

# Aurelio Uncini

## List of Publications by Year in descending order

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129  
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172386

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135  
docs citations

135  
times ranked

2127  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Meta-Learning Approach for Training Explainable Graph Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2024, PP, 1-9.	7.2	3
2	FairDrop: Biased Edge Dropout for Enhancing Fairness in Graph Representation Learning. IEEE Transactions on Artificial Intelligence, 2022, 3, 344-354.	3.4	22
3	Efficient Sound Event Localization and Detection in the Quaternion Domain. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 2453-2457.	2.2	6
4	A Probabilistic Re-Intepretation of Confidence Scores in Multi-Exit Models. Entropy, 2022, 24, 1.	1.1	8
5	Deep Recurrent Neural Networks for Audio Classification in Construction Sites. , 2021, , .		19
6	A Wide Multimodal Dense U-Net for Fast Magnetic Resonance Imaging. , 2021, , .		1
7	An Information-Theoretic Perspective on Proper Quaternion Variational Autoencoders. Entropy, 2021, 23, 856.	1.1	9
8	Deep Belief Network based audio classification for construction sites monitoring. Expert Systems With Applications, 2021, 177, 114839.	4.4	31
9	Structured Ensembles: An approach to reduce the memory footprint of ensemble methods. Neural Networks, 2021, 144, 407-418.	3.3	3
10	A CNN Approach for Audio Classification in Construction Sites. Smart Innovation, Systems and Technologies, 2021, , 371-381.	0.5	17
11	Quaternion Widely Linear Forecasting of Air Quality. Smart Innovation, Systems and Technologies, 2021, , 393-403.	0.5	0
12	Complex-Valued Neural Networks With Nonparametric Activation Functions. IEEE Transactions on Emerging Topics in Computational Intelligence, 2020, 4, 140-150.	3.4	43
13	Differentiable Branching In Deep Networks for Fast Inference. , 2020, , .		6
14	Efficient continual learning in neural networks with embedding regularization. Neurocomputing, 2020, 397, 139-148.	3.5	22
15	Missing data imputation with adversarially-trained graph convolutional networks. Neural Networks, 2020, 129, 249-260.	3.3	73
16	Why Should We Add Early Exits to Neural Networks?. Cognitive Computation, 2020, 12, 954-966.	3.6	54
17	Advanced Sound Classifiers and Performance Analyses for Accurate Audio-Based Construction Project Monitoring. Journal of Computing in Civil Engineering, 2020, 34, .	2.5	32
18	Compressing deep quaternion neural networks with targeted regularisation. CAAI Transactions on Intelligence Technology, 2020, 5, 172-176.	3.4	16

#	ARTICLE	IF	CITATIONS
19	SmartFog: Training the Fog for the Energy-Saving Analytics of Smart-Meter Data. Applied Sciences (Switzerland), 2019, 9, 4193.	1.3	3
20	Widely Linear Kernels for Complex-valued Kernel Activation Functions. , 2019, , .		1
21	Frequency-domain Adaptive Filtering: from Real to Hypercomplex Signal Processing. , 2019, , .		10
22	Quaternion Convolutional Neural Networks for Detection and Localization of 3D Sound Events. , 2019, , .		24
23	Steady-State Performance of an Adaptive Combined MISO Filter Using the Multichannel Affine Projection Algorithm. Algorithms, 2019, 12, 2.	1.2	2
24	Convex Combination of Spline Adaptive Filters. , 2019, , .		10
25	A Multimodal Dense U-Net For Accelerating Multiple Sclerosis MRI. , 2019, , .		4
26	Kafnets: Kernel-based non-parametric activation functions for neural networks. Neural Networks, 2019, 110, 19-32.	3.3	46
27	Learning Activation Functions from Data Using Cubic Spline Interpolation. Smart Innovation, Systems and Technologies, 2019, , 73-83.	0.5	7
28	Joint feature fusion and optimization via deep discriminative model for mobile palmprint verification. Journal of Electronic Imaging, 2019, 28, 1.	0.5	5
29	A Low-Complexity Linear-in-the-Parameters Nonlinear Filter for Distorted Speech Signals. Smart Innovation, Systems and Technologies, 2019, , 107-117.	0.5	1
30	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
31	Bayesian Random Vector Functional-Link Networks for Robust Data Modeling. IEEE Transactions on Cybernetics, 2018, 48, 2049-2059.	6.2	26
32	Effective Blind Source Separation Based on the Adam Algorithm. Smart Innovation, Systems and Technologies, 2018, , 57-66.	0.5	5
33	Sparse functional link adaptive filter using an $\hat{\alpha}_1$ -norm regularization. , 2018, , .		4
34	Deep Region of Interest and Feature Extraction Models for Palmprint Verification Using Convolutional Neural Networks Transfer Learning. Applied Sciences (Switzerland), 2018, 8, 1210.	1.3	48
35	Spline Adaptive Filters. , 2018, , 47-69.		8
36	Combined nonlinear filtering architectures involving sparse functional link adaptive filters. Signal Processing, 2017, 135, 168-178.	2.1	20

