Michele Scarpiniti

List of Publications by Year
in descending order

97 papers	1,974 citations	331538 21 h-index	276775 41 g-index
102 all docs	102 docs citations	102 times ranked	1655 citing authors

#	Article	IF	Citations
1	Fog of Everything: Energy-Efficient Networked Computing Architectures, Research Challenges, and a Case Study. IEEE Access, 2017, 5, 9882-9910.	2.6	263
2	Nonlinear spline adaptive filtering. Signal Processing, 2013, 93, 772-783.	2.1	142
3	Functional Link Adaptive Filters for Nonlinear Acoustic Echo Cancellation. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 1502-1512.	3.8	134
4	Online Sequential Extreme Learning Machine With Kernels. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 2214-2220.	7.2	124
5	Hammerstein uniform cubic spline adaptive filters: Learning and convergence properties. Signal Processing, 2014, 100, 112-123.	2.1	76
6	Novel Cascade Spline Architectures for the Identification of Nonlinear Systems. IEEE Transactions on Circuits and Systems I: Regular Papers, 2015, 62, 1825-1835.	3.5	63
7	Monitoring of marine mucilage formation in Italian seas investigated by infrared spectroscopy and independent component analysis. Environmental Monitoring and Assessment, 2012, 184, 6025-6036.	1.3	61
8	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
9	Nonlinear Acoustic Echo Cancellation Based on Sparse Functional Link Representations. IEEE/ACM Transactions on Audio Speech and Language Processing, 2014, 22, 1172-1183.	4.0	54
10	Why Should We Add Early Exits to Neural Networks?. Cognitive Computation, 2020, 12, 954-966.	3.6	54
11	Nonlinear system identification using IIR Spline Adaptive Filters. Signal Processing, 2015, 108, 30-35.	2.1	48
12	Steady-State Performance of Spline Adaptive Filters. IEEE Transactions on Signal Processing, 2016, 64, 816-828.	3.2	47
13	A semi-supervised random vector functional-link network based on the transductive framework. Information Sciences, 2016, 364-365, 156-166.	4.0	37
14	Q *: Energy and delay-efficient dynamic queue management in TCP/IP virtualized data centers. Computer Communications, 2017, 102, 89-106.	3.1	33
15	EcoMobiFogâ€"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
16	Advanced Sound Classifiers and Performance Analyses for Accurate Audio-Based Construction Project Monitoring. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	32
17	Deep Belief Network based audio classification for construction sites monitoring. Expert Systems With Applications, 2021, 177, 114839.	4.4	31
18	Frequency domain quaternion adaptive filters: Algorithms and convergence performance. Signal Processing, 2017, 136, 69-80.	2.1	30

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19	Text Independent Automatic Speaker Recognition System Using Mel-Frequency Cepstrum Coefficient and Gaussian Mixture Models. Journal of Information Security, 2012, 03, 335-340.	0.4	28
20	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
21	Improving nonlinear modeling capabilities of functional link adaptive filters. Neural Networks, 2015, 69, 51-59.	3.3	25
22	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
23	Functional link based architectures for nonlinear acoustic echo cancellation. , 2011, , .		22
24	Cepstrum Prefiltering for Binaural Source Localization in Reverberant Environments. IEEE Signal Processing Letters, 2012, 19, 99-102.	2.1	21
25	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
26	An Accuracy vs. Complexity Comparison of Deep Learning Architectures for the Detection of COVID-19 Disease. Computation, 2021, 9, 3.	1.0	21
27	Combined nonlinear filtering architectures involving sparse functional link adaptive filters. Signal Processing, 2017, 135, 168-178.	2.1	20
28	Combined adaptive beamforming schemes for nonstationary interfering noise reduction. Signal Processing, 2013, 93, 3306-3318.	2.1	19
29	Fog of Social IoT: When the Fog Becomes Social. IEEE Network, 2018, 32, 68-80.	4.9	19
30	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
31	Deep Recurrent Neural Networks for Audio Classification in Construction Sites. , 2021, , .		19
32	Diffusion spline adaptive filtering. , 2016, , .		18
33	A CNN Approach for Audio Classification in Construction Sites. Smart Innovation, Systems and Technologies, 2021, , 371-381.	0.5	17
34	Comparison of Hammerstein and Wiener systems for nonlinear acoustic echo cancelers in reverberant environments. , 2011, , .		16
35	Convergence properties of nonlinear functional link adaptive filters. Electronics Letters, 2013, 49, 873-875.	0.5	15
36	Music classification using extreme learning machines. , 2013, , .		14

