

João Ao Barros

List of Publications by Year in descending order

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117
papers

6,247
citations

279798

23
h-index

289244

40
g-index

121
all docs

121
docs citations

121
times ranked

3971
citing authors

#	ARTICLE	IF	CITATIONS
1	PortoLivingLab: An IoT-Based Sensing Platform for Smart Cities. IEEE Internet of Things Journal, 2018, 5, 523-532.	8.7	149
2	LASP: Look-ahead spatial protocol for vehicular multi-hop communication. , 2016, , .		3
3	Throughput and Cost-Effectiveness of Vehicular Mesh Networks for Internet Access. , 2016, , .		6
4	On Optimal Policies for Network-Coded Cooperation: Theory and Implementation. IEEE Journal on Selected Areas in Communications, 2015, 33, 199-212.	14.0	23
5	Network Coding Protocols for Data Gathering Applications. IEEE Communications Letters, 2015, 19, 267-270.	4.1	4
6	Guest Editorial Fundamental Approaches to Network Coding in Wireless Communication Systems. IEEE Journal on Selected Areas in Communications, 2015, 33, 125-126.	14.0	0
7	A Mobile Sensing Approach to Stress Detection and Memory Activation for Public Bus Drivers. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 3294-3303.	8.0	51
8	Hardware Abstraction and Protocol Optimization for Coded Sensor Networks. IEEE/ACM Transactions on Networking, 2015, 23, 866-879.	3.8	3
9	Network-Coded Cooperation Over Time-Varying Channels. IEEE Transactions on Communications, 2014, 62, 4413-4425.	7.8	2
10	Modeling Network Coded TCP: Analysis of Throughput and Energy Cost. Mobile Networks and Applications, 2014, 19, 790-803.	3.3	5
11	Real-Time Network Coding for Live Streaming in Hyper-Dense WiFi Spaces. IEEE Journal on Selected Areas in Communications, 2014, 32, 773-781.	14.0	28
12	Tall Vehicle Relaying in Vehicular Networks. IEEE Transactions on Mobile Computing, 2014, 13, 1118-1131.	5.8	47
13	Impact of Position Errors on Path Loss Model Estimation for Device-to-Device Channels. IEEE Transactions on Wireless Communications, 2014, 13, 2353-2361.	9.2	15
14	Network coding for wireless cooperative networks: Simple rules, near-optimal delay. , 2014, , .		5
15	Geometry-Based Vehicle-to-Vehicle Channel Modeling for Large-Scale Simulation. IEEE Transactions on Vehicular Technology, 2014, 63, 4146-4164.	6.3	171
16	Harbornet: a real-world testbed for vehicular networks. , 2014, 52, 108-114.		38
17	Network Coding Protocols for Smart Grid Communications. IEEE Transactions on Smart Grid, 2014, 5, 1523-1531.	9.0	32
18	Coding for Secrecy: An Overview of Error-Control Coding Techniques for Physical-Layer Security. IEEE Signal Processing Magazine, 2013, 30, 41-50.	5.6	144

#	ARTICLE	IF	CITATIONS
19	Spherical codes for the Gaussian wiretap channel with continuous input alphabets. , 2013, , .		2
20	Designing scalar quantizers with secrecy constraints. , 2013, , .		0
21	Random puncturing for secrecy. , 2013, , .		6
22	Melting Pad: An Efficiently Decodable Coding Scheme for Information Theoretic Confidentiality. , 2013, , .		1
23	Minimizing the completion time of a wireless cooperative network using network coding. , 2013, , .		6
24	Collision-free jamming for enhanced wireless secrecy. , 2013, , .		7
25	Understanding Sequential Decisions via Inverse Reinforcement Learning. , 2013, , .		18
26	Trade-Off between Cost and Goodput in Wireless: Replacing Transmitters with Coding. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2013, , 1-14.	0.3	0
27	LDPC Codes for the Gaussian Wiretap Channel. Wireless Networks and Mobile Communications, 2013, , 33-46.	1.0	2
28	Hide and code: Session anonymity in wireless line networks with coded packets. , 2012, , .		4
29	Lists that are smaller than their parts: A coding approach to tunable secrecy. , 2012, , .		8
30	Probabilistic key distribution in vehicular networks with infrastructure support. , 2012, , .		16
31	A cooperative protocol for jamming eavesdroppers in wireless networks. , 2012, , .		3
32	Improved joint turbo decoding and physical-layer network coding. , 2012, , .		1
33	DAZL: Density-Aware Zone-based packet forwarding in vehicular networks. , 2012, , .		6
34	A total energy approach to protocol design in coded wireless sensor networks. , 2012, , .		3
35	Coding for Trusted Storage in Untrusted Networks. IEEE Transactions on Information Forensics and Security, 2012, 7, 1890-1899.	6.9	37
36	Physical-layer security over correlated erasure channels. , 2012, , .		8

