Reconfigurable Intelligent Surfaces Over Nakagami- $m$ Fading Channels. IEEE Access, 2022, 10, 9806-9816.	2.6	23
155	Reconfigurable Intelligent Surface-Assisted Spatial Scattering Modulation. IEEE Communications Letters, 2022, 26, 192-196.	2.5	7
156	Intelligent Reflecting Surface-Aided URLLC in a Factory Automation Scenario. IEEE Transactions on Communications, 2022, 70, 707-723.	4.9	61
157	On Energy Efficiency of Wideband RIS-Aided Cell-Free Network. IEEE Access, 2022, 10, 19742-19752.	2.6	8
158	On the Study of Reconfigurable Intelligent Surfaces in the Near-Field Region. IEEE Transactions on Antennas and Propagation, 2022, 70, 8718-8728.	3.1	11
159	Federated Learning for 6G: Applications, Challenges, and Opportunities. Engineering, 2022, 8, 33-41.	3.2	105
160	Imaging with metamaterials. Nature Reviews Physics, 2022, 4, 85-100.	11.9	64
161	Resource Optimization With Interference Coupling in Multi-RIS-Assisted Multi-Cell Systems. IEEE Open Journal of Vehicular Technology, 2022, 3, 98-110.	3.4	4
162	Multiobjective Optimization for Intelligent Reflective Surface-Aided Physical-Layer Multicasting. IEEE Open Journal of the Communications Society, 2022, 3, 411-423.	4.4	1
163	Performance Evaluation and Diversity Analysis of RIS-Assisted Communications Over Generalized Fading Channels in the Presence of Phase Noise. IEEE Open Journal of the Communications Society, 2022, 3, 593-607.	4.4	22
164	Novel Multiple RIS-Assisted Communications for 6G Networks. IEEE Communications Letters, 2022, 26, 1413-1417.	2.5	12
165	Toward a Heterogeneous Smart Electromagnetic Environment for Millimeter-Wave Communications: An Industrial Viewpoint. IEEE Transactions on Antennas and Propagation, 2022, 70, 8898-8910.	3.1	38
166	Foundations of MIMO Radar Detection Aided by Reconfigurable Intelligent Surfaces. IEEE Transactions on Signal Processing, 2022, 70, 1749-1763.	3.2	58
167	Building a Smart EM Environment - AI-Enhanced Aperiodic Micro-Scale Design of Passive EM Skins. IEEE Transactions on Antennas and Propagation, 2022, 70, 8757-8770.	3.1	33

#	ARTICLE	IF	CITATIONS
168	Planar Pattern Manipulation Surfaces Using Dual-Polarized Pin-Loaded Patch Resonating Elements. IEEE Transactions on Antennas and Propagation, 2022, 70, 8748-8756.	3.1	5
169	Intelligent Reflecting Surface Aided Wireless Networks: Dynamic User Access and System Sum-Rate Maximization. IEEE Transactions on Communications, 2022, 70, 2870-2881.	4.9	7
170	Evaluation of Reconfigurable Intelligent Surface-Assisted Underwater Wireless Optical Communication System. Journal of Lightwave Technology, 2022, 40, 4257-4267.	2.7	21
171	Reradiation and Scattering From a Reconfigurable Intelligent Surface: A General Macroscopic Model. IEEE Transactions on Antennas and Propagation, 2022, 70, 8691-8706.	3.1	31
172	Ambient Backscatter Assisted Co-Existence in Aerial-IRS Wireless Networks. IEEE Open Journal of the Communications Society, 2022, 3, 608-621.	4.4	6
173	Machine Learning Approaches for Reconfigurable Intelligent Surfaces: A Survey. IEEE Access, 2022, 10, 27343-27367.	2.6	20
174	A Survey on Channel Estimation and Practical Passive Beamforming Design for Intelligent Reflecting Surface Aided Wireless Communications. IEEE Communications Surveys and Tutorials, 2022, 24, 1035-1071.	24.8	152
175	Intelligent Omni-Surfaces for Full-Dimensional Wireless Communications: Principles, Technology, and Implementation. IEEE Communications Magazine, 2022, 60, 39-45.	4.9	67
176	Reconfigurable Intelligent Surfaces: A signal processing perspective with wireless applications. IEEE Signal Processing Magazine, 2022, 39, 135-158.	4.6	152
177	Electromagnetic Modeling of Holographic Intelligent Reflecting Surfaces at Terahertz Bands. , 2021, , .		3
178	Physical Layer Security for V2I Communications: Reflecting Surfaces Vs. Relaying. , 2021, , .		6
179	Reconfigurable Intelligent Surface Aided Mobile Edge Computing. IEEE Wireless Communications, 2021, 28, 80-86.	6.6	26
180	On the Performance of IRS-Assisted Relay Systems. , 2021, , .		2
