Chiara Petrioli

List of Publications by Year
in descending order

134 papers	3,686 citations	279487 23 h-index	233125 45 g-index
138 all docs	138 docs citations	138 times ranked	2811 citing authors

#	Article	IF	Citations
1	Controlled sink mobility for prolonging wireless sensor networks lifetime. Wireless Networks, 2008, 14, 831-858.	2.0	332
2	Pro-Energy: A novel energy prediction model for solar and wind energy-harvesting wireless sensor networks. , 2012, , .		149
3	CARP: A Channel-aware routing protocol for underwater acoustic wireless networks. Ad Hoc Networks, 2015, 34, 92-104.	3.4	149
4	Localized protocols for ad hoc clustering and backbone formation: a performance comparison. IEEE Transactions on Parallel and Distributed Systems, 2006, 17, 292-306.	4.0	124
5	Anticollision Protocols for Single-Reader RFID Systems: Temporal Analysis and Optimization. IEEE Transactions on Mobile Computing, 2011, 10, 267-279.	3.9	123
6	Configuring bluestars: multihop scatternet formation for bluetooth networks. IEEE Transactions on Computers, 2003, 52, 779-790.	2.4	116
7	Sensor activation and radius adaptation (SARA) in heterogeneous sensor networks. ACM Transactions on Sensor Networks, 2012, 8, 1-34.	2.3	111
8	Path Finding for Maximum Value of Information in Multi-Modal Underwater Wireless Sensor Networks. IEEE Transactions on Mobile Computing, 2018, 17, 404-418.	3.9	103
9	The SUNSET framework for simulation, emulation and at-sea testing of underwater wireless sensor networks. Ad Hoc Networks, 2015, 34, 224-238.	3.4	101
10	ALBA-R: Load-Balancing Geographic Routing Around Connectivity Holes in Wireless Sensor Networks. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 529-539.	4.0	87
11	Online Energy Harvesting Prediction in Environmentally Powered Wireless Sensor Networks. IEEE Sensors Journal, 2016, 16, 6793-6804.	2.4	86
12	Energy-conserving access protocols for identification networks. IEEE/ACM Transactions on Networking, 1999, 7, 51-59.	2.6	84
13	Maximizing the value of sensed information in underwater wireless sensor networks via an autonomous underwater vehicle. , 2014, , .		70
14	CARMA: Channel-Aware Reinforcement Learning-Based Multi-Path Adaptive Routing for Underwater Wireless Sensor Networks. IEEE Journal on Selected Areas in Communications, 2019, 37, 2634-2647.	9.7	69
15	Security as a CoAP resource: An optimized DTLS implementation for the IoT. , 2015, , .		67
16	Coordinated and controlled mobility of multiple sinks for maximizing the lifetime of wireless sensor networks. Wireless Networks, 2011, 17, 759-778.	2.0	63
17	BlueMesh: Degree-Constrained Multi-Hop Scatternet Formation for Bluetooth Networks. Mobile Networks and Applications, 2004, 9, 33-47.	2.2	62
18	Optimized Packet Size Selection in Underwater Wireless Sensor Network Communications. IEEE Journal of Oceanic Engineering, 2012, 37, 321-337.	2.1	57