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37	A Supervised Machine Learning-Based Sound Identification for Construction Activity Monitoring and Performance Evaluation. , 2018, , .		14
38	Microphone array based classification for security monitoring in unstructured environments. AEU - International Journal of Electronics and Communications, 2015, 69, 1715-1723.	1.7	13
39	Full proportionate functional link adaptive filters for nonlinear acoustic echo cancellation. , 2017, , .		13
40	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
41	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
42	Generalized splitting functions for blind separation of complex signals. Neurocomputing, 2008, 71, 2245-2270.	3.5	11
43	Intelligent Acoustic Interfaces With Multisensor Acquisition for Immersive Reproduction. IEEE Transactions on Multimedia, 2015, 17, 1262-1272.	5.2	10
44	Frequency-domain Adaptive Filtering: from Real to Hypercomplex Signal Processing. , 2019, , .		10
45	Convex Combination of Spline Adaptive Filters. , 2019, , .		10
46	FLEXIBLE NONLINEAR BLIND SIGNAL SEPARATION IN THE COMPLEX DOMAIN. International Journal of Neural Systems, 2008, 18, 105-122.	3.2	9
47	Functional link expansions for nonlinear modeling of audio and speech signals. , 2015, , .		9
48	Spline Adaptive Filters. , 2018, , 47-69.		8
49	Frequency-Domain Adaptive Filtering in Hypercomplex Systems. Smart Innovation, Systems and Technologies, 2016, , 47-56.	0.5	8
50	A nonlinear architecture involving a combination of proportionate functional link adaptive filters. , 2015, , .		7
51	Learning Activation Functions from Data Using Cubic Spline Interpolation. Smart Innovation, Systems and Technologies, 2019, , 73-83.	0.5	7
52	FIN WHALES AVOID LOUD RHYTHMIC LOW- FREQUENCY SOUNDS IN THE LIGURIAN SEA. Bioacoustics, 2008, 17, 161-163.	0.7	6
53	A novel affine projection algorithm for superdirective microphone array beamforming. , 2010, , .		6
54	Differentiable Branching In Deep Networks for Fast Inference. , 2020, , .		6

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55	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
56	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
57	Fourier transform infrared spectroscopic investigation of humic substance samples of different origin and typology supported by chemometric tools. International Journal of Environment and Health, 2011, 5, 246.	0.3	5
58	An Empirical and Semi Blind Algorithm for Resolving Overlapped Peaks in Chromatography: Application to the Analysis of Environmental Samples. APCBEE Procedia, 2013, 5, 145-151.	0.5	5
59	An effective criterion for pruning reservoir's connections in Echo State Networks. , 2014, , .		5
60	Advances in hypercomplex adaptive filtering for 3D audio processing. , 2017, , .		5
61	Effective Blind Source Separation Based on the Adam Algorithm. Smart Innovation, Systems and Technologies, 2018, , 57-66.	0.5	5
62	Significance-Based Pruning for Reservoir's Neurons in Echo State Networks. Smart Innovation, Systems and Technologies, 2015, , 31-38.	0.5	5
63	Music Genre Classification Using Stacked Auto-Encoders. Smart Innovation, Systems and Technologies, 2020, , 11-19.	0.5	5
64	Proposal for a deconvolution procedure for the gas chromatographic estimation of pristane and phytane in marine sediments. International Journal of Environment and Health, 2009, 3, 126.	0.3	4
65	Online Selection of Functional Links for Nonlinear System Identification. Smart Innovation, Systems and Technologies, 2015, , 39-47.	0.5	4
66	A block-based combined scheme exploiting sparsity in nonlinear acoustic echo cancellation. , 2016, , .		4
67	Sparse functional link adaptive filter using an ℓ_1-norm regularization. , 2018, , .		4
68	A Multimodal Dense U-Net For Accelerating Multiple Sclerosis MRI. , 2019, , .		4
69	Flexible Blind Signal Separation in the Complex Domain. , 2009, , 284-323.		4
70	The variable step size regularized block exact affine projection algorithm. , 2012, , .		3
71	Combined adaptive beamforming techniques for noise reduction in changing environments. , 2013, , .		3
72	Design of hybrid nonlinear spline adaptive filters for active noise control. , 2016, , .		3