181	Intelligent Reflecting Surfaces and Classical Relays: Coexistence and Co-Design. , 2021, , .		3
182	Reconfigurable Intelligent Surfaces for 5G and beyond Wireless Communications: A Comprehensive Survey. Energies, 2021, 14, 8219.	1.6	28
183	Triple-Structured Compressive Sensing-based Channel Estimation for RIS-aided MU-MIMO Systems. , 2021, , .		4
185	Placement Optimization and Power Control in Intelligent Reflecting Surface Aided Multiuser System. , 2021, , .		4
187	Optical Intelligent Reflecting Surface for Mixed Dual-Hop FSO and Beamforming-Based RF System in C-RAN. IEEE Transactions on Wireless Communications, 2022, 21, 8489-8506.	6.1	9

#	ARTICLE	IF	CITATIONS
188	Joint Beamforming Design for Multiuser MISO Downlink Aided by a Reconfigurable Intelligent Surface and a Relay. <i>IEEE Transactions on Wireless Communications</i> , 2022, 21, 8216-8229.	6.1	13
189	Performance analysis of intelligent reflecting surface aided full-duplex amplify-and-forward relay networks. <i>International Journal of Communication Systems</i> , 2022, 35, .	1.6	2
190	Design and Application of Intelligent Reflecting Surface (IRS) for Beyond 5G Wireless Networks: A Review. <i>Sensors</i> , 2022, 22, 2436.	2.1	28
191	Metasurface-Aided Wireless Power Transfer and Energy Harvesting for Future Wireless Networks. <i>IEEE Access</i> , 2022, 10, 52431-52450.	2.6	11
192	Backscatter Communication Assisted by Reconfigurable Intelligent Surfaces. <i>Proceedings of the IEEE</i> , 2022, 110, 1339-1357.	16.4	25
193	On the Performance of IRS-Aided UAV Networks With NOMA. <i>IEEE Transactions on Vehicular Technology</i> , 2022, 71, 9038-9043.	3.9	24
194	Visible Light and Reconfigurable Intelligent Surfaces for Beyond 5G V2X Communication Networks at Road Intersections. <i>IEEE Transactions on Vehicular Technology</i> , 2022, 71, 8137-8151.	3.9	17
195	Approaches to Array-Type Optical IRSs: Schemes and Comparative Analysis. <i>Journal of Lightwave Technology</i> , 2022, 40, 3576-3591.	2.7	7
196	What Will the Future of UAV Cellular Communications Be? A Flight From 5G to 6G. <i>IEEE Communications Surveys and Tutorials</i> , 2022, 24, 1304-1335.	24.8	94
197	RIS-Focus: On the Optimal Placement of the Focal Plane for Outdoor Beam Routing. <i>IEEE Access</i> , 2022, 10, 53053-53065.	2.6	4
198	Intelligent Reflecting Surface-Aided Wireless Networks: From Single-Reflection to Multireflection Design and Optimization. <i>Proceedings of the IEEE</i> , 2022, 110, 1380-1400.	16.4	47
199	Reconfigurable intelligent surface based hybrid precoding for THz communications. <i>Intelligent and Converged Networks</i> , 2022, 3, 103-118.	3.2	23
200	User cooperation for IRS-aided secure MIMO systems. <i>Intelligent and Converged Networks</i> , 2022, 3, 86-102.	3.2	5
201	A survey on IRS NOMA integrated communication networks. <i>Telecommunication Systems</i> , 2022, 80, 277-302.	1.6	10
202	Coverage probability of RIS-assisted mmWave cellular networks under blockages: A stochastic geometric approach. <i>Physical Communication</i> , 2022, 53, 101740.	1.2	0
203	An Energy-Efficient Aerial Backhaul System With Reconfigurable Intelligent Surface. <i>IEEE Transactions on Wireless Communications</i> , 2022, 21, 6478-6494.	6.1	21
204	STAR-RISs: A Correlated T&R Phase-Shift Model and Practical Phase-Shift Configuration Strategies. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2022, 16, 1097-1111.	7.3	32
205	Cascaded Channel Estimation Using Full Duplex for IRS-Aided Multiuser Communications. , 2022, , .		2

#	ARTICLE	IF	CITATIONS
206	Boosting 5G mm-Wave IAB Reliability with Reconfigurable Intelligent Surfaces. , 2022, , .		7
207	Blockage-Aware Beamforming Design for Active IRS-Aided mmWave Communication Systems. , 2022, , .		5
208	Unleashing the Potential of Networked Tethered Flying Platforms: Prospects, Challenges, and Applications. IEEE Open Journal of Vehicular Technology, 2022, 3, 278-320.	3.4	13
209	Partition-Based RIS-Assisted Multiple Access: NOMA Decoding Order Perspective. IEEE Transactions on Vehicular Technology, 2022, 71, 9083-9088.	3.9	5