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19	Adaptive Rectifier Driven by Power Intake Predictors for Wind Energy Harvesting Sensor Networks. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2015, 3, 471-482.	3.7	57
20	A comparative performance evaluation of MAC protocols for underwater sensor networks. , 2008, , .		56
21	GreenCastalia. , 2013, , .		48
22	Comparative Performance Evaluation of Scatternet Formation Protocols for Networks of Bluetooth Devices. Wireless Networks, 2004, 10, 197-213.	2.0	47
23	Channel-aware routing for underwater wireless networks. , 2012, , .		45
24	SecFUN: Security framework for underwater acoustic sensor networks. , 2015, , .		44
25	Performance evaluation of underwater MAC protocols: From simulation to at-sea testing. , 2011, , .		41
26	Choosing the packet size in multi-hop underwater networks. , 2010, , .		39
27	SUNSET version 2.0. , 2013, , .		37
28	A New MILP Formulation and Distributed Protocols for Wireless Sensor Networks Lifetime Maximization. , 2006, , .		35
29	Finding MARLIN: Exploiting multi-modal communications for reliable and low-latency underwater networking. , 2017, , .		32
30	AGREE: exploiting energy harvesting to support data-centric access control in WSNs. Ad Hoc Networks, 2013, 11, 2625-2636.	3.4	31
31	The SUNRISE GATE: Accessing the SUNRISE federation of facilities to test solutions for the Internet of Underwater Things. , 2014, , .		31
32	Investigation of Underwater Acoustic Networking Enabling the Cooperative Operation of Multiple Heterogeneous Vehicles. Marine Technology Society Journal, 2013, 47, 43-58.	0.3	30
33	From underwater simulation to at-sea testing using the ns-2 network simulator. , 2011, , .		29
34	MARLIN-Q: Multi-modal communications for reliable and low-latency underwater data delivery. Ad Hoc Networks, 2019, 82, 134-145.	3.4	28
35	Blue pleiades, a new solution for device discovery and scatternet formation in multi-hop Bluetooth networks. Wireless Networks, 2007, 13, 107-125.	2.0	27
36	Controlled Vs. Uncontrolled Mobility in Wireless Sensor Networks: Some Performance Insights. Vehicular Technology Conference-Fall (VTC-FALL), Proceedings, IEEE, 2007, , .	0.0	26

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37	IRIS: Integrated data gathering and interest dissemination system for wireless sensor networks. Ad Hoc Networks, 2013, 11, 654-671.	3.4	26
38	CTP-WUR: The collection tree protocol in wake-up radio WSNs for critical applications. , 2016, , .		26
39	A Novel Wake-Up Receiver with Addressing Capability for Wireless Sensor Nodes. , 2014, , .		25
40	Scheduling data transmissions of underwater sensor nodes for maximizing value of information. , 2013, , .		24
41	Long lasting underwater wireless sensors network for water quality monitoring in fish farms. , 2017, , .		24
42	Dynamic tag estimation for optimizing tree slotted aloha in RFID networks. , 2008, , .		23
43	Performance Analysis of Anti-Collision Protocols for RFID Systems. , 2009, , .		23
44	Throughput-Optimal Cross-Layer Design for Cognitive Radio Ad Hoc Networks. IEEE Transactions on Parallel and Distributed Systems, 2015, 26, 2599-2609.	4.0	23
45	An optimization framework for joint sensor deployment, link scheduling and routing in underwater sensor networks. Mobile Computing and Communications Review, 2007, 11, 44-56.	1.7	22
46	First in-field experiments with a “bilingual” underwater acoustic modem supporting the JANUS standard. , 2015, , .		22
47	Sensor Mission Assignment in Rechargeable Wireless Sensor Networks. ACM Transactions on Sensor Networks, 2014, 10, 1-39.	2.3	21
48	ALBA: An Adaptive Load - Balanced Algorithm for Geographic Forwarding in Wireless Sensor Networks. , 2006, , .		20
49	Harnessing HyDRO. , 2018, , .		20
50	Efficiently reconfigurable backbones for wireless sensor networks. Computer Communications, 2008, 31, 668-698.	3.1	19
51	Counteracting Denial-of-Sleep Attacks in Wake-Up-Radio-Based Sensing Systems. , 2016, , .		18
52	The Design, Deployment, and Analysis of SignetLab: A Sensor Network Testbed and Interactive Management Tool. , 2007, , .		17
53	Energy efficient interference-aware routing and scheduling in underwater sensor networks. , 2014, , .		16
54	A self-adaptive protocol stack for Underwater Wireless Sensor Networks. , 2016, , .		16