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37	Secure Communication in Stochastic Wireless Networksâ€™Part II: Maximum Rate and Collusion. IEEE Transactions on Information Forensics and Security, 2012, 7, 139-147.	6.9	78
38	Secure Communication in Stochastic Wireless Networksâ€™Part I: Connectivity. IEEE Transactions on Information Forensics and Security, 2012, 7, 125-138.	6.9	132
39	Security and privacy issues for the network of the future. Security and Communication Networks, 2012, 5, 987-1005.	1.5	12
40	Topology matters in network coding. Telecommunication Systems, 2012, 51, 247-257.	2.5	11
41	Probabilistic flooding in stochastic networks: Analysis of global information outreach. Computer Networks, 2012, 56, 142-156.	5.1	17
42	Seeing is Believingâ€™Enhancing Message Dissemination in Vehicular Networks Through Visual Cues. IEEE Communications Letters, 2012, 16, 238-241.	4.1	3
43	Exploiting the height of vehicles in vehicular communication. , 2011, , .		19
44	Joint source-network coding for large-scale sensor networks. , 2011, , .		2
45	LDPC Codes for the Gaussian Wiretap Channel. IEEE Transactions on Information Forensics and Security, 2011, 6, 532-540.	6.9	182
46	Generalized delay-secrecy-throughput trade-offs in mobile ad-hoc networks. , 2011, , .		2
47	A Layered Network Coding Solution for Incentives in Peer-to-Peer Live Streaming. , 2011, , .		3
48	GeoCode: A geographic coding-aware communication protocol. , 2011, , .		4
49	Jammer Selection Policies for Secure Wireless Networks. , 2011, , .		6
50	Position-Based Jamming for Enhanced Wireless Secrecy. IEEE Transactions on Information Forensics and Security, 2011, 6, 616-627.	6.9	37
51	Wireless secrecy in large-scale networks. , 2011, , .		7
52	A mobile sensing architecture for massive urban scanning. , 2011, , .		15
53	On the Delay Distribution of Random Linear Network Coding. IEEE Journal on Selected Areas in Communications, 2011, 29, 1084-1093.	14.0	58
54	Algebraic Watchdog: Mitigating Misbehavior in Wireless Network Coding. IEEE Journal on Selected Areas in Communications, 2011, 29, 1916-1925.	14.0	23

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55	Coding for Cryptographic Security Enhancement Using Stopping Sets. IEEE Transactions on Information Forensics and Security, 2011, 6, 575-584.	6.9	29
56	Guest Editorial Special Issue on Using the Physical Layer for Securing the Next Generation of Communication Systems. IEEE Transactions on Information Forensics and Security, 2011, 6, 521-522.	6.9	4
57	Network Coding Meets TCP: Theory and Implementation. Proceedings of the IEEE, 2011, 99, 490-512.	21.3	205
58	Impact of Vehicles as Obstacles in Vehicular Ad Hoc Networks. IEEE Journal on Selected Areas in Communications, 2011, 29, 15-28.	14.0	288
59	Wireless Secrecy Regions With Friendly Jamming. IEEE Transactions on Information Forensics and Security, 2011, 6, 256-266.	6.9	141
60	Modeling Network Coded TCP Throughput: A Simple Model and its Validation. , 2011, , .		34
61	Practical Network Coding with Resilient Subspace Codes. , 2010, , .		4
62	How feasible is network coding in current satellite systems?. , 2010, , .		24
63	Trusted Storage over Untrusted Networks. , 2010, , .		20
64	Secure network coding for multi-resolution wireless video streaming. IEEE Journal on Selected Areas in Communications, 2010, 28, 377-388.	14.0	33
65	On counteracting Byzantine attacks in network coded peer-to-peer networks. IEEE Journal on Selected Areas in Communications, 2010, 28, 692-702.	14.0	30
66	Stopping sets for physical-layer security. , 2010, , .		10
67	Techniques for Enhanced Physical-Layer Security. , 2010, , .		9
68	A non-intrusive multi-sensor system for characterizing driver behavior. , 2010, , .		8
69	One-shot capacity of discrete channels. , 2010, , .		6
70	Network coding delay: A brute-force analysis. , 2010, , .		5
71	Non-Asymptotic Analysis of Network Coding Delay. , 2010, , .		6
72	A multi-hop multi-source Algebraic Watchdog. , 2010, , .		10

