Enzo Baccarelli

List of Publications by Year
in descending order

		236833	233338
116 papers	2,504 citations	25 h-index	45 g-index
116 all docs	116 docs citations	116 times ranked	2430 citing authors

#	Article	IF	Citations
1	A novel unsupervised approach based on the hidden features of Deep Denoising Autoencoders for COVID-19 disease detection. Expert Systems With Applications, 2022, 192, 116366.	4.4	23
2	Exploiting probability density function of deep convolutional autoencoders' latent space for reliable COVID-19 detection on CT scans. Journal of Supercomputing, 2022, 78, 12024-12045.	2.4	6
3	Learning-in-the-Fog (LiFo): Deep Learning Meets Fog Computing for the Minimum-Energy Distributed Early-Exit of Inference in Delay-Critical IoT Realms. IEEE Access, 2021, 9, 25716-25757.	2.6	27
4	DeepFogSim: A Toolbox for Execution and Performance Evaluation of the Inference Phase of Conditional Deep Neural Networks with Early Exits Atop Distributed Fog Platforms. Applied Sciences (Switzerland), 2021, 11, 377.	1.3	3
5	A Histogram-Based Low-Complexity Approach for the Effective Detection of COVID-19 Disease from CT and X-ray Images. Applied Sciences (Switzerland), 2021, 11, 8867.	1.3	6
6	An Accuracy vs. Complexity Comparison of Deep Learning Architectures for the Detection of COVID-19 Disease. Computation, 2021, 9, 3.	1.0	21
7	Differentiable Branching In Deep Networks for Fast Inference. , 2020, , .		6
8	Why Should We Add Early Exits to Neural Networks?. Cognitive Computation, 2020, 12, 954-966.	3.6	54
9	Optimized training and scalable implementation of Conditional Deep Neural Networks with early exits for Fog-supported IoT applications. Information Sciences, 2020, 521, 107-143.	4.0	21
10	SmartFog: Training the Fog for the Energy-Saving Analytics of Smart-Meter Data. Applied Sciences (Switzerland), 2019, 9, 4193.	1.3	3
11	EcoMobiFog–Design and Dynamic Optimization of a 5G Mobile-Fog-Cloud Multi-Tier Ecosystem for the Real-Time Distributed Execution of Stream Applications. IEEE Access, 2019, 7, 55565-55608.	2.6	32
12	VirtFogSim: A Parallel Toolbox for Dynamic Energy-Delay Performance Testing and Optimization of 5G Mobile-Fog-Cloud Virtualized Platforms. Applied Sciences (Switzerland), 2019, 9, 1160.	1.3	13
13	Energy-Efficient Adaptive Resource Management for Real-Time Vehicular Cloud Services. IEEE Transactions on Cloud Computing, 2019, 7, 196-209.	3.1	220
14	Design and energy-efficient resource management of virtualized networked Fog architectures for the real-time support of IoT applications. Journal of Supercomputing, 2018, 74, 2470-2507.	2.4	58
15	Energy performance of heuristics and meta-heuristics for real-time joint resource scaling and consolidation in virtualized networked data centers. Journal of Supercomputing, 2018, 74, 2161-2198.	2.4	13
16	Fairness-constrained optimized time-window controllers for secondary-users with primary-user reliability guarantees. Computer Communications, 2018, 116, 63-76.	3.1	1
17	Fog of Social IoT: When the Fog Becomes Social. IEEE Network, 2018, 32, 68-80.	4.9	19
18	Fog-Supported Delay-Constrained Energy-Saving Live Migration of VMs Over MultiPath TCP/IP 5G Connections. IEEE Access, 2018, 6, 42327-42354.	2.6	19

