

Aylin Yener

List of Publications by Year in descending order

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182
papers

7,622
citations

136740

32
h-index

106150

65
g-index

182
all docs

182
docs citations

182
times ranked

3895
citing authors

#	ARTICLE	IF	CITATIONS
1	Transmission with Energy Harvesting Nodes in Fading Wireless Channels: Optimal Policies. IEEE Journal on Selected Areas in Communications, 2011, 29, 1732-1743.	9.7	950
2	Energy Harvesting Wireless Communications: A Review of Recent Advances. IEEE Journal on Selected Areas in Communications, 2015, 33, 360-381.	9.7	777
3	The General Gaussian Multiple-Access and Two-Way Wiretap Channels: Achievable Rates and Cooperative Jamming. IEEE Transactions on Information Theory, 2008, 54, 2735-2751.	1.5	677
4	Optimum Transmission Policies for Battery Limited Energy Harvesting Nodes. IEEE Transactions on Wireless Communications, 2012, 11, 1180-1189.	6.1	630
5	Cooperation With an Untrusted Relay: A Secrecy Perspective. IEEE Transactions on Information Theory, 2010, 56, 3807-3827.	1.5	361
6	The Gaussian Multiple Access Wire-Tap Channel. IEEE Transactions on Information Theory, 2008, 54, 5747-5755.	1.5	225
7	Sum-rate optimal power policies for energy harvesting transmitters in an interference channel. Journal of Communications and Networks, 2012, 14, 151-161.	1.8	173
8	Cooperative Security at the Physical Layer: A Summary of Recent Advances. IEEE Signal Processing Magazine, 2013, 30, 16-28.	4.6	166
9	Multuser two-way relaying: detection and interference management strategies. IEEE Transactions on Wireless Communications, 2009, 8, 4296-4305.	6.1	139
10	Wireless Physical-Layer Security: Lessons Learned From Information Theory. Proceedings of the IEEE, 2015, 103, 1814-1825.	16.4	139
11	The multi-way relay channel. , 2009, , .		135
12	Two-Hop Secure Communication Using an Untrusted Relay: A Case for Cooperative Jamming. , 2008, , .		123
13	Distributed power allocation strategies for parallel relay networks. IEEE Transactions on Wireless Communications, 2008, 7, 552-561.	6.1	116
14	MIMO Wiretap Channels With Unknown and Varying Eavesdropper Channel States. IEEE Transactions on Information Theory, 2014, 60, 6844-6869.	1.5	103
15	Age of Information Minimization for an Energy Harvesting Cognitive Radio. IEEE Transactions on Cognitive Communications and Networking, 2019, 5, 427-439.	4.9	98
16	Power allocation for F/TDMA multuser two-way relay networks. IEEE Transactions on Wireless Communications, 2010, 9, 546-551.	6.1	96
17	CTH17-4: Outage Performance of Cognitive Wireless Relay Networks. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	92
18	Improving Secrecy Rate via Spectrum Leasing for Friendly Jamming. IEEE Transactions on Wireless Communications, 2013, 12, 134-145.	6.1	90