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73	SmartFog: Training the Fog for the Energy-Saving Analytics of Smart-Meter Data. Applied Sciences (Switzerland), 2019, 9, 4193.	1.3	3
74	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
75	Flexible ICA in Complex and Nonlinear Environment by Mutual Information Minimization. IEEE International Workshop on Machine Learning for Signal Processing, 2006, , .	0.0	2
76	Advanced intelligent acoustic interfaces for multichannel audio reproduction. , 2014, , .		2
77	GP-based kernel evolution for L$_2$-Regularization Networks. , 2014, , .		2
78	Combined Sparse Regularization for Nonlinear Adaptive Filters. , 2018, , .		2
79	Steady-State Performance of an Adaptive Combined MISO Filter Using the Multichannel Affine Projection Algorithm. Algorithms, 2019, 12, 2.	1.2	2
80	PM10 Forecasting Using Kernel Adaptive Filtering: An Italian Case Study. Smart Innovation, Systems and Technologies, 2013, , 93-100.	0.5	2
81	Generalized Flexible Splitting Function Outperforms Classical Approaches in Blind Signal Separation of Complex Environment. , 2007, , .		1
82	Flexible estimation of probability and cumulative density functions. Electronics Letters, 2009, 45, 1095.	0.5	1
83	Flexible estimation of joint probability and joint cumulative density functions. Electronics Letters, 2010, 46, 1084.	0.5	1
84	Convex combination of MIMO filters for multichannel acoustic echo cancellation. , 2013, , .		1
85	Localization of audio sources by multiple binaural sensors. , 2013, , .		1
86	Interactive quality enhancement in acoustic echo cancellation. , 2013, , .		1
87	Security monitoring based on joint automatic speaker recognition and blind source separation. , 2014, , .		1
88	An interactive optimization procedure for stereophonic acoustic echo cancellation systems. , 2015, , .		1
89	A Wide Multimodal Dense U-Net for Fast Magnetic Resonance Imaging. , 2021, , .		1
90	Benchmarking Functional Link Expansions for Audio Classification Tasks. Smart Innovation, Systems and Technologies, 2016, , 133-141.	0.5	1

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91	A Low-Complexity Linear-in-the-Parameters Nonlinear Filter for Distorted Speech Signals. Smart Innovation, Systems and Technologies, 2019, , 107-117.	0.5	1
92	A partitioned frequency domain algorithm for convolutive blind source separation. , 2009, , .		0
93	Stereo acoustical echo cancellation based on common poles. , 2009, , .		0
94	On the Influence of Microphone Array Geometry on the Behavior of Hypercomplex Adaptive Filters. , 2017, , .		0
95	A flexible Blind source recovery in complex nonlinear environment. , 2006, , .		0
96	Proportionate Algorithms for Blind Source Separation. Smart Innovation, Systems and Technologies, 2014, , 99-106.	0.5	0
97	Quaternion Widely Linear Forecasting of Air Quality. Smart Innovation, Systems and Technologies, 2021, , 393-403.	0.5	0