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55	Low-Cost Standard Signatures for Energy-Harvesting Wireless Sensor Networks. Transactions on Embedded Computing Systems, 2017, 16, 1-23.	2.1	16
56	Performance Evaluation of Underwater Medium Access Control Protocols: At-Sea Experiments. IEEE Journal of Oceanic Engineering, 2018, 43, 547-556.	2.1	16
57	Sensor-mission assignment in wireless sensor networks with energy harvesting. , 2011, , .		15
58	Optimizing network performance through packet fragmentation in multi-hop underwater communications. , 2010, , .		14
59	SUNRISE project: Porto university testbed. , 2014, , .		14
60	Channel replay-based performance evaluation of protocols for underwater routing. , 2014, , .		14
61	A Channel-Aware Adaptive Modem for Underwater Acoustic Communications. IEEE Access, 2021, 9, 76340-76353.	2.6	14
62	Localized Techniques for Broadcasting in Wireless Sensor Networks. Algorithmica, 2007, 49, 412-446.	1.0	13
63	On the impact of the environment on MAC and routing in shallow water scenarios. , 2011, , .		13
64	A Reinforcement Learning-based Data-Link Protocol for Underwater Acoustic Communications. , 2015, , .		13
65	Clock synchronization and ranging estimation for control and cooperation of multiple UUVs. , 2016, , .		13
66	Person Re-Identification Through Wi-Fi Extracted Radio Biometric Signatures. IEEE Transactions on Information Forensics and Security, 2022, 17, 1145-1158.	4.5	13
67	Packet management techniques for measurement based end-to-end admission control in IP networks. Journal of Communications and Networks, 2000, 2, 147-156.	1.8	12
68	EYES â€“ Energy Efficient Sensor Networks. Lecture Notes in Computer Science, 2003, , 198-201.	1.0	12
69	CLAM — Collaborative embedded networks for submarine surveillance: An overview. , 2011, , .		12
70	Implementation of an underwater acoustic network using multiple heterogeneous vehicles. , 2012, , .		12
71	Energy Efficient COGnitive-MAC for Sensor Networks Under WLAN Co-existence. IEEE Transactions on Wireless Communications, 2015, 14, 4075-4089.	6.1	12
72	The Diver System: Multimedia Communication and Localization Using Underwater Acoustic Networks. , 2019, , .		12

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73	Dynamic replica placement and traffic redirection in content delivery networks. Performance Evaluation Review, 2007, 35, 66-68.	0.4	12
74	Flexible key exchange negotiation for wireless sensor networks. , 2010, , .		12
75	GENESI: Green sEnsor NEtworks for Structural monItoring. , 2010, , .		11
76	R-CARP. , 2015, , .		11
77	Localization Error-Resilient Geographic Routing for Wireless Sensor Networks. , 2008, , .		10
78	A scalable analytical framework for deriving optimum scheduling and routing in underwater sensor networks. , 2012, , .		10
79	CO2Net: A marine monitoring system for CO<inf>2</inf> leakage detection. , 2012, , .		10
80	The Internet of Underwater Things. , 2019, , .		10
81	Title is missing!. Mobile Networks and Applications, 2001, 6, 207-209.	2.2	8
82	Managing heterogeneous sensors and actuators in ubiquitous computing environments. , 2007, , .		8
83	ROME: Routing Over Mobile Elements in WSNs. , 2009, , .		8
84	Interference cancellation-based RFID tags identification. , 2011, , .		8
85	Fast identification of mobile RFID tags. , 2012, , .		8
86	Cooperation of coordinated teams of Autonomous Underwater Vehicles**This work was supported by Office of Naval Research Global (ONRG) NICOP N62909-14-1-N259 grant and ONR 0601153N grant.. IFAC-PapersOnLine, 2016, 49, 88-93.	0.5	8
87	Wake-Up Radio-Enabled Routing for Green Wireless Sensor Networks. , 2017, , .		8
88	Securing Underwater Communications. , 2017, , .		8
89	Wake-up radio-based data forwarding for green wireless networks. Computer Communications, 2020, 160, 172-185.	3.1	8
90	Modeling and estimation of partially observed WLAN activity for cognitive WSNs. , 2012, , .		7

