

Rafael Felix Schaefer

List of Publications by Year in descending order

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docs citations

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times ranked

980
citing authors

#	ARTICLE	IF	CITATIONS
1	Privacy, Secrecy, and Storage With Nested Randomized Polar Subcode Constructions. IEEE Transactions on Communications, 2022, 70, 514-525.	7.8	3
2	Code Constructions and Bounds for Identification via Channels. IEEE Transactions on Communications, 2022, 70, 1486-1496.	7.8	5
3	Turing Meets Shannon: On the Algorithmic Construction of Channel-Aware Codes. IEEE Transactions on Communications, 2022, 70, 2256-2267.	7.8	0
4	Secure Active and Passive Beamforming in IRS-Aided MIMO Systems. IEEE Transactions on Information Forensics and Security, 2022, 17, 1300-1315.	6.9	14
5	Private Remote Sources for Secure Multi-Function Computation. IEEE Transactions on Information Theory, 2022, 68, 6826-6841.	2.4	0
6	Controllable Key Agreement With Correlated Noise. IEEE Journal on Selected Areas in Information Theory, 2021, 2, 82-94.	2.5	4
7	An Overview of Information-Theoretic Security and Privacy: Metrics, Limits and Applications. IEEE Journal on Selected Areas in Information Theory, 2021, 2, 5-22.	2.5	56
8	On the Algorithmic Solvability of Channel Dependent Classification Problems in Communication Systems. IEEE/ACM Transactions on Networking, 2021, 29, 1155-1168.	3.8	10
9	Algorithmic Detection of Adversarial Attacks on Message Transmission and ACK/NACK Feedback. , 2021, , .		2
10	Real Number Signal Processing can Detect Denial-of-Service Attacks. , 2021, , .		2
11	Communication Over Block Fading Channels " An Algorithmic Perspective On Optimal Transmission Schemes. , 2021, , .		1
12	Turing Meets Shannon: Algorithmic Constructability of Capacity-Achieving Codes. , 2021, , .		2
13	Detectability of Denial-of-Service Attacks on Arbitrarily Varying Classical-Quantum Channels. , 2021, , .		3
14	Secure Multi-Function Computation with Private Remote Sources. , 2021, , .		2
15	Doubly-Exponential Identification via Channels: Code Constructions and Bounds. , 2021, , .		4
16	Differential privacy for eye tracking with temporal correlations. PLoS ONE, 2021, 16, e0255979.	2.5	17
17	Securing Massive MIMO Systems: Secrecy for Free With Low-Complexity Architectures. IEEE Transactions on Wireless Communications, 2021, 20, 5831-5845.	9.2	3
18	An Optimality Summary: Secret Key Agreement with Physical Unclonable Functions. Entropy, 2021, 23, 16.	2.2	6

#	ARTICLE	IF	CITATIONS
19	Semantic Security for Indoor THz-Wireless Communication. , 2021, , .		1
20	A Reverse Jensen Inequality Result with Application to Mutual Information Estimation. , 2021, , .		3
21	Multiple Noisy Private Remote Source Observations for Secure Function Computation. , 2021, , .		0
22	Joint Active and Passive Secure Precoding in IRS-Aided MIMO Systems. , 2021, , .		1
23	Quality of Service Guarantees for Physical Unclonable Functions. , 2021, , .		1
24	Secure Storage Capacity Under Rate Constraintsâ€™Continuity and Super Activation. IEEE Transactions on Information Forensics and Security, 2020, 15, 959-970.	6.9	2
25	Secure Communication and Identification Systems â€™ Effective Performance Evaluation on Turing Machines. IEEE Transactions on Information Forensics and Security, 2020, 15, 1013-1025.	6.9	14
26	Biometric and Physical Identifiers with Correlated Noise for Controllable Private Authentication. , 2020, , .		1
27	On the $\dot{\mu}$ -Capacity of Finite Compound Channels with Applications to the Strong Converse and Second Order Coding Rate. , 2020, , .		0
28	Identification Capacity of Channels With Feedback: Discontinuity Behavior, Super-Activation, and Turing Computability. IEEE Transactions on Information Theory, 2020, 66, 6184-6199.	2.4	9
29	Linear Precoder Design for Physical Layer Security via Reconfigurable Intelligent Surfaces. , 2020, , .		3
30	Robust Transmission Over Channels with Channel Uncertainty: an Algorithmic Perspective. , 2020, , .		3
31	Communication Under Channel Uncertainty: An Algorithmic Perspective and Effective Construction. IEEE Transactions on Signal Processing, 2020, 68, 6224-6239.	5.3	6
32	New Capacity Results for Fading Gaussian Multiuser Channels With Statistical CSIT. IEEE Transactions on Communications, 2020, 68, 6761-6774.	7.8	8
33	On the Algorithmic Computability of Achievability and Converse: $\dot{\mu}$ -Capacity of Compound Channels and Asymptotic Bounds of Error-Correcting Codes. , 2020, , .		0
34	Low-Complexity and Reliable Transforms for Physical Unclonable Functions. , 2020, , .		4
35	Denial-of-Service Attacks on Communication Systems: Detectability and Jammer Knowledge. IEEE Transactions on Signal Processing, 2020, 68, 3754-3768.	5.3	33
36	Hybrid Precoding for Secure Transmission in Reflect-Array-Assisted Massive MIMO Systems. , 2020, , .		4

#	ARTICLE	IF	CITATIONS
37	Stealthy Secret Key Generation. Entropy, 2020, 22, 679.	2.2	5
38	Shannon meets Turing: Non-computability and non-approximability of the finite state channel capacity. Communications in Information and Systems, 2020, 20, 81-116.	0.5	15
39	Deep learning based wiretap coding via mutual information estimation. , 2020, , .		11
40	Secure Transmission in IRS-Assisted MIMO Systems with Active Eavesdroppers. , 2020, , .		18
41	Copulas and Multi-User Channel Orders. , 2019, , .		4
42	On the Optimality of D2D Coded Caching With Uncoded Cache Placement and One-Shot Delivery. IEEE Transactions on Communications, 2019, 67, 8179-8192.	7.8	37
43	On D2D Caching with Uncoded Cache Placement. , 2019, , .		0
44	On the Algorithmic Computability of the Secret Key and Authentication Capacity Under Channel, Storage, and Privacy Leakage Constraints. IEEE Transactions on Signal Processing, 2019, 67, 4636-4648.	5.3	25
45	On the Computability of the Secret Key Capacity under Rate Constraints. , 2019, , .		10
46	Detectability of Denial-of-service Attacks on Communication Systems. , 2019, , .		8
47	Deep Learning for the Gaussian Wiretap Channel. , 2019, , .		36
48	Deep Learning for Channel Coding via Neural Mutual Information Estimation. , 2019, , .		29
49	Turing Meets Shannon: On the Algorithmic Computability of the Capacities of Secure Communication Systems (Invited Paper). , 2019, , .		2
50	Wiretap Channels: Nonasymptotic Fundamental Limits. IEEE Transactions on Information Theory, 2019, 65, 4069-4093.	2.4	81
51	Joint User Selection and Precoding in Multiuser MIMO Systems via Group LASSO. , 2019, , .		1
52	Identification Capacity of Correlation-Assisted Discrete Memoryless Channels: Analytical Properties and Representations. , 2019, , .		7
53	Coding for Non-IID Sources and Channels: Entropic Approximations and a Question of Ahlswede. , 2019, , .		10
54	Secure Regularized Zero Forcing for Multiuser MIMOME Channels. , 2019, , .		5

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55	Private Authentication with Physical Identifiers Through Broadcast Channel Measurements. , 2019, , .		3
56	Resource Allocation for Secure Communication Systems: Algorithmic Solvability. , 2019, , .		4
57	On Stochastic Orders and Fading Gaussian Multi-User Channels with Statistical CSIT. , 2019, , .		9
58	Controllable Identifier Measurements for Private Authentication With Secret Keys. IEEE Transactions on Information Forensics and Security, 2018, 13, 1945-1959.	6.9	21
59	Secret-Key Generation and Convexity of the Rate Region Using Infinite Compound Sources. IEEE Transactions on Information Forensics and Security, 2018, 13, 2075-2086.	6.9	4
60	Secure Broadcasting Using Independent Secret Keys. IEEE Transactions on Communications, 2018, 66, 644-661.	7.8	25
61	Full-Duplex Relaying With Improper Gaussian Signaling Over Nakagami- m Fading Channels. IEEE Transactions on Communications, 2018, 66, 64-78.	7.8	20
62	The Deterministic and Correlated Random Public-Confidential Capacity Regions of the Arbitrarily Varying Wiretap Channel. , 2018, , .		0
63	Performance Evaluation of Secure Communication Systems on Turing Machines. , 2018, , .		4
64	On Robustness of Massive MIMO Systems against Passive Eavesdropping under Antenna Selection. , 2018, , .		11
65	Privacy Amplification: Recent Developments and Applications. , 2018, , .		1
66	Secrecy Capacity Under List Decoding For A Channel with A Passive Eavesdropper and an Active Jammer. , 2018, , .		2
67	Identification over Channels with Feedback: Discontinuity Behavior and Super-Activation. , 2018, , .		3
68	Secure and Reliable Key Agreement with Physical Unclonable Functions. Entropy, 2018, 20, 340.	2.2	30
69	Strong Secrecy for Interference Channels Based on Channel Resolvability. IEEE Transactions on Information Theory, 2018, 64, 5110-5130.	2.4	10
70	Secure Communication in Spectrum-Sharing Massive MIMO Systems With Active Eavesdropping. IEEE Transactions on Cognitive Communications and Networking, 2018, 4, 390-405.	7.9	30
71	Iterative Antenna Selection for Secrecy Enhancement in Massive MIMO Wiretap Channels. , 2018, , .		5
72	Optimal Transmit Antenna Selection for Massive MIMO Wiretap Channels. IEEE Journal on Selected Areas in Communications, 2018, 36, 817-828.	14.0	41

#	ARTICLE	IF	CITATIONS
73	Wireless physical layer security. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 19-26.	7.1	218
74	Multiple Secret Key Generation: Information Theoretic Models and Key Capacity Regions. , 2017, , 333-361.		2
75	Stabilizing the secrecy capacity of the arbitrarily varying wiretap channel and transceiver synchronization using list decoding. , 2017, , .		3
76	Secrecy-reliability tradeoff for semi-deterministic wiretap channels at finite Blocklength. , 2017, , .		16
77	Characterization of super-additivity and discontinuity behavior of the capacity of arbitrarily varying channels under list decoding. , 2017, , .		4
78	Secure Communication in Underlay Cognitive Massive MIMO Systems with Pilot Contamination. , 2017, , .		8
79	Optimal Number of Transmit Antennas for Secrecy Enhancement in Massive MIMOME Channels. , 2017, , .		6
80	Artificial Noise-Aided Physical Layer Security in Underlay Cognitive Massive MIMO Systems with Pilot Contamination. Entropy, 2017, 19, 349.	2.2	12
81	Improper signaling in two-path relay channels. , 2017, , .		1
82	Secret-key capacity of infinite compound sources with communication rate constraint. , 2017, , .		1
83	Physical layer security in massive MIMO systems. , 2017, , .		15
84	Robust Biometric Authentication from an Information Theoretic Perspective. Entropy, 2017, 19, 480.	2.2	6
85	Stealthy keyless secret key generation from degraded sources. , 2017, , .		1
86	Super-Activation as a Unique Feature of Secure Communication in Malicious Environments. Information (Switzerland), 2016, 7, 24.	2.9	7
87	Ergodic secrecy sum rate for multiuser MIMO downlink systems using block diagonalization. , 2016, , .		0
88	Degradedness and stochastic orders of fast fading Gaussian broadcast channels with statistical channel state information at the transmitter. , 2016, , .		0
89	Secret-Key Generation Using Compound Sources and One-Way Public Communication. IEEE Transactions on Information Forensics and Security, 2016, , 1-1.	6.9	9
90	Secure communication in massive MIMO relay networks. , 2016, , .		12

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91	Secure transmission in cognitive massive MIMO systems with underlay spectrum sharing. , 2016, , .		3
92	Super-activation as a unique feature of arbitrarily varying wiretap channels. , 2016, , .		7
93	On ergodic fading Gaussian interference channels with statistical CSIT. , 2016, , .		3
94	On the Individual Secrecy Capacity Regions of the General, Degraded, and Gaussian Multi-Receiver Wiretap Broadcast Channel. IEEE Transactions on Information Forensics and Security, 2016, 11, 2107-2122.	6.9	11
95	Optimal Transmit Strategy for MISO Channels With Joint Sum and Per-Antenna Power Constraints. IEEE Transactions on Signal Processing, 2016, 64, 4296-4306.	5.3	30
96	On the SNR-Evolution of the MMSE Function of Codes for the Gaussian Broadcast and Wiretap Channels. IEEE Transactions on Information Theory, 2016, 62, 2070-2091.	2.4	6
97	Arbitrarily Varying Channels—A Model for Robust Communication in the Presence of Unknown Interference. Signals and Communication Technology, 2016, , 259-283.	0.5	2
98	Broadcast Channels with Confidential Messages: Channel Uncertainty, Robustness, and Continuity. Lecture Notes in Electrical Engineering, 2016, , 69-91.	0.4	0
99	Arbitrarily varying multiple access channels with conferencing encoders: List decoding and finite coordination resources. Advances in Mathematics of Communications, 2016, 10, 333-354.	0.7	1
100	How to use independent secret keys for secure broadcasting of common messages. , 2015, , .		5
101	On MMSE properties of γ -good and γ -bad codes for the Gaussian broadcast channel. , 2015, , .		2
102	On the Secrecy Capacity of Rank-Deficient Compound Wiretap Channels. , 2015, , .		2
103	The multiple-access channel with an external eavesdropper: Trusted vs. untrusted users. , 2015, , .		6
104	On the Degradedness of Fast Fading Gaussian Multiple-Antenna Wiretap Channels with Statistical Channel State Information at the Transmitter. , 2015, , .		1
105	An I-MMSE based graphical representation of rate and equivocation for the Gaussian broadcast channel. , 2015, , .		2
106	On MMSE properties of codes for the Gaussian broadcast channel with confidential messages. , 2015, , .		1
107	The individual secrecy capacity of the Gaussian SISO and degraded Gaussian MIMO multi-receiver wiretap channel. , 2015, , .		4
108	Robust PUF based authentication. , 2015, , .		4

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109	On MMSE properties of optimal codes for the Gaussian wiretap channel. , 2015, , .		3
110	Secure Communication Under Channel Uncertainty and Adversarial Attacks. Proceedings of the IEEE, 2015, 103, 1796-1813.	21.3	49
111	On the Continuity of the Secrecy Capacity of Compound and Arbitrarily Varying Wiretap Channels. IEEE Transactions on Information Forensics and Security, 2015, 10, 2531-2546.	6.9	40
112	The Secrecy Capacity of Compound Gaussian MIMO Wiretap Channels. IEEE Transactions on Information Theory, 2015, 61, 5535-5552.	2.4	35
113	On the continuity of the secrecy capacity of wiretap channels under channel uncertainty. , 2015, , .		3
114	Optimal transmission rate for MISO channels with joint sum and per-antenna power constraints. , 2015, , .		4
115	The compound secrecy capacity of a class of non-degraded MIMO Gaussian channels. , 2014, , .		6
116	On secure communication over multiple access wiretap channels under channel uncertainty. , 2014, , .		4
117	Strong secrecy and decoding performance analysis for robust broadcasting under channel uncertainty. , 2014, , .		2
118	Robust transmission over wiretap channels with secret keys. , 2014, , .		3
119	Secrecy measures for broadcast channels with receiver side information: Joint vs individual. , 2014, , .		13
120	On arbitrarily varying wiretap channels for different classes of secrecy measures. , 2014, , .		8
121	List decoding for arbitrarily varying multiple access channels with conferencing encoders. , 2014, , .		5
122	Physical Layer Service Integration in Wireless Networks : Signal processing challenges. IEEE Signal Processing Magazine, 2014, 31, 147-156.	5.6	58
123	Arbitrarily varying wiretap channels with finite coordination resources. , 2014, , .		8
124	Secure broadcasting of a common message with independent secret keys. , 2014, , .		6
125	List Decoding for Arbitrarily Varying Broadcast Channels With Receiver Side Information. IEEE Transactions on Information Theory, 2014, 60, 4472-4487.	2.4	3
126	Robust Broadcasting of Common and Confidential Messages Over Compound Channels: Strong Secrecy and Decoding Performance. IEEE Transactions on Information Forensics and Security, 2014, 9, 1720-1732.	6.9	21

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127	Joint and individual secrecy in broadcast channels with receiver side information. , 2014, , .		5
128	Wiretap Channels With Side Information“Strong Secrecy Capacity and Optimal Transceiver Design. IEEE Transactions on Information Forensics and Security, 2013, 8, 1397-1408.	6.9	16
129	Capacity results and super-activation for wiretap channels with active wiretappers. IEEE Transactions on Information Forensics and Security, 2013, 8, 1482-1496.	6.9	48
130	The secrecy capacity of a compound MIMO Gaussian channel. , 2013, , .		16
131	Polar Coding for Bidirectional Broadcast Channels with Common and Confidential Messages. IEEE Journal on Selected Areas in Communications, 2013, 31, 1901-1908.	14.0	28
132	Secrecy Rate Maximization in Gaussian MIMO Wiretap Channels. , 0, , 109-139.		2
133	Super-Activation as a Unique Feature of Secure Communication over Arbitrarily Varying Channels. , 0, , 313-330.		0