

Classifications and Applications of Physical Layer Security A Comprehensive Survey

IEEE Communications Surveys and Tutorials
21, 1773-1828

DOI: [10.1109/comst.2018.2878035](https://doi.org/10.1109/comst.2018.2878035)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Enhancing Physical Layer Security for NOMA Transmission in mmWave Drone Networks. , 2018, , .		15
2	Joint Optimization of a UAV's Trajectory and Transmit Power for Covert Communications. IEEE Transactions on Signal Processing, 2019, 67, 4276-4290.	3.2	122
4	Secure Image Transmission in Orthogonal Frequency Division Multiplexing Visible Light Communication Systems. IEEE Access, 2019, 7, 107927-107936.	2.6	7
5	Secrecy Enhancing Scheme for Spatial Modulation Using Antenna Selection and Artificial Noise. Entropy, 2019, 21, 626.	1.1	11
6	Physical-Layer Security of 5G Wireless Networks for IoT: Challenges and Opportunities. IEEE Internet of Things Journal, 2019, 6, 8169-8181.	5.5	230
7	Disruptive Technologies for Environment and Health Research: An Overview of Artificial Intelligence, Blockchain, and Internet of Things. International Journal of Environmental Research and Public Health, 2019, 16, 3847.	1.2	95
8	A Secure Receive Spatial Modulation Scheme Based on Random Precoding. IEEE Access, 2019, 7, 122367-122377.	2.6	8
9	Physical layer security against cooperative anomaly attack using bivariate data in distributed CRNs. , 2019, , .		3
10	Using mm-Waves for Secret Key Establishment. IEEE Communications Letters, 2019, 23, 1077-1080.	2.5	2
11	Secret Key Generation With Cross Multiplication of Two-Way Random Signals. IEEE Access, 2019, 7, 113065-113080.	2.6	14
12	Joint PHY/MAC Layer AN-Assisted Security Scheme in SVD-Based MIMO HARQ system. , 2019, , .		1
13	Secure Transmission for SWIPT IoT Systems With Full-Duplex IoT Devices. IEEE Internet of Things Journal, 2019, 6, 10915-10933.	5.5	63
14	Modulation Options for OFDM-Based Waveforms: Classification, Comparison, and Future Directions. IEEE Access, 2019, 7, 17263-17278.	2.6	53
15	Security for 5G and Beyond. IEEE Communications Surveys and Tutorials, 2019, 21, 3682-3722.	24.8	227
16	Secret Key Generation With Precoding and Role Reversal in MIMO Wireless Systems. IEEE Transactions on Wireless Communications, 2019, 18, 3104-3112.	6.1	17
17	Active Eavesdropping Detection Based on Large-Dimensional Random Matrix Theory for Massive MIMO-Enabled IoT. Electronics (Switzerland), 2019, 8, 146.	1.8	6
18	Enhancement of Physical Layer Security With Simultaneous Beamforming and Jamming for Visible Light Communication Systems. IEEE Transactions on Information Forensics and Security, 2019, 14, 2633-2648.	4.5	52
19	Efficient Alamouti-Coded Spatial Modulation for Secrecy Enhancing. , 2019, , .		7

#	ARTICLE	IF	CITATIONS
20	Physical Layer Security for 5G Wireless Networks: A Comprehensive Survey. , 2019, , .		8
21	Physical-layer Security Performance of MISO Time-reversal Ultra-wideband Systems. , 2019, , .		1
22	Physical Layer Data Analysis for Abnormal User Detecting: A Random Matrix Theory Perspective. IEEE Access, 2019, 7, 169508-169517.	2.6	7
23	Cognitive Radio Network Security Threats: A Review. , 2019, , .		1
24	Artificial Noise Aided Hybrid Precoding Design for Secure mmWave MIMO System. , 2019, , .		2
25	Technology Independent Security Aware OFDM (SA-OFDM). , 2019, , .		0
26	Privacy-Preserving Content Dissemination for Vehicular Social Networks: Challenges and Solutions. IEEE Communications Surveys and Tutorials, 2019, 21, 1314-1345.	24.8	114
27	Optimal Relay Selection for Secure NOMA Systems Under Untrusted Users. IEEE Transactions on Vehicular Technology, 2020, 69, 1942-1955.	3.9	38
28	An Efficient Security Scheme for Vehicular Communication Using a Quantum Secret Sharing Method. IEEE Transactions on Vehicular Technology, 2020, 69, 1101-1105.	3.9	7
29	Secrecy Performance Analysis of Hybrid AF-DF Relaying Under Multi Hop Environment. Wireless Personal Communications, 2020, 111, 1741-1760.	1.8	4
30	Smart and Secure Wireless Communications via Reflecting Intelligent Surfaces: A Short Survey. IEEE Open Journal of the Communications Society, 2020, 1, 1442-1456.	4.4	65
31	Physical Layer Security with Unknown Eavesdroppers in Beyond-5G MU-MIMO SATCOM. , 2020, , .		1
32	Optimal Cooperative Strategies for PHY Security Maximization Subject to SNR Constraints. IEEE Access, 2020, 8, 119312-119323.	2.6	3
33	Improving Availability and Confidentiality via Hyperchaotic Baseband Frequency Hopping Based on Optical OFDM in VLC Networks. IEEE Access, 2020, 8, 125013-125028.	2.6	14
34	Joint Power Allocation and Beamforming for Overlaid Secrecy Transmissions in MIMO-OFDM Channels. IEEE Transactions on Vehicular Technology, 2020, 69, 10019-10032.	3.9	11
35	Progressive researches on IoT security: An exhaustive analysis from the perspective of protocols, vulnerabilities, and preemptive architectonics. Journal of Network and Computer Applications, 2020, 168, 102761.	5.8	36
36	Physical-Layer-Security Box: a concept for time-frequency channel-reciprocity key generation. Eurasip Journal on Wireless Communications and Networking, 2020, 2020, .	1.5	19
37	An Overview of Key Technologies in Physical Layer Security. Entropy, 2020, 22, 1261.	1.1	27