210	Intelligent Reflecting Surface in 6G Vehicular Communications: A Survey. IEEE Open Journal of Vehicular Technology, 2022, 3, 266-277.	3.4	26
211	Path-loss Modelling and Scaloping Aspects in Intelligent Reflecting Surface Assisted Communication: A Method-of-Moment Analysis. , 2022, , .		3
212	Terahertz Enabled Use Cases for Smart Mobility towards B5G and 6G Communications. , 2022, , .		0
213	A Novel System of Mixed RF/FSO UAV Communication Based on MRR and RIS by Adopting Hybrid Modulation. Photonics, 2022, 9, 379.	0.9	3
214	6G for Vehicle-to-Everything (V2X) Communications: Enabling Technologies, Challenges, and Opportunities. Proceedings of the IEEE, 2022, 110, 712-734.	16.4	131
215	6th Generation: Communication, Signal Processing, Advanced Infrastructure, Emerging Technologies and Challenges. , 2021, , .		4
216	Multi-User Holographic MIMO Surfaces: Channel Modeling and Spectral Efficiency Analysis. IEEE Journal on Selected Topics in Signal Processing, 2022, 16, 1112-1124.	7.3	45
217	Exploiting Multiple RISs and Direct Link for Performance Enhancement of Wireless Systems With Hardware Impairments. IEEE Transactions on Communications, 2022, 70, 5599-5611.	4.9	15
218	Deep Learning Enabled IRS for 6G Intelligent Transportation Systems: A Comprehensive Study. IEEE Transactions on Intelligent Transportation Systems, 2023, 24, 12973-12990.	4.7	10
219	Localization Through Transceivers in Unknown Constant Velocity Trajectories. IEEE Transactions on Signal Processing, 2022, 70, 3011-3028.	3.2	3
220	Beamforming Optimization for IRS-Assisted mmWave V2I Communication Systems via Reinforcement Learning. IEEE Access, 2022, 10, 60521-60533.	2.6	6
221	Resource Allocation and 3D Trajectory Design for Power-Efficient IRS-Assisted UAV-NOMA Communications. IEEE Transactions on Wireless Communications, 2022, 21, 10315-10334.	6.1	14
222	Generalized Bimode Equivalent Circuit of Arbitrary Planar Periodic Structures for Oblique Incidence. IEEE Transactions on Antennas and Propagation, 2022, 70, 9435-9448.	3.1	3
223	Performance Analysis of Intelligent Reflecting Surface-Aided Mobile Edge Computing Network with Uplink NOMA Scheme. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2022, , 48-61.	0.2	1

#	ARTICLE	IF	CITATIONS
224	Optimizing Coverage with Intelligent Surfaces for Indoor mmWave Networks. , 2022, , .		6
225	Cooperative RIS and Relaying IoV Networks: A Deep Study on Position Analysis. Wireless Communications and Mobile Computing, 2022, 2022, 1-8.	0.8	1
226	Metasurfaceâ€Programmable Wireless Networkâ€Onâ€Chip. Advanced Science, 2022, 9, .	5.6	12
227	Exploring reconfigurable intelligent surfaces for 6G: Stateâ€ofâ€theâ€art and the road ahead. IET Communications, 2022, 16, 1458-1474.	1.5	18
228	On Performance of Low-Power Wide-Area Networks With the Combining of Reconfigurable Intelligent Surfaces and Relay. IEEE Transactions on Mobile Computing, 2023, 22, 6086-6096.	3.9	7
229	Joint Uplink-Downlink Resource Allocation for Multi-User IRS-Assisted Systems. IEEE Transactions on Wireless Communications, 2022, , 1-1.	6.1	0
230	Beyond 5G RIS mmWave Systems: Where Communication and Localization Meet. IEEE Access, 2022, 10, 68075-68084.	2.6	26
231	Reconfigurable Refractive Surfaces: An Energy-Efficient Way to Holographic MIMO. IEEE Communications Letters, 2022, 26, 2490-2494.	2.5	9
232	Ergodic Capacity Analysis for Relay-RIS System Under Three-Dimensional Channel Model. IEEE Communications Letters, 2022, 26, 2292-2296.	2.5	1
233	Cooperative Beamforming Design for Multiple RIS-Assisted Communication Systems. IEEE Transactions on Wireless Communications, 2022, 21, 10949-10963.	6.1	7
234	Exploiting Composite Vortices in the Design of Reconfigurable Intelligent Surfaces. , 2022, , .		0
235	Secure Downlink Transmission in Cell-Free Massive MIMO System Enhanced by Intelligent Reflecting Surfaces. Security and Communication Networks, 2022, 2022, 1-16.	1.0	1
236	Phase Shift Design in RIS Empowered Wireless Networks: From Optimization to AI-Based Methods. Network, 2022, 2, 398-418.	1.5	7