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19	P-SEP: a prolong stable election routing algorithm for energy-limited heterogeneous fog-supported wireless sensor networks. Journal of Supercomputing, 2017, 73, 733-755.	2.4	236
20	Fog of Everything: Energy-Efficient Networked Computing Architectures, Research Challenges, and a Case Study. IEEE Access, 2017, 5, 9882-9910.	2.6	263
21	FLAPS: bandwidth and delay-efficient distributed data searching in Fog-supported P2P content delivery networks. Journal of Supercomputing, 2017, 73, 5239-5260.	2.4	41
22	Q *: Energy and delay-efficient dynamic queue management in TCP/IP virtualized data centers. Computer Communications, 2017, 102, 89-106.	3.1	33
23	A new Stable Election-based routing algorithm to preserve aliveness and energy in fog-supported wireless sensor networks. , 2016, , .		19
24	Bandwidth Management VMs Live Migration in Wireless Fog Computing for 5G Networks. , 2016, , .		32
25	Minimizing computing-plus-communication energy consumptions in virtualized networked data centers. , 2016, , .		11
26	Energy-efficient dynamic traffic offloading and reconfiguration of networked data centers for big data stream mobile computing: review, challenges, and a case study. IEEE Network, 2016, 30, 54-61.	4.9	161
27	Resource Scheduling for Energy-Aware Reconfigurable Internet Data Centers. Advances in Systems Analysis, Software Engineering, and High Performance Computing Book Series, 2016, , 21-46.	0.5	4
28	Energy-Saving QoS Resource Management of Virtualized Networked Data Centers for Big Data Stream Computing. , 2016, , 848-886.		1
29	Adaptive Energy-Efficient QoS-Aware Scheduling Algorithm for TCP/IP Mobile Cloud. , 2015, , .		14
30	Memory and memoryless optimal time-window controllers for secondary users in vehicular networks. , 2015, , .		7
31	Energy-efficient adaptive networked datacenters for the QoS support of real-time applications. Journal of Supercomputing, 2015, 71, 448-478.	2.4	31
32	Minimum-energy bandwidth management for QoS live migration of virtual machines. Computer Networks, 2015, 93, 1-22.	3.2	19
33	Energy-saving adaptive computing and traffic engineering for real-time-service data centers. , 2015, , .		39
34	Hard and soft optimal resource allocation for primary and secondary users in infrastructure Vehicular Networks. , 2015, , .		5
35	Distributed and adaptive resource management in Cloud-assisted Cognitive Radio Vehicular Networks with hard reliability guarantees. Vehicular Communications, 2015, 2, 1-12.	2.7	87
36	Reliable Adaptive Resource Management for Cognitive Cloud Vehicular Networks. IEEE Transactions on Vehicular Technology, 2015, 64, 2528-2537.	3.9	53