#	ARTICLE	IF	CITATIONS
38	Joint Beamforming and Artificial Noise Optimization for Secure Transmissions in MISO-NOMA Cognitive Radio System with SWIPT. Electronics (Switzerland), 2020, 9, 1948.	1.8	7
39	On the physical layer security of hybrid RF-FSO system in presence of multiple eavesdroppers and receiver diversity. Optics Communications, 2020, 477, 126334.	1.0	16
40	Large-Scale Wireless-Powered Networks With Backscatter Communications—A Comprehensive Survey. IEEE Open Journal of the Communications Society, 2020, 1, 1100-1130.	4.4	48
41	Enhancing Least Square Channel Estimation Using Deep Learning. , 2020, , .		21
42	An improved life cycle for building secure software. IOP Conference Series: Materials Science and Engineering, 2020, 871, 012009.	0.3	0
43	Robust Artificial Noise-aided Secure Communication against ICA-based Attacks. , 2020, , .		0
44	Physical Layer Security in the Age of Artificial Intelligence and Edge Computing. IEEE Wireless Communications, 2020, 27, 174-180.	6.6	16
45	A Lightweight Intelligent Authentication Approach for Intrusion Detection. , 2020, , .		2
46	Secure and Reliable IoT Communications Using Nonorthogonal Signals—™ Superposition with Dual-Transmission. , 2020, , .		4
47	Service-Based Coverage for Physical Layer Security with Multi-Point Coordinated Beamforming. , 2020, , .		4
48	Power Allocation for Reducing PAPR of Artificial-Noise-Aided Secure Communication System. Mobile Information Systems, 2020, 2020, 1-15.	0.4	2
49	Exact Secrecy Rate Analysis of Antenna Subset Modulation Schemes. IEEE Systems Journal, 2021, 15, 4827-4830.	2.9	8
50	Enhancing SCADA System Security. , 2020, , .		2
51	Security in Energy Harvesting Networks: A Survey of Current Solutions and Research Challenges. IEEE Communications Surveys and Tutorials, 2020, 22, 2658-2693.	24.8	39
52	A New Frontier for IoT Security Emerging From Three Decades of Key Generation Relying on Wireless Channels. IEEE Access, 2020, 8, 138406-138446.	2.6	73
53	Physical Layer Security Designs for 5G NOMA Systems With a Stronger Near-End Internal Eavesdropper. IEEE Transactions on Vehicular Technology, 2020, 69, 13005-13017.	3.9	41
54	Waveform Design for Space—Time Coded MIMO Systems with High Secrecy Protection. Electronics (Switzerland), 2020, 9, 2003.	1.8	4
55	Secure Modulation Based on Constellation Mapping Obfuscation in OFDM Based TDD Systems. IEEE Access, 2020, 8, 197644-197653.	2.6	6

#	ARTICLE	IF	CITATIONS
56	Physical-Layer Security for Mobile Users in NOMA-Enabled Visible Light Communication Networks. IEEE Access, 2020, 8, 205411-205423.	2.6	15
57	Physical Layer Secret Key Generation Based on Autoencoder for Weakly Correlated Channels. , 2020, , .		8
58	A Two-Stage Game Framework to Secure Transmission in Two-Tier UAV Networks. IEEE Transactions on Vehicular Technology, 2020, 69, 13728-13740.	3.9	11
59	Energy-Constrained UAV-Assisted Secure Communications With Position Optimization and Cooperative Jamming. IEEE Transactions on Communications, 2020, 68, 4476-4489.	4.9	72
60	Future IoT-enabled threats and vulnerabilities: State of the art, challenges, and future prospects. International Journal of Communication Systems, 2020, 33, e4443.	1.6	18
61	Secure Joint Communications and Sensing using Chirp Modulation. , 2020, , .		6
62	Amount of Secrecy Loss: A Novel Metric for Physical Layer Security Analysis. IEEE Communications Letters, 2020, 24, 1626-1630.	2.5	8
63	Robust Synthesis Algorithm for Directional Modulation Signal with Array Manifold Vectors Uncertainty. International Journal of Antennas and Propagation, 2020, 2020, 1-8.	0.7	0
64	Secure Beamforming for Full-Duplex MIMO Two-Way Untrusted Relay Systems. IEEE Transactions on Information Forensics and Security, 2020, 15, 3775-3790.	4.5	25
65	Secrecy Analysis of Cooperative Vehicular Relaying Networks over Double-Rayleigh Fading Channels. Wireless Personal Communications, 2020, 114, 2733-2753.	1.8	6
66	Secure Transmission in a NOMA-Assisted IoT Network With Diversified Communication Requirements. IEEE Internet of Things Journal, 2020, 7, 11157-11169.	5.5	39
67	Insecure Region Around Receiver for Downlink Transmissions With Randomly Located Active Eavesdropper. IEEE Wireless Communications Letters, 2020, 9, 1552-1556.	3.2	4
68	Secrecy Performance Analysis of Wireless Powered Sensor Networks Under Saturation Nonlinear Energy Harvesting and Activation Threshold. Sensors, 2020, 20, 1632.	2.1	5
69	Secure Transmission Designs for NOMA Systems Against Internal and External Eavesdropping. IEEE Transactions on Information Forensics and Security, 2020, 15, 2930-2943.	4.5	53
70	Joint Random Subcarrier Selection and Channel-Based Artificial Signal Design Aided PLS. IEEE Wireless Communications Letters, 2020, , 1-1.	3.2	8
71	Orthogonal frequency division multiplexing with subcarrier power modulation for doubling the spectral efficiency of 6G and beyond networks. Transactions on Emerging Telecommunications Technologies, 2020, 31, e3921.	2.6	21
72	Primary user emulation and jamming attack detection in cognitive radio via sparse coding. Eurasip Journal on Wireless Communications and Networking, 2020, 2020, .	1.5	17
73	Autoencoder based Friendly Jamming. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
74	On the Security Enhancement of Uplink NOMA Systems With Jammer Selection. IEEE Transactions on Communications, 2020, 68, 5747-5763.	4.9	32
75	Decoding Orders and Power Allocation for Untrusted NOMA: A Secrecy Perspective. , 2020, , .		0
76	Physical layer security of a two way relay based mixed FSO/RF network in the presence of multiple eavesdroppers. Optics Communications, 2020, 463, 125429.	1.0	19
77	Total transmit power minimization with physical layer security in multiuser peer-to-peer two-way relay networks. AEU - International Journal of Electronics and Communications, 2020, 124, 153317.	1.7	7
78	Exploiting Randomized Continuous Wave in Secure Backscatter Communications. IEEE Internet of Things Journal, 2020, 7, 3389-3403.	5.5	18
79	Energy-Efficient and Secure Air-to-Ground Communication With Jittering UAV. IEEE Transactions on Vehicular Technology, 2020, 69, 3954-3967.	3.9	58
80	Physical Layer Security for Weak User in MISO NOMA Using Directional Modulation (NOMAD). IEEE Communications Letters, 2020, 24, 956-960.	2.5	19
81	6G: Opening New Horizons for Integration of Comfort, Security, and Intelligence. IEEE Wireless Communications, 2020, 27, 126-132.	6.6	442
82	Security threats, detection, and countermeasures for physical layer in cognitive radio networks: A survey. Physical Communication, 2020, 39, 101001.	1.2	50
83	Secrecy Outage Analysis of UAV Assisted Relay and Antenna Selection for Cognitive Network Under Nakagami- m Channel. IEEE Transactions on Cognitive Communications and Networking, 2020, 6, 904-914.	4.9	37
84	Defending Against Randomly Located Eavesdroppers by Establishing a Protecting Region. Sensors, 2020, 20, 438.	2.1	1
85	Cyber security vulnerabilities for outdoor vehicular visible light communication in secure platoon network: Review, power distribution, and signal to noise ratio analysis. Physical Communication, 2020, 40, 101094.	1.2	12
86	Distributed Null-Steering Beamformer Design for Physical Layer Security Enhancement in Internet-of-Things Networks. IEEE Systems Journal, 2021, 15, 277-288.	2.9	14
87	Physical-Layer Secret Key Generation via CQI-Mapped Spatial Modulation in Multi-Hop Wiretap Ad-Hoc Networks. IEEE Transactions on Information Forensics and Security, 2021, 16, 1322-1334.	4.5	19
88	Can a multi-hop link relying on untrusted amplify-and-forward relays render security?. Wireless Networks, 2021, 27, 795-807.	2.0	12
89	New Physical Layer Key Generation Dimensions: Subcarrier Indices/Positions-Based Key Generation. IEEE Communications Letters, 2021, 25, 59-63.	2.5	12
90	Physical layer security for NOMA: limitations, issues, and recommendations. Annales Des Telecommunications/Annals of Telecommunications, 2021, 76, 375-397.	1.6	13
91	Unification of Blockchain and Internet of Things (BloT): requirements, working model, challenges and future directions. Wireless Networks, 2021, 27, 55-90.	2.0	112