#	ARTICLE	IF	CITATIONS
73	Experimental study on the impact of vehicular obstructions in VANETs. , 2010, , .		144
74	On the Performance of Network Coding in Multi-Resolution Wireless Video Streaming. , 2010, , .		9
75	Joint compression and data protection. , 2009, , .		1
76	Vehicular Connectivity Models: From Single-Hop Links to Large-Scale Behavior. , 2009, , .		6
77	Low-complexity index assignments for secure quantization. , 2009, , .		1
78	A Cautionary View of Mobility and Connectivity Modeling in Vehicular Ad-Hoc Networks. , 2009, , .		13
79	Low-complexity coding and source-optimized clustering for large-scale sensor networks. ACM Transactions on Sensor Networks, 2009, 5, 1-32.	3.6	11
80	Wireless physical-layer security: The case of colluding eavesdroppers. , 2009, , .		59
81	LDPC for Physical Layer Security. , 2009, , .		21
82	Practical source-network decoding. , 2009, , .		9
83	An algebraic watchdog for wireless network coding. , 2009, , .		26
84	Byzantine attacks against network coding in peer to peer distributed storage. , 2009, , .		3
85	Towards secure multiresolution network coding. , 2009, , .		5
86	Network Coding Multicast in Satellite Networks. , 2009, , .		20
87	Unicast communication in vehicular ad hoc networks: a reality check. IEEE Communications Letters, 2009, 13, 995-997.	4.1	27
88	NECO: NEtwork COding Simulator. , 2009, , .		8
89	Information Flows in Complex Networks. , 2009, , 267-287.		1
90	A Network Coding Approach to Secret Key Distribution. IEEE Transactions on Information Forensics and Security, 2008, 3, 414-423.	6.9	42

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91	The Commitment Capacity of the Gaussian Channel Is Infinite. IEEE Transactions on Information Theory, 2008, 54, 2785-2789.	2.4	23
92	Wireless Information-Theoretic Security. IEEE Transactions on Information Theory, 2008, 54, 2515-2534.	2.4	1,522
93	Physical-layer encryption with stream ciphers. , 2008, , .		19
94	Counteracting Byzantine adversaries with network coding: An overhead analysis. , 2008, , .		5
95	An information-theoretic cryptanalysis of network coding - is protecting the code enough?. , 2008, , .		21
96	Network coding with shortcuts. , 2008, , .		2
97	Flooding the Network: Multipoint Relays versus Network Coding. , 2008, , .		11
98	Physical-layer security in stochastic wireless networks. , 2008, , .		53
99	On the Urban Connectivity of Vehicular Sensor Networks. , 2008, , 112-125.		22
100	Large-scale simulation of V2V environments. , 2008, , .		28
101	Informed network coding for minimum decoding delay. , 2008, , .		35
102	Codes for Sensors: An Algorithmic Perspective. , 2008, , 16-17.		0
103	Random Linear Network Coding: A free cipher?. , 2007, , .		97
104	Estimating a Function from Noisy Sensor Data: A Factor Graph Approach. , 2007, , .		0
105	Random Walks on Sensor Networks. , 2007, , .		37
106	Dual Radio Networks: Capacity and Connectivity. , 2007, , .		2
107	A Process Calculus Approach to Sensor Network Programming. , 2007, , .		1
108	Diophantine Index Assignments for Distributed Source Coding. , 2007, , .		2

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109	A feedback reputation mechanism to secure the optimized link state routing protocol. , 2007, , .		11
110	Estimation of functionals over noisy channels. European Transactions on Telecommunications, 2007, 18, 859-864.	1.2	0
111	Network Coding Protocols for Secret Key Distribution. , 2007, , 1718-1733.		4
112	Secrecy Capacity of Wireless Channels. , 2006, , .		617
113	CTH04-3: Source-Optimized Clustering for Distributed Source Coding. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	6
114	LDPC-Based Secure Wireless Communication with Imperfect Knowledge of the Eavesdropper's Channel. , 2006, , .		1
115	Scalable decoding on factor trees: a practical solution for wireless sensor networks. IEEE Transactions on Communications, 2006, 54, 284-294.	7.8	26
116	Bit Commitment over Gaussian Channels. , 2006, , .		5
117	Towards the Safe Programming of Wireless Sensor Networks. Electronic Proceedings in Theoretical Computer Science, EPTCS, 0, 17, 49-62.	0.8	5