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37	Group sparse regularization for deep neural networks. <i>Neurocomputing</i> , 2017, 241, 81-89.	3.5	276
38	On the use of deep recurrent neural networks for detecting audio spoofing attacks. , 2017, , .		10
39	Frequency domain quaternion adaptive filters: Algorithms and convergence performance. <i>Signal Processing</i> , 2017, 136, 69-80.	2.1	30
40	Semi-supervised Echo State Networks for Audio Classification. <i>Cognitive Computation</i> , 2017, 9, 125-135.	3.6	30
41	Advances in hypercomplex adaptive filtering for 3D audio processing. , 2017, , .		5
42	Full proportionate functional link adaptive filters for nonlinear acoustic echo cancellation. , 2017, , .		13
43	On the Influence of Microphone Array Geometry on the Behavior of Hypercomplex Adaptive Filters. , 2017, , .		0
44	A new approach to acoustic beamforming from virtual microphones based on ambisonics for adaptive noise cancelling. , 2016, , .		6
45	Quaternion digital signal processing: A hypercomplex approach to information processing. , 2016, , .		1
46	Diffusion spline adaptive filtering. , 2016, , .		18
47	A block-based combined scheme exploiting sparsity in nonlinear acoustic echo cancellation. , 2016, , .		4
48	On sound source localization with a 3D Ambisonic Monopulse SONAR. , 2016, , .		1
49	Widely linear quaternion adaptive filtering in the frequency domain. , 2016, , .		3
50	A semi-supervised random vector functional-link network based on the transductive framework. <i>Information Sciences</i> , 2016, 364-365, 156-166.	4.0	37
51	Distributed semi-supervised support vector machines. <i>Neural Networks</i> , 2016, 80, 43-52.	3.3	44
52	The widely linear block quaternion least mean square algorithm for fast computation in 3D audio systems. , 2016, , .		8
53	Design of hybrid nonlinear spline adaptive filters for active noise control. , 2016, , .		3
54	Distributed spectral clustering based on Euclidean distance matrix completion. , 2016, , .		1

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55	Distributed Reservoir Computing with Sparse Readouts [Research Frontier]. IEEE Computational Intelligence Magazine, 2016, 11, 59-70.	3.4	15
56	Granular Computing Techniques for Classification and Semantic Characterization of Structured Data. Cognitive Computation, 2016, 8, 442-461.	3.6	17
57	Steady-State Performance of Spline Adaptive Filters. IEEE Transactions on Signal Processing, 2016, 64, 816-828.	3.2	47
58	Benchmarking Functional Link Expansions for Audio Classification Tasks. Smart Innovation, Systems and Technologies, 2016, , 133-141.	0.5	1
59	Learning from Distributed Data Sources Using Random Vector Functional-Link Networks. Procedia Computer Science, 2015, 53, 468-477.	1.2	10
60	A nonlinear architecture involving a combination of proportionate functional link adaptive filters. , 2015, , .		7
61	An interactive optimization procedure for stereophonic acoustic echo cancellation systems. , 2015, , .		1
62	Distributed music classification using Random Vector Functional-Link nets. , 2015, , .		28
63	Fundamentals of Adaptive Signal Processing. Signals and Communication Technology, 2015, , .	0.4	49
64	Distributed learning for Random Vector Functional-Link networks. Information Sciences, 2015, 301, 271-284.	4.0	134
65	Online Sequential Extreme Learning Machine With Kernels. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 2214-2220.	7.2	124
66	Improving nonlinear modeling capabilities of functional link adaptive filters. Neural Networks, 2015, 69, 51-59.	3.3	25
67	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
68	Online Selection of Functional Links for Nonlinear System Identification. Smart Innovation, Systems and Technologies, 2015, , 39-47.	0.5	4
69	Intelligent Acoustic Interfaces With Multisensor Acquisition for Immersive Reproduction. IEEE Transactions on Multimedia, 2015, 17, 1262-1272.	5.2	10
70	Functional link expansions for nonlinear modeling of audio and speech signals. , 2015, , .		9
71	Prediction of telephone calls load using Echo State Network with exogenous variables. Neural Networks, 2015, 71, 204-213.	3.3	73
72	Nonlinear system identification using IIR Spline Adaptive Filters. Signal Processing, 2015, 108, 30-35.	2.1	48