#	ARTICLE	IF	CITATIONS
92	An Overview and Future Directions on Physical-Layer Security for Cognitive Radio Networks. IEEE Network, 2021, 35, 205-211.	4.9	32
93	Multidimensional Index Modulation for 5G and Beyond Wireless Networks. Proceedings of the IEEE, 2021, 109, 170-199.	16.4	50
94	Survey on physical layer security for 5G wireless networks. Annales Des Telecommunications/Annals of Telecommunications, 2021, 76, 155-174.	1.6	35
95	Denial-of-Service Attacks on Wireless Sensor Network and Defense Techniques. Wireless Personal Communications, 2021, 116, 1993-2021.	1.8	21
96	Improving Physical Layer Security of Uplink NOMA via Energy Harvesting Jammers. IEEE Transactions on Information Forensics and Security, 2021, 16, 786-799.	4.5	98
97	Security and Privacy for 6G: A Survey on Prospective Technologies and Challenges. IEEE Communications Surveys and Tutorials, 2021, 23, 2384-2428.	24.8	140
98	Multiuser MIMO Concept for Physical Layer Security in Multibeam Satellite Systems. IEEE Transactions on Information Forensics and Security, 2021, 16, 1670-1680.	4.5	21
99	Reinforcement Learning Based Sensor Encryption and Power Control for Low-Latency WBANs. Lecture Notes in Computer Science, 2021, , 575-586.	1.0	1
100	Secure Cognitive MIMO Wiretap Networks With Different Antenna Transmission Schemes. IEEE Access, 2021, 9, 5779-5790.	2.6	3
101	Secure IoT Communications Using HARQ-Based Beamforming for MISOSE Channels. IEEE Internet of Things Journal, 2021, 8, 17211-17226.	5.5	10
102	Data Security and Privacy in Industrial IoT. , 2021, , 21-39.		1
103	A Noise-Shaped Signaling Method for Vehicle-to-Everything Security. IEEE Access, 2021, 9, 75385-75397.	2.6	4
104	Intelligent Trajectory Design for Secure Full-Duplex MIMO-UAV Relaying Against Active Eavesdroppers: A Model-Free Reinforcement Learning Approach. IEEE Access, 2021, 9, 4447-4465.	2.6	30
105	Wireless Communication, Sensing, and REM: A Security Perspective. IEEE Open Journal of the Communications Society, 2021, 2, 287-321.	4.4	20
106	Secure Transmission Using Linearly Distributed Virtual Antenna Array With Element Position Perturbations. IEEE Transactions on Vehicular Technology, 2021, 70, 474-489.	3.9	15
107	Survey of Security Protocols and Vulnerabilities in Unmanned Aerial Vehicles. IEEE Access, 2021, 9, 46927-46948.	2.6	42
108	Attacking Massive MIMO Cognitive Radio Networks by Optimized Jamming. IEEE Open Journal of the Communications Society, 2021, 2, 2219-2231.	4.4	6
109	Reconfigurable Intelligent Surface Aided Multi-User Communications: State-of-the-Art Techniques and Open Issues. IEEE Access, 2021, 9, 118584-118605.	2.6	31

#	ARTICLE	IF	CITATIONS
110	Hybrid LiFi and WiFi Networks: A Survey. IEEE Communications Surveys and Tutorials, 2021, 23, 1398-1420.	24.8	118
111	Secure and Energy-Efficient Precoding for MIMO Two-Way Untrusted Relay Systems. IEEE Transactions on Information Forensics and Security, 2021, 16, 3371-3386.	4.5	9
112	Optimal Power Allocation for Superposed Secrecy Transmission in Multicarrier Systems. IEEE Transactions on Vehicular Technology, 2021, 70, 1332-1346.	3.9	3
113	The Secrecy Capacity of Cost-Constrained Wiretap Channels. IEEE Transactions on Information Theory, 2021, 67, 1433-1445.	1.5	6
114	Enhanced Secure SWIPT in Heterogeneous Network via Intelligent Reflecting Surface. Security and Communication Networks, 2021, 2021, 1-12.	1.0	5
115	Security-Oriented Trellis Code Design for Spatial Modulation. IEEE Transactions on Wireless Communications, 2021, 20, 1875-1888.	6.1	8
116	CSI-Based Versus RSS-Based Secret-Key Generation Under Correlated Eavesdropping. IEEE Transactions on Communications, 2021, 69, 1868-1881.	4.9	16
117	Joint Trajectory and Power Allocation Design for Secure Artificial Noise Aided UAV Communications. IEEE Transactions on Vehicular Technology, 2021, 70, 2850-2855.	3.9	30
118	Application of IoT in Healthcare: Keys to Implementation of the Sustainable Development Goals. Sensors, 2021, 21, 2330.	2.1	34
119	Phase Index-Based Receive Spatial Modulation PHY Security Against Supervised Pattern Recognition. , 2021, , .		1
120	Decoding Orders for Securing Untrusted NOMA. IEEE Networking Letters, 2021, 3, 27-30.	1.5	11
121	Physical Layer Security for NOMA Transmission in mmWave Drone Networks. IEEE Transactions on Vehicular Technology, 2021, 70, 3568-3582.	3.9	21
122	Intelligent Physical Layer Secure Relay Selection for Wireless Cooperative Networks with Multiple Eavesdroppers. Wireless Personal Communications, 2021, 120, 2449-2472.	1.8	8
123	Multi-cell, Multi-user, and Multi-carrier Secure Communication Using Non-Orthogonal Signalsâ€™ Superposition with Dual-Transmission for IoT in 6G and Beyond. , 0, , .		0
124	From Constellation Dithering to NOMA Multiple Access: Security in Wireless Systems. Sensors, 2021, 21, 2752.	2.1	3
125	A comprehensive survey of physical layer security over fading channels: Classifications, applications, and challenges. Transactions on Emerging Telecommunications Technologies, 2021, 32, e4270.	2.6	12
126	D2D-enabled resource management in secrecy-ensured 5G and beyond Heterogeneous networks. Physical Communication, 2021, 45, 101275.	1.2	16
127	Investigating the eavesdropper attack in physical layer security wireless key generation: a simulation case study. , 2021, , .		2