237	Joint Power and Reflecting Elements Optimization for Intelligent Reflecting Surface Assisted NOMA. , 2022, , .		1
238	Fine-Grained Analysis of Reconfigurable Intelligent Surface-Assisted mmWave Networks. IEEE Transactions on Communications, 2022, 70, 6277-6294.	4.9	7
239	Energy-Efficiency Maximization of Multiple RISs-Enabled Communication Networks by Deep Reinforcement Learning. , 2022, , .		3
240	Double-RIS Communication with DF Relaying for Coverage Extension: Is One Relay Enough?. , 2022, , .		5
241	Joint Optimization of Reconfigurable Intelligent Surfaces and Dynamic Metasurface Antennas for Massive MIMO Communications. , 2022, , .		2

#	ARTICLE	IF	CITATIONS
242	Autonomous Reconfigurable Intelligent Surfaces Through Wireless Energy Harvesting. , 2022, , .		7
243	Intelligent-Meta-Surfaces-Aided Wireless Communications in 6G. , 2022, , .		2
244	Symbiotic Radio based Spectrum Sharing in Cooperative UAV-IRS Wireless Networks. , 2022, , .		0
245	Reinforcement Learning-based MAC for Reconfigurable Intelligent Surface-Assisted Wireless Sensor Networks. , 2022, , .		0
246	Optimization of UAV-mounted Intelligent Reflecting Surface for the Downlink of Cellular Systems. , 2022, , .		0
247	Optimization of Intelligent Reflecting Surface Aided Wireless Networks with User Mobility. , 2022, , .		0
248	Joint power and blocklength optimization for RIS-aided multiple-access downlink ultra-reliable low-latency communication. IET Signal Processing, 0, , .	0.9	0
249	Wide-bandwidth and tunable PIFAs under dual-resonance modes. International Journal of RF and Microwave Computer-Aided Engineering, 0, , .	0.8	0
250	Path Loss Modeling and Measurements for Reconfigurable Intelligent Surfaces in the Millimeter-Wave Frequency Band. IEEE Transactions on Communications, 2022, 70, 6259-6276.	4.9	67
251	PhysFad: Physics-Based End-to-End Channel Modeling of RIS-Parametrized Environments With Adjustable Fading. IEEE Transactions on Wireless Communications, 2023, 22, 580-595.	6.1	31
252	Short packet communication in underlay cognitive network assisted by an intelligent reflecting surface. ETRI Journal, 2023, 45, 28-44.	1.2	3
253	Robust Beamforming for Active Reconfigurable Intelligent Omni-Surface in Vehicular Communications. IEEE Journal on Selected Areas in Communications, 2022, 40, 3086-3103.	9.7	17
254	Degrees of Freedom in 3D Linear Large-Scale Antenna Array Communications—A Spatial Bandwidth Approach. IEEE Journal on Selected Areas in Communications, 2022, 40, 2805-2822.	9.7	5
255	Combining multi-RIS and relay for performance improvement of multi-user NOMA systems. Computer Networks, 2022, 217, 109353.	3.2	0
256	Leveraging Secondary Reflections and Mitigating Interference in Multi-IRS/RIS Aided Wireless Networks. IEEE Transactions on Wireless Communications, 2023, 22, 502-517.	6.1	10
257	Beamforming Optimization for Active Intelligent Reflecting Surface-Aided SWIPT. IEEE Transactions on Wireless Communications, 2023, 22, 362-378.	6.1	15
258	Exploiting Reconfigurable Intelligent Surface-Based Uplink/Downlink Wireless Systems. IEEE Access, 2022, 10, 91059-91072.	2.6	6
259	High-Speed Trains Access Connectivity Through RIS-Assisted FSO Communications. Journal of Lightwave Technology, 2022, 40, 7084-7094.	2.7	7

#	ARTICLE	IF	CITATIONS
260	Physical Layer Enhancement for Next-Generation Railway Communication Systems. IEEE Access, 2022, 10, 83152-83175.	2.6	2
261	RIS-Assisted Full-Duplex Relay Systems. IEEE Systems Journal, 2022, 16, 5729-5740.	2.9	17
262	Triple-Structured Compressive Sensing-Based Channel Estimation for RIS-Aided MU-MIMO Systems. IEEE Transactions on Wireless Communications, 2022, 21, 11095-11109.	6.1	5
263	An Improved Path-Loss Model for Reconfigurable-Intelligent-Surface-Aided Wireless Communications and Experimental Validation. IEEE Access, 2022, 10, 98065-98078.	2.6	12
264	Downlink Performance Analysis of Intelligent Reflecting Surface-Enabled Networks. IEEE Transactions on Vehicular Technology, 2023, 72, 2082-2097.	3.9	2
265	On the role of spatial dispersion in boundary conditions for perfect non-specular reflection. EPJ Applied Metamaterials, 2022, 9, 17.	0.8	2