#	ARTICLE	IF	CITATIONS
19	Optimum Policies for an Energy Harvesting Transmitter Under Energy Storage Losses. IEEE Journal on Selected Areas in Communications, 2015, 33, 467-481.	9.7	83
20	The Semantic Communication Game. IEEE Transactions on Cognitive Communications and Networking, 2018, 4, 787-802.	4.9	72
21	Throughput Maximization for Two-Way Relay Channels With Energy Harvesting Nodes: The Impact of Relaying Strategies. IEEE Transactions on Communications, 2015, 63, 2081-2093.	4.9	69
22	Communicating with energy harvesting transmitters and receivers. , 2012, , .		65
23	ASAP : A MAC Protocol for Dense and Time Constrained RFID Systems. , 2006, , .		62
24	Providing Secrecy With Structured Codes: Two-User Gaussian Channels. IEEE Transactions on Information Theory, 2014, 60, 2121-2138.	1.5	58
25	Selective Interference Alignment for MIMO Cognitive Femtocell Networks. IEEE Journal on Selected Areas in Communications, 2014, 32, 439-450.	9.7	58
26	An Overview of Information-Theoretic Security and Privacy: Metrics, Limits and Applications. IEEE Journal on Selected Areas in Information Theory, 2021, 2, 5-22.	1.9	56
27	The Gaussian Interference Relay Channel: Improved Achievable Rates and Sum Rate Upperbounds Using a Potent Relay. IEEE Transactions on Information Theory, 2011, 57, 2865-2879.	1.5	54
28	An efficient framed-slotted ALOHA algorithm with pilot frame and binary selection for anti-collision of RFID tags. IEEE Communications Letters, 2008, 12, 861-863.	2.5	53
29	MIMO Multiple Access Channel With an Arbitrarily Varying Eavesdropper: Secrecy Degrees of Freedom. IEEE Transactions on Information Theory, 2013, 59, 4733-4745.	1.5	53
30	Strong Secrecy and Reliable Byzantine Detection in the Presence of an Untrusted Relay. IEEE Transactions on Information Theory, 2013, 59, 177-192.	1.5	52
31	Cooperative energy harvesting communications with relaying and energy sharing. , 2013, , .		52
32	Binary energy harvesting channel with finite energy storage. , 2013, , .		51
33	Relay assisted F/TDMA ad hoc networks: node classification, power allocation and relaying strategies. IEEE Transactions on Communications, 2008, 56, 937-947.	4.9	50
34	Degrees of Freedom for the MIMO Multi-Way Relay Channel. IEEE Transactions on Information Theory, 2014, 60, 2495-2511.	1.5	47
35	Energy Harvesting Networks With Energy Cooperation: Procrastinating Policies. IEEE Transactions on Communications, 2015, 63, 4525-4538.	4.9	45
36	End-to-End Secure Multi-Hop Communication with Untrusted Relays. IEEE Transactions on Wireless Communications, 2013, 12, 1-11.	6.1	44

#	ARTICLE	IF	CITATIONS
37	The Gaussian Multiple Access Wire-Tap Channel with Collective Secrecy Constraints. , 2006, , .		39
38	Delay Constrained Energy Harvesting Networks with Limited Energy and Data Storage. IEEE Journal on Selected Areas in Communications, 2016, 34, 1550-1564.	9.7	36
39	A new outer bound for the gaussian interference channel with confidential messages. , 2009, , .		33
40	The Role of Feedback in Two-Way Secure Communications. IEEE Transactions on Information Theory, 2013, 59, 8115-8130.	1.5	33
41	Guiding Blind Transmitters: Degrees of Freedom Optimal Interference Alignment Using Relays. IEEE Transactions on Information Theory, 2013, 59, 4819-4832.	1.5	32
42	Centralized Coded Caching with Heterogeneous Cache Sizes. , 2017, , .		32
43	Interference management for multiuser two-way relaying. , 2008, , .		31
44	Optimal power policy for energy harvesting transmitters with inefficient energy storage. , 2012, , .		31
45	Uplink Interference Management for Coexisting MIMO Femtocell and Macrocell Networks: An Interference Alignment Approach. IEEE Transactions on Wireless Communications, 2014, 13, 2246-2257.	6.1	31
46	Coded Caching for Heterogeneous Systems: An Optimization Perspective. IEEE Transactions on Communications, 2019, 67, 5321-5335.	4.9	31
47	Device-to-Device Coded-Caching With Distinct Cache Sizes. IEEE Transactions on Communications, 2020, 68, 2748-2762.	4.9	30
48	Providing secrecy with lattice codes. , 2008, , .		29
49	The Binary Energy Harvesting Channel With a Unit-Sized Battery. IEEE Transactions on Information Theory, 2017, 63, 4240-4256.	1.5	28
50	K-user interference channels: Achievable secrecy rate and degrees of freedom. , 2009, , .		27
51	The Gaussian Many-to-One Interference Channel With Confidential Messages. IEEE Transactions on Information Theory, 2011, 57, 2730-2745.	1.5	27
52	Combination Networks With or Without Secrecy Constraints: The Impact of Caching Relays. IEEE Journal on Selected Areas in Communications, 2018, 36, 1140-1152.	9.7	27
53	The Effect of Eavesdroppers on Network Connectivity: A Secrecy Graph Approach. IEEE Transactions on Information Forensics and Security, 2011, 6, 712-724.	4.5	26
54	Energy harvesting two-way half-duplex relay channel with decode-and-forward relaying: Optimum power policies. , 2013, , .		26