#	ARTICLE	IF	CITATIONS
128	Hardware Efficient Architectural Design for Physical Layer Security in Wireless Communication. <i>Wireless Personal Communications</i> , 2021, 120, 1821-1836.	1.8	10
130	Reinforcement Learning for Deceiving Reactive Jammers in Wireless Networks. <i>IEEE Transactions on Communications</i> , 2021, 69, 3682-3697.	4.9	16
131	A Secure Downlink NOMA Scheme Against Unknown Internal Eavesdroppers. <i>IEEE Wireless Communications Letters</i> , 2021, 10, 1281-1285.	3.2	8
132	Design and Analysis of the EWFRFT-based Extended Hybrid Carrier System. , 2021, , .		1
133	Optimal power allocation for NOMA-enabled D2D communication with imperfect SIC decoding. <i>Physical Communication</i> , 2021, 46, 101296.	1.2	32
134	Methods of improving Secrecy Transmission Capacity in wireless random networks. <i>Ad Hoc Networks</i> , 2021, 117, 102492.	3.4	10
135	A Mm-Wave Transmitter MIMO with Constellation Decomposition Array (CDA) for Keyless Physically Secured High-Throughput Links. , 2021, , .		5
136	Review of Communication Technologies for Electric Vehicle Charging Management and Coordination. <i>World Electric Vehicle Journal</i> , 2021, 12, 92.	1.6	25
137	Physical-Layer Security for Frequency Diverse Array-Based Directional Modulation in Fluctuating Two-Ray Fading Channels. <i>IEEE Transactions on Wireless Communications</i> , 2021, 20, 4190-4204.	6.1	10
138	Is 5G Handover Secure and Private? A Survey. <i>IEEE Internet of Things Journal</i> , 2021, 8, 12855-12879.	5.5	25
139	QoS-Aware Secure Routing Design for Wireless Networks With Selfish Jammers. <i>IEEE Transactions on Wireless Communications</i> , 2021, 20, 4902-4916.	6.1	25
140	Enhanced Security Authentication Based on Convolutional-LSTM Networks. <i>Sensors</i> , 2021, 21, 5379.	2.1	3
141	A perspective on 6G: Requirement, technology, enablers, challenges and future road map. <i>Journal of Systems Architecture</i> , 2021, 118, 102180.	2.5	25
142	Secrecy Performance of Eigendecomposition-Based FTN Signaling and NOFDM in Quasi-Static Fading Channels. <i>IEEE Transactions on Wireless Communications</i> , 2021, 20, 5872-5882.	6.1	17
143	Relay selection and power allocation for secrecy sum rate maximization in underlying cognitive radio with cooperative relaying NOMA. <i>Neurocomputing</i> , 2021, 452, 756-767.	3.5	16
144	Machine learning-based physical layer security: techniques, open challenges, and applications. <i>Wireless Networks</i> , 2021, 27, 5351-5383.	2.0	12
145	On the Secure Spectral Efficiency of URLLC With Randomly Located Colluding Eavesdroppers. <i>IEEE Internet of Things Journal</i> , 2021, 8, 14672-14682.	5.5	8
146	Spatio-temporal modulated mm-Wave arrays for physical layer security and resiliency against distributed eavesdropper attacks. , 2021, , .		5

#	ARTICLE	IF	CITATIONS
147	Symmetric Cryptography With a Chaotic Map and a Multilayer Machine Learning Network for Physiological Signal Infosecurity: Case Study in Electrocardiogram. IEEE Access, 2021, 9, 26451-26467.	2.6	19
148	Hybrid Analog-Digital Precoder Design for Securing Cognitive Millimeter Wave Networks. IEEE Transactions on Information Forensics and Security, 2021, 16, 4019-4034.	4.5	11
149	Robust Lightweight-Channel-Independent OFDM-Based Encryption Method for VLC-IoT Networks. IEEE Internet of Things Journal, 2022, 9, 4661-4676.	5.5	9
150	Secure Transmission for Energy-Harvesting Sensor Networks With a Buffer-Aided Sink Node. IEEE Internet of Things Journal, 2022, 9, 6703-6718.	5.5	3
151	A Survey of Free Space Optics (FSO) Communication Systems, Links, and Networks. IEEE Access, 2021, 9, 7353-7373.	2.6	100
152	Multi-Antenna Data-Driven Eavesdropping Attacks and Symbol-Level Precoding Countermeasures. IEEE Open Journal of Vehicular Technology, 2021, 2, 321-336.	3.4	0
153	Artificially Time-Varying Differential MIMO for Achieving Practical Physical Layer Security. IEEE Open Journal of the Communications Society, 2021, 2, 2180-2194.	4.4	6
154	A Survey of Physical-Layer Authentication in Wireless Communications. IEEE Communications Surveys and Tutorials, 2021, 23, 282-310.	24.8	104
155	Secrecy Performance for Full-Duplex Jamming-Aided Uplink NOMA System. IEEE Transactions on Vehicular Technology, 2021, 70, 10409-10419.	3.9	3
156	Physical-Layer Security in 6G Networks. IEEE Open Journal of the Communications Society, 2021, 2, 1901-1914.	4.4	53
157	Secure high-speed spread spectrum transmission system with orbital angular momentum. IET Communications, 2020, 14, 1709-1717.	1.5	5
158	Safeguarding MTC at the Physical Layer: Potentials and Challenges. IEEE Access, 2020, 8, 101437-101447.	2.6	14
159	Unmanned Aerial Vehicles for Post-Disaster Communication Networks. , 2020, , .		12
160	A Secure Energy Efficient Multi-User Selection Scheme for SWIPT Wireless IoT Networks in the Presence of Cooperative Jamming. , 2019, , .		5
161	Secure transmission for NOMA systems with imperfect SIC. China Communications, 2020, 17, 67-78.	2.0	16
162	Role of Wireless Communication in Healthcare System to Cater Disaster Situations Under 6G Vision. Frontiers in Communications and Networks, 2020, 1, .	1.9	23
163	Robust Secure Design for RIS-Aided NOMA Network Against Internal Near-End Eavesdropping. IEEE Access, 2021, 9, 142105-142113.	2.6	0
164	Enhancing Secrecy with Random Frequency Variation in mmWave Communication Systems. IEEE Communications Letters, 2021, , 1-1.	2.5	1

#	ARTICLE	IF	CITATIONS
165	A Novel Pilot Spoofing Scheme via Intelligent Reflecting Surface Based on Statistical CSI. IEEE Transactions on Vehicular Technology, 2021, 70, 12847-12857.	3.9	7
166	Estimation of the Secret Key Rate in Wideband Wireless Physical-Layer-Security. , 2021, , .		2
167	Secure Transmission Design Based on the Geographical Location of Eavesdropper. , 2021, , .		1
168	Secrecy Outage Probability of Reconfigurable Intelligent Surface-Aided Cooperative Underlay Cognitive Radio Network Communications. , 2021, , .		3
169	Secure polar coding for a joint source-channel model. Science China Information Sciences, 2021, 64, 1.	2.7	1
170	Increasing key randomness in physical layer key generation based on RSSI in LoRaWAN devices. Physical Communication, 2021, 49, 101480.	1.2	4
171	Survey on blockchain for future smart grids: Technical aspects, applications, integration challenges and future research. Energy Reports, 2021, 7, 6530-6564.	2.5	58
172	Evolution of the Security Models in Cognitive Radio Networks: Challenges and Open Issues. , 2020, , .		1
173	New Non-Orthogonal Transmission Schemes for Achieving Highly Efficient, Reliable, and Secure Multi-User Communications. , 2020, 1, .		5
174	Directional Modulation for Secure RFID in Health Systems. , 2020, , .		2
175	Secrecy transmission capacity in mobile ad hoc networks with security-aware Aloha protocol. IET Communications, 2020, 14, 4135-4141.	1.5	0
176	An Advanced Non-Orthogonal Multiple Access Security Technique for Future Wireless Communication Networks. , 0, , .		2
177	Feedback-based Channel Gain Complement and Cluster-based Quantization for Physical Layer Key Generation. , 2020, , .		3
178	Performance enhancement for a non-orthogonal multiple access system using 4 × 4 multiple-input multiple-output visible-light communication. Optical Engineering, 2020, 59, .	0.5	1
179	An Inclusive Survey of Contactless Wireless Sensing: A Technology Used for Remotely Monitoring Vital Signs Has the Potential to Combating COVID-19. , 0, , .		2
180	Hybrid Physical Layer Security for Passive RFID Communication. , 2020, , .		2
181	Shared Secret Key Generation by Exploiting Inaudible Acoustic Channels. ACM Transactions on Sensor Networks, 2022, 18, 1-26.	2.3	0
182	QoS-Aware Secrecy Rate Maximization in Untrusted NOMA With Trusted Relay. IEEE Communications Letters, 2022, 26, 31-34.	2.5	11