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37	Energy-Saving QoS Resource Management of Virtualized Networked Data Centers for Big Data Stream Computing. Advances in Systems Analysis, Software Engineering, and High Performance Computing Book Series, 2015, , 122-155.	0.5	4
38	Resource-Management for Vehicular Real-Time Application under Hard Reliability Constraints. , 2014, , .		8
39	Primary-secondary resource-management on vehicular networks under soft and hard collision constraints. , 2014, , .		2
40	Performance evaluation of primary-secondary reliable resource-management in vehicular networks. , 2014, , .		11
41	Interference Management for Multiple Multicasts with Joint Distributed Source/Channel/Network Coding. IEEE Transactions on Communications, 2013, 61, 5176-5183.	4.9	11
42	Optimal Self-Adaptive QoS Resource Management in Interference-Affected Multicast Wireless Networks. IEEE/ACM Transactions on Networking, 2013, 21, 1750-1759.	2.6	27
43	Energy-saving self-configuring networked data centers. Computer Networks, 2013, 57, 3479-3491.	3.2	62
44	Jointly Optimal Source-Flow, Transmit-Power, and Sending-Rate Control for Maximum-Throughput Delivery of VBR Traffic over Faded Links. IEEE Transactions on Mobile Computing, 2012, 11, 390-401.	3.9	5
45	Traffic Engineering for wireless connectionless access networks supporting QoS-demanding media applications. Computer Networks, 2012, 56, 186-197.	3.2	4
46	QoS Stochastic Traffic Engineering for the wireless support of real-time streaming applications. Computer Networks, 2012, 56, 287-302.	3.2	15
47	Stochastic traffic engineering for real-time applications over wireless networks. Journal of Network and Computer Applications, 2012, 35, 681-694.	5.8	37
48	QoS Traffic Engineering for Self-Adaptive Resource Allocation in MAI-Affected Wireless Networks. , 2011, , .		0
49	Conditionally Optimal Minimum-Delay Scheduling for Bursty Traffic Over Fading Channels. IEEE Transactions on Vehicular Technology, 2010, 59, 3294-3310.	3.9	0
50	Cognitive Constrained Pulse Shaping for UWB Systems. , 2010, , .		1
51	SDMA with secrecy constraints. , 2010, , .		1
52	Joint control of bandwidth and playout-delay for streaming traffic over faded links. , 2010, , .		0
53	Optimal Cross-Layer Flow-Control for Wireless Maximum-Throughput Delivery of VBR Media Contents. , 2010, , 79-88.		1
54	Optimal Energy Scheduling for Rate-Guaranteed Download Over Faded Multichannel Networks. IEEE Transactions on Vehicular Technology, 2009, 58, 1695-1710.	3.9	1

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55	Physical-layer goodput maximization for Power Line Communications. , 2009, , .		3
56	Maximum-Rate Node Selection for Power-Limited Multiantenna Relay Backbones. IEEE Transactions on Mobile Computing, 2009, 8, 807-820.	3.9	11
57	Generalized Access for MIMO Cognitive Radios. , 2008, , .		1
58	Turbo-like synchronization for UWB-IR links. , 2008, , .		2
59	UWB Pulse Shaping under Spectral and Synchronization Issues. , 2008, , .		1
60	Minimum-delay optimal scheduling for delay-sensitive bursty-traffic connections. , 2008, , .		0
61	Collision erasure and generalized access in MIMO cognitive ad-hoc networks. , 2008, , .		2
62	Optimal MIMO UWB-IR Transceiver for Nakagami-fading and Poisson-Arrivals. Journal of Communications, 2008, 3, .	1.3	20
63	Multi-Antenna IR-UWB Noncoherent ML Synchronization for Multipath Wideband Channels. , 2007, , .		1
64	Multi-antenna cognitive radio for broadband access in 4G-WLANs. , 2007, , .		4
65	On the Information Rate of Multiantenna Systems With Isotropic Unitary Input Signals in the Presence of Channel Estimation Errors. IEEE Transactions on Signal Processing, 2007, 55, 1962-1966.	3.2	1
66	Optimized Power Allocation for Multiantenna Systems Impaired by Multiple Access Interference and Imperfect Channel Estimation. IEEE Transactions on Vehicular Technology, 2007, 56, 3089-3105.	3.9	30
67	Bit-Transport Capability of Broadband Multicarrier Power Line Channels Constrained by Radiated Emission. , 2007, , .		2
68	Multipath-Resistant Incoherent Space-Time Codes for IR-UWB MIMO Systems. , 2007, , .		3
69	Space division competitive access for infrastructured wireless mesh networks. , 2007, , .		1
70	Minimization of Download Times for Large Files over Wireless Channels. IEEE Transactions on Mobile Computing, 2007, 6, 1105-1115.	3.9	3
71	PPM-based Orthogonal Space-Time Coding for IR-UWB MIMO channels affected by Poisson-distributed Multipaths. , 2007, , .		2
72	Routing for multi-antenna Wireless Mesh Network backhaul. , 2007, , .		3