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91	A detailed analytical and simulation study of geographic random forwarding. Wireless Communications and Mobile Computing, 2013, 13, 916-934.	0.8	7
92	A multi-band Noise-aware MAC protocol for underwater acoustic sensor networks. , 2013, , .		6
93	Improving energy predictions in EH-WSNs with Pro-Energy-VLT. , 2013, , .		6
94	Cooperation and networking in an underwater network composed by heterogeneous assets. , 2016, , .		6
95	The Impact of External Interference on RFID Anti-Collision Protocols. IEEE Networking Letters, 2019, 1, 76-79.	1.5	6
96	WSN19-6: Integrated Data Delivery and Interest Dissemination Techniques for Wireless Sensor Networks. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	5
97	Cognitive WSN transmission control for energy efficiency under WLAN coexistence. , 2011, , .		5
98	Energy-harvesting WSNs for structural health monitoring of underground train tunnels. , 2013, , .		5
99	SUNSET. , 2013, , .		5
100	EVERUN. , 2017, , .		5
101	A Comparative Performance Evaluation of Wake-Up Radio-Based Data Forwarding for Green Wireless Networks. , 2018, , .		5
102	An autonomous underwater vehicle and SUNSET to bridge underwater networks composed of multi-vendor modems. Annual Reviews in Control, 2018, 46, 295-303.	4.4	5
103	FLUMO: FLexible Underwater MOdem. , 2019, , .		5
104	Localizing Autonomous Underwater Vehicles: Experimental Evaluation of a Long Baseline Method. , 2021, , .		5
105	Bluetooth Scatternet Formation and Scheduling: An Integrated Solution. , 2006, , .		4
106	Fail-Safe Hierarchical Organization for Wireless Sensor Networks. , 2007, , .		4
107	A study on channel dynamics representation and its effects on the performance of routing in underwater networks. , 2012, , .		4
108	Hands on IRIS: Lessons learned from implementing a cross layer protocol stack for WSNs. , 2012, , .		4

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109	Enabling the Mobile IoT: Wake-up Unmanned Aerial Systems for Long-Lived Data Collection. , 2019, , .		4
110	Forward-looking sonar image compression by integrating keypoint clustering and morphological skeleton. Multimedia Tools and Applications, 2021, 80, 1625-1639.	2.6	4
111	Multiplexing data and control channels in random access underwater networks. , 2009, , .		3
112	Wireless sensor networks for spectrum sensing to support opportunistic spectrum access networks: Protocol design and fundamental trade-offs. , 2011, , .		3
113	Energy-harvesting WSNs for structural health monitoring of underground train tunnels. , 2013, , .		3
114	Enabling cooperation and networking in heterogeneous underwater networks composed of multi-vendor vehicles and modems. , 2017, , .		3
115	Feasibility Study for Authenticated Key Exchange Protocols on Underwater Acoustic Sensor Networks. , 2019, , .		3
116	JAMES: JAva test-bed ManagEment System. , 2009, , .		2
117	Toward optimal cross-layer solutions for cognitive radio wireless networks. , 2010, , .		2
118	OptoCOMM and SUNSET to enable large data offloading in Underwater Wireless Sensor Networks. , 2016, , .		2
119	HELIOS: Outsourcing of Security Operations in Green Wireless Sensor Networks. , 2017, , .		2
120	Bluetooth Scatternet Formation Performance: Simulations vs. Testbeds. , 2006, , .		1
121	Demonstrating the Resilience of Geographical Routing to Localization Errors. , 2007, , .		1
122	Flow-fair Intra-Piconet (Fâ„“IP) Scheduling for Communications in Personal Area Networks. , 2008, , .		1
123	Optimal Frame Tuning for Aloha Protocols in RFID Networks. , 2009, , .		1
124	Structural health monitoring in an underground construction site. , 2013, , .		1
125	Time synchronization and localization for underwater acoustic sensor networks with the SUNSET framework. , 2013, , .		1
126	Introducing the MagoNode platform. , 2013, , .		1

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127	PrIME: Priority-based tag identification in mobile RFID systems. Computer Communications, 2017, 108, 64-77.	3.1	1
128	Meditrina:. , 2007, , .		0
129	BlueFlows: Routing and flow admission in bluetooth PANs. , 2009, , .		0
130	Goodput maximization in opportunistic spectrum access radio links with imperfect spectrum sensing and fec-based packet protection. , 2012, , .		0
131	Adaptive cross-layer routing for underwater acoustic sensor networks with the SUNSET framework. , 2013, , .		0
132	Spectral Density Estimation of Ship-generated Underwater Acoustic Noise. , 2014, , .		0
133	MANgO: Federated world Model using an underwater Acoustic NetwOrk. , 2017, , .		0
134	RUARP: Reliable Underwater Acoustic Routing Protocol for big data transmissions with low bitrate capabilities. , 2021, , .		0