#	ARTICLE	IF	CITATIONS
183	Fairness Secure Transmission for mmWave NOMA System with Internal Eavesdroppers. , 2021, , .		0
184	The Secrecy Comparison of RF and FSO Eavesdropping Attacks in Mixed RF-FSO Relay Networks. IEEE Photonics Journal, 2022, 14, 1-8.	1.0	13
185	Security Threats in Wireless Network Communication-Status, Challenges, and Future Trends. , 2021, , .		15
186	An Efficient Group Secret Key Generation Scheme for Wireless Sensor Network. , 2021, , .		0
187	A Recent Survey on 6G Vehicular Technology, Applications and Challenges. , 2021, , .		17
188	Social Awareness-Based Collaboration Interferes With Physical Layer Secure Communication. , 2021, , .		0
189	An efficient and secure cipher scheme for MIMO OFDM systems based on physical layer security. Telecommunication Systems, 2022, 79, 17-32.	1.6	1
190	Secure space-time-modulated millimetre-wave wireless links that are resilient to distributed eavesdropper attacks. Nature Electronics, 2021, 4, 827-836.	13.1	28
192	Effect of Radio Channel and Antennas on Physical-Layer-Security Key Exchange. IEEE Access, 2021, 9, 162175-162189.	2.6	2
193	Frequency-Hopping MIMO Radar-Based Communications: An Overview. IEEE Aerospace and Electronic Systems Magazine, 2022, 37, 42-54.	2.3	19
194	Covert Communications With Randomly Distributed Wardens in the Finite Blocklength Regime. IEEE Transactions on Vehicular Technology, 2022, 71, 533-544.	3.9	23
195	A 25-34-GHz Eight-Element MIMO Transmitter for Keyless High Throughput Directionally Secure Communication. IEEE Journal of Solid-State Circuits, 2022, 57, 1244-1256.	3.5	4
196	Waveform-Defined Security: A Low-Cost Framework for Secure Communications. IEEE Internet of Things Journal, 2022, 9, 10652-10667.	5.5	2
197	Proactive Eavesdropping for Wireless Information Surveillance Under Suspicious Communication Quality-of-Service Constraint. IEEE Transactions on Wireless Communications, 2022, 21, 5220-5234.	6.1	8
198	A New MIMO Signal Constellation for Secrecy and Performance Enhancing. , 2020, , .		0
199	Deep Learning Based Secure MISO Transmission. , 2020, , .		1
200	Chaos-Based Secure Power-Domain NOMA for Wireless Applications. , 2020, , .		1
201	Physical Layer Security with Spatial Modulation: Current Advances and Future Directions. , 2020, , .		0

#	ARTICLE	IF	CITATIONS
202	A Novel Small-Scale Nonorthogonal Communication Technique Using Auxiliary Signal Superposition with Enhanced Security for Future Wireless Networks. , 0, , .		6
203	Enhancing Physical Layer Security with Coordinated Multi-Point Transmission in 5G and Beyond Networks. , 2020, , .		1
204	Cooperative Jamming Algorithm Based on Trust Update. , 2020, , .		0
205	A Cluster-based Cooperative Jamming Scheme for Secure Communication in Wireless Sensor Network. , 2020, , .		3
206	Learning Secured Modulation With Deep Adversarial Neural Networks. , 2020, , .		1
207	Deep Learning-Assisted Detection of PUE and Jamming Attacks in Cognitive Radio Systems. , 2020, , .		3
208	Machine Learning-based PHY-authentication for Mobile OFDM Transceivers. , 2020, , .		0
209	Secrecy Outage Probability Analysis for Downlink NOMA with Imperfect SIC at Untrusted Users. , 2021, , .		5
210	A Comprehensive Review on Physical Layer Design for Smart Cities. EAI/Springer Innovations in Communication and Computing, 2022, , 1-19.	0.9	1
211	Intelligent Reflecting Surface-Assisted Wireless Key Generation for Low-Entropy Environments. , 2021, , .		22
212	Data Confidentiality for IoT Networks: Cryptographic Gaps and Physical-Layer Opportunities. , 2021, , .		1
213	Finite-Input Intersymbol Interference Wiretap Channels. , 2021, , .		2
214	Physical Layer Security by Interleaving and Diversity: Impact of Imperfect Channel State Information. , 2021, , .		1
215	Physical Layer Security Based on Full-Duplex Under the Impact of Channel Convergence. , 2021, , .		2
216	Secure Energy Efficiency Resource Allocation for D2D Communication With Full-Duplex Radio. , 2021, , .		2
217	Low-Complexity Physical Layer Security Technique Using Uniform Linear Arrays. , 2021, , .		0
218	Differential Privacy in Cognitive Radio Networks: A Comprehensive Survey. Cognitive Computation, 2022, 14, 475-510.	3.6	6
219	Cooperative Friendly Jamming Techniques for Drone-Based Mobile Secure Zone. Sensors, 2022, 22, 865.	2.1	3

#	ARTICLE	IF	CITATIONS
220	Ergodic Performance of Downlink Untrusted NOMA System With Imperfect SIC. IEEE Communications Letters, 2022, 26, 23-26.	2.5	10
221	Performance Analysis of Energy Efficient Spatial Modulation in Bidirectional Cooperative Cognitive Radio System with Eavesdropper. Wireless Personal Communications, 2022, 125, 101-118.	1.8	2
222	User power allocation and relay beamforming design for secrecy sum rate maximization in two-way relay networks. AEU - International Journal of Electronics and Communications, 2022, 146, 154110.	1.7	1
223	A Survey of Physical Layer Techniques for Secure Wireless Communications in Industry. IEEE Communications Surveys and Tutorials, 2022, 24, 810-838.	24.8	43
224	Secure Full-Duplex Wireless Power Transfer Systems With Energy-Information Correlation. IEEE Access, 2022, 10, 16952-16968.	2.6	0
225	Dynamic hyperchaotic key generation using optical orthogonal frequency division multiplexing-based visible light communication networks. IEJ Transactions on Electrical and Electronic Engineering, 2022, 17, 695-704.	0.8	0
226	Deep Learning-Assisted Secure UAV-Relaying Networks With Channel Uncertainties. IEEE Transactions on Vehicular Technology, 2022, 71, 5048-5059.	3.9	6
227	Physical Layer Security in an OFDM Time Reversal SISO Communication With Imperfect Channel State Information. IEEE Access, 2022, 10, 26778-26794.	2.6	3
228	6G Communication: A Vision on the Potential Applications. Lecture Notes in Electrical Engineering, 2022, , 203-218.	0.3	5
229	Flexible Physical Layer Security for Joint Data and Pilots in Future Wireless Networks. IEEE Transactions on Communications, 2022, 70, 2635-2647.	4.9	5
230	Channel Randomness-Based Adaptive Cyclic Prefix Selection for Secure OFDM System. IEEE Wireless Communications Letters, 2022, 11, 1220-1224.	3.2	2
231	Joint Optimization of Trajectory and Resource Allocation in Secure UAV Relaying Communications for Internet of Things. IEEE Internet of Things Journal, 2022, 9, 16284-16296.	5.5	31
232	Security enhancement for adaptive optics aided longitudinal orbital angular momentum multiplexed underwater wireless communications. Optics Express, 2022, 30, 9745.	1.7	31
233	Rate Adaptive Reconciliation Based on Reed-Solomon Codes. , 2021, , .		1
234	Physical Layer Authentication Security in Radio Communication- Emerging Trends. , 2021, , .		0
235	Internet of Things Security Requirements, Threats, Attacks, and Countermeasures. Studies in Computational Intelligence, 2022, , 67-112.	0.7	1
236	Improved physical-layer security for OFDM using data-based subcarrier scrambling. , 2021, , .		0
237	NOMA-enabled D2D adaptive relaying and transmission in cellular networks. Transactions on Emerging Telecommunications Technologies, 2022, 33, .	2.6	2