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73	A new family of optimized orthogonal Space-Times codes for PPM-based MIMO systems with imperfect channel estimates. Wireless Personal Communications, 2007, 43, 1071-1091.	1.8	2
74	Multi-antenna noncoherent ML synchronization for UWB-IR faded channels. Journal of Communications and Networks, 2006, 8, 194-204.	1.8	4
75	A Distributed Power-Allocation and Signal-Shaping Game for the Competitively Optimal Throughput-Maximization of Multiple-Antenna â€œad hocâ€•Networks. IEEE Transactions on Vehicular Technology, 2006, 55, 1862-1876.	3.9	10
76	A Simple Adaptive Coding Scheme for Multiuser Interference Suppression in Ultra-Wideband Radio Transmissions. IEEE Transactions on Communications, 2005, 53, 1283-1287.	4.9	5
77	Broadband Wireless Access Networks: A Roadmap on Emerging Trends and Standards. , 2005, , 215-240.		26
78	On the information throughput and optimized power allocation for MIMO wireless systems with imperfect channel estimation. IEEE Transactions on Signal Processing, 2005, 53, 2335-2347.	3.2	28
79	Performance and Optimized Design of Space-Time Codes for MIMO Wireless Systems With Imperfect Channel Estimates. IEEE Transactions on Signal Processing, 2004, 52, 2911-2923.	3.2	29
80	Power-Allocation Policy and Optimized Design of Multiple-Antenna Systems With Imperfect Channel Estimation. IEEE Transactions on Vehicular Technology, 2004, 53, 136-145.	3.9	30
81	A Novel Self-Pilot-Based Transmit-Receive Architecture for Multipath-Impaired UWB Systems. IEEE Transactions on Communications, 2004, 52, 891-895.	4.9	12
82	Optimal integer bit-loading for multicarrier ADSL systems subject to spectral-compatibility limits. Signal Processing, 2004, 84, 729-741.	2.1	33
83	A Novel Multi-Antenna Impulse Radio UWB Transceiver for Broadband High-Throughput 4G WLANs. IEEE Communications Letters, 2004, 8, 419-421.	2.5	29
84	A simple multiple-antenna ultra wide band transceiver scheme for 4th generation WLAN. , 2003, , .		5
85	Optimized multi-antenna power allocation for spatial signal shaping in ad-hoc networks with multiple access interference. , 2003, , .		1
86	Optimized Power Allocation and Signal Shaping for Interference-Limited Multi-antenna â€œAd Hocâ€• Networks. Lecture Notes in Computer Science, 2003, , 138-152.	1.0	29
87	A novel tunable-complexity turbo-soft detector for high-throughput HDSL applications over ISI channels with crosstalk. IEEE Journal on Selected Areas in Communications, 2002, 20, 372-383.	9.7	2
88	Novel efficient bit-loading algorithms for peak-energy-limited ADSL-type multicarrier systems. IEEE Transactions on Signal Processing, 2002, 50, 1237-1247.	3.2	56
89	Evaluation of the reliable data rates supported by multiple-antenna coded wireless links for QAM transmissions. IEEE Journal on Selected Areas in Communications, 2001, 19, 295-304.	9.7	30
90	A new approach based on "soft statistics" to the nonlinear blind-deconvolution of unknown data channels. IEEE Transactions on Signal Processing, 2001, 49, 1481-1491.	3.2	11