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73	Significance-Based Pruning for Reservoir's Neurons in Echo State Networks. Smart Innovation, Systems and Technologies, 2015, , 31-38.	0.5	5
74	Advanced intelligent acoustic interfaces for multichannel audio reproduction. , 2014, , .		2
75	An effective criterion for pruning reservoir's connections in Echo State Networks. , 2014, , .		5
76	An interpretable graph-based image classifier. , 2014, , .		9
77	GP-based kernel evolution for $L_2$ -Regularization Networks. , 2014, , .		2
78	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
79	Green multimedia wireless sensor networks: distributed intelligent data fusion, in-network processing, and optimized resource management. IEEE Wireless Communications, 2014, 21, 20-26.	6.6	20
80	Hammerstein uniform cubic spline adaptive filters: Learning and convergence properties. Signal Processing, 2014, 100, 112-123.	2.1	76
81	Proportionate Algorithms for Blind Source Separation. Smart Innovation, Systems and Technologies, 2014, , 99-106.	0.5	0
82	Functional Link Adaptive Filters for Nonlinear Acoustic Echo Cancellation. IEEE Transactions on Audio Speech and Language Processing, 2013, 21, 1502-1512.	3.8	134
83	Convex combination of MIMO filters for multichannel acoustic echo cancellation. , 2013, , .		1
84	Combined adaptive beamforming techniques for noise reduction in changing environments. , 2013, , .		3
85	Music classification using extreme learning machines. , 2013, , .		14
86	Combined adaptive beamforming schemes for nonstationary interfering noise reduction. Signal Processing, 2013, 93, 3306-3318.	2.1	19
87	Nonlinear spline adaptive filtering. Signal Processing, 2013, 93, 772-783.	2.1	142
88	Localization of audio sources by multiple binaural sensors. , 2013, , .		1
89	Interactive quality enhancement in acoustic echo cancellation. , 2013, , .		1
90	PM10 Forecasting Using Kernel Adaptive Filtering: An Italian Case Study. Smart Innovation, Systems and Technologies, 2013, , 93-100.	0.5	2