#	ARTICLE	IF	CITATIONS
55	Multiple access and two-way channels with energy harvesting and bi-directional energy cooperation. , 2013, , .		25
56	Device-to-Device Secure Coded Caching. IEEE Transactions on Information Forensics and Security, 2020, 15, 1513-1524.	4.5	24
57	Secure Degrees of Freedom for the MIMO Wire-Tap Channel With a Multi-Antenna Cooperative Jammer. IEEE Transactions on Information Theory, 2017, 63, 7420-7441.	1.5	23
58	Symmetric Capacity of the Gaussian Interference Channel With an Out-of-Band Relay to Within 1.15 Bits. IEEE Transactions on Information Theory, 2012, 58, 5151-5171.	1.5	22
59	Two-hop networks with energy harvesting: The (non-)impact of buffer size. , 2013, , .		22
60	Incentivizing Signal and Energy Cooperation in Wireless Networks. IEEE Journal on Selected Areas in Communications, 2015, 33, 2554-2566.	9.7	22
61	Secure Degrees of Freedom for Gaussian Channels with Interference: Structured Codes Outperform Gaussian Signaling. , 2009, , .		21
62	Resource management for fading wireless channels with energy harvesting nodes. , 2011, , .		21
63	Short-Term Throughput Maximization for Battery Limited Energy Harvesting Nodes. , 2011, , .		21
64	Degrees of freedom for the MIMO multi-way relay channel. , 2013, , .		21
65	Polar Coding for the Multiple Access Wiretap Channel via Rate-Splitting and Cooperative Jamming. IEEE Transactions on Information Theory, 2018, 64, 7903-7921.	1.5	21
66	A New Wiretap Channel Model and Its Strong Secrecy Capacity. IEEE Transactions on Information Theory, 2018, 64, 2077-2092.	1.5	20
67	Age of Information Minimization for Wireless Ad Hoc Networks: A Deep Reinforcement Learning Approach. , 2019, , .		20
68	The Cognitive Multiple Access Wire-Tap Channel. , 2009, , .		19
69	Adaptive transmission policies for energy harvesting wireless nodes in fading channels. , 2011, , .		19
70	On the energy-delay trade-off of a two-way relay network. , 2008, , .		18
71	Cost-Delay Tradeoffs for Two-Way Relay Networks. IEEE Transactions on Wireless Communications, 2011, 10, 4100-4109.	6.1	18
72	On the role of feedback in two-way secure communication. , 2008, , .		17