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91	Minimum-error-probability single-user detection for ISI-impaired narrow-band multiuser systems. IEEE Transactions on Communications, 2001, 49, 1055-1062.	4.9	1
92	A simple polarization-recovery algorithm for dual-polarized cellular mobile-radio systems in time-variant faded environments. IEEE Transactions on Vehicular Technology, 2000, 49, 220-228.	3.9	9
93	Performance of a nonlinear adaptive SBS-MAP detector using soft-statistics for digital transmissions over HF channels. IEEE Transactions on Vehicular Technology, 2000, 49, 1191-1195.	3.9	3
94	A reduced-state soft-statistics-based MAP/DF equalizer for data transmission over long ISI channels. IEEE Transactions on Communications, 2000, 48, 1441-1446.	4.9	10
95	On the performance limits of TCM in fast-fading multipath channels with combined equalization/decoding. IEEE Transactions on Communications, 2000, 48, 1957-1964.	4.9	0
96	Some simple bounds on the symmetric capacity and outage probability for QAM wireless channels with Rice and Nakagami fadings. IEEE Journal on Selected Areas in Communications, 2000, 18, 361-368.	9.7	39
97	Parameter identification of quasi-stationary Rayleigh-faded time-varying digital channels. Signal Processing, 1999, 79, 1-13.	2.1	2
98	Asymptotically tight bounds on the capacity and outage probability for QAM transmissions over Rayleigh-faded data channels with CSI. IEEE Transactions on Communications, 1999, 47, 1273-1277.	4.9	16
99	New results about analysis and design of TCM for ISI channels and combined equalization/decoding. IEEE Transactions on Communications, 1998, 46, 417-420.	4.9	32
100	Combined channel estimation and data detection using soft statistics for frequency-selective fast-fading digital links. IEEE Transactions on Communications, 1998, 46, 424-427.	4.9	32
101	Performance bounds and cutoff rates for data channels affected by correlated randomly time-variant multipath fading. IEEE Transactions on Communications, 1998, 46, 1258-1261.	4.9	3
102	Equalization of twisted-pair channels via optimum filtering and noise prediction. Signal Processing, 1998, 66, 79-93.	2.1	2
103	Bounds on the symmetric cutoff rate for QAM transmissions over time-correlated flat-faded channels. IEEE Communications Letters, 1998, 2, 279-281.	2.5	2
104	A novel adaptive receiver with enhanced channel tracking capability for TDMA-based mobile radio communications. IEEE Journal on Selected Areas in Communications, 1998, 16, 1630-1639.	9.7	28
105	Recursive filtering and smoothing for reciprocal Gaussian processes with Dirichlet boundary conditions. IEEE Transactions on Signal Processing, 1998, 46, 790-795.	3.2	21
106	Novel analytical performance bounds for symbol-by-symbol decoding of digital-data impaired by ISI and AWGN. IEEE Transactions on Information Theory, 1997, 43, 744-750.	1.5	12
107	Performance bound and trellis-code design criterion for discrete memoryless channels and finite-delay symbol-by-symbol decoding. IEEE Transactions on Communications, 1997, 45, 1192-1199.	4.9	2
108	An application of the HMM theory to optimal nonlinear equalisation of quantised-output digital ISI channels. Signal Processing, 1997, 58, 95-105.	2.1	4

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109	A novel procedure for jones' parameters estimation for M–4QAM optical systems. European Transactions on Telecommunications, 1997, 8, 191-199.	1.2	0
110	Identification of 2-D noncausal Gauss-Markov random fields. IEEE Transactions on Signal Processing, 1996, 44, 759-764.	3.2	4
111	Recursive Kalman-type optimal estimation and detection of hidden Markov chains. Signal Processing, 1996, 51, 55-64.	2.1	32
112	Recursive filtering and smoothing for reciprocal Gaussian processes-pinned boundary case. IEEE Transactions on Information Theory, 1995, 41, 334-337.	1.5	12
113	Model parameter estimation for reciprocal Gaussian random processes. IEEE Transactions on Signal Processing, 1995, 43, 792-795.	3.2	3
114	Linear feedback communication systems with Markov sources: optimal system design and performance evaluation. IEEE Transactions on Information Theory, 1995, 41, 1868-1876.	1.5	4
115	Recursive carrier phase tracking for synchronous multilevel 4QAM receivers. Journal of Lightwave Technology, 1995, 13, 1655-1662.	2.7	3
116	A simple multiantenna transceiver for ultra wide band based 4GWLANs. , 0, , .		5