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91	Cepstrum Prefiltering for Binaural Source Localization in Reverberant Environments. IEEE Signal Processing Letters, 2012, 19, 99-102.	2.1	21
92	Binaural sound source localization in the presence of reverberation. , 2011, , .		10
93	Comparison of Hammerstein and Wiener systems for nonlinear acoustic echo cancelers in reverberant environments. , 2011, , .		16
94	Improved TDOA disambiguation techniques for sound source localization in reverberant environments. , 2010, , .		11
95	Guest Editorial Special Section on Blind Signal Processing and Its Applications. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 1401-1403.	3.5	1
96	A novel affine projection algorithm for superdirective microphone array beamforming. , 2010, , .		6
97	A partitioned frequency domain algorithm for convolutive blind source separation. , 2009, , .		0
98	Stereo acoustical echo cancellation based on common poles. , 2009, , .		0
99	A new consistency measure for localization of sound sources in the presence of reverberation. , 2009, , .		0
100	Flexible Blind Signal Separation in the Complex Domain. , 2009, , 284-323.		4
101	Generalized splitting functions for blind separation of complex signals. Neurocomputing, 2008, 71, 2245-2270.	3.5	11
102	Genre classification of compressed audio data. , 2008, , .		23
103	Sound mapping in reverberant rooms by a robust direct method. , 2008, , .		7
104	Prefiltering Techniques on Consistent Peak Selection for Talker Position Estimation in Reverberant Rooms. , 2008, , .		1
105	FLEXIBLE NONLINEAR BLIND SIGNAL SEPARATION IN THE COMPLEX DOMAIN. International Journal of Neural Systems, 2008, 18, 105-122.	3.2	9
106	Data Fusion Framework: concurrent architecture for real-time processing. International Journal of Information and Communication Technology, 2008, 1, 424.	0.1	2
107	Source Localization in Reverberant Environments by Consistent Peak Selection. , 2007, , .		18
108	Generalized Flexible Splitting Function Outperforms Classical Approaches in Blind Signal Separation of Complex Environment. , 2007, , .		1

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109	Flexible ICA in Complex and Nonlinear Environment by Mutual Information Minimization. IEEE International Workshop on Machine Learning for Signal Processing, 2006, , .	0.0	2
110	A Recurrent ICA Approach to a Novel BSS Convulsive Nonlinear Problem. Lecture Notes in Computer Science, 2006, , 57-64.	1.0	0
111	An information theoretic approach to a novel nonlinear independent component analysis paradigm. Signal Processing, 2005, 85, 997-1028.	2.1	13
112	Regularising neural networks using flexible multivariate activation function. Neural Networks, 2004, 17, 247-260.	3.3	29
113	Special issue on evolving solution with neural networks. Neurocomputing, 2003, 55, 417-419.	3.5	1
114	Audio signal processing by neural networks. Neurocomputing, 2003, 55, 593-625.	3.5	37
115	Blind signal processing by complex domain adaptive spline neural networks. IEEE Transactions on Neural Networks, 2003, 14, 399-412.	4.8	21
116	Automatic Polyphonic Piano Music Transcription by a Multi-classification Discriminative-Learning. Lecture Notes in Computer Science, 2003, , 129-138.	1.0	0
117	Generalized Splitting 2D Flexible Activation Function. Lecture Notes in Computer Science, 2003, , 85-95.	1.0	3
118	Subband neural networks prediction for on-line audio signal recovery. IEEE Transactions on Neural Networks, 2002, 13, 867-876.	4.8	22
119	Sound Synthesis by Flexible Activation Function Recurrent Neural Networks. Lecture Notes in Computer Science, 2002, , 168-177.	1.0	2
120	Spline Recurrent Neural Networks for Quad-Tree Video Coding. Lecture Notes in Computer Science, 2002, , 90-98.	1.0	2
121	Complex discriminative learning Bayesian neural equalizer. Signal Processing, 2001, 81, 2493-2502.	2.1	3
122	A Signal-Flow-Graph Approach to On-line Gradient Calculation. Neural Computation, 2000, 12, 1901-1927.	1.3	7
123	On-line learning algorithms for locally recurrent neural networks. IEEE Transactions on Neural Networks, 1999, 10, 253-271.	4.8	142
124	Multilayer feedforward networks with adaptive spline activation function. IEEE Transactions on Neural Networks, 1999, 10, 672-683.	4.8	92
125	Complex-valued neural networks with adaptive spline activation function for digital-radio-links nonlinear equalization. IEEE Transactions on Signal Processing, 1999, 47, 505-514.	3.2	68
126	On-line Quality Control of DC Permanent Magnet Motor Using Neural Networks. Perspectives in Neural Computing, 1999, , 335-342.	0.1	0

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127	Learning and Approximation Capabilities of Adaptive Spline Activation Function Neural Networks. Neural Networks, 1998, 11, 259-270.	3.3	120
128	Fast neural networks without multipliers. IEEE Transactions on Neural Networks, 1993, 4, 53-62.	4.8	93
129	Applications of simulated annealing for the design of special digital filters. IEEE Transactions on Signal Processing, 1992, 40, 323-332.	3.2	132