#	ARTICLE	IF	CITATIONS
73	Achievable Rates for Two-Way Wire-Tap Channels. , 2007, , .		16
74	MIMO Broadcast Channel with an Unknown Eavesdropper: Secrecy Degrees of Freedom. IEEE Transactions on Communications, 2014, 62, 246-255.	4.9	16
75	Iterative Power Allocation Algorithms for Amplify/Estimate/Compress-and-Forward Multi-Band Relay Channels. , 2006, , .		15
76	Providing secrecy when the eavesdropper channel is arbitrarily varying: A case for multiple antennas. , 2010, , .		15
77	Coded caching for resolvable networks with security requirements. , 2016, , .		15
78	Optimization of heterogeneous caching systems with rate limited links. , 2017, , .		15
79	The Gaussian Interference Relay Channel with a Potent Relay. , 2009, , .		14
80	Polar coding for the multiple access wiretap channel via rate-splitting and cooperative jamming. , 2016, , .		14
81	On the Equivocation Region of Relay Channels with Orthogonal Components. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	13
82	Coded Placement for Systems with Shared Caches. , 2019, , .		13
83	An Actor-Critic Reinforcement Learning Approach to Minimum age of Information Scheduling in Energy Harvesting Networks. , 2021, , .		13
84	Secure degrees of freedom of $N \tilde{A} - N \tilde{A} - M$ wiretap channel with a K -antenna cooperative jammer. , 2015, , .		12
85	Secure communication with a Byzantine relay. , 2009, , .		11
86	Semantic index assignment. , 2014, , .		11
87	Generalizing Multiple Access Wiretap and Wiretap II Channel Models: Achievable Rates and Cost of Strong Secrecy. IEEE Transactions on Information Theory, 2019, 65, 5125-5143.	1.5	11
88	Age of Information for Wireless Energy Harvesting Secondary Users in Cognitive Radio Networks. , 2019, , .		11
89	Quality of Information aware scheduling in task processing networks. , 2011, , .		10
90	Transmission policies for asymmetric interference channels with energy harvesting nodes. , 2011, , .		10

#	ARTICLE	IF	CITATIONS
91	Quality-of-information aware transmission policies with time-varying links. , 2011, , .		10
92	Benefits of Cache Assignment on Degraded Broadcast Channels. IEEE Transactions on Information Theory, 2019, 65, 6999-7019.	1.5	10
93	Throughput Enhancing Cooperative Spectrum Sensing Strategies for Cognitive Radios. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	9
94	Secrecy when the eavesdropper controls its channel states. , 2011, , .		9
95	Gaussian two-way wiretap channel with an arbitrarily varying eavesdropper. , 2011, , .		9
96	MIMO Broadcast Channel with Arbitrarily Varying Eavesdropper Channel: Secrecy Degrees of Freedom. , 2011, , .		9
97	Degrees of freedom of the single antenna gaussian wiretap channel with a helper irrespective of the number of antennas at the eavesdropper. , 2013, , .		9
98	Capacity of the energy harvesting channel with energy arrival information at the receiver. , 2014, , .		9
99	Multi-Terminal Two-Hop Untrusted-Relay Networks With Hierarchical Security Guarantees. IEEE Transactions on Information Forensics and Security, 2017, 12, 2052-2066.	4.5	9
100	Energy-Harvesting Distributed Machine Learning. , 2021, , .		9
101	Power Allocation and Hybrid Relaying Strategies for F/TDMA Ad Hoc Networks. , 2006, , .		8
102	The interference wiretap channel with an arbitrarily varying eavesdropper: Aligning interference with artificial noise. , 2012, , .		8
103	Benefits of Coded Placement for Networks with Heterogeneous Cache Sizes. , 2018, , .		8
104	On Coded Caching with Heterogeneous Distortion Requirements. , 2018, , .		8
105	Secret-Key Generation in Many-to-One Networks: An Integrated Game-Theoretic and Information-Theoretic Approach. IEEE Transactions on Information Theory, 2019, 65, 5144-5159.	1.5	8
106	Interference channels with strong secrecy. , 2009, , .		7
107	Relaying for multiple sources in the absence of codebook information. , 2011, , .		7
108	Relay-aided interference alignment for the X channel with limited CSI. , 2012, , .		7

#	ARTICLE	IF	CITATIONS
109	State amplification and state masking for the binary energy harvesting channel. , 2014, , .		7
110	Energy harvesting two-way communications with limited energy and data storage. , 2014, , .		7
111	The two-hop interference untrusted-relay channel with confidential messages. , 2015, , .		7
112	The role of an untrusted relay in secret communication. , 2008, , .		6
113	Stability of bi-directional cooperative relay networks. , 2008, , .		6
114	The energy harvesting multiple access channel with energy storage losses. , 2012, , .		6
115	Multi-terminal networks with an untrusted relay. , 2014, , .		6
116	The binary energy harvesting channel with on-off fading. , 2015, , .		6
117	Green Distributed Storage Using Energy Harvesting Nodes. IEEE Journal on Selected Areas in Communications, 2016, 34, 1590-1603.	9.7	6
118	Learning an Adversary's Actions for Secret Communication. IEEE Transactions on Information Theory, 2020, 66, 1607-1624.	1.5	6
119	OPT: Optimal Protocol Tree for Efficient Tag Identification in Dense RFID Systems. , 2006, , .		5
120	The Gaussian many-to-one interference channel with confidential messages. , 2009, , .		5
121	MIMO multiple access channel with an arbitrarily varying eavesdropper. , 2011, , .		5
122	Guiding blind transmitters: Relay-aided interference alignment for the X channel. , 2012, , .		5
123	Maximizing credibility-based network utility via power allocation. , 2012, , .		5
124	A study of semantic data compression. , 2013, , .		5
125	Learning to Transmit Fresh Information in Energy Harvesting Networks. IEEE Transactions on Green Communications and Networking, 2022, 6, 2032-2042.	3.5	5
126	End-to-end secure multi-hop communication with untrusted relays is possible. , 2008, , .		4

#	ARTICLE	IF	CITATIONS
127	Low-Latency Communications over Zero-Battery Energy Harvesting Channels. , 2014, , .		4
128	Low-Latency Communications over Zero-Battery Energy Harvesting Channels. , 2015, , .		4
129	The Caching Broadcast Channel with a Wire and Cache Tapping Adversary of Type II. , 2018, , .		4
130	Universal Coverttness for Discrete Memoryless Sources. IEEE Transactions on Information Theory, 2021, 67, 5432-5442.	1.5	4
131	Spectrum-Sensing Opportunistic Wireless Relay Networks: Outage and Diversity Performance. , 2006, , .		3
132	On low complexity cooperative spectrum sensing for cognitive networks. , 2009, , .		3
133	Cost constrained spectrum sensing in cognitive radio networks. , 2010, , .		3
134	The role of channel states in secret key generation. , 2010, , .		3
135	On performance evaluation of cooperative spectrum sensing in cognitive radio networks. , 2010, , .		3
136	Leveraging strictly causal state information at the encoders for multiple access channels. , 2011, , .		3
137	Relays can provide alignment for the K-user interference channel without channel state information at the transmitters. , 2012, , .		3
138	Selective interference alignment for MIMO femtocell networks. , 2013, , .		3
139	Communicating in a socially-aware network: Impact of relationship types. , 2014, , .		3
140	Matching Games for Ad Hoc Networks with Wireless Energy Transfer. IEEE Transactions on Green Communications and Networking, 2017, 1, 503-515.	3.5	3
141	The degraded Gaussian multiple access wiretap channel with selfish transmitters: A coalitional game theory perspective. , 2017, , .		3
142	Relay-Centric Two-Hop Networks With Asymmetric Wireless Energy Transfer: Stackelberg Games. IEEE Transactions on Green Communications and Networking, 2019, 3, 739-750.	3.5	3
143	Strongly Secure Multiuser Communication and Authentication With Anonymity Constraints. IEEE Transactions on Information Theory, 2020, 66, 572-586.	1.5	3
144	Benefits of Edge Caching With Coded Placement for Asymmetric Networks and Shared Caches. IEEE Journal on Selected Areas in Information Theory, 2021, 2, 1240-1252.	1.9	3

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145	Efficient Scheduling for Delay Constrained Multi-Rate CDMA Systems. , 2006, , .		2
146	Providing Secrecy Irrespective of Eavesdropper's Channel State. , 2010, , .		2
147	Sum capacity of the deterministic interference channel with an out-of-band half-duplex relay. , 2010, , .		2
148	Optimal power control for energy harvesting transmitters in an interference channel. , 2011, , .		2
149	The Gaussian interference wiretap channel when the eavesdropper channel is arbitrarily varying. , 2012, , .		2
150	Degrees of freedom optimal transmission for the two-cluster MIMO multi-way relay channel. , 2013, , .		2
151	Subset source coding. , 2015, , .		2
152	The multiple access wiretap channel II with a noisy main channel. , 2016, , .		2
153	A game theoretic treatment for pair-wise secret-key generation in many-to-one networks. , 2017, , .		2
154	The Caching Broadcast Channel with a Wire and Cache Tapping Adversary of Type II: Multiple Library Files. , 2018, , .		2
155	Non-Asymptotic Achievable Rates for Gaussian Energy-Harvesting Channels: Save-and-Transmit and Best-Effort. IEEE Transactions on Information Theory, 2019, 65, 7233-7252.	1.5	2
156	Cache-Aided Combination Networks with Asymmetric End Users. , 2019, , .		2
157	The ergodic fading interference channel with an on-and-off relay. , 2010, , .		1
158	Harnessing Interference with an Out-of-Band Relay: An Approximate Capacity Result. , 2011, , .		1
159	The state-dependent degraded broadcast diamond channel. , 2013, , .		1
160	Universal covertness for Discrete Memoryless Sources. , 2016, , .		1
161	Matching games for wireless networks with energy cooperation. , 2016, , .		1
162	The semantic communication game. , 2016, , .		1

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163	Multiuser authentication with anonymity constraints over noisy channels. , 2016, , .		1
164	Lossy Coding of Correlated Sources Over a Multiple Access Channel: Necessary Conditions and Separation Results. IEEE Transactions on Information Theory, 2018, 64, 6081-6097.	1.5	1
165	Secure Caching and Delivery for Combination Networks with Asymmetric Connectivity. , 2019, , .		1
166	Untrusted Caches in Two-layer Networks. , 2019, , .		1
167	Coded Caching in the Presence of a Wire and a Cache Tapping Adversary of Type II. IEEE Journal on Selected Areas in Information Theory, 2021, 2, 65-81.	1.9	1
168	Secure Communication in a Multi-antenna Wiretap Channel with a Reconfigurable Intelligent Surface. , 2021, , .		1
169	Learning to Transmit Fresh Information in Energy Harvesting Networks Using Supervised Learning. , 2021, , .		1
170	Secrecy and reliable Byzantine detection in a Gaussian untrusted two-hop link. , 2010, , .		0
171	Connectivity in wireless networks with dynamic key compromise and recovery. , 2010, , .		0
172	Message and state cooperation in a relay channel when the relay has strictly causal state information. , 2011, , .		0
173	Auction Schemes for Energy and Signal Cooperation in Two-Hop Networks. , 2014, , .		0
174	Auction Schemes for Energy and Signal Cooperation in Two-Hop Networks. , 2015, , .		0
175	Towards green distributed storage systems. , 2015, , .		0
176	Two-way lossy compression via a relay with self source. , 2016, , .		0
177	Non-Asymptotic Achievable Rates for Gaussian Energy-Harvesting Channels: Best-Effort and Save-and-Transmit. , 2018, , .		0
178	Subset Source Coding. IEEE Transactions on Information Theory, 2018, 64, 5989-6012.	1.5	0
179	The Degraded Gaussian Many-Access Wiretap Channel. , 2019, , .		0
180	An Optimization Framework for Secure Delivery in Heterogeneous Coded Caching Systems. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
181	In-Band Sensing of the Adversary's Channel for Secure Communication in Wireless Channels. , 2019, , .		0
182	On the Timeliness of Arithmetic Coding. , 2021, , .		0