#	ARTICLE	IF	CITATIONS
238	Multiantenna Joint Covert Communication System With Finite Blocklength. IEEE Systems Journal, 2023, 17, 1170-1180.	2.9	0
240	Towards Spoofing Resistant Next Generation IoT Networks. IEEE Transactions on Information Forensics and Security, 2022, 17, 1669-1683.	4.5	14
241	Radio Frequency Fingerprinting Improved by Statistical Noise Reduction. IEEE Transactions on Cognitive Communications and Networking, 2022, 8, 1444-1452.	4.9	6
242	A Phase-Optimized Physical Layer Security Scheme Based on Deep Reinforcement Learning. Procedia Computer Science, 2022, 202, 67-72.	1.2	0
243	Physical-Layer Secret Key Generation in Power Line Communication Networks. IEEE Access, 2022, 10, 48539-48550.	2.6	16
244	Security Gap Improvement of BICM Systems Through Bit-Labeling Optimization for the Gaussian Wiretap Channel. IEEE Access, 2022, 10, 47805-47813.	2.6	0
245	Optm3sec: Optimizing Multicast Irs-Aided Multiantenna Dfrc Secrecy Channel With Multiple Eavesdroppers. , 2022, , .		13
246	A Review of Fundamental Optimization Approaches and the Role of AI Enabling Technologies in Physical Layer Security. Sensors, 2022, 22, 3589.	2.1	5
247	Securing wireless communications from the perspective of physical layer: A survey. Internet of Things (Netherlands), 2022, 19, 100524.	4.9	4
248	Cyclic Prefix (CP) Jamming Against Eavesdropping Relays in OFDM Systems. , 2022, , .		2
249	Novel Architecture of Security Orchestration, Automation and Response inçŸInternet of Blended Environment. Computers, Materials and Continua, 2022, 73, 199-223.	1.5	2
250	Physical Layer Secret Key Generation for Spatially Correlated Channels Based on Multi-Task Autoencoder. , 2022, , .		4
251	Secret key generation based on signal power allocation optimisation. IET Communications, 2022, 16, 1724-1730.	1.5	1
252	Directional Modulation for Secure IoT Networks via Accurate Phase Response Control. IEEE Internet of Things Journal, 2022, 9, 21537-21547.	5.5	2
253	Channel Impulse Response Multilevel Quantization for Power Line Communications. IEEE Access, 2022, 10, 66113-66126.	2.6	6
254	DeepAntijam: Stackelberg Game-Oriented Secure Transmission via Deep Reinforcement Learning. IEEE Communications Letters, 2022, 26, 1984-1988.	2.5	1
255	Towards a Unified Framework for Physical Layer Security in 5G and Beyond Networks. IEEE Open Journal of Vehicular Technology, 2022, 3, 321-343.	3.4	10
256	Secure Image Transmission Through Ofdm System Using One Dimensional Chaotic Map. SSRN Electronic Journal, 0, , .	0.4	0

#	ARTICLE	IF	CITATIONS
257	Secure Transmission for MISO Wiretap Channels Using General Multi-Fractional Fourier Transform: An Approach in Signal Domain. IEEE Transactions on Vehicular Technology, 2022, 71, 8702-8716.	3.9	1
258	Physical-layer secret key generation based on domain-adversarial training of autoencoder for spatial correlated channels. Applied Intelligence, 0, , .	3.3	3
259	Physical layer security for beyond 5G/6G networks: Emerging technologies and future directions. Journal of Network and Computer Applications, 2022, 206, 103431.	5.8	15
260	PAPR-Aware Artificial Noise for Secure Massive MIMO Downlink. IEEE Access, 2022, 10, 68482-68490.	2.6	3
261	Physical Layer Security in Distributed Antenna Systems Using One-Bit Feedback Information. IEEE Network, 2022, 36, 191-196.	4.9	1
262	Cyber Security for IoT-Enabled Industry 4.0. Advances in Digital Crime, Forensics, and Cyber Terrorism, 2022, , 89-124.	0.4	0
263	Stackelberg Game-based Secure Communication in SWIPT-enabled Relaying Systems. , 2022, , .		2
264	A Robust Joint Sensing and Communications Waveform against Eavesdropping and Spoofing. , 2022, , .		1
265	Secure Key Exchange and Transmission Design Using Artificial Noise Injection in OFDM Systems. , 2022, , .		0
266	Secrecy Outage Performance Analysis of Energy Harvesting Enabled Two-tier UAV Assisted Cognitive Communication. , 2022, , .		2
267	Channel-Dependent Code Allocation for Downlink MC-CDMA System Aided Physical Layer Security. , 2022, , .		1
268	Physical Layer Security in Untrusted Diamond Relay Networks With Imperfect Source-Relay Links. , 2022, , .		3
269	Secure NOMA for Maximizing Ergodic Secrecy Fairness in the Presence of Untrusted Users. , 2022, , .		0
270	Interference and secrecy analysis based on randomly spacial model in clustered WSNs. IET Communications, 0, , .	1.5	1
271	QoS Performance Evaluation of IoT-based Virtual Private Network for UAV Video. Journal of Physics: Conference Series, 2022, 2319, 012022.	0.3	1
272	Secure MIMO Communication System with Frequency Hopping Aided OFDM-DCSK Modulation. Electronics (Switzerland), 2022, 11, 3029.	1.8	1
273	Blind Physical-Layer Authentication Based on Composite Radio Sample Characteristics. IEEE Transactions on Communications, 2022, 70, 6790-6803.	4.9	2
274	A Secure Real-time Multimedia Streaming through Robust and Lightweight AES Encryption in UAV Networks for Operational Scenarios in Military Domain. Procedia Computer Science, 2022, 205, 50-57.	1.2	3

#	ARTICLE	IF	CITATIONS
275	The Impact of Mobility on Physical Layer Security of 5G IoT Networks. IEEE/ACM Transactions on Networking, 2023, 31, 1042-1055.	2.6	6
276	A Survey on IoT-Enabled Home Automation Systems: Attacks and Defenses. IEEE Communications Surveys and Tutorials, 2022, 24, 2292-2328.	24.8	8
277	Balancing QoS and Security in the Edge: Existing Practices, Challenges, and 6G Opportunities With Machine Learning. IEEE Communications Surveys and Tutorials, 2022, 24, 2419-2448.	24.8	17
278	A Survey on Multiuser SWIPT Communications for 5G+. IEEE Access, 2022, 10, 109814-109849.	2.6	9
279	Proactive Eavesdropping via Jamming Over Short Packet Suspicious Communications With Finite Blocklength. IEEE Transactions on Communications, 2022, 70, 7505-7519.	4.9	4
280	Exact Secrecy Rate Analysis of Randomized Radiation Technique With Frequency Diverse Subarrays. IEEE Wireless Communications Letters, 2022, 11, 2630-2634.	3.2	2
281	Physical layer security techniques for data transmission for future wireless networks. , 2022, 1, 2022007.		2
282	Security Provided by the Physical Layer in Wireless Communications. IEEE Network, 2023, 37, 42-48.	4.9	4
283	Low-Complexity Joint Phase Adjustment and Receive Beamforming for Directional Modulation Networks via IRS. IEEE Open Journal of the Communications Society, 2022, 3, 1234-1243.	4.4	5
284	A Secure Transmission Scheme With Energy-Efficient Cooperative Jamming for Underwater Acoustic Sensor Networks. IEEE Sensors Journal, 2022, 22, 21287-21298.	2.4	4
285	Multi-Component Secure Transmission based on GMFRFT with Imperfect CSI. IEEE Communications Letters, 2022, , 1-1.	2.5	1
286	AN based secure scheme for Uplink transmission of Satellite Communication Systems. , 2022, , .		0
287	Generalized MGF-based secrecy outage performance analysis over fading channels using mixture gamma distribution. ICT Express, 2022, , .	3.3	0
288	Deceiving-Based Anti-Jamming Against Single-Tone and Multitone Reactive Jammers. IEEE Transactions on Communications, 2022, 70, 6133-6148.	4.9	4
289	Directional modulation techniques for secure wireless communication: a comprehensive survey. Eurasip Journal on Wireless Communications and Networking, 2022, 2022, .	1.5	2
290	Toward Novel Time Representations for RFF Identification Using Imperfect Data Sets. IEEE Internet of Things Journal, 2023, 10, 2743-2753.	5.5	4
291	Efficient Physical-Layer Authentication with a Lightweight C&S Model. Lecture Notes in Electrical Engineering, 2022, , 19-24.	0.3	0
292	Security Threats and Mitigation Techniques in UAV Communications: A Comprehensive Survey. IEEE Access, 2022, 10, 112858-112897.	2.6	20

#	ARTICLE	IF	CITATIONS
293	Secrecy Rate Maximization at Near User in Untrusted NOMA with Trusted DF Relay. , 2021, , .		1
294	Strategy to Increase RFID Security System Using Encryption Algorithm. , 2022, , .		0
295	Physical-Layer Security for UAV-Assisted Air-to-Underwater Communication Systems with Fixed-Gain Amplify-and-Forward Relaying. Drones, 2022, 6, 341.	2.7	4
296	The 5G Cellular Downlink V2X Implementation Using V2N With Spatial Modulation. IEEE Access, 2022, 10, 129105-129115.	2.6	1
297	RIS-Assisted Visible Light Communication Systems: A Tutorial. IEEE Communications Surveys and Tutorials, 2023, 25, 251-288.	24.8	27
298	Efficient Secure NOMA Schemes Based on Chaotic Physical Layer Security for Wireless Networks. IEEE Open Journal of the Communications Society, 2022, 3, 2425-2443.	4.4	2
299	The Feasibility of the CRYSTALS-Kyber Scheme for Smart Metering Systems. IEEE Access, 2022, 10, 131303-131317.	2.6	0
300	On the Physical-Layer Security of a Dual-Hop UAV-Based Network in the Presence of Per-Hop Eavesdropping and Imperfect CSI. IEEE Internet of Things Journal, 2023, 10, 7850-7867.	5.5	3
301	Performance Analysis and Optimization of IRS-Aided Covert Communication With Hardware Impairments. IEEE Transactions on Vehicular Technology, 2023, 72, 5463-5467.	3.9	1
302	The Statistical Analysis of the Security for a Wireless Communication System with a Beaulieu-Xie Shadowed Fading Model Channel. Informatics and Automation, 2022, 21, 1044-1078.	0.6	1
303	Secrecy Rate Maximization in Relay-Assisted NOMA with Untrusted Users. , 2022, , .		1
304	Chaos and DNA Blended Hybrid Encryption Algorithm for Secure Image Transmission over DCT Pre-coded OFDM. Wireless Personal Communications, 2023, 129, 703-727.	1.8	5
305	Physical Layer Security Analysis of Multi-Hop Hybrid RF/FSO System in Presence of Multiple Eavesdroppers. IEEE Photonics Journal, 2022, 14, 1-12.	1.0	1
306	SCIM: Incorporating secure communication and interference management in one operation. Digital Communications and Networks, 2023, 9, 512-522.	2.7	1
307	Latency-Oriented Secure Wireless Federated Learning: A Channel-Sharing Approach With Artificial Jamming. IEEE Internet of Things Journal, 2023, 10, 9675-9689.	5.5	1
308	Stackelberg Game for Secure CR-NOMA Networks Against Internal Eavesdropper. IEEE Transactions on Cognitive Communications and Networking, 2023, 9, 452-462.	4.9	1
309	High-Rate Secret Key Generation Using Physical Layer Security and Physical Unclonable Functions. IEEE Open Journal of the Communications Society, 2023, 4, 209-225.	4.4	9
310	Secret Key Generation Using Polar Code-Based Reconciliation Method in 5G. , 2022, , .		0

#	ARTICLE	IF	CITATIONS
311	Embrace Imperfect Datasets: New Time Representation for RFF Identification. , 2022, , .		0
312	A Secure Turbo Codes Design on Physical Layer Security Based on Interleaving and Puncturing. , 2022, , .		0
313	User-Pair Selection for QoS-Aware Secrecy Rate Maximization in Untrusted NOMA. , 2022, , .		0
314	Analysis of Secure User-Centric Cell-Free Massive MIMO Network for Multi-UAV Communications. , 2022, , .		2
315	DRL-Based Secure Beamforming for Hybrid-RIS Aided Satellite Downlink Communications. , 2022, , .		0
316	A Novel Sybil Attack Detection Mechanism for Mobile IoT Networks. , 2022, , .		1
317	An analytic hierarchy process (AHP) based UAV selection mechanism for beyond 5G networks. , 2022, , .		1
318	Secure Pilot Allocation for Integrated Sensing and Communication. , 2022, , .		0
319	Secure transmission in backhaul NOMA systems: A physical layer security design with untrusted user and eavesdropper. Digital Communications and Networks, 2022, , .	2.7	0
320	Physical-level secure wireless communication using random-signal-excited reprogrammable metasurface. Applied Physics Letters, 2023, 122, .	1.5	4
321	SecBoost: Secrecy-Aware Deep Reinforcement Learning Based Energy-Efficient Scheme for 5G HetNets. IEEE Transactions on Mobile Computing, 2023, , 1-15.	3.9	3
322	Superposition Modulation for Physical Layer Security in Water-to-Air Visible Light Communication Systems. Journal of Lightwave Technology, 2023, 41, 2976-2990.	2.7	1
323	Scattering and Eavesdropping in Terahertz Wireless Link by Wavy Surfaces. IEEE Transactions on Antennas and Propagation, 2023, 71, 3590-3597.	3.1	4
324	Performance Analysis of Vilnius Chaos Oscillator-Based Digital Data Transmission Systems for IoT. Electronics (Switzerland), 2023, 12, 709.	1.8	6
325	Incentive Mechanism for Secure Mobile Edge Computing under Managed Eavesdropping Risk. , 2022, , .		0
326	Physical Layer Authentication in Spatial Modulation. IEEE Transactions on Communications, 2023, , 1-1.	4.9	0
327	On the Road to 6G: Visions, Requirements, Key Technologies, and Testbeds. IEEE Communications Surveys and Tutorials, 2023, 25, 905-974.	24.8	151
328	Securing Multiuser Communications via an Energy Harvesting Node: Jammer or Relay?. IEEE Transactions on Vehicular Technology, 2023, 72, 8755-8769.	3.9	0

#	ARTICLE	IF	CITATIONS
329	Deep learning based physical layer security for terrestrial communications in 5G and beyond networks: A survey. <i>Physical Communication</i> , 2023, 57, 102002.	1.2	6
330	Precoding for Security Gap Physical Layer Security in Multiuser MIMO Satellite Systems. , 2022, , .		0
331	Reliabilityâ€“Security Tradeoff Analysis in mmWave Ad Hocâ€“based CPS. <i>ACM Transactions on Sensor Networks</i> , 2024, 20, 1-23.	2.3	7
332	Secret Key Generation Between Ambient Backscatter Devices. <i>IEEE Access</i> , 2023, 11, 13456-13468.	2.6	0
333	A Review on the Security of IoT Networks: From Network Layerâ€™s Perspective. <i>IEEE Access</i> , 2023, 11, 71073-71087.	2.6	8
334	Probabilistic Jamming Aided Covert Communication in the Finite Blocklength Regime. , 2022, , .		0
335	A Survey of Symbiotic Radio: Methodologies, Applications, and Future Directions. <i>Sensors</i> , 2023, 23, 2511.	2.1	6
336	Securing Multi-User Uplink Communications Against Mobile Aerial Eavesdropper via Sensing. <i>IEEE Transactions on Vehicular Technology</i> , 2023, 72, 9608-9613.	3.9	1
337	Cooperative Beamforming With Artificial Noise Injection for Physical-Layer Security. <i>IEEE Access</i> , 2023, 11, 22553-22573.	2.6	2
338	Constrained Secrecy Capacity of Finite-Input Intersymbol Interference Wiretap Channels. <i>IEEE Transactions on Communications</i> , 2023, 71, 3301-3316.	4.9	0
339	GPU-Free Specific Emitter Identification Using Signal Feature Embedded Broad Learning. <i>IEEE Internet of Things Journal</i> , 2023, 10, 13028-13039.	5.5	11
340	Spatial Modulation Aided Physical Layer Security for NOMA-VLC Systems. <i>IEEE Transactions on Vehicular Technology</i> , 2023, 72, 10286-10301.	3.9	2
341	User Pairing and Power Allocation in Untrusted Multiuser NOMA for Internet of Things. <i>IEEE Internet of Things Journal</i> , 2023, 10, 13155-13167.	5.5	4
342	Secure Transmission in NOMA-Enabled Industrial IoT With Resource-Constrained Untrusted Devices. <i>IEEE Transactions on Industrial Informatics</i> , 2024, 20, 411-420.	7.2	1
343	Secure and Efficient Data Transmission Scheme Based on Physical Mechanism. <i>Computers, Materials and Continua</i> , 2023, 75, 3589-3605.	1.5	0
344	Wireless-Channel Key Exchange. <i>Lecture Notes in Computer Science</i> , 2023, , 672-699.	1.0	0
345	Physical Layer Security for Visible Light Communication in Reflected Indoor Environments With Inter-Symbol Interference. <i>IEEE Transactions on Information Forensics and Security</i> , 2023, 18, 2709-2722.	4.5	1
358	Anomaly Attack Detection in Wireless Networks Using DCNN. , 2022, , .		1

#	ARTICLE	IF	CITATIONS
360	Secrecy Rate Maximization in Relay-Assisted NOMA with Imperfect SIC. , 2023, , .		1
368	Security and Privacy in ISAC Systems. , 2023, , 477-506.		0
371	Low-Complexity Neural Networks for Denoising Imperfect CSI in Physical Layer Security. , 2023, , .		0
375	Physical Layer Security Over UAV-to-Ground Channels with Shadowing. , 2023, , .		1
376	Using IRS to Improve the Secrecy Rate of Millimeter Wave Communication System. , 2023, , .		0
377	Security Attacks and Countermeasures in 5G Enabled Internet of Things. , 2023, , 127-149.		0
381	Emerging Communication Technologies for V2X: Standards and Protocols. Power Systems, 2023, , 301-329.	0.3	0
387	A Unified Approach for Physical-layer Security over $\hat{\Gamma}_{\pm} - \hat{\Gamma} - F$ and $\hat{\Gamma}_{\pm} - \hat{\Gamma}^{\circ} - F$ Fading Channels. , 2023, , .		0
388	Anti-Eavesdropping and Anti-Jamming Waveform Design with Coding Split Index Modulation. , 2023, , .		0
389	Transceiver Design for Secure Wireless Communication Networks with IRS using Deep Learning: A Survey. , 2023, , .		0
393	Advances and Challenges in Physical Layer Security: A Comprehensive Review. , 2023, , .		0
395	M3A: Multipath Multicarrier Misinformation to Adversaries. , 2023, , .		0
396	Spatially Distributed Channel Shortening Aided Physical Layer Security. , 2023, , .		0
397	Experimental Evaluation of A Lightweight RSS-Based PLA Scheme in Multi-Node Multi-Cell Mesh Networks. , 2023, , .		1
398	Key Technologies of 5G Wireless Communication Network Physical Layer Based on Information Security Early Warning Model. , 2023, , .		0
403	Letâ€™s shake on it: Extracting secure shared keys from Wi-Fi CSI. , 2023, , .		0
404	Non-Orthogonal Multiplexing in the FBL Regime Enhances Physical Layer Security with Deception. , 2023, , .		1
405	Implementation of an Indoor Free-Space Optical Communication Link Using On-Off Keying Optical Modulation, a Useful Didactic Tool for Optoelectronic Engineering Students. , 2023, , .		0

#	ARTICLE	IF	CITATIONS
408	Self-Noise Based Physical-Layer Secure Communication: Transceiver Design and Performance Analysis. , 2023, , .		0
413	Enhancing Security in 6G Vehicular Networks: Leveraging VLC and MMW Integration and Cooperative Relaying Technique. , 2023, , .		0
420	Artificial Noise-Aided Secure Cognitive Radio Networks: Design and Performance Analysis. , 2024, , .		0