266	Performance Analysis of IRS-Assisted NOMA Networks With Randomly Deployed Users. IEEE Systems Journal, 2023, 17, 1853-1864.	2.9	4
267	MIMO Device-to-Device Communications via Cooperative Dual-Polarized Intelligent Surfaces. IEEE Wireless Communications Letters, 2023, 12, 202-206.	3.2	1
268	Multi-Scale Single-Bit <i>RP-EMS</i> Synthesis for Advanced Propagation Manipulation Through System-by-Design. IEEE Transactions on Antennas and Propagation, 2022, 70, 8809-8824.	3.1	14
269	Outage Statistics of Hybrid Double-RIS System Assisted by Aerial AF-Relay for Multi-hop Communications. , 2022, , .		0
270	Reconfigurable Intelligent Surface for NLOS Integrated Sensing and Communications. , 2022, , .		4
271	Coverage Analysis of Intelligent Reflecting Surface assisted Cellular Networks. , 2022, , .		0
272	Position Design for Reconfigurable Intelligent-Surface-Aided Indoor Visible Light Communication Systems. Electronics (Switzerland), 2022, 11, 3076.	1.8	6
273	Optimum Reconfigurable Intelligent Surface Selection for Wireless Networks. IEEE Transactions on Communications, 2022, 70, 6241-6258.	4.9	5
274	Communication Models for Reconfigurable Intelligent Surfaces: From Surface Electromagnetics to Wireless Networks Optimization. Proceedings of the IEEE, 2022, 110, 1164-1209.	16.4	54
275	Boosting NOMA systems through smart metasurfaces. Frontiers in Communications and Networks, 0, 3, .	1.9	1
276	Shift to 6G: Exploration on trends, vision, requirements, technologies, research, and standardization efforts. Sustainable Energy Technologies and Assessments, 2022, 54, 102666.	1.7	12
277	Outage and throughput performance of hybrid RISs-relay-aided-wireless systems with imperfect transceiver hardware. AEU - International Journal of Electronics and Communications, 2022, 157, 154425.	1.7	3



#	ARTICLE	IF	CITATIONS
278	Reconfigurable Intelligent Surface Assisted OFDM Relaying: Subcarrier Matching With Balanced SNR. IEEE Transactions on Vehicular Technology, 2023, 72, 2216-2230.	3.9	2
279	Joint UAV Placement and IRS Phase Shift Optimization in Downlink Networks. IEEE Access, 2022, 10, 111221-111231.	2.6	4
280	(\$k, \alpha\$)-Coverage for RIS-Aided Mmwave Directional Communication. IEEE Transactions on Mobile Computing, 2022, , 1-16.	3.9	0
281	RIS-Assisted Quasi-Static Broad Coverage for Wideband mmWave Massive MIMO Systems. IEEE Transactions on Wireless Communications, 2023, 22, 2551-2565.	6.1	3
282	Optimal Resource Allocation for Reconfigurable Intelligent Surface Assisted Dynamic Wireless Network via Online Reinforcement Learning. , 2022, , .		1
283	Multi-User Reconfigurable Intelligent Surface-Aided Communications Under Discrete Phase Shifts. , 2022, , .		3
284	Reconfigurable Intelligent Surface-Aided Cooperative NOMA with p-CSI Fading Channel toward 6G-Based IoT System. Sensors, 2022, 22, 7664.	2.1	3
285	Unmanned Aerial Vehicle-Assisted Reconfigurable Intelligent Surface for Energy Efficient and Reliable Communication. Unmanned System Technologies, 2023, , 173-201.	0.9	2
286	Task Offloading, Caching and Matching in Ultra-Dense Relay Networks. IEEE Transactions on Vehicular Technology, 2023, 72, 4010-4025.	3.9	2
287	IRS-Enabled Secure G2A Communications for UAV System With Aerial Eavesdropping. IEEE Systems Journal, 2023, 17, 3670-3681.	2.9	1
288	Pricing for Reconfigurable Intelligent Surface Aided Wireless Networks: Models and Principles. IEEE Network, 2023, 37, 102-110.	4.9	1
289	Spectral Efficiency Analysis of Hybrid Relay-Reflecting Intelligent Surface-Assisted Cell-Free Massive MIMO Systems. IEEE Transactions on Wireless Communications, 2023, 22, 3397-3416.	6.1	6
290	Cooperative Hybrid Networks with Active Relays and RISs for B5G: Applications, Challenges, and Research Directions. IEEE Wireless Communications, 2024, 31, 126-132.	6.6	4
291	IRS-Empowered 6G Networks: Deployment Strategies, Performance Optimization, and Future Research Directions. IEEE Access, 2022, 10, 118676-118696.	2.6	6
292	On performance of multi-RIS assisted multi-user nonorthogonal multiple access system over Nakagami- $m$ fading channels. Computer Communications, 2023, 197, 294-305.	3.1	6
293	Outage Probability Analysis of Uplink RIS and UAV-Assisted THz Mobile Communications. , 2022, , .		0
294	Hybrid Double-RIS and DF-Relay for Outdoor-to-Indoor Communication. IEEE Access, 2022, 10, 126651-126663.	2.6	7
295	Reconfigurable Intelligent Surface Enabled Over-the-Air Uplink NOMA. IEEE Transactions on Green Communications and Networking, 2023, 7, 814-826.	3.5	6

#	ARTICLE	IF	CITATIONS
296	On the Performance of RIS-Assisted Communications With Direct Link Over $\alpha$ -Shadowed Fading. IEEE Open Journal of the Communications Society, 2022, 3, 2314-2328.	4.4	8
297	Sparsity-Aware Channel Estimation for Fully Passive RIS-Based Wireless Communications: Theory to Experiments. IEEE Internet of Things Journal, 2023, 10, 8046-8067.	5.5	0
298	IRS-assisted MISO System with Phase Noise: Channel Estimation and Power Scaling Laws. IEEE Transactions on Wireless Communications, 2022, , 1-1.	6.1	0
299	RIS-Assisted Green Secure Communications: Active RIS or Passive RIS?. IEEE Wireless Communications Letters, 2023, 12, 237-241.	3.2	12
300	3D beamforming in Intelligent Reflecting Surface (IRS)-assisted multi-user cognitive radio networks. Physical Communication, 2023, 56, 101951.	1.2	2
301	Computation Offloading Outage Probability Analysis and Min-Max Fairness Optimization in RIS-Assisted MEC System. IEEE Transactions on Vehicular Technology, 2023, 72, 4615-4627.	3.9	0
302	RIS-UAV Enabled Worst-Case Downlink Secrecy Rate Maximization for Mobile Vehicles. IEEE Transactions on Vehicular Technology, 2023, 72, 6129-6141.	3.9	9
303	Robust Sum-Rate Maximization in Transmissive RMS Transceiver-Enabled SWIPT Networks. IEEE Internet of Things Journal, 2023, 10, 7259-7271.	5.5	1
304	Active and Passive IRS Jointly Aided Communication: Deployment Design and Achievable Rate. IEEE Wireless Communications Letters, 2023, 12, 302-306.	3.2	7
305	Delay-Aware and Energy-Efficient Resource Allocation for Reconfigurable Intelligent Surfaces. IEEE Communications Letters, 2023, 27, 605-609.	2.5	1
306	Constrained Design of Passive Static EM Skins. IEEE Transactions on Antennas and Propagation, 2023, 71, 1528-1538.	3.1	6
307	Ring-type Codebook Design for Reconfigurable Intelligent Surface Near-field Beamforming. , 2022, , .		2
308	Investigation of the Intelligent Reflecting Surfaces-Assisted Non-Orthogonal Multiple Access in 6G Networks. , 2022, , .		1
309	Outage Analysis and Realization Challenges of RIS-enabled Underlay CR Networks over Nakagami $m$ -Fading. , 2022, , .		0
311	Secrecy Performance of RIS-enabled Linear Interference Alignment Multi-User MIMO Network. , 2022, , .		0
313	Channel estimation for reconfigurable intelligent surface-assisted mmWave based on Rényi entropy function. Scientific Reports, 2022, 12, .	1.6	2
314	Outage behavior of the downlink reconfigurable intelligent surfaces-aided cooperative non-orthogonal multiple access network over Nakagami- $m$ fading channels. Wireless Networks, 0, , .	2.0	0
315	Performance Comparison Between a Simple Full-Duplex Multi-Antenna Relay and a Passive Reflecting Intelligent Surface. IEEE Transactions on Wireless Communications, 2023, 22, 5461-5472.	6.1	3

#	ARTICLE	IF	CITATIONS
316	Capacity Enhancement for Reconfigurable Intelligent Surface-Aided Wireless Network: From Regular Array to Irregular Array. IEEE Transactions on Vehicular Technology, 2023, 72, 6392-6403.	3.9	6
317	Multi-user Holographic MIMO Systems: Reconfigurable Refractive Surface or Phased Array?. , 2022, , .		0
318	A Study on Multi-Antenna and Pertinent Technologies with AI/ML Approaches for B5G/6G Networks. Electronics (Switzerland), 2023, 12, 189.	1.8	14
319	Sparse RIS in Multi User MIMO Wireless System. , 2022, , .		0
320	Energy-Efficient Precoder Design in RIS-Assisted Multiuser MIMO Cognitive Radio Networks. , 2022, , .		0
321	Energy-Efficient Beamforming Design for Cooperative Double-IRS Aided Multi-User MIMO. , 2022, , .		2
322	Intelligent Reflective Surface vs. Mobile Relay-supported NLoS Avoidance in Indoor mmWave Networks. , 2022, , .		1
323	A Brief Review and Comparison Between Transmitarray Antennas, Reflectarray Antennas and Reconfigurable Intelligent Surfaces. , 2022, , .		2
324	Electromagnetic Field Exposure Avoidance thanks to Non-Intended User Equipment and RIS. , 2022, , .		0
325	Channel Orthogonalization with Reconfigurable Surfaces. , 2022, , .		1
326	Robust Energy-Efficient RIS-Aided Multi-Antenna DF Relay Cooperative MIMO. , 2022, , .		0
327	Energy Efficiency of Unmanned Aerial Vehicle with Reconfigurable Intelligent Surfaces: A Comparative Study. Drones, 2023, 7, 98.	2.7	4
328	An Active Reconfigurable Intelligent Surface Utilizing Phase-Reconfigurable Reflection Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2023, 71, 3189-3202.	2.9	6
329	Deep-Learning Assisted IoT Based RIS for Cooperative Communications. IEEE Internet of Things Journal, 2023, , 1-1.	5.5	2
330	IRS-Assisted RF-Powered IoT Networks: System Modeling and Performance Analysis. IEEE Transactions on Communications, 2023, 71, 2425-2440.	4.9	6
331	Reconfigurable Intelligent Surface as an Access Point: Probability of Error Analysis for Discrete Phase Shifters. Lecture Notes in Networks and Systems, 2023, , 411-421.	0.5	0
332	Intelligent Reflecting Surface Enhanced Secure Communication with Multi-Eavesdroppers. , 2022, , .		0
333	A Comparative Study of Reconfigurable Intelligent Surfaces with Relays in UAV Cooperative Communications. Lecture Notes in Networks and Systems, 2023, , 100-106.	0.5	1

#	ARTICLE	IF	CITATIONS
334	Semi-Blind Joint Channel and Symbol Estimation for IRS-Assisted MIMO Systems. IEEE Transactions on Signal Processing, 2023, 71, 1184-1199.	3.2	1
335	On the Road to 6G: Visions, Requirements, Key Technologies, and Testbeds. IEEE Communications Surveys and Tutorials, 2023, 25, 905-974.	24.8	151
336	A Long-Range and Nearly-Passive RFID-Controlled Information Metasurface. Advanced Optical Materials, 2024, 12, .	3.6	2
337	On Surface Wave Propagation Characteristics of Porosity-Based Reconfigurable Surfaces. , 2022, , .		1
338	Comprehensive review on ML-based RIS-enhanced IoT systems: basics, research progress and future challenges. Computer Networks, 2023, 224, 109581.	3.2	22
339	Intelligent Reflecting Vehicle Surface: A Novel IRS Paradigm for Moving Vehicular Networks. , 2022, , .		6
340	A survey on reconfigurable intelligent surfaces: Wireless communication perspective. IET Communications, 2023, 17, 497-537.	1.5	12
341	Improving the performance of wireless half-duplex and full-duplex relaying networks with intelligent reflecting surface. Journal of the Franklin Institute, 2023, 360, 3095-3118.	1.9	1
342	Reconfigurable Intelligent Surfaces for Adaptive Nulling and Beam Steering Using 1-bit Topology. , 2023, , .		0
343	Power and Element Allocation Design for RIS-NOMA IoV Networks. Electronics (Switzerland), 2023, 12, 1003.	1.8	1
344	Channel Estimation for Reconfigurable Intelligent Surface Aided Multi-User mmWave MIMO Systems. IEEE Transactions on Wireless Communications, 2023, 22, 6853-6869.	6.1	30
345	Reconfigurable Intelligent Surfaces Enabling 6G Wireless Communication Systems: Use Cases and Technical Considerations. , 2022, , .		0
346	Robust Transmission Design for RIS-Assisted Secure Multiuser Communication Systems in the Presence of Hardware Impairments. IEEE Transactions on Wireless Communications, 2023, 22, 7506-7521.	6.1	4
347	On the Performance of Training-Based IRS-Assisted Communications Under Correlated Rayleigh Fading. IEEE Transactions on Communications, 2023, 71, 3117-3131.	4.9	1
348	A varactor-based 1024-element RIS design for mm-waves. Frontiers in Communications and Networks, 0, 4, .	1.9	2
349	Spatial multiplexing in near field MIMO channels with reconfigurable intelligent surfaces. IET Signal Processing, 2023, 17, .	0.9	3
350	Transmission-Efficient RIS-Carrying UAV's Auxiliary Communication Systems for Intelligent Connected Vehicle Platoons at the Unsignalized Intersection in Smart Cities. IEEE Internet of Things Journal, 2023, 10, 18609-18621.	5.5	0
351	Wideband Precoding for RIS-Aided THz Communications. IEEE Transactions on Communications, 2023, 71, 3592-3604.	4.9	3

#	ARTICLE	IF	CITATIONS
352	RIS-Assisted Hybrid Beamforming and Connected User Vehicle Localization for Millimeter Wave MIMO Systems. <i>Sensors</i> , 2023, 23, 3713.	2.1	1
353	Multiple re-configurable intelligent surfaces based physical layer eavesdropper detection for V2I communications. <i>Physical Communication</i> , 2023, 58, 102074.	1.2	1
354	Holistic Enlightening of Blackspots with Passive Tailorable Reflecting Surfaces for Efficient Urban mmWave Networks. <i>IEEE Access</i> , 2023, , 1-1.	2.6	1
355	Approximate Maximum-Likelihood RIS-Aided Positioning. <i>IEEE Transactions on Wireless Communications</i> , 2023, 22, 8859-8875.	6.1	0
356	Rate Optimization and Interference Suppression in RIS-assisted MIMO Systems. , 2023, , .		0
358	Active IRS -Assisted Resource Allocation for MISO System. , 2023, , .		1
360	Performance Analysis of Multiple Optical Reflecting Surfaces Assisted FSO Communication. , 2023, , .		0
365	Reconfigurable Intelligent Surfaces Aided Wireless Communications with Electromagnetic Interference. , 2023, , .		0
366	Design of a Dual Polarization Reconfigurable Intelligent Surface at 26.0 GHz for 5G Applications. , 2023, , .		0
371	A Geometry-Based Strategic Placement of RISs in Millimeter Wave Device to Device Communication. <i>Communications in Computer and Information Science</i> , 2023, , 41-53.	0.4	0
383	Orthogonal and Non-Orthogonal Multiple Access for Intelligent Reflection Surface in 6G Systems. , 2023, , .		2
384	Enhanced Smart Wireless Communication by Intelligent Reflecting Surfaces (IRSs) and Measuring the Integration of Distributed Systems. , 2022, , .		0
389	Enhancement of Spectral Efficiency in Intelligent Reflecting Surfaces (IRS's) over Distributed and Cloud-Computing Systems. , 2023, , .		1
391	Network-Controlled Repeaters vs. Reconfigurable Intelligent Surfaces for 6G mmW Coverage Extension: A Simulative Comparison. , 2023, , .		3
393	Link Budget Considerations for Reflecting Intelligent Surfaces in Radio Channels. , 2023, , .		0
402	IRS-Aided Sectorized Base Station Design and 3D Coverage Performance Analysis. , 2023, , .		0
405	User Scheduling and Passive Beamforming for FDMA/OFDMA in Intelligent Reflection Surface. , 2023, , .		1
406	Reconfigurable Intelligent Surface Assisted Railway Communications: A survey. , 2023, , .		0

#	ARTICLE	IF	CITATIONS
407	Analysis of One-Bit DAC for RIS-Assisted MU Massive MIMO Systems with Efficient Autoencoder Based Deep Learning. , 2023, , .		1
415	Shaping the Scattering Pattern of a Reconfigurable Intelligent Surface Through the Manipulation of Composite Vortices. , 2023, , .		0
419	Channel Estimation of RIS-Assisted Communication System Based on Residual Ratio Threshold. , 2023, , .		0
420	Reflective Intelligent Surfaces: Enabling Reconfigurability with Composite Vortices. , 2023, , .		0
422	RIS-Assisted Grant-Free NOMA. , 2023, , .		1
423	Double-IRS Assisted Proactive Eavesdropping with Cooperative Reflecting and Backscatter. , 2023, , .		0
424	Sum Rate Maximization With Discrete Phase Shift for Reconfigurable Intelligent Surface Aided Broadcast Channel. , 2023, , .		0
428	Power Allocation for Joint Large Intelligent Surfaces Decode-And-Forward Relay in Full-Duplex Communications - A Deep Learning Approach. , 2023, , .		0
429	Reconfigurable Intelligent Surfaces Toward 6G: From Reflection Only to Simultaneous Transmission and Reflection (STAR). Signals and Communication Technology, 2024, , 399-424.	0.4	0
432	Experimental Demonstration of 3D Reflected Beamforming at Sub6Ghz Thanks to Varactor Based Reconfigurable Intelligent Surface. , 2023, , .		0
433	Active STAR-RIS Assisted Wireless Information and Power Transfer Systems. , 2023, , .		0
437	Inter-Mode-Interference-Aware OAM Detector via Deep Learning. , 2023, , .		0
444	Phase Shift Optimization for RIS Element-Based Index Modulation. , 2023, , .		0
445	Outage Probability Analysis of RIS-Assisted Relay Transmission Systems. , 